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Faculty of Education

Thesis Submitted to Obtain the Licentiate Degree in

English Language Teaching

The Benefits of Implementing ChatGPT as a Pedagogical Tool in Improving Speaking Skills in Eighth Graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

Student

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Tutor:

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2024

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SWORN OF DECLARATION

DECLARACIÓN JURADA

Yo Rolando José Arrieta Araya, mayor de edad, portador de la cédula de identidad número 401930667 egresado de la carrera de Enseñanza del Idioma Inglés de la Universidad Hispanoamericana, hago constar por medio de éste acto y debidamente apercibido y entendido de las penas y consecuencias con las que se castiga en el Código Penal el delito de perjurio, ante quienes se constituyen en el Tribunal Examinador de mi trabajo de tesis para optar por el título de Licenciatura en Enseñanza del Idioma Inglés, juro solemnemente que mi trabajo de investigación titulado: The Benefits of Implementing ChatGPT as a Pedagogical Tool in Improving Speaking Skills in Eighth Graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024 es una obra original que ha respetado todo lo preceptuado por las Leyes Penales, así como la Ley de Derecho de Autor y Derecho Conexos número 6683 del 14 de octubre de 1982 y sus reformas, publicada en la Gaceta número 226 del 25 de noviembre de 1982; incluyendo el numeral 70 de dicha ley que advierte; artículo 70. Es permitido citar a un autor, transcribiendo los pasajes pertinentes siempre que éstos no sean tantos y seguidos, que puedan considerarse como una producción simulada y sustancial, que redunde en perjuicio del autor de la obra original. Asimismo, quedo advertido que la Universidad se reserva el derecho de protocolizar este documento ante Notario Público.

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Rolando

Firma del estudiante

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San José, 04 de febrero , 2025

Universidad Hispanoamericana
Licenciatura en la Enseñanza del Inglés

Estimados señores:

El estudiante Rolando José Arrieta Araya , portador de la cédula de identidad número 4-0193-0667, me ha presentado para efectos de revisión y aprobación, el trabajo de investigación denominado **The Benefits of Implementing ChatGPT as a Pedagogical Tool in Improving Speaking Skills in Eighth Graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024** el cual ha elaborado para obtener su grado de Licenciatura en la enseñanza del Inglés.

En mi calidad de tutor, he verificado que se han hecho las correcciones indicadas durante el proceso de tutoría y he evaluado los aspectos relativos a la elaboración del problema, objetivos, justificación, antecedentes, marco teórico, marco metodológico, tabulación, análisis de datos, conclusiones y recomendaciones.

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San José,

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Estimado señor

El estudiante Rolando Arrieta Araya , cédula de identidad 4-0193-0667, me ha presentado para efectos de revisión y aprobación, el trabajo de investigación denominado " The Benefits of Implementing ChatGPT as a Pedagogical Tool in Improving Speaking Skills in Eighth Graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024, el cual ha elaborado para obtener su grado de Licenciatura en la enseñanza del inglés.

He revisado y he hecho las observaciones relativas al contenido analizado, particularmente lo relativo a la coherencia entre el marco teórico y análisis de datos, la consistencia de los datos recopilados y la coherencia entre éstos y las conclusiones; asimismo, la aplicabilidad y originalidad de las recomendaciones, en términos de aporte de la investigación. He verificado que se han hecho las modificaciones correspondientes a las observaciones indicadas.

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DEDICATORY

This paper work is dedicated to the two women who encouraged and pushed me to pursuit my academic goals, my beloved mother and best friend. Either mom and Yendry had the tolerance of waiting for my indecision to end up. Thanks to them and their best interest in my professional growth I made my mind to venture into this final test.

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to my advisor and tutor Yanory Arguedas Carballo, for her exceptional support and guidance throughout this graduation project. Her professionalism and encouragement were invaluable at every stage of this journey. Additionally, I extend my sincere appreciation to Universidad Hispanoamericana that as a tuition institution never let me down. The faculty of English Teaching and staff have demonstrated me commitment and service in the many years I attempted to conclude my education, for which I am truly grateful.

ABBREVIATIONS

ABI	Alianza para El Bilingüismo
AI	Artificial Intelligence
CEFR	Common European Framework of Reference for Language Skills
CLT	Communication Language Teaching
COVID-19	Coronavirus Disease
DRH	Dirección Regional de Heredia
EFL	English as a Foreign Language
FARO	Fortalecimiento de Aprendizajes para la Renovación de Oportunidades
GPT	Generative Pre-trained Transformers
IBM	International Business Machine Corporation
MEP	Ministerio de Educación Pública
NLP	Natural Language Processing
NLU	Natural Language Understanding
OECD	Organisation for Economic Co-operation and Development
PDL	Prueba de Dominio Lingüístico
SI	Spoken Interaction
SP	Spoken Production

TBLT	Task-Based Language Teaching
UCR	Universidad de Costa Rica

RESUMEN

Este proyecto de graduación busca validar el uso de una aplicación de inteligencia artificial comúnmente conocido como robot conversacional ChatGPT, el cual se emplea como una herramienta pedagógica con el objetivo de determinar sus beneficios en la mejora de las habilidades de habla de la generación de octavo grado de la Unidad Pedagógica El Roble en el cantón de Santa Barbara en la provincia de Heredia durante el tercer cuatrimestre del año escolar 2024.

ChatGPT es implementado con un enfoque en la realización de tareas pedagógicas como parte de la propuesta curricular en los Programas de Estudio de Inglés Tercer Ciclo de la Educación General Básica y Educación Diversificada emitida en el año 2016. The Action-Oriented Approach or Task-Based Approach favorece una comunicación asertiva y efectiva del idioma inglés. Bajo los principios de este enfoque, el estudiante se percibe como un agente social que construye su aprendizaje, entendiendo por qué y cómo durante el desarrollo de tareas pedagógicas para obtener un resultado o alcanzar un objetivo.

La implementación de ChatGPT se presenta como una estrategia educativa en respuesta a una problematización que actualmente afecta a un sector especifico de la población estudiantil. Asimismo, intenta atender algunas necesidades y desafíos de esta población en el aprendizaje del idioma inglés como lengua extranjera.

Palabras claves:

Inteligencia artificial

Robot conversacional

Herramienta Pedagógica

Tarea pedagógica

Habilidades de habla

Agente social

Aprendizaje del idioma inglés

Lengua Extranjera

CHAPTER I

RESEARCH PROBLEM

This opening section introduces the background problem that led to propose an investigation on topic. Likewise, it offers the inquiry and procedural steps to formulate the research basis.

1.1. PROBLEM STATEMENT

1.1.1. Introduction

Speaking English at a proficient level has been a topic of discussion in several occasions especially when looking for the strategies to address the challenges presented in language acquisition. The basic understanding for acquiring a language is communication and one manner to communicate is by means of spoken interaction. Speaking skills are a necessary ability to effectively communicate in an oral way in any language and for the purpose of this paper is the core issue.

Many eighth graders from Unidad Pedagógica El Roble located in Santa Barbara in the province of Heredia have shown difficulties to achieve oral proficiency in English as a foreign language (EFL) which evidences the need of a pedagogical strategy that may improve the speaking skills for this population.

This research work proposes the implementation of a chatbot called ChatGPT as a pedagogical tool intended to be used in response to students' needs and with the ultimate goal of improving their speaking skills. This Artificial Intelligence (AI) model is combined with the Action-Oriented Approach which focuses on completing tasks, encouraging students to take action on their own and venture into undergoing linguistic experiences of self-doing and self-learning in order to communicate effectively. Therefore, this research aims to analyze the benefits of implementing ChatGPT to enhance speaking skills through the performance of pedagogical tasks.

1.1.2. Background of English Language Education in Costa Rica

English is one of the most widely spoken and studied languages globally considered as the primary or secondary language in a great variety of countries. Internationally, English is a lingua franca in some fields such as science, business and technology, there the importance of speaking English in the modern world.

In 2008, it was declared that English gets national relevance with the purpose of providing the citizenship with the linguistic competences to achieve personal and professional growth in decree 34425-MEP-Comex, La Gazeta No 61. According to the Informe de Diagnóstico de los Programas de Estudio de Inglés published in 2015 and revised by the national English advisory, it was resolved to make a meticulous revision of the English curriculum in order to reflect more accurately the knowledge, skills and competences required by students to communicate in a variety of language contexts in the new millennium so they can succeed. Consequently, students initiate the school year 2017 with the new English curriculum reform based on The Common European Framework of Reference for Language Skills (CEFR) in response to the search of competence success of the 21st century learners in the information age and as a precedence for reaching the expected English proficiency levels within the framework ***Educating for a New Citizenship*** by Ministerio de Educación Pública (MEP).

CEFR introduces proficiency bands with the purpose of assessing the English language users. The bands A1 and A2 are for basic users, the bands B1 and B2 are for independent users. In context, band A2 is the user level expected of a student graduated from primary school while band B2 is the expected level for a student graduated from high school. (Ministerio de Educación Pública, 2016).

In 2019, Universidad de Costa Rica (UCR) designed a test named Prueba de Dominio Lingüístico (PDL) to evaluate the linguistic competence of high schoolers in Costa Rica based on CEFR. According to the results obtained in the school year 2021, only 11,5% of the participants obtained a B2 level which is for independent users. These results included in the Noveno Informe Estado de la Educación (2023) evidences the need of strategies that help students to obtain the expected outcomes in future assessments and brings a challenge known for years in Costa Rican education back to a context of urgent matters.

In the Plan de Desarrollo 2018 - 2020 as described in The Octavo Informe Estado de la Educación (2021), it frames a strategy named Alianza para El Bilingüismo (ABI) with the purpose of promoting bilingual education as well as the linguistic and communicative competences in a scaffolding and long-term process initiating with kids since pre-elementary school. The expectation is that those students will graduate from high school in 2040 as B1, B2 and C1 levels according to CEFR.

Unfortunately, it is evident that the expectations related to the English language competences are not being reached by the target participants of the education itself. Despite of national efforts in this context, there are still challenges of relevance that must be faced to fulfill with the 21st century global demands. In consequence, an immediate situation that needs to be attended is the speaking competence of the student population, a mandatory piece to achieve competence success in English language communication in route to get better results in future assessments and an optimum performance in those fields that require English proficiency.

In general, the strategies and planning involved in achieving speaking competence have shown to be insufficient. That is why, speaking skills require special attention since the extended debate about the difficulties and deficiencies presented in school and high school learners whom are unable to speak English at a proficiency level remains unsolved.

1.1.3. Problematization

Costa Rican education has faced challenges in past administrations that have shaped the current status of the education in the country such as the case of the global pandemic caused by the Coronavirus Disease (COVID-19), a recent and lasting event that has brought significant affectations in education.

The suspension of classes since 2020 when education was forced to adapt to the particular circumstances of the pandemic generated a crisis that has not been solved with the returning of the student population to the schools and high schools in 2022. Prior to that, the indefinite interruption of classes for the public education began in 2018 with a strike against the Proyecto de Ley No. 20 580 de Fortalecimiento de las Finanzas Públicas followed by a syndicate strike and student protest opposing the Proyecto de Ley No. 21 097 de Declaratoria Servicio Esencial, Proyecto de Ley No. 20 786 Educación Dual and FARO tests. These all-previous events led to a national emergency named *Apagón Educativo* that according to The Octavo Informe Estado de la Educación (2021), comprises a series of setbacks in learning competence, making a more evident breach between public and private education as well as impacting even more negatively the most vulnerable student groups. All of this as the result of an atypical scenario that Costa Rican education had to deal with for four years.

More recently, The Noveno Informe Estado de la Educación (2023) defines *Apagón Educativo* as a prolonged interruption in education that hinders the access to the educational system and student learning development (Murillo 2023). Subsequently, the affection in Costa Rican education, mainly in the public institutions and considering the impact of the events in the teenage population, contributed to condition the education route to recovering while engaging with the pertaining challenges of this context.

Quesada et al. (2023) in the Noveno Informe Estado de la Educación (2023), explain that there are aspects in English teaching and learning which are not controlled by teachers or dictated by a particular institution of education, such as the number of lessons assigned to an education modality. For instance, an academic modality high school in Costa Rica has a maximum of five hours assigned per week while other modalities offer more hours in more days. Based on this fact, it concludes that the more time, the more development for in-class activities.

The eighth graders at Unidad Pedagógica El Roble present a limited exposition to the target language, they have three lessons per week of forty minutes each. In a weekly plan, the teacher must cover as much as possible from syllabus. Considering the distribution of language skills that have to be acquired or developed by students in the English planning, not all the monthly lesson time can be dedicated to speaking skills even if urgently needed because writing, reading and listening skills also have to be attended for a complete learning experience. Even though, there has been a recent curriculum reform in 2021 (ABI), they were restricted to bilingual pre-elementary school, liceos experimentales, bilingual high schools and in technical education for the seventh,

eighth and ninth grades of conversational English. This decision isolates the academic modality even more from an ideal educative scenario.

Technology limitations at Unidad Pedagógica El Roble may be considered as a barrier that affects the English language acquisition due to the scarce technological equipment installed per classroom or stored for use. As a matter of fact, teachers usually provide the technology means on their own in order to conduct a class. Most of the interactive activities can be performed by using mobile phones if certain conditions are met such as internet access, availability of phones and compatible applications. Tessier (as cited in Morris & Sarapin 2020) says that mobile phones helped students with their learning, motivated them to enjoy the class and even improved their success according to a study of an environmental issues class. Wherefore, mobile phones, as a predominant means, can continue being used to develop the mediation strategies in an English class with focus on using AI tools to help students reach speaking competence.

In search of contributing with the means to help EFL students in the process of improving English language speaking skills, these previous considerations emphasize why the eighth graders at Unidad Pedagógica El Roble may greatly benefit from this work research. It is important to find at least one effective strategy that leads to competence success in English language communication or, at least, help students to get closer to this goal somehow. Therefore, this main concern is the primary focus of this study after evaluating the Costa Rican education panorama through previous assessments, facts, affectations and curriculum. This whole may lead to a better understanding of the challenges in speaking English, thus suggesting possible actions for engagement.

1.1.4. Justification

This degree research seeks to enrich the repertoire of interactive tools that intervene into the teaching-learning process of the English language at Unidad Pedagógica El Roble by analyzing the potential use of ChatGPT in pedagogical tasks that students can perform during their in-class learning. This proposal emerges from the need to sum up a strategy that helps the student population to improve their speaking skills.

The lack of an updated curriculum, considering that the last revision was released in 2016 with the purpose of providing real pertinence to a context of English language exertion for the academic modality in the time, motivates the search of means to complement or improve the class practices elaborated from 8-year-old syllabi. In other words, the absence of a curriculum based on the needs and challenges of new generations stands as a matter of relevance that has to be addressed.

Another fact in consideration is the results obtained in the PDL tests in 2021 mentioned in the Noveno Informe Estado de la Educación (2023) which reflect the reality of the students' English performance and a need of improvement of their linguistic competences. CEFR defines competences as the whole of knowledge, skills and characteristics required by a person to perform an action in society.

The interruption in education due to national events that propitiated a significant affection in the state of education has contributed to reduce the quality of education in last years. Subsequently, the English language learning has not been satisfactory with students facing prolonged periods without adequate instruction or continuous practice to achieve proficiency. This disruption in education has widely exacerbated the problem

leaving the education participants unprepared to meet global standards in language proficiency, furthermore, compromising the education of the English language in the upcoming years. Likewise, the minimal exposure of the target population to the English language aggravates the situation.

To sum up, the challenges and needs in achieving competence success in the English language communication specifically in speaking skills led this work's author to research about the different situations that hinder high schoolers from reaching the English proficiency levels expected from the Costa Rican education system along with coming up with a strategy that proposes the implementation of ChatGPT, an Artificial Intelligence tool, when performing pedagogical tasks in an attempt of supporting and facilitating the learning of the English language. Therefore, this research work is justified from the premise of researching about ChatGPT, its utility in completing pedagogical tasks and potential benefits in education which are intended to be adjusted to the reality of eighth graders at Unidad Pedagógica El Roble in Heredia during the III quarter, 2024.

1.1.5. Problem Formulation

Many eighth graders at Unidad Pedagógica El Roble have shown difficulties to achieve oral proficiency in English language communication which evidences the immediate need of at least one pedagogical strategy that helps this student population improve their speaking skills.

1.1.6. Problem Question

What are the benefits of implementing ChatGPT as a pedagogical tool in improving speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024?

1.2. OBJECTIVES

1.2.1. General Objective

a) To analyze the benefits of implementing ChatGPT as a pedagogical tool in improving speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

1.2.2. Specific Objectives

a) To identify the benefits of using ChatGPT in improving the speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.
b) To identify mediation strategies from the Action-Oriented Approach for self-guided learning of the English language through the use of ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.
c) To identify the assessment strategies in pedagogical tasks assisted with ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

1.3. SCOPE AND LIMITATIONS

1.3.1. Scope

This research seeks to analyze the benefits of implementing the chatbot, ChatGPT as a pedagogical tool in improving speaking skills in the eighth-grade generation at Unidad Pedagógica El Roble in Santa Barbara in the province of Heredia during the III quarter 2024.

Through the implementation of ChatGPT, the participants of this study perform pedagogical tasks proposed with the Action-Oriented Approach or Task-Based Approach in search of getting an improvement in four different speaking skills which are vocabulary, grammar, pronunciation and fluency.

The sample of participants are teenage students whose ages range from thirteen to fifteen years old, therefore the instrumentation is designed to collect data in a format that is understandable for the participants. The instruments employed in this research are a pre-test and a post-test checklist, a questionnaire survey, a semantic differential scale and a checklist. Additionally, observation is the core technique in complement with most of the instruments.

A designed planning from the English curriculum of eighth grade is incorporated with pedagogical tasks to identify mediation strategies that can be conducted with ChatGPT in an effective manner. The mediation strategies are interview, role-play and conversation. Likewise, the identification of assessment strategies assisted with ChatGPT are formative, peer and self-assessment.

1.3.2. Limitations

As regards to the limitations presented in research, they can be classified into two main categories depending on this study's nature and the particular characteristics of the participants.

First, the selection of the participants was determined with a non-probabilistic sampling by convenience due to their easy access. Since the participants are underage students, it was required a parental consent or guardian's explicit permission for a child to engage in the proposed tasks, knowing that the data obtained from the student's

performance is aimed to be included in this investigation. Similarly, the participant's willingness to take part in assessments and attitude evaluations was a crucial element. As for the participants' interaction with an Artificial Intelligence tool, technology access was a prerequisite since the tasks can be achieved through the means of a mobile phone or a tablet, and not every student possesses these devices or devices with the specifications or parental permissions to run the application. The final decisive aspect in this category is related to the student profile because regular attendance was mandatory to assess the participants within the time parameters as well as the nature of some of the pedagogical tasks that involves peer or group work. Hence, the data obtained is not generalizable to the population (Abbott and McKinney 2013).

The second category involves considerations such as the negative impact of using Artificial Intelligence tools to create learning experiences in a teenage population, determining the boundaries of AI's role in education, the inclusion of methodologies other than the Action-Oriented Approach. These aspects are not included in this investigation and they can potentially influence the results, reshape the focus of the study or even prompt a reevaluation of the framework.

CHAPTER II

THEORETICAL FRAMEWORK

2.1. HISTORICAL CONTEXT

This brief description of the historical context of Unidad Pedagógica El Roble has the purpose of locating this institution in a physical and time context by mentioning some relevant dates and facts about its beginning and transformation until turning into the current model of education institution.[1]

Unidad Pedagógica El Roble is a public institution from Circuito 03 at Dirección Regional de Heredia (DRH) located in Santo Domingo of Santa Bárbara, Heredia. The region comprises the towns of El Roble, Chahuites y Los Cartagos providing a diverse student population.

In 1910, the first school building was built in a terrain donated by Domingo González. However, the first school diploma was handed out until 1946. Later, the high school was founded in 1974 with the support of the Costa Rican president Daniel Oduber Quiros along with Manuel Antonio González Flores, deputy of the Heredia province. The first school year had four groups of seventh graders and a population of 115 students. In 1982, this institution initiated with the IV cycle of Educación Diversificada supported by the Heredia deputy, Yolanda Calderón Sandí. In this 2024, El Roble high school proudly celebrates the fiftieth anniversary since foundation.

Today, the Unidad Pedagógica El Roble presents three distinctive modalities consisting of 248 enrolled students in school, 55 enrolled students in Prevocacional (Plan Nacional) and 482 enrolled students in high school. In total, 785 students are enrolled in this institution.

[1] Campos, F. Raíces de mi Pueblo: Una Visión al Pasado para Comprender el Presente. San José. Imprenta Nacional, 1994.

2.2. CONCEPTUAL FRAMEWORK

This introductory section provides information about relevant concepts for this paper work and formerly defined by other authors in their research with the ultimate goal of reviewing them before theorizing the implementation of Artificial Intelligence, particularly ChatGPT, in the education context.

2.2.1. What is Artificial Intelligence (AI)?

Defining the concept of AI is primordial before proceeding with the analysis of any products engineered by this science. Nilsson (2010) defines “Artificial Intelligence is that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment” (xiii). Based on his definition, machines can be intelligent per se since the quality of intelligence is given to machines.

Russell & Norvig (2009) indicates that “the assertion that machines could act *as if* they were intelligent is called the **weak AI** hypothesis, and the assertion that machines that do so are *actually* thinking (not just *simulating* intelligence) is called the **strong AI** hypothesis” (p. 1020). They refer to Artificial Intelligence depending on how it is defined, a simulation of intelligence or real intelligence.

Artificial Intelligence is defined as a scientific discipline by Tuomi (2018) whom refers to Nilsson’s previous definition of AI. Defining Artificial Intelligence, it has conducted to “defining human intelligence as computation of truth values” (p. 7). From the analysis of this statement, human intelligence is considered as a system capable of evaluating the truth or falseness of information.

2.2.2. What is a Chatbot?

“Chat bots, or chatter bots, are a category of computer programs called bots that engage users in conversations” (Neff and Nagy, 2016, paragraph 2). They explain that a chatbot responses to provided information from preprogrammed schemas, and for emerging bots, through adaptive learning algorithms.

Zemčík (2019) states that “a computer, program, algorithm or Artificial Intelligence which communicates with a person or another participant of the communication can be called a chatbot” (p. 14). He highlights the fact that chatbots simulate a conversation with a living person. Then, a chatbot can be defined in simple words as an Artificial Intelligence with communication purposes.

2.2.3. ChatGPT

ChatGPT is an Artificial Intelligence chatbot enabled for a human-like text response and developed by OpenAI. GPT stands for Generative Pre-trained Transformer which is the architecture employed for its design.

Nimavat & Champaneria (2017) describe the generative model as a system that uses a large amount of data and if the system is trained on that data. Generative models use Natural Language Processing (NLP) and Natural Language Understanding (NLU) algorithms to process information and generate text responses. This model shows a potential value in obtaining natural language responses.

IBM considers Generative AI (also known as *Gen AI*) capable of creating original content in response to a prompt or request by simulating human brain processes such as learning and decision-making in order to fulfill a request or answer a question.

2.2.4. Speaking Skills (Vocabulary, Grammar, Pronunciation and Fluency)

Communication has a crucial impact in getting success in all fields. Perfect communication is impossible without using a language, likewise language's role is to provide a means for communication (Parupalli 2019). Hence, the acquisition of speaking skills bridge language and communication for an assertive interaction. Therefore, speaking skills are required to build language competence.

Burns (2019) states that "speaking is a highly complex and dynamic skill that involves the use of several simultaneous processes - cognitive, physical and socio-cultural - and a speaker's knowledge and skills have to be activated rapidly in real-time" (p. 2). In addition, she emphasizes the importance of teaching knowledge, skills and strategies of speaking explicitly in language classrooms. Seen this way, the mere action of speaking is not enough for achieving speaking competence. She also proposes that knowing about what is involved in speaking competence and how its aspects relate to each other can guide teachers to prepare a competent speaker.

2.2.5. Vocabulary

An essential part in language acquisition is the words employed during communication through a language to express meaning. Schmitt (2000) says that "vocabulary is more than just individual words working separately in a discourse environment. Rather, once words are placed in discourse, they establish numerous links beyond the single orthographic word level" (p. 113). In other words, the vocabulary in a language is described as basic units meant to be connected mostly for discourse purposes.

2.2.6. Grammar

Huddlestone & Pullum (2005) state that “sentences are made up from words in regular ways, and it is possible to describe the regularities involved by giving general statements or rules that hold for all the sentences in the language” (p. 11). Grammar is the system of rules for sentence structuring fundamentally needed to learn a language with sense of coherence and in a correct manner.

2.2.7. Pronunciation

Pronunciation, particularly of the English language, often poses a challenge for students. It is a difficult skill to master that requires consistent practice over time, and despite of being a basic part in learning any language, intelligible pronunciation is mandatory for oral communication. Cook (2013) discerns that “language conveys meanings from one person to another through spoken sounds, written letters or gestures” (p. 67). That is why, pronunciation has a significant role in spoken language communication.

2.2.8. Fluency

The ability of speaking easily and swiftly when communicating in a foreign language proves to be useful in conversational contexts, it is why fluency is deemed as a requirement for efficient communication. Nunan (2003) defines it as “the extent to which speakers use the language quickly and confidently, with few hesitations or unnatural pauses, false starts, word searches, etc” (p. 55). For having a natural communication, fluency is considered as one key component of the conversation process.

2.2.9. Action-Oriented Approach

The Action-Oriented Approach or the Task-Based Approach is a communicative language methodology whose emphasis relies on knowing and doing so students can communicate successfully on task completion in real-life scenarios. Samuda & Bygate (2008) highlight “Learners’ ultimate real-world needs are thus taken as the sine qua non of language instruction, and tasks are the pedagogic conduit for addressing those needs” (p. 202). As they exposed in Tasks in Second Language Learning, the use of pedagogical tasks is binding to the pedagogically motivated involvement of teacher and students in activities they perceive as relevant.

The Action-Oriented Approach has a significant role in English teaching as part of the methodology proposed in the MEP’s English curriculum within the Framework of Educating for a New Citizenship published in 2016. It is presented in response to students’ needs and with the goal of achieving competence success in English language communication. This approach is centered on students who perform tasks to obtain a product, result or achievement and students are active agents responsible for their own learning progress.

2.3. THEORETICAL FRAMEWORK

In this section, Artificial Intelligence and its applications in improving speaking skills of the English language are analyzed in depth based on previous studies likewise the role of ChatGPT as a pedagogical tool and its hypothetic implementation with The Action-Oriented Approach or the Task-Based Approach to obtain the insights required to support the theory in this research.

2.3.1. Artificial Intelligence & Chatbots

Artificial Intelligence is transforming the way people approach education creating an engaging and versatile world of possibilities for a range of interests and needs. One of its extensions, chatbots, have emerged as a powerful resource that offers an interactive and personalized support in learning processes. Chatbots can tutor students accessibly and adaptively, provide instant answers to questions and facilitate the performance of tasks. Hence, a chatbot may be seen an enhancing tool that reshapes the traditional learning experiences with an innovative and promising future for education. The inclusion of chatbots to perform daily tasks in learning settings has become notably usual providing an automation for some of these tasks as well as a helpful platform of personalized assistance.

Tuomi (2018) frames that “the rapid advances in natural language processing and AI-based human-machine interfaces will generate new pedagogical possibilities.” (p. 32). He refers to learning companions and conversational robots which become more common and eventually an important asset with the insertion of affective computing and emotion AI components. Today, users have access to a wide variety of AI systems since these systems are available. Additionally, Tuomi sees new possibilities in language learning with the support of real-time translators as well as texts correctors that may enhance students’ communication. Clearly, the AI advancements not only facilitate learning experiences but makes education accessible to a broader audience since offer an assortment of technological possibilities to users. Regarding linguistic needs, AI-powered tools provide a personalized language learning though practical use, real-time contexts and adaptive feedback for individual progress and preferences.

Why using a chatbot as a pedagogical tool?

In response to the inquiry why associating with chatbots, Adamopoulou and Moussiades (2020) propose that “chatbots seem to hold tremendous promise for providing users with quick and convenient support responding specifically to their questions” (p. 375). Appealingly, the novelty of interacting with AI can provide an experience that blends technology with human-like interaction. Roos (2018) states that “a chatbot can be used as a tutor, a student evaluator, for questions and answers, to communicate with a teacher or simply for natural conversation. The applications of these roles seem endless.” (p. 48). Then, chatbots can create personalized learning experiences according to the interests and needs. In language acquisition, chatbot models may foster deeper engagement that aligns with individual learning styles or practices. Similarly, Božić and Poola (2023) reinforce this idea of personalized learning experiences for language skills acquisition though the analysis of student's learning patterns and preferences, thus AI can suggest learning resources tailored to students’ needs.

Tuomi (2018) says “If learning is understood as the development of skills and competences, AI may need to be incorporated in learning processes in different ways.” (p. 29). As Tuomi suggests AI systems should not be restricted to learning models that consider learning as a knowledge transfer to student’s mind but an integral process of active building. Here AI systems can support learning by functioning as a learning partner that facilitates deeper understanding and creates a more learner-centered approach to education. Tuomi (2018) indicates “there are some educational tasks where AI can have a clear impact. One such task is assessment in its various forms” (p. 31).

He also explains that an important component of the conventional intelligent tutoring systems is the learner model which provides information about the state of the learner. This could infer situations or problems presented in the students' understanding process related to a specific domain as well as prevention procedures or strategies.

Knill et al. (2004) consider that any improvement in teaching should mainly complement the existing tools in tuition without replacing them. Analyzing machine learning and interaction can sharpen teacher consciousness of the learning and teaching process. In the same line of speech, Tuomi (2018) says that "already existing technologies will be adopted, adapted, and applied for learning, teaching, and education. For example, AI may enable both new learning and teaching practices, and it may generate a new social, cultural, and economic context for education" (p. 6). AI may be seen as a transformative force redefining structure and purpose aspects of education, not in a sense of abandoning former technologies but adjusting them with new generated practices.

The role of chatbots can play significantly in creating a sense of connection, so students can interact with a technological tool at will in search of new learnings. Additionally, a chatbot can generate support options to a wide range of conversational needs as Roos (2018) explains "it could allow a student to practice their language skills anytime, it would not mind repeating the same material several times, it can incorporate both text, speech which might help a student with both their reading, writing and listening skills." (p. 3). AI technologies can intervene in education processes to enhance traditional learning practices. Tuomi (2018) states that "the recent calls for competence-based education, in turn, emphasize problem solving, critical thinking, decision-making

and analytical skills, focusing on the cognitive level" (p. 6). Instead of vocational education which traditionally emphasized technical and routine skills required to use tools and domain-specific knowledge.

It is essential to remark the role of Artificial Intelligence as a pedagogical tool only as Božić and Poola (2023) emphasize that a chatbot should be used to support learning. It is not a replacement for human teachers, as a matter of fact, a chatbot can automate some time-consuming tasks to facilitate the teacher's labor improving education's overview with the inclusion of AI technologies. Likewise, Knill et al. (2004) considers that AI is only valued as an amplified tool in the teaching process, it is not a replacement of a teacher. According to Nilsson (2010), there is some criticism about what AI should not do such as the case of "the inappropriateness of machines attempting to perform tasks that are inherently human-centric, such as teaching, counseling, and rendering judicial opinions" (p. 315). From these views, the integration of AI shows potential for education as long as its use is supervised with the purpose of retaining the core human-centered values of education.

2.3.2. ChatGPT & Speaking Skills

AI-driven tools have become popular for communication tasks since they can provide support in areas of building vocabulary, refining pronunciation and improving speaking skills. ChatGPT as known for quite a while, has been used to practice language and communication in simulated conversations. ChatGPT offers tailored assistance to individual needs, feedback and confidence-building in speech. These features make it an adaptable technological tool for communication purposes.

Tiu et al. 2023 says that “the development of effective speaking skills not only contributes to academic success but also equips individuals with the tools necessary to navigate the challenges of professional and social environments” (p. 344). This idea implies that obtaining effective speaking skills provide students with the means to achieve competence success in an academic or professional context. In the modern world where in multiple scenarios speaking English is mandatory, having the speaking skills to communicate effectively can contribute to work success.

According to Rai (2010) some communication activities are easier than others. A prepared speech is easier to deliver than a group discussion. Speaking must be practiced. Spontaneously responses require confidence and takes time to build up confidence. Thereupon, language learners should hone their speaking skills to participate in real-time dialogues actively and effectively. Roos (2018) indicates that “a chatbot can exhibit conversational strategies, such as the ability to chain a conversation or to return to a topic after a branching.” (p. 31). These conversational strategies can be a necessary component in the exertion of the conversation practice of a language.

Knill et al. (2004) propose that the conversation with an expert is the most efficient way to learn a topic fast and, at the same time, state that the problem with many curricula is the size of the learner-teacher ratio which complicates regular discussions with the teacher. Large student groups can have more difficulties to talk to their teachers which can turn the class into a generalized teaching process. In their research, they found that using a chatbot to respond questions generates feedback for teachers about learner questions and problems. A chatbot can even lead to gauging student learning and weakness by personalizing tuition.

In a study carried out to gain insights about the process of teaching and learning mathematics, Knill et al. (2004) explains that a bot called “Sofia” has the ability to communicate with other mathematical agents in a friendly way. Sofia learned from the action of speaking with other bots and even interacted with computer algebra systems like Pari or Mathematica to solve calculus problems. This study showed that chatbots can teach each other by simply talking. Additionally, observing a machine learn mathematics can help to understand how students learn mathematics; and by teaching a machine, it can help to understand the process of teaching mathematics to humans. An AI agent can enhance teaching and learning experiences to encourage teachers to understand how students learn and allow students interact with technological learning tools.

The case of Gengobot, a chatbot-based grammar dictionary application, designed in a study for language learning is another example of a chatbot employed with learning purposes. Gengobot consists of a database of grammar with the explanation and meanings in Japanese, Indonesian and English languages. It was integrated in LINE, a mobile instant messaging app, as a user-friendly language learning tool. Haristiani et al. (2019) concluded that Gengobot can be used to enhance language learning in an autonomous and personalized manner. Besides, it can be used as a supplementary application for teaching.

In summary, ChatGPT holds the potential of creating a fit scenario in the improvement of speaking skills since it allows students to practice their conversations in private personalizing learning, correcting mistakes and building up confidence. In practice, it may generate speaking habits that facilitate public and spontaneous speech.

2.3.3. Action-Oriented Approach & Pedagogical Tasks

The Action-Oriented Approach introduced by CEFR as a new methodological concept in 2001 represents as a significant advancement of previous communicative approaches (Robles 2019). This approach focuses on achieving a goal by performing tasks with action-oriented guidance. Students are social agents in a social learning context whether it is solving a problem, developing new skills or creating effective communication.

The Action-Oriented Approach is focused on task performing, but *what is a task?* If understood through a perspective that defines a task in learning, the task provides the learner with the conditions to communicate in the target language. According to Willis (1996), “tasks are always activities where the target language is used by the learner for a communicative purpose (goal) in order to achieve an outcome” (p. 23). On the other hand, if the task is defined through a teaching perspective as explained in Second Language Acquisition and Task-Based Language Teaching (TBLT) by Long (2015): ‘Task’ is the unit of analysis throughout the design, implementation, and evaluation of a TBLT program, including the way student achievement is assessed – by task-based, criterion-referenced performance tests. (p. 6). In addition, a pedagogical task is understood as a classroom activity designed to engage students in understanding, using, creating or interacting in the target language with focus on utilizing their grammatical knowledge to convey meaning, rather than merely practicing linguistic forms. Moreover, the task should be self-contained with a clear structure that includes a beginning, middle and end (Nunan 2004). Aligning with the MEP’s English curriculum proposal on how to develop linguistic competences for oral production, the pedagogical

task involves the follow-up of a set of integrated sequence procedures from planning, organizing, rehearsing and interacting or producing depending on the goal, spoken interaction (SI) or spoken production (SP). Therefore, performing a pedagogical task is seen as a scaffolding process of skill and competence building.

Sanchez (2004) states that teaching has an effect on learning for a process syllabi focus on how goals are achieved giving priority to the means and skills to reach them. If a task performed properly, the goals will be achieved more efficiently. Seen this way, a process syllabus is centered on how learning occurs rather than just the end outcomes. students are equipped with the tools to learn effectively shifting attention from achieving goals to how goals are achieved. Instead of focusing solely on final results, it values the ways students reach those results. Additionally, the Task-based framework is focus on the constructivism learning theory and Communication Language Teaching (CLT) methodology. The language teaching is a developmental process involving communication and social interaction. It helps learners acquire the target language by completing meaningful task-based activities (Nguyen et al. 2021).

Using ChatGPT as a pedagogical tool with the Action-Oriented Approach to perform pedagogical tasks for language learning enables students in AI task-based interactions to develop communicative skills. According to a study conducted to assess ChatGPT ability to teach contents based on Tasked-Based Language Teaching (TBLT), Sunyoung et al. (2023) found that ChatGPT was capable to execute prompts as a language learning tool to teach business English writing and demonstrated promising results in creating an enhanced learning experience and the suitability of ChatGPT as a language learning tool.

CHAPTER III

METHODOLOGICAL FRAMEWORK

This section outlines the methodological aspects and explanations involved in conducting a study aimed at understanding and analyzing nature, dimensions and characteristics of a phenomenon under investigation, utilizing appropriate instruments and sources. This methodological framework seeks to address the research objectives.

3.1. TYPE OF RESEARCH

3.1.1. Purpose

This study is considered applied research as it aims to address a problem within an educational setting. As stated by Abbott and McKinney (2013), “applied research focuses on the actual real-world problems in a field of study.” (p.50). Additionally, this research proposes a potential solution from a hypothesis. Likewise, Kothari (2004) indicates that “the central aim of applied research is to discover a solution for some pressing practical problem.” (p. 3). Unlike basic research which focuses on expanding theoretical knowledge without immediate application, this study is conducted with the purpose of solving a present issue with an action-oriented strategy.

OECD (2015) states that “the results of applied research are intended primarily to be valid for possible applications to products, operations, methods or systems. Applied research gives operational form to ideas.” (p. 51) From that statement, this author’s work attempts to transform theoretical concepts into an actionable solution.

The implementation of the chatbot called ChatGPT as a pedagogical tool to improve English speaking skills of a determined student population is introduced as a purposely educational strategy. Aligned with the insights previously highlighted by OECD, this research seeks to validate the practical applications of a product (ChatGPT) in educational teaching and learning contexts. Additionally, questionnaire surveys,

scales and observations are standard methods employed in data collection for this specific type of research. These instruments and techniques are used to gather both quantitative data and qualitative data during investigation.

3.1.2. Temporal Dimension

Kothari (2004) says that “we can think of research either as one-time research or longitudinal research. In the former case the research is confined to a single time-period whereas in the latter case the research is carried on over several time-periods.” (p. 4). This study collects data from a group of participants at a single point in time with specific intervals for its application; therefore, it is categorized as transversal research or one-time research. The gathering of insights happens during a defined period, the third quarter of 2024. The sample of participants is taken from a students’ generation which implies that the planning and instruments designed for application must take place before the end of the school year.

3.1.3. Type of Framework

Micro-level theories provide explanations limited to small slices of time, space, or numbers of people (Creswell and Creswell 2018). This study operates on a micro-level scale due to its small-sized sample and population. That is why, this research adopts a micro-framework as it targets a specific and narrowly defined group of participants.

Kothari (2004) indicates that “the size of population must be kept in view for this also limits the sample size.” (p. 56). Based on this statement, it determines that the insights and data obtained from a sample should reflect in a representative manner to those that could potentially be provided by the target population.

The choice of a micro-framework is closely proportional to the size of population and sample being studied. Furthermore, it is justified with the goal of applying the most effective resources to obtain accurate results.

3.1.4. Nature

The nature of this study has a mixed approach but predominately qualitative since involves subjective aspects of language learning such as learning experiences and participants' percipience. This study also seeks to quantify the results obtained from the participants' performance and applied instruments. Mixed methods is a process of gathering and combining both quantitative and qualitative data within a single study (Creswell 2014). On this account, this research has the intention of integrating quantitative data, which provides statistical evidence and identifies patterns or correlations, with qualitative data which offers insights into participants' experiences and perspectives.

3.1.5. Character

This study's character is explanatory since it aims to identify the reasons a phenomenon occurs. Explanatory studies attempt to address "why" and "how" questions (Gray 2014). In case of this study, it seeks to explain how implementing ChatGPT with a task-based approach in classroom activities can improve the speaking skills of a particular population and why ChatGPT should be beneficial as a pedagogical tool in an educational environment. Besides, Gray (2014) indicates that "some studies can also be correlative in nature, with the emphasis on discovering casual relationships between variables." (p. 36). In a sense, this research can also adopt a correlative nature since it looks for establishing a relationship between the variables ChatGPT and speaking skills,

aiming to determine how the use of Artificial Intelligence influences the improvement of these oral abilities.

3.2. SUBJECTS AND SOURCES OF INFORMATION

3.2.1. Units of Analysis

According to Abbott and McKinney (2013) the units of analysis are “the things a hypothesis directs us to observe, or the cases in a data set (the thing being studied).” (p. 79). Hence, the subjects of this study are a student sample taken from the existing population of the eighth-grade generation 2024 at Unidad Pedagógica El Roble in Santa Barbara of Heredia. As research subjects, this students’ participation in pedagogical tasks performed through the implementation of ChatGPT is of great value for obtaining the insights and data required to conduct the study.

3.2.2. Sources

The first-hand sources utilized in this study include classroom observations, which provide direct insights into teaching and learning practices. Additionally, data collection instruments are employed to obtain specific information about participants’ performance and perspectives. Furthermore, evidence is systematically gathered to create a basis for evaluating outcomes and identifying patterns. Kothari (2004) states that “we can obtain primary data either through observation or through direct communication with respondents in one form or another or through personal interviews.” (p. 96).

Unlike primary sources created by individuals who directly experienced or participated in a phenomenon being studied, the second-hand sources are those materials required by this study aimed to understand the broader context and offer a

layer of interpretation as an attempt of building on existing knowledge and contextualizing the findings of this research. Kothari (2004) mentions that “secondary data means data that are already available i.e., they refer to the data which have already been collected and analysed by someone else.” (p. 111).

3.3. SAMPLE SELECTION

3.3.1. Population

Abbott and McKinney (2013) state that “a scientific population contains all units of a set (sometimes referred to as a universe).” (p. 102). In case of this study, the population is the entire cluster of eighth graders enrolled at Unidad Pedagógica El Roble in Santa Barbara of Heredia for the school year 2024. In other words, the population is consisting of four groups with ninety-three enrolled students from which a sample of twelve participants has been selected. As mentioned by Abbott and McKinney (2013), “a sample is a subset of units taken from the population.” (p. 103).

3.3.2. Non-Probabilistic Sample

Kothari (2004) explains that “under non-probability sampling the organisers of the inquiry purposively choose the particular units of the universe for constituting a sample.” (p. 59). Based on this statement, this research sample is non-probabilistic since the selection of the sample has been made in a deliberate manner. The sample selected is typical or representative of the whole (Kothari 2004).

3.3.3. Purposive or Convenience Sampling

The sampling technique applied in this study is purposive or convenience sampling. Kothari (2004) explains that “when population elements are selected for inclusion in the sample based on the ease of access, it can be called convenience

sampling.” (p. 15). The selection of this study’s sample was based on ease-access criterion and size of the population as Kothari (2004) explains further, “purposive sampling is considered more appropriate when the universe happens to be small and a known characteristic of it is to be studied intensively.” (p. 67).

3.4. TECHNIQUES AND INSTRUMENTS

For research purposes, reliability and validity are aspects of great relevance since they ensure the accuracy, consistency and credibility of the data and findings. Abbott and McKinney (2013) state that “reliability is the extent to which a given measuring instrument produces the same result each time it’s used. (p. 45). In other words, reliability refers to the consistency and stability of an instrument to obtain the same results under the same conditions. Likewise, Abbott and McKinney (2013) state that “when looking at the validity of a measure, we’re interested to know if it’s accurate—in effect, does the measure measure what it’s supposed to measure.” (p. 45). In simple words, validity assesses if an instrument measures what it is intended to.

The researcher makes observations or obtains measures with instruments employed at a pretest or posttest stage of the procedures or even on both stages Creswell (2014). This study involves obtaining raw data from a pre-test before the implementation of ChatGPT as a pedagogical tool in the proposed task-based activities.

The data obtained from this pre-test is compared with the data obtained from a post-test assessed after implementing ChatGPT. The results are analyzed to establish the findings of this study.

Observation is a crucial technique when assessing the subjects of this research as Abbott and McKinney (2013) explain, “field research is primarily a qualitative design, where researchers go into a field setting to observe people, collecting very detailed information about some smaller group, process, and/or interaction.” (p. 36). Through observation, the insights of learning experiences and data collected can be analyzed and understood to gain valuable information.

Abbott and McKinney (2013) indicate that “Surveys collect information from people using interviews or questionnaires composed of written questions. Surveys are arguably the most used tool for social scientists, market researchers, and a variety of others looking for information regarding people’s attitudes, behaviors, and experiences.” (p. 36). For this study, a questionnaire survey with close-ended questions is employed to measure the perception of the participants regarding the use of ChatGPT as a supportive tool in the learning process.

The scale construction techniques are used with the purpose of getting agreement and disagreement values from respondents’ answers as stated by Kothari (2004), “while measuring attitudes of the people we generally follow the technique of preparing the opinionnaire* (or attitude scale) in such a way that the score of the individual responses assigns him a place on a scale.” (p. 82). This research uses a semantic differential scale to obtain insights of the participants about using ChatGPT to perform in-classroom tasks.

The qualitative data can be presented as instrument data, observational checklists, or numeric records (Creswell 2014). This study applies the technique of observation with a checklist instrument to evaluate the assessment strategies during

students' performance of pedagogical tasks with the implementation of ChatGPT as a learning enhancing tool.

3.5. OPERATIONALIZATION OF VARIABLES

A variable is a measurable or observable trait or feature of an individual or an organization that varies among the subjects being studied (Creswell 2014). In addition, Abbott and McKinney (2013) frame that "variables are the concepts we are interested in testing." (p. 28). Therefore, operationalizing variables is a procedure in research to make these variables measurable.

Implementing ChatGPT as a pedagogical tool is the independent variable of this study. Independent variables are factors that are likely to cause, influence or impact outcomes (Creswell 2014). On the other hand, speaking skills (vocabulary, grammar, pronunciation and fluency), mediation and assessment strategies are the dependent variables. Dependent variables rely on independent variables and represent the outcomes or results influenced by them (Creswell 2014).

Abbott and McKinney (2013) explain that "once a hypothesis tells us how variables go together, then we are ready to operationalize the variables that allow us to test the hypothesis." (p. 28) At this point of research, objectives, techniques, instruments and variables are put together in **Table 1** to show how each element is interconnected to address the research goals.

Table 1.

Title: The Benefits of Implementing ChatGPT as a Pedagogical Tool in Improving Speaking Skills in Eighth Graders from Unidad Pedagógica El Roble in Santa Barbara,

Heredia during the III quarter 2024.

General Objective:

a) To analyze the benefits of implementing ChatGPT as a pedagogical tool in improving speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

Specific Objective	**Variable**	**Conceptual Definition**	**Instrumental Definition**	**Operational Definition**
To identify the benefits of using ChatGPT in improving the speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.	ChatGPT as a pedagogical tool in improving speaking skills.	An Artificial Intelligence chatbot enabled for a human-like text response.	Instruments: Questionnaire Survey. Pre-test and Post-Test Checklists Techniques: A set of written questions aimed to know the benefits of using ChatGPT as a pedagogical tool in	The variable is valid based on the participants' perception and observation of their performance during oral production.

			improving speaking skills from the participants' perspective and observation of participants' performance after implementing ChatGPT in pedagogical tasks.	
To identify mediation strategies from the Action-Oriented Approach for self-guided learning of the English	The mediation strategies from the Action-Oriented Approach.	Mediation strategies are the set of techniques and approaches that facilitate learning experiences.	Instrument: Semantic Differential Scale. Technique: A set of frequency questions to assess the	This variable is valid if 70% of the participants provide favorable responses regarding the implementation of ChatGPT in

language through the use of ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.			perception of the participants regarding tasks performed with the support of ChatGPT in complement with the Task-Based Approach.	the mediation strategies.
To identify the assessment strategies in pedagogical tasks assisted with ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during	Assessment strategies in pedagogical tasks.	Assessment strategies are coordinated set of practices to evaluate student learning, progress, and understanding.	Instrument: Checklist. Technique: Observation of participants' performance after implementing ChatGPT in pedagogical tasks.	The variable is valid based on an observation of participants' performance during oral production.

the III quarter 2024.				

CHAPTER IV

RESULTS AND ANALYSIS OF DATA

This chapter comprises the collected data and insights from the application of four instruments: a pre-test and post-test, a questionnaire survey, a semantic differential scale and a checklist. The information obtained at this point is interpreted with the goal of addressing the study objectives. It is conducted through a synthesized process of the findings to draw conclusions.

4.1. PRE-TEST AND POS-TEST CHECKLISTS

The pre-test is conducted before implementing ChatGPT in pedagogical tasks. This instrument measures aspects involved in oral production: topic-related vocabulary, absence of Spanish language words, use of correct grammar structures, coherence, accurate pronunciation, linking sounds, natural flow of speech and avoidance of excessive pauses.

Based on the MEP's English syllabus for eighth grade, it was assigned a task of speaking production to assess the participants' speaking skills. The theme presented is "Let's celebrate: Holidays and Festivals around the World" from Unit #3. The proposed goal (SP.1.) is to describe a holiday, celebration and festival in a short presentation, prepared in advance but not read, in pair-share or small group.

The post-test is applied after implementing ChatGPT in the completion of pedagogical tasks. This instrument measures the same previous aspects assessed in the pre-test regarding oral production. A last pedagogical task was assigned to evaluate the speaking skills' improvements of the participants at an ending stage. According to the MEP's English syllabus for eighth grade, the theme presented is "How can I get there?" from Unit #4. The proposed goal (SP.2.) is to tell a simple direction (e.g., how to get to a location) as well as offers simple explanations to others.

Both instruments gather data through an observation technique. The instruments measure and tabulate data about the performance level of speaking production aspects employing a grading system: Needs improvement indicates a poor performance not reaching the minimum standards. Barely acceptable indicates that the performance meets the minimum standards. Satisfactory indicates a performance that meets the required standards but may leave room for further enhancement. Table 2 pictures in detail the performance level of speaking of production aspects during the evaluation at the pre-test and post-test stage.

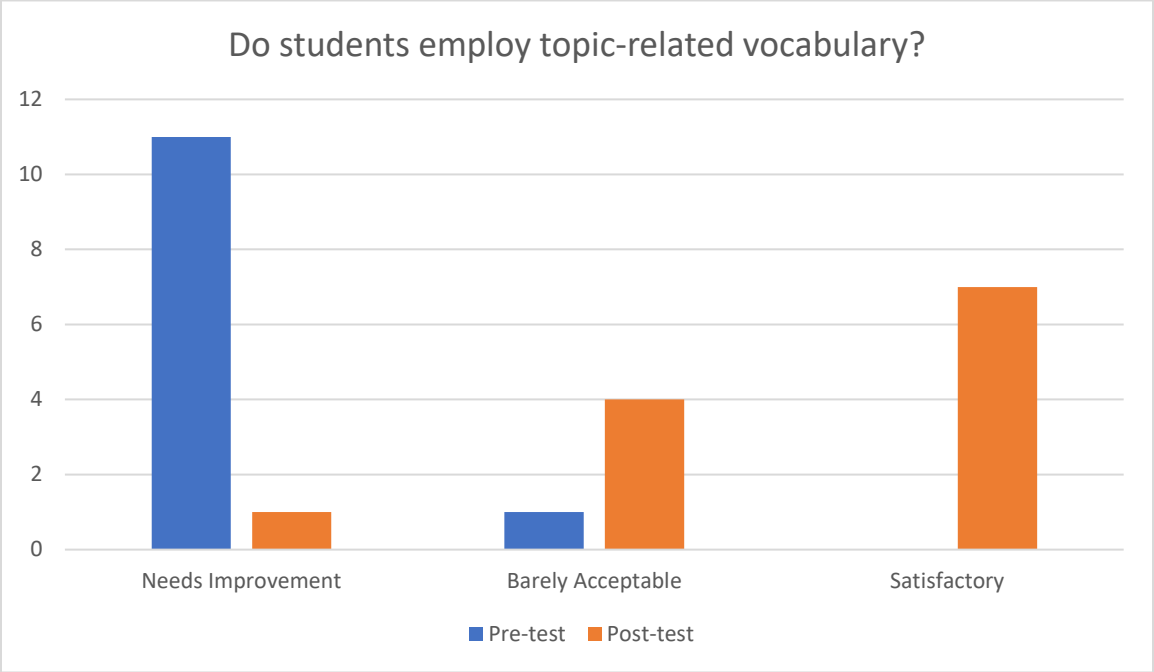
Table 2.

Aspects to Evaluate	Needs Improvement	Barely Acceptable	Satisfactory
1. Do students employ topic-related vocabulary? (The English syllabus provides vocabulary on every theme and unit for students to study and learn. For this task, students must use twelve words given by the teacher).	The student uses less than half of topic-related words to complete the task.	The student uses from six to nine topic-related words to complete the task.	The student uses from ten to twelve topic-related words to complete the task.
2. Do students speak with absence of Spanish language words?	The student says three or more words in Spanish language.	The student says one or two words in Spanish language.	The student says all words in English language, except for names or strictly Spanish language words. (e.g. Carlos or Festival de la Luz).

3. Do students use correct grammar structures? (Subject-verb agreement, verb tenses and word order for adjectives and adverbs).	The student uses three or more incorrect grammar structures.	The student uses one or two incorrect grammar structures.	The student does not use any incorrect grammar structures.
4. Do students show coherence during the speech?	Speech presents ideas not related to the topic and/or sentences are disorganized.	Speech follows logical sequence, but some ideas are unclear.	Speech is well-organized. All sentences make sense.
5. Do students have accurate pronunciation of words? (Based on the level for eighth grade).	Three or more words are mispronounced.	A maximum of two words mispronounced.	All words are accurately pronounced.
6. Do students connect word sounds when speaking?	Words are spoken separately. (At least one word sound not linked per statement).	Some words are spoken separately.	Words connect naturally.
7. Do students maintain a natural flow of speech?	Speech is slow.	Some statements do not align with the general pace.	Speech flows naturally.
8. Do students speak without excessive pauses? (Students maintain a steady flow of speech, using pauses for emphasis or breathing, but avoiding hesitation or long pauses attempting to remember vocabulary or phrases).	Speech is frequently interrupted by pauses or there are long pauses presented.	Some pauses are present but they do not impact understanding.	Speech is continuous with natural pauses.

The results of applying the pre-test checklist instrument are visually presented in Figures 1 through 8 for a systematic interpretation of every speaking production aspect.

Figure 1. Do students employ topic-related vocabulary?



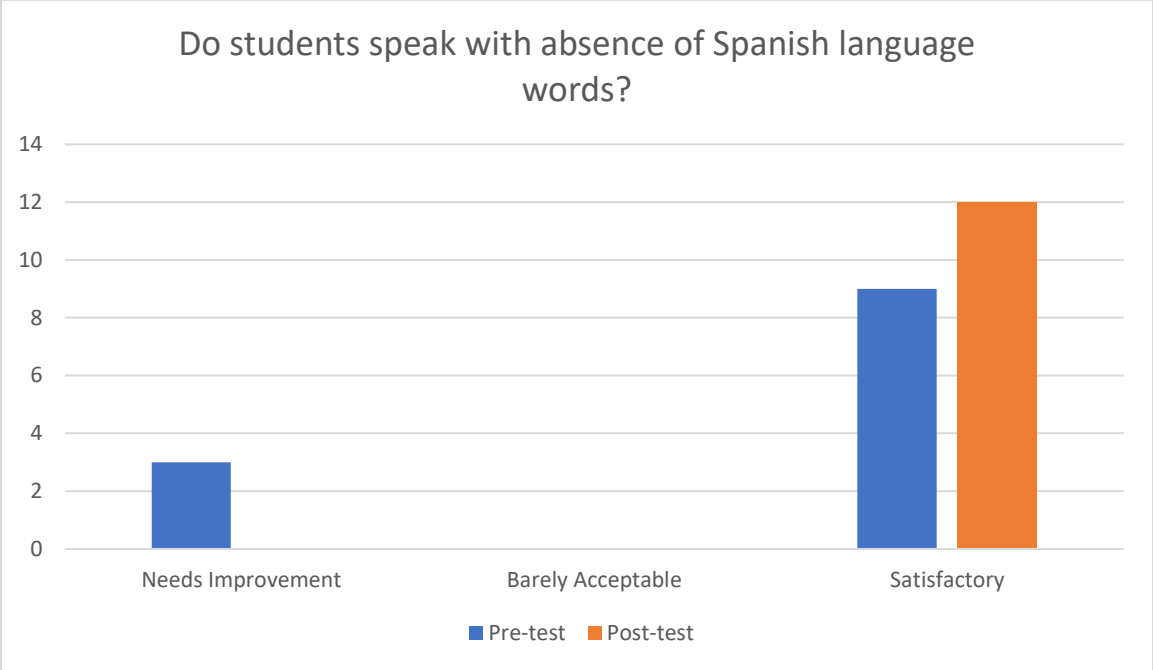
Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 1 illustrates the use of topic-related vocabulary in an oral production task. The graph indicates that eleven participants, 92% of the data, had difficulties using vocabulary strictly and exclusively related to the given topic meanwhile one participant, 8% of the data, mostly employed topic-related vocabulary. This pre-test analysis reveals that the majority of the participants need to improve their vocabulary in speech.

As for the post-test data collected, one participant had difficulties using vocabulary related to the given topic, representing 8% of the data. Four participants struggled with the use of topic-related vocabulary, accounting 33% of the data. Seven participants, representing 58% of the data, performed satisfactorily. The analysis suggests a decrease in the percentage of participants who had difficulties with vocabulary, dropping drastically from 92% to 8% and an increase in the percentage of

participants who performed barely acceptable, from 8% to 33%, revealing an improvement. Additionally, there is a percentage value in the satisfactory level of performance represented by more than half of the participants, 58% of the data. This test comparison shows a significant improvement for most participants in using words related to a topic.

Figure 2. Do students speak with absence of Spanish language words?

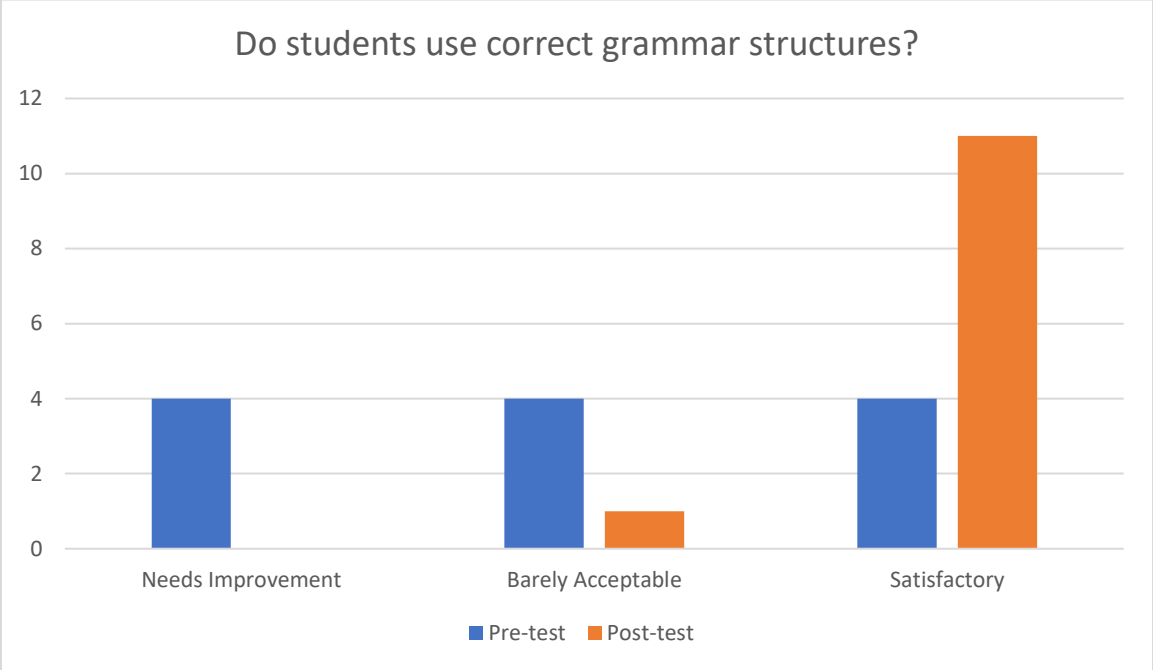


Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 2 illustrates the performance level regarding the absence of Spanish language words. In the pre-test, three participants (25% of the data) used words in Spanish, whereas nine participants used English words solely, representing 75% of the data. The analysis indicates that a minority of the participants had difficulties using English words only.

For the post-test, all participants were capable of presenting a speech without using Spanish language words, representing 100% of the data. The general analysis suggests a noteworthy improvement for the laggard group of participants.

Figure 3. Do students use correct grammar structures?



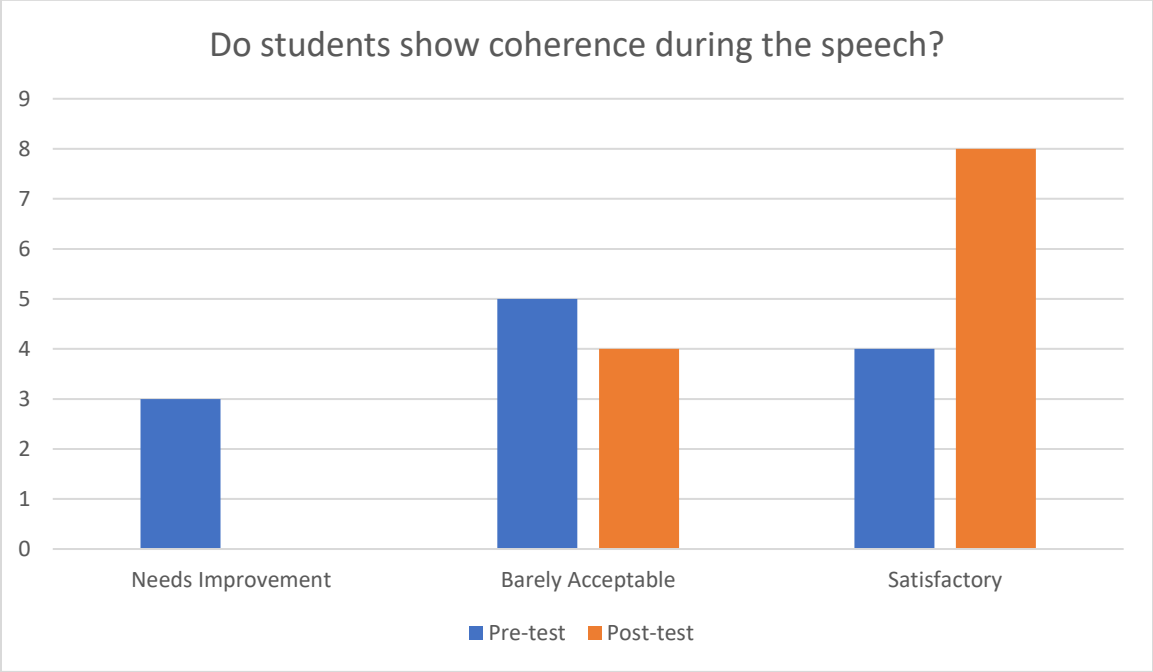
Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 3 illustrates the performance level in using correct grammar structures. The graph shows performance of the participants at an equally distributed level in the pre-test stage. Four participants, 33% of the data, encountered difficulties in using correct grammar structures. Likewise, four participants performed slightly acceptable, representing another 33% of the data. Finally, the remaining four participants did satisfactory, accounting 33% of the data. This analysis concludes that one-third of the participants needs a significant improvement in using correct grammar structures. Another one-third of the participants needs an improvement but in a low-frequency

degree regarding the previous group. For the final one-third of the participants, using correct grammar structures does not represent an issue.

As for the post-test data collected, one participant (8% of the data) demonstrated a slightly consistent use of correct grammar structures meanwhile eleven participants can use correct grammar structures in most arguments, representing 92% of the data. After implementing ChatGPT, the percentage of participants widely increased up to 92% in a satisfactory level and decreased to 8% as barely acceptable. Overall, this analysis suggests that nearly all the participants reached a satisfactory grammar level.

Figure 4. Do students show coherence during the speech?



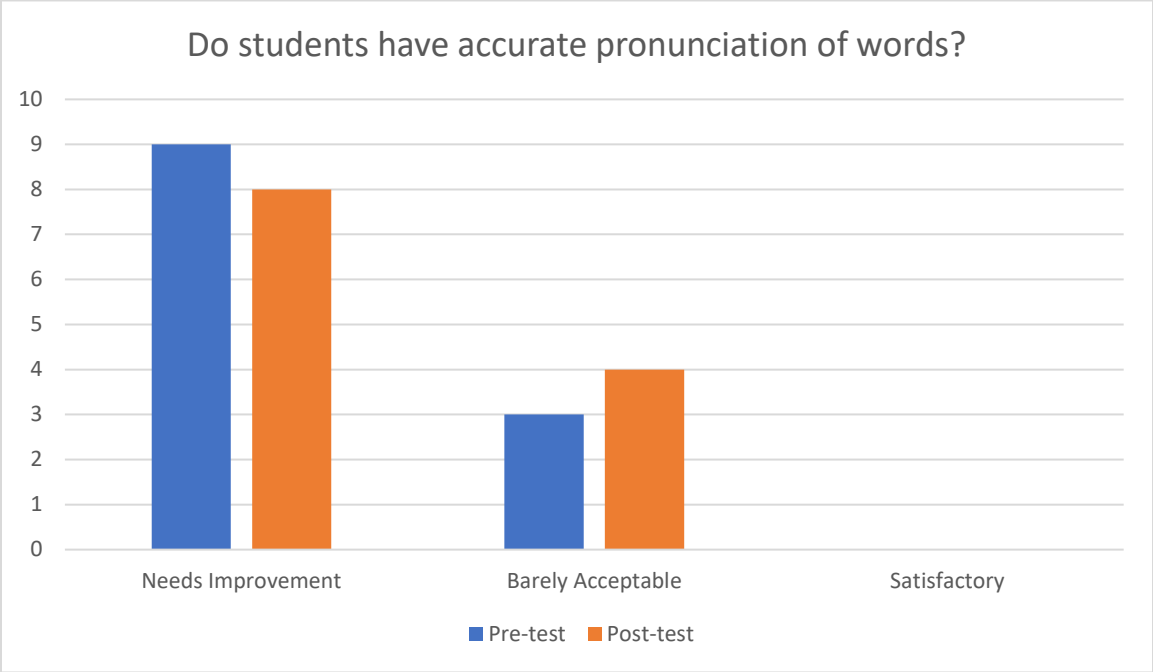
Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 4 illustrates the coherence degree of participants. In the pre-test, three participants (25% of the data) presented a speech with incoherent delivery with either unclear articulation, disorganized structure or lack of logical flow of the arguments. Five

of the participants demonstrated an acceptable coherence in their arguments, representing 42% of the data. At last, four participants, 33% of the data, spoke with assertive coherence. This analysis reveals that a few participants had noticeable difficulties presenting a speech with coherence while the participants who performed barely acceptable presented difficulties to certain extent, suggesting that a little bit more than half of the participants present some coherence inconsistency in speech.

The post-test data collected indicates that four participants, accounting 33% of the data, still present some hindrance that prevents them from reaching a satisfactory level of coherence. Contrary, eight participants demonstrated the target level, representing 67% of the data. The results indicate a decrease in the percentage of participants who presented difficulties in expressing with coherence, from 42% to 33%. Subsequently, there is an increase in the percentage of participants who showed an adequate use of arguments to express coherence, from 33% to 67%. This analysis concludes that a minority of the participants still presents coherence issues. However, most of the participants demonstrated a superb coherence level in speech, establishing a trend towards improvement.

Figure 5. Do students have accurate pronunciation of words?



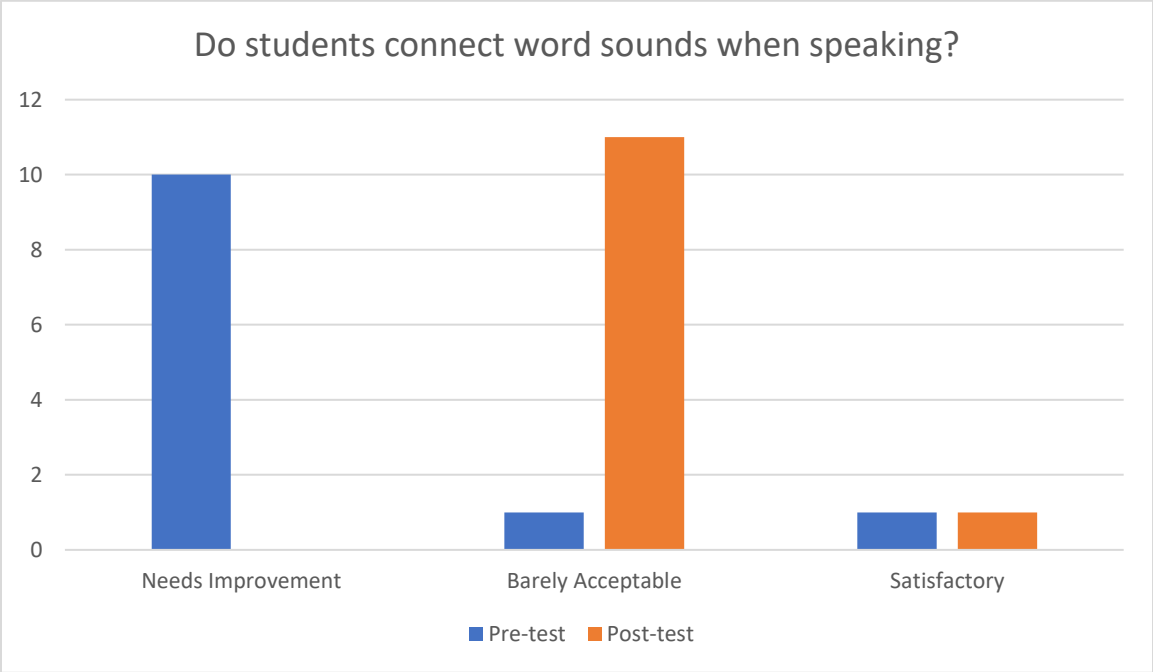
Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 5 illustrates the accurate pronunciation of words. This graph indicates in the pre-test that nine participants, 75% of the data, mispronounced a significant number of words during speech. Three participants, representing 25% of the data, mispronounced some vocabulary though noticeable; it did not impact negatively their oral presentations. The analysis reveals that the majority of the participants presented serious pronunciation-related issues meanwhile a scarce number of participants had a decent performance.

As for the post-test, the graph shows that eight participants demonstrated persistent difficulties in pronunciation, representing 67% of the data. Four participants, accounting 33% of the data, presented some isolated issues. Comparing these results with the results obtained in the pre-test stage, it concludes that there was a minimal

decrease in the percentage of participants with pronunciation issues, from 75% to 67%. Similarly, there is a minimal increase in the percentage of participants who mispronounced some isolated vocabulary, from 25% to 33%. The analysis concludes that after the implementation of ChatGPT, there has not been an impactful improvement in pronunciation terms among the participants.

Figure 6. Do students connect word sounds when speaking?

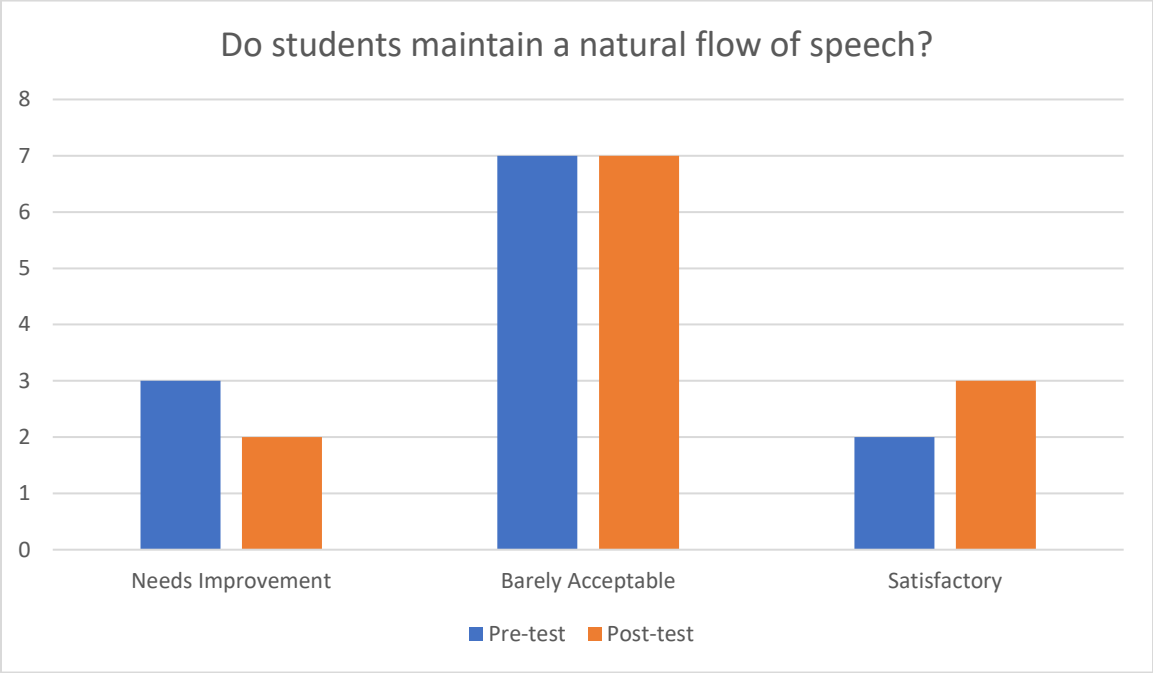


Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 6 illustrates linking sounds in speaking. The data obtained in the pre-test indicates that ten participants (83% of the data) linked a minimal number of sounds when speaking. One participant connected several word sounds in speech, representing 8% of the data. Another participant connected most word sounds during speech, accounting 8% of the data. This analysis reveals a tendency for speaking without linking most sounds in the majority of the participants.

As for the post-test data collected, eleven participants (92% of the data) connected several words sounds for an acceptable performance. The remaining participant connected most word sounds, representing 8% of the data. Regarding the barely acceptable level of performance, there was an evident increase in the percentage of the participants, changing from 8% up to 92%. Contrary to the satisfactory level of performance which remained unchanged with only one participant who maintained in this level, representing 8% of the data. The analysis indicates that most of the participants improved their abilities connecting word sounds to some extent.

Figure 7. Do students maintain a natural flow of speech?



Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

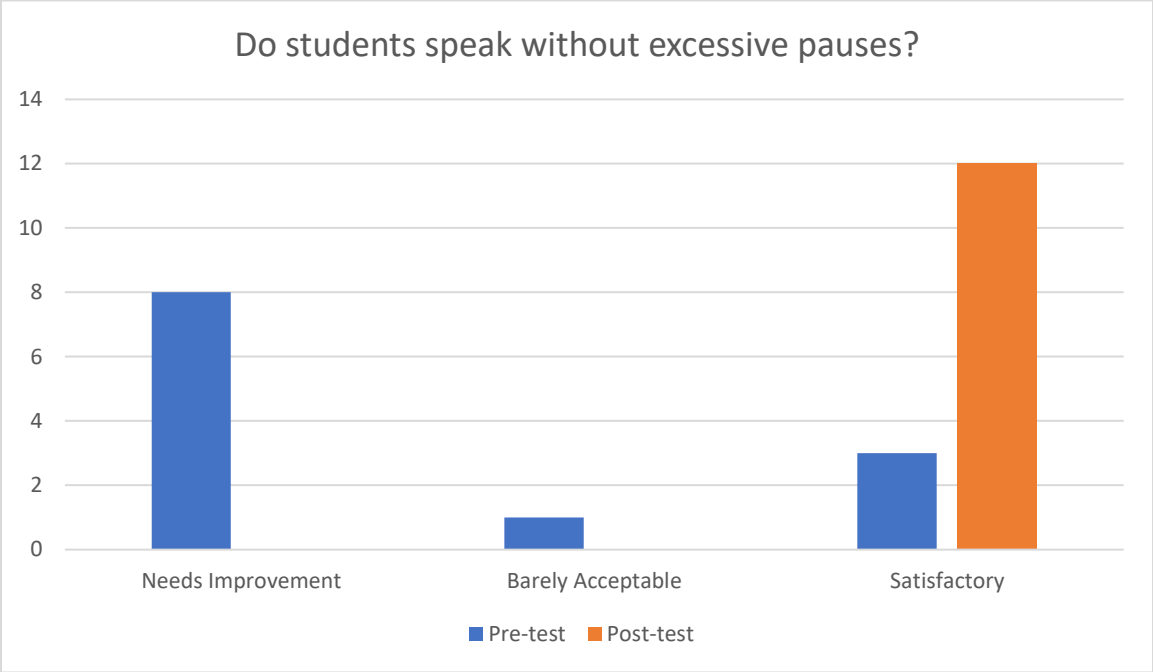
Figure 7 illustrates the employment of natural flow of speech. For the pre-test stage, three participants had difficulties to maintain a natural flow of speech, representing 25% of the data. Seven participants, 58% of the data, encountered some

issues in this part of the assessment. Only two participants spoke mostly maintaining a natural flow of speech, accounting 17% of the data. This analysis concludes with most of the participants needing strategies that help them improve their speaking pace. Contrary to a couple of participants who maintained a natural flow in speaking. Although their performance is not perfect, they need to hone their fluency skills.

In the post-test, two participants (17% of the data) presented noticeable difficulties to maintain a natural flow of speech. Seven of the participants can do average though encountering isolated issues, representing 58% of the data. One-third of the participants, 33% of the data, spoke mostly maintaining a natural flow of speech.

In comparison with the previous assessment stage, there is a minimal decrease in the percentage of participants with clearly defined difficulties to maintain a natural flow when speaking, from 25% to 17%. The percentage value in the barely acceptable level does not change, represented by 58% of the data unlike the third level which indicates a minimal increase in the percentage of the participants who kept a natural pace during conversation, changing from 17% to 25%. This analysis suggests a marginal improvement in maintaining a natural flow of speech, reducing the inconsistencies in the speaking pace exclusively for a few participants.

Figure 8. Do students speak without excessive pauses?



Source: Pre-test and Post-test applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 8 illustrates the avoidance of excessive pauses. According to the interpretation of the graph, eight participants (67% of the data) incurred in excessive pauses during speech. One participant, 8% of the data, presented pauses in speech to some extent. There were not any unnecessary pauses detected in the speech presented by three participants, representing 25% of the data. This pre-test analysis reveals that the majority of participants abused of pauses negatively impacting their speeches somehow.

As for the post-test data collected, all participants were able to speak without excessive pauses, representing 100% of the data. This analysis indicates a remarkable improvement in this aspect, not only reducing hesitation steeply but also enhancing fluency and confidence in communication.

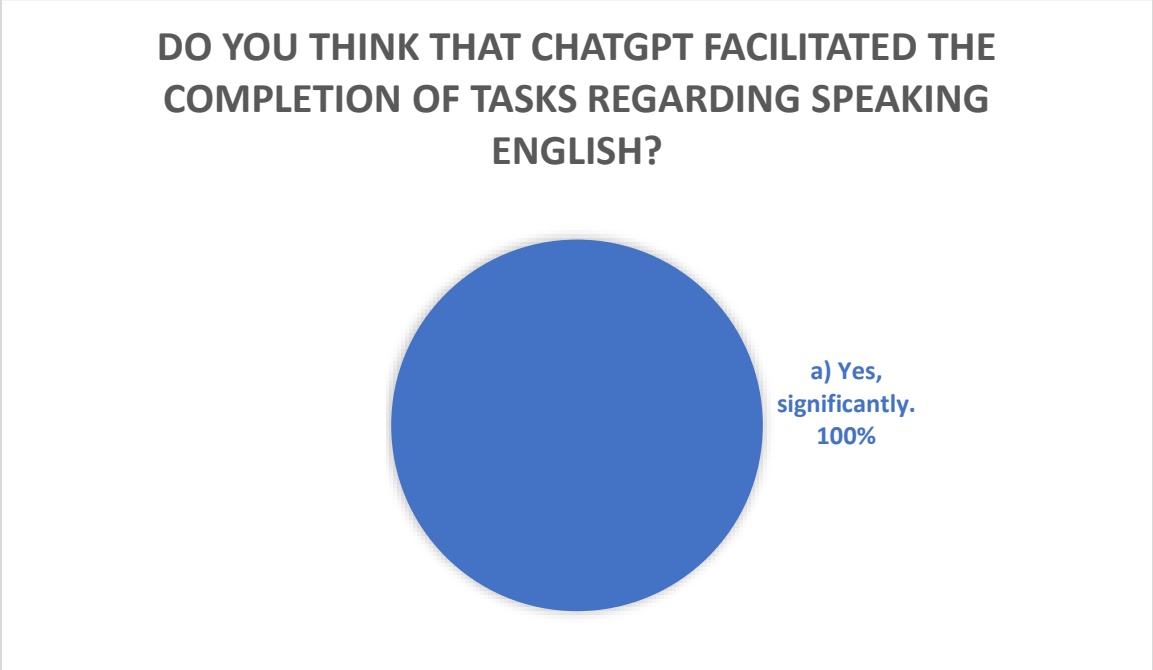
4.2. QUESTIONNAIRE SURVEY

This survey is applied once participants completed all proposed pedagogical tasks with the implementation of the chatbot ChatGPT, using a questionnaire technique with the purpose of obtaining the insights regarding the benefits of implementing ChatGPT as a pedagogical tool in the classroom. It consists of eight close-ended questions that were addressed by the twelve participants of the study regarding their interaction and support with ChatGPT throughout performing different oral production tasks. Therefore, ChatGPT is evaluated as a facilitator in task completion, vocabulary provider, a pronunciation and fluency enhancement tool, grammar supporter, confidence builder, source of suggestions and feedback, and a real-life task facilitator.

Before taking the questionnaire survey, it was necessary to clarify and even explain some of the terminology included in the instrument since the participants of this study are teenagers with ages ranging from 13 to 15 years old. This assumption implies that some of them were not familiar with the vocabulary or concepts employed for evaluation previous to application.

The results of applying the questionnaire survey are visually presented in Figures 9 through 16 for a systematic interpretation during the analysis.

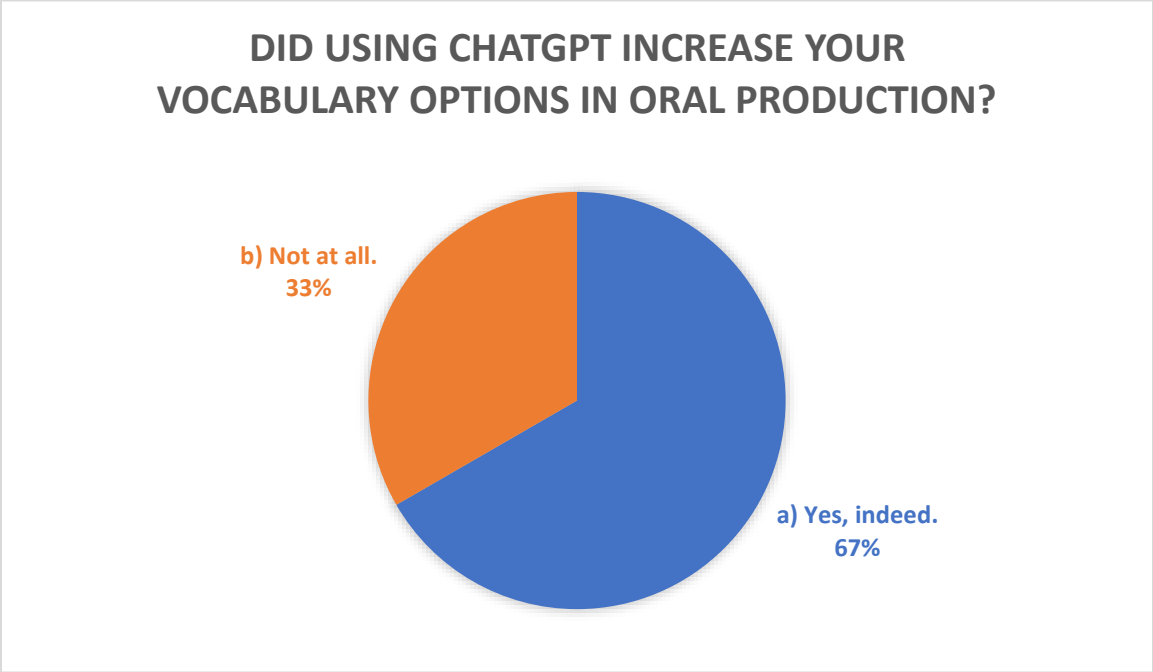
Figure 9. Do you think that ChatGPT facilitated the completion of tasks regarding speaking English?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 9 illustrates the general perception of the participants regarding ChatGPT as a facilitator in the task completion when speaking English. The total of participants, 100% of the data, indicated that ChatGPT significantly facilitated the completion of the proposed tasks. As regards to the implementation of ChatGPT as task facilitator, this analysis suggests a unanimous and acceptable reception, acknowledging ChatGPT as an accepted pedagogical tool among the participants.

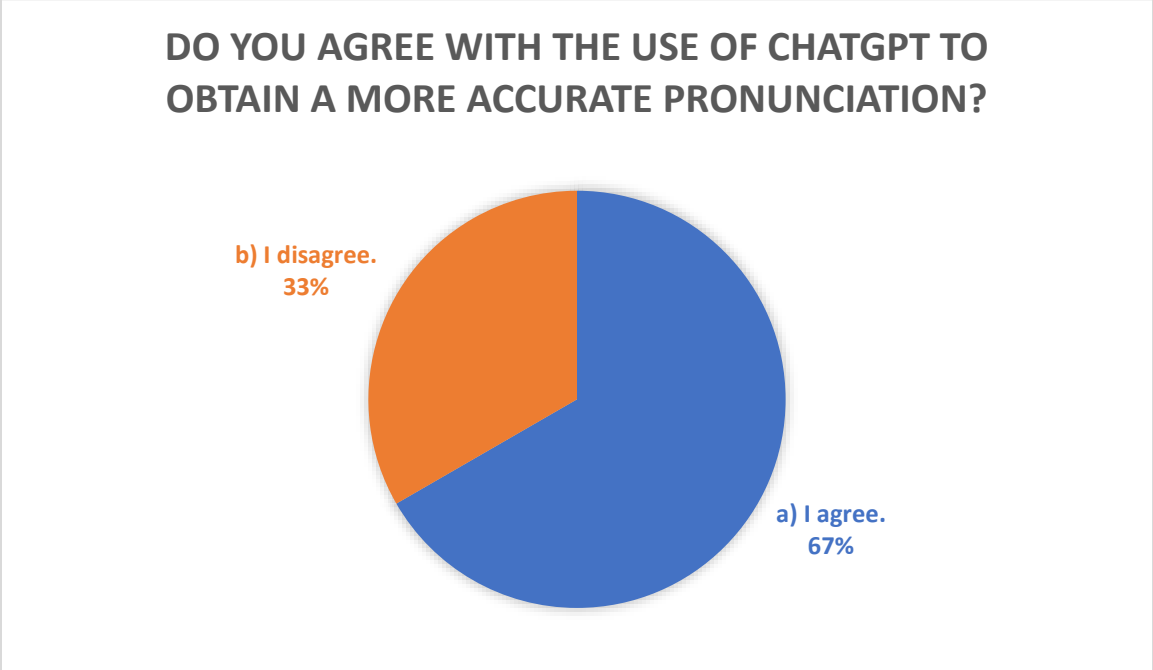
Figure 10. Did using ChatGPT increase your vocabulary options in oral production?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 10 illustrates the participants' percipience regarding ChatGPT as a vocabulary provider in the development of pedagogical tasks. The majority of the participants, accounting 67% of the data, considers that using ChatGPT increased their vocabulary options in oral production. On the other hand, the minority of the participants, representing 33% of the data, considers that ChatGPT did not increase their vocabulary options in oral production. This analysis suggests that there is a major reception in using ChatGPT to acquire more vocabulary.

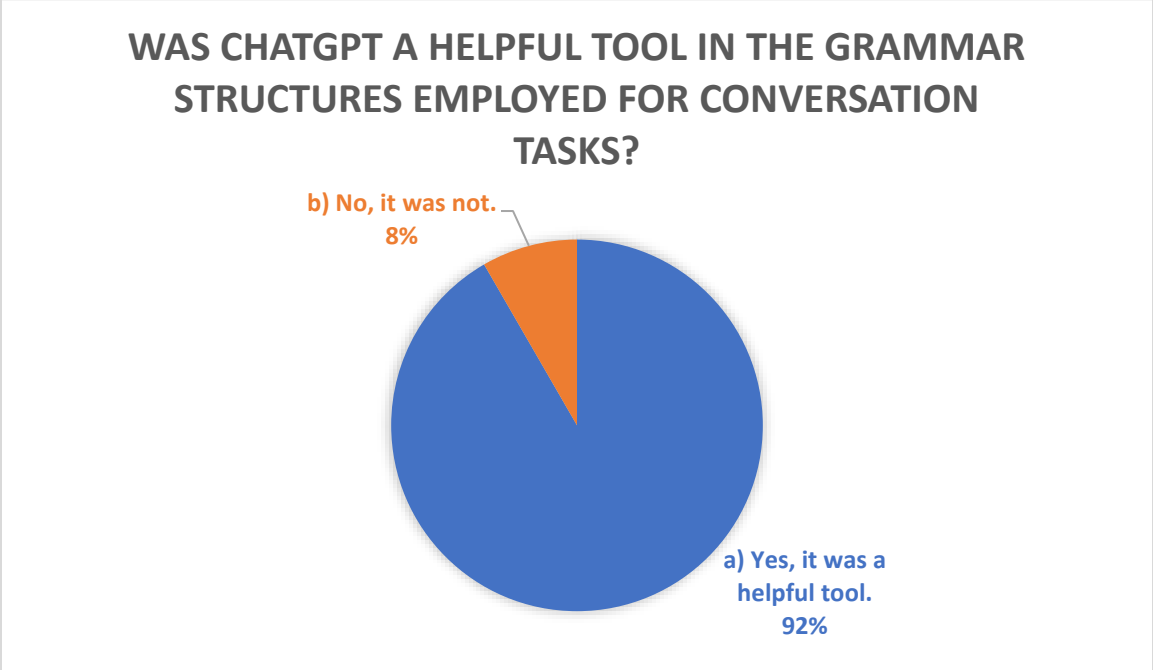
Figure 11. Do you agree with the use of ChatGPT to obtain a more accurate pronunciation?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024

Figure 11 illustrates the participants' acceptance range in using ChatGPT to obtain a more accurate pronunciation. The majority of the participants, 67% of the data, agrees with the implementation of ChatGPT to improve pronunciation meanwhile the minority of the participants, 33% of the data, disagrees with the previous statement. This analysis suggests that most of the participants agrees with the use of ChatGPT to obtain a more accurate pronunciation.

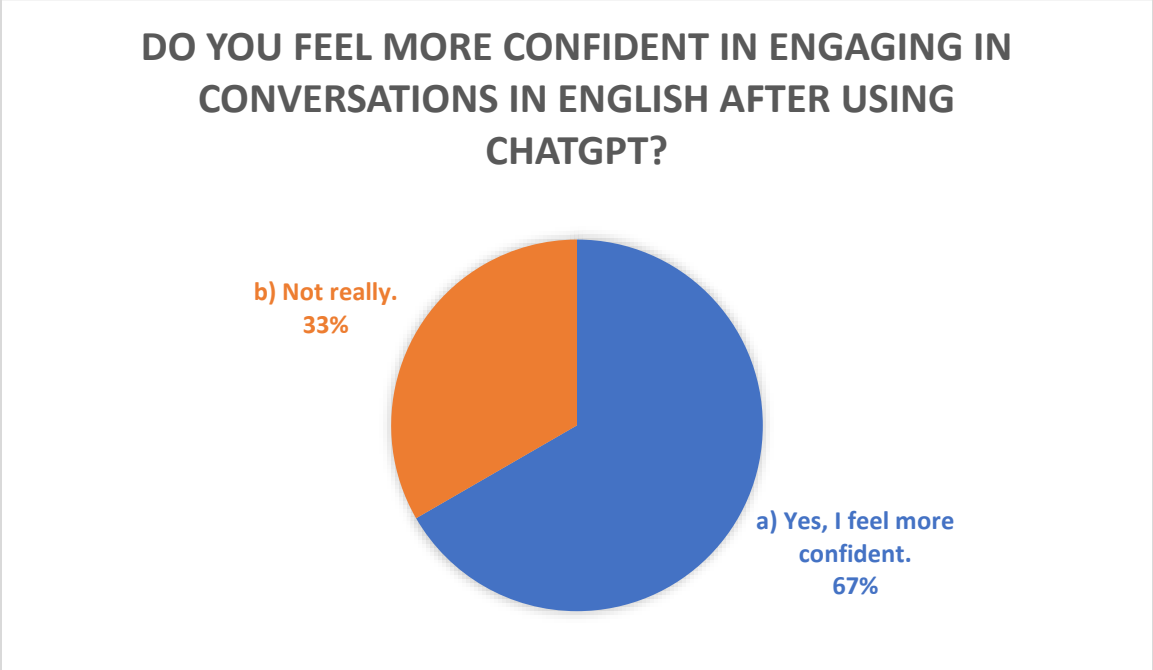
Figure 12. Was ChatGPT a helpful tool in the grammar structures employed for conversation tasks?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 12 illustrates the overview of the participants' viewpoints regarding ChatGPT as a helpful tool in building grammar structures for conversation. Nearly all participants, representing 92% of the data, perceive ChatGPT as a helpful tool to arrange vocabulary and build sentences. In contrast, only 8% of the participants differs from this perception. This analysis suggests a predominately positive view of ChatGPT in helping with grammar aspects.

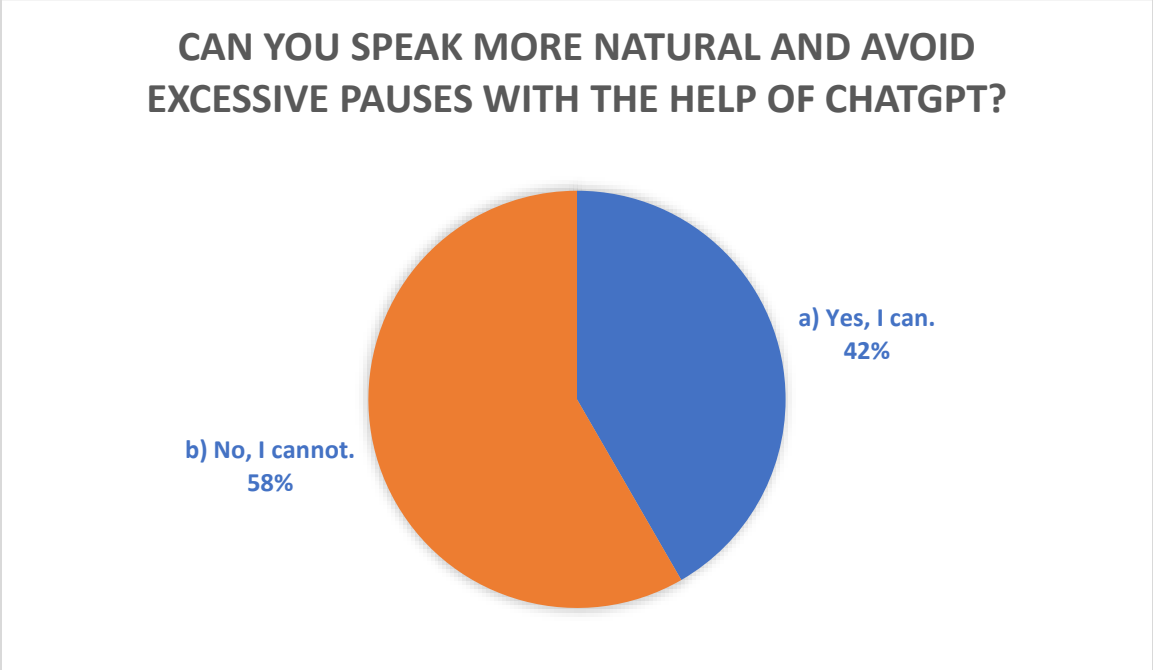
Figure 13. Do you feel more confident in engaging in conversations in English after using ChatGPT?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 13 illustrates the general perception of the participants in building confidence to engage in conversations in English language through the implementation of ChatGPT. The majority of the participants, 67% of the data, feels more confident in engaging in conversations in English after using ChatGPT in preparation and rehearsal of speaking activities. The opposing minority of the participants, 33% of the data, does not feel more confident in the same context. This analysis suggests that more than half of the participants feel more confident in conversation engagement with the aid of ChatGPT.

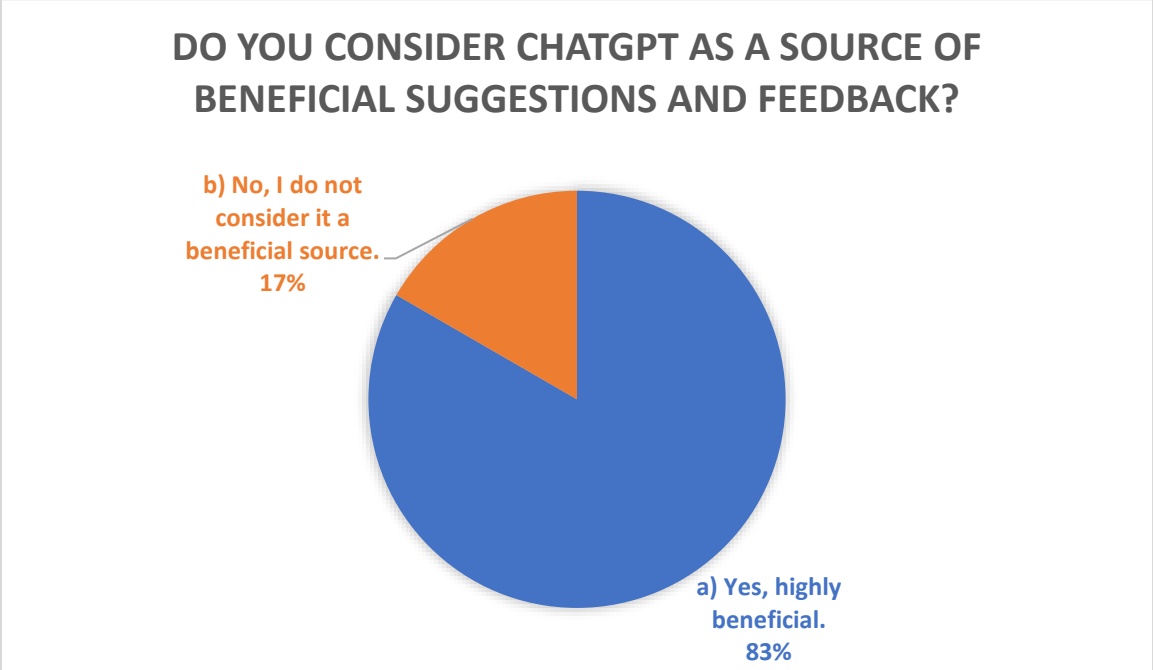
Figure 14. Can you speak more natural and avoid excessive pauses with the help of ChatGPT?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 14 illustrates the general perception of the participants in speaking terms with the support of ChatGPT to speak more natural avoid excessive pauses. Less than half of the participants are capable of speaking more natural and avoid excessive pauses with the help of ChatGPT, representing 42% of the data. Complementarily, a little bit more than half of the participants, accounting 58% of the data, cannot speak more natural without excessive pauses using ChatGPT. This analysis concludes in the ineffectiveness of ChatGPT for the presented scenario with predominance on a small scale.

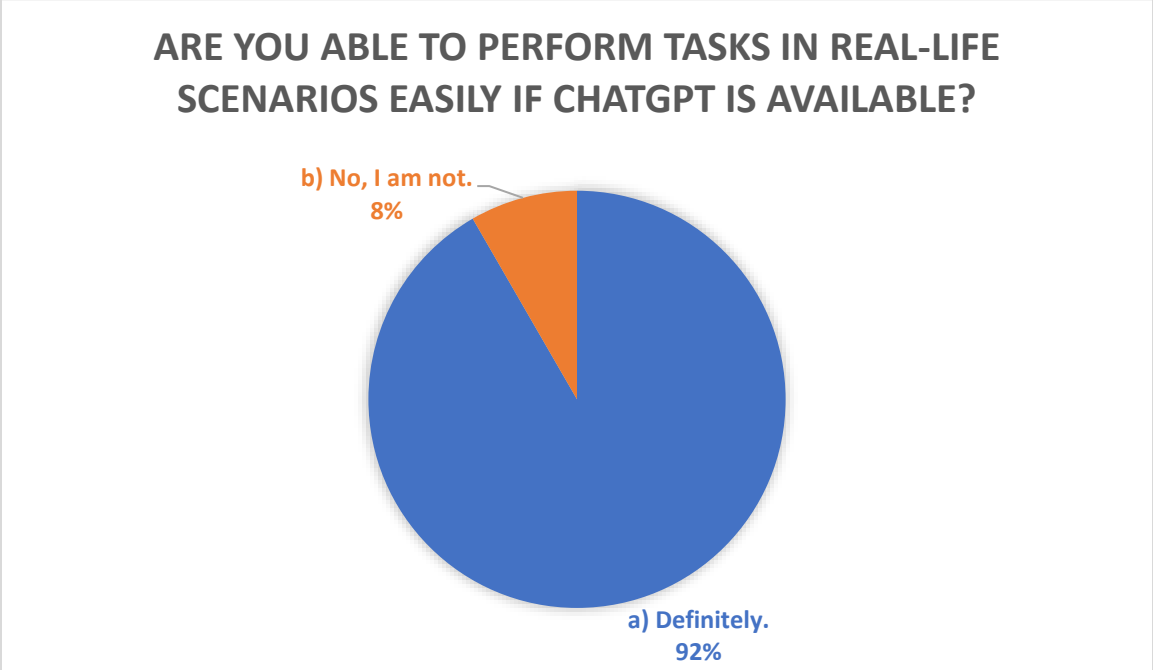
Figure 15. Do you consider ChatGPT as a source of beneficial suggestions and feedback?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 15 illustrates the perception of the participants in using ChatGPT as a beneficial source of suggestions and feedback. The majority of the participants, 83% of the data, sees a beneficial source of information in ChatGPT. Conversely, a minority group of participants, 17% of the data, has an opposite view. This analysis shows a strong inclination of the participants towards the use of ChatGPT to obtain suggestions and feedback.

Figure 16. Are you able to perform tasks in real-life scenarios easily if ChatGPT is available?



Source: Questionnaire survey applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 16 illustrates the general percipience of the participants in performing tasks in real-life scenarios easily with the aid of ChatGPT. Nearly all participants, 92% of the data, indicate that they were able to perform tasks in real-life scenarios with the assistance of ChatGPT. One participant was not able to perform tasks in the conditioned setting, representing 8% of the data. This analysis displays the mostly favorable viewpoints of the participants concerning this particular context.

4.3. SEMANTIC DIFFERENTIAL SCALE

This semantic differential scale measures the social attitudes of the participants involving the implementation of ChatGPT to perform classroom tasks. ChatGPT assisted the participants in the following aspects: active engagement, personalized vocabulary building, error correction and feedback, speaking practice through role-play, writing prompts and reviews; and pronunciation practice. However, this instrument was employed to collect data in specific settings which propose three different mediation strategies from the Action-Oriented Approach. The mediation strategies are interviews, role-plays and conversations. The participants provided their perspectives concerning the usefulness of ChatGPT for self-guided learning of the English language with the objective of identifying mediation strategies from the Action-Oriented Approach that can be successfully performed in complement with ChatGPT.

The first mediation strategy proposed is an interview in which the participants ask someone about city places based on a description or answer about city places based on questions. In concordance with the MEP's English syllabus for eighth grade, the theme presented is "Where is it?" from Unit #4. The proposed goal (SI.2.) is to ask someone to say something more clearly, to explain something a different way, or to repeat what has been said.

The second mediation strategy proposed is a role-play. The participants are motivated to acting out a dialogue in a fictional scenario where they buy from a convenience store. The MEP's English syllabus for eighth grade assigns the theme presented is "Getting what I need at the right place?" from Unit #4. The proposed goal

(SI.1.) is to ask appropriate questions during a conversation to ensure that the other person understands points being made or information being given.

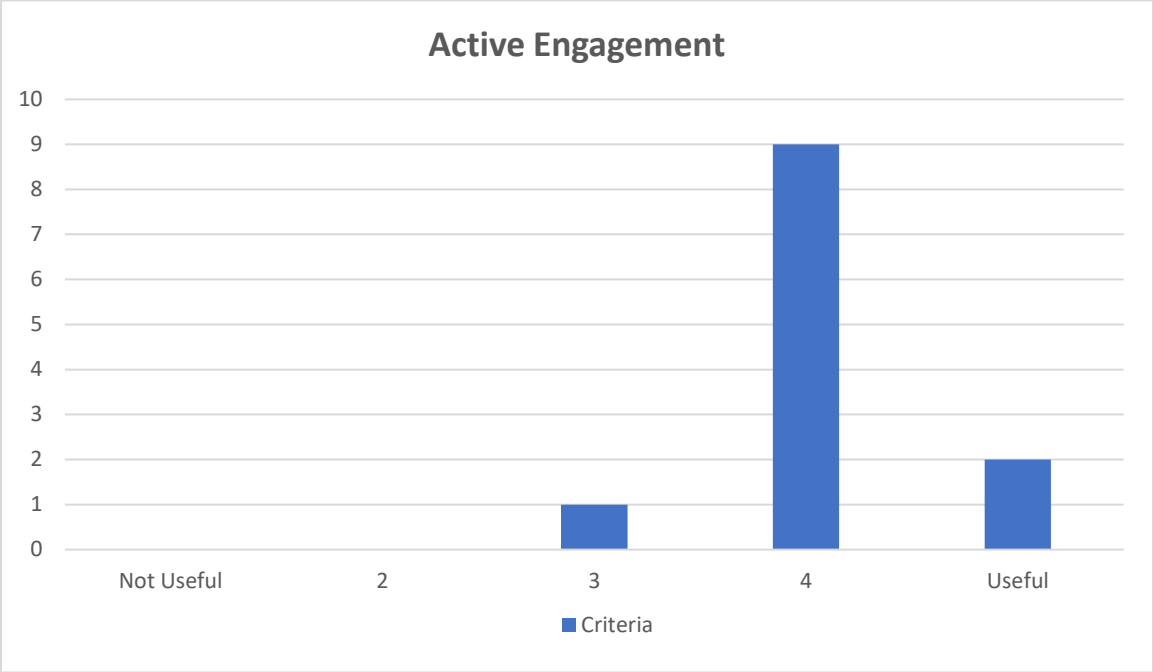
The third mediation strategy proposed is a conversation consisting on providing recommendations about accessible and low-budget places to buy something. Based on MEP's English syllabus for eighth grade, the theme presented is "Welcome to my town?" from Unit #4. The proposed goal (SP.1.) is to give recommendations about convenient places to buy something.

At this point, it was necessary to clarify and explain terms and concepts included in the instrument to make sure the participants understand every item exposed. Likewise, they were inducted on how choosing responses depending on each situation on the basis of their interaction with ChatGPT.

This instrument collects data through a scale of attitudes. For this paper work, the dimension of attitude measured is evaluation since it is concerned with the perception of the participants regarding their engagement with ChatGPT in task-based activities. In the 5-point scale, the bipolar adjectives indicated as parameters are *not useful* and *useful*.

The results of applying the questionnaire survey are visually presented in Figures 17 through 22 for a systematic interpretation during the analysis, addressing the corresponding research goal.

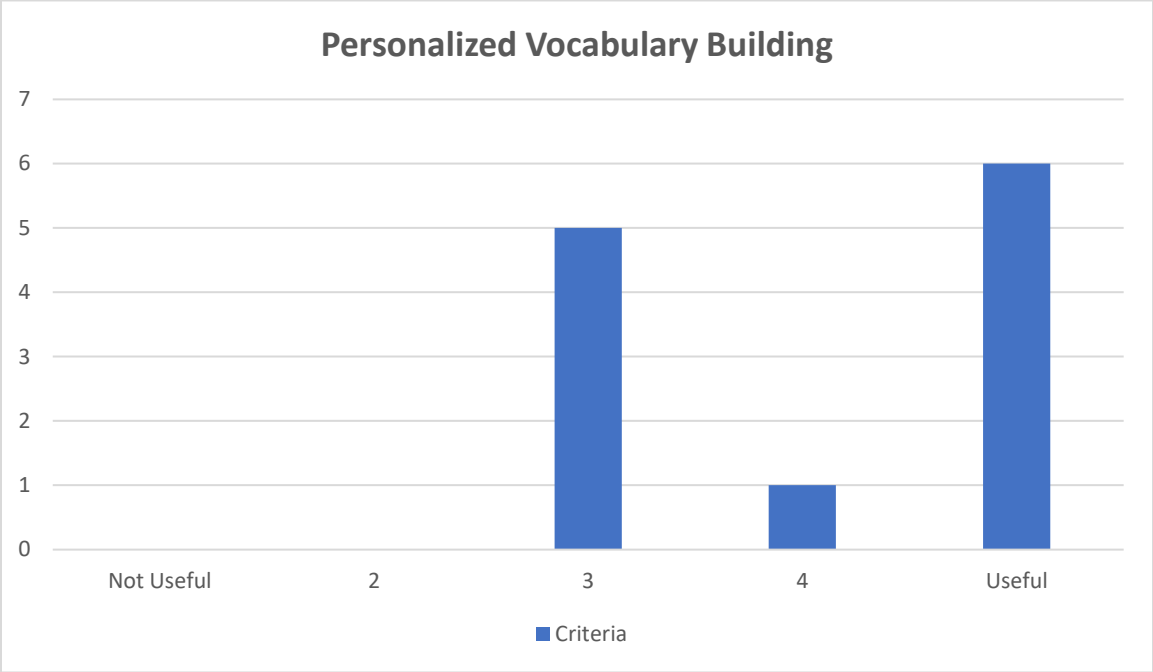
Figure 17. Active Engagement – Mediation Strategy: Interview.



Source: Semantic differential scale applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 17 illustrates the participants' perception in using ChatGPT for active engagement in an interview task. One participant remains neutral about the usefulness of ChatGPT, representing 8% of the data. Contrary to nine participants, 75% of the data, who perceive ChatGPT as a useful tool to some extent and two participants, 17% of the data, who agree with ChatGPT's usefulness. This analysis validates the usefulness of implementing ChatGPT for building active engagement in an interview task proposed as a mediation strategy.

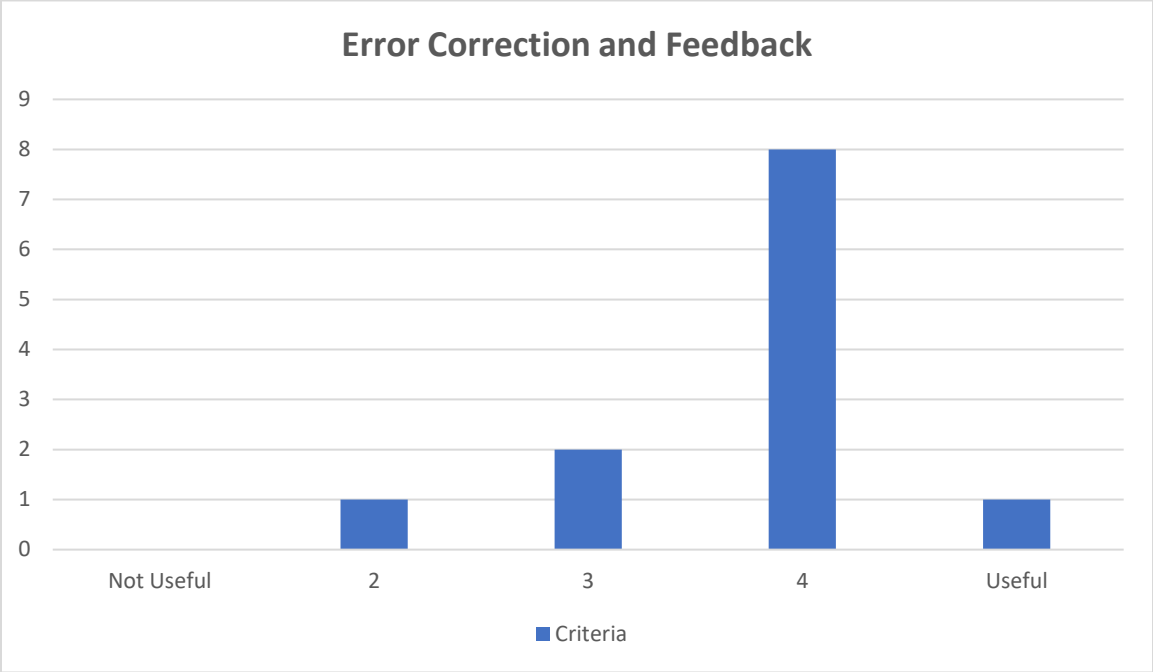
Figure 18. Personalized Vocabulary Building – Mediation Strategy: Interview.



Source: Semantic differential scale applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 18 illustrates the general view of the participants regarding the implementation of ChatGPT to obtain personalized vocabulary for an interview task. Five participants, accounting 42% of the data, adopt a neutral position with regard to ChatGPT's usefulness. On the other hand, one participant, representing 8% of the data, thinks that ChatGPT is somewhat useful in building personalized vocabulary. The remaining six participants, 50% of the data, see a total usefulness in using ChatGPT to build personalized vocabulary. This analysis indicates a trend towards the usefulness of ChatGPT in terms of personalized vocabulary.

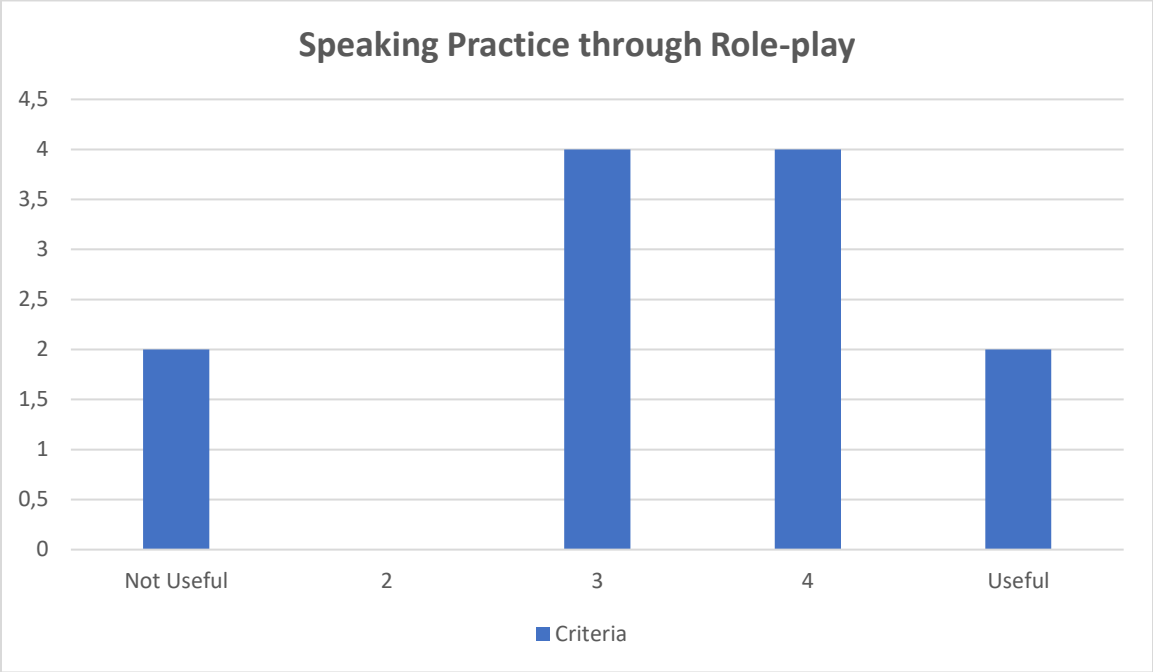
Figure 19. Error Correction and Feedback – Mediation Strategy: Role-Play.



Source: Semantic differential scale applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 19 illustrates the percipience of the participants in getting error corrections and feedback from ChatGPT in a pedagogical task developed as role-play. One participant, representing 8% of the data, considers ChatGPT's implementation as somehow not useful. Two participants, 17% of the data, show a neutral attitude regarding its usefulness. Eight participants, accounting 67 of the data, perceive ChatGPT as useful to some extent. Finally, one participant, 8% of the data, sees the usefulness in this chatbot. This analysis indicates a major perception regarding ChatGPT as a useful source of error correction and feedback when preparing and rehearsing a role-play.

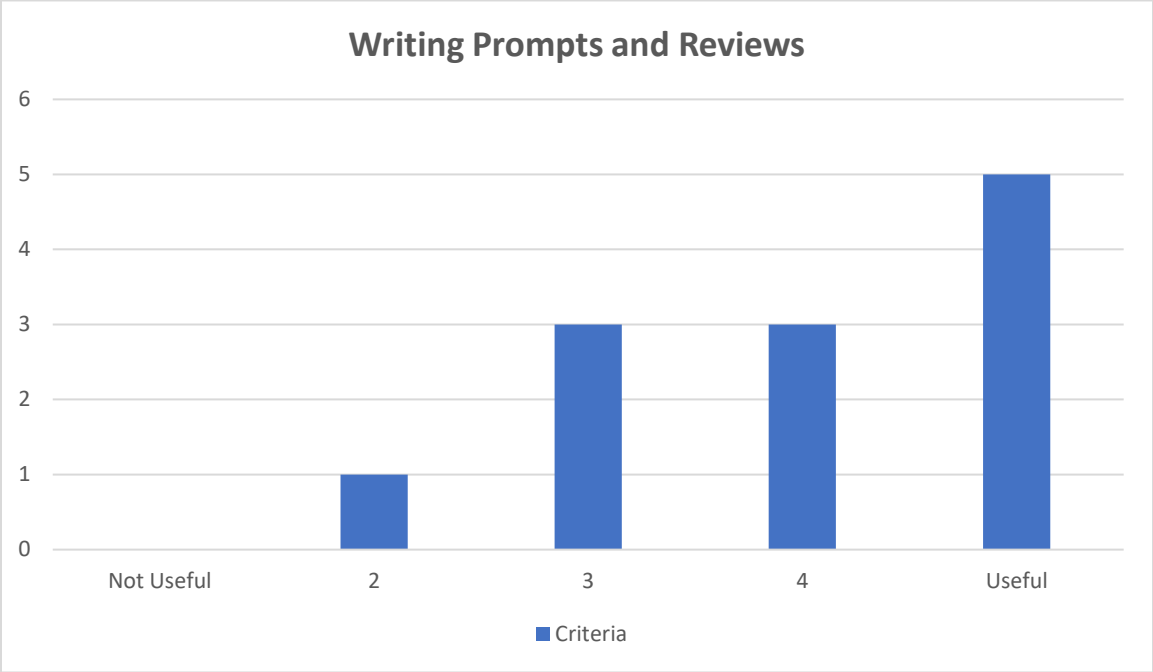
Figure 20. Speaking Practice through Role-Play – Mediation Strategy: Role-Play.



Source: Semantic differential scale applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 20 illustrates the general perception of the participants concerning speaking practice for a role-play task. Two participants, 17% of the data, do not agree with the usefulness of ChatGPT in preparation for role-play. Four participants, 33% of the data, have a neutral criterion about the chatbot's implementation. Likewise, four participants consider it useful in some degree, representing 33% of the data. At last, two participants, accounting 17% of the data, perceive the usefulness of ChatGPT in getting ready for performing a role-play task. This analysis concludes that there is a major perception related to the utility of ChatGPT to practice the speaking skills involved in a role-play setting.

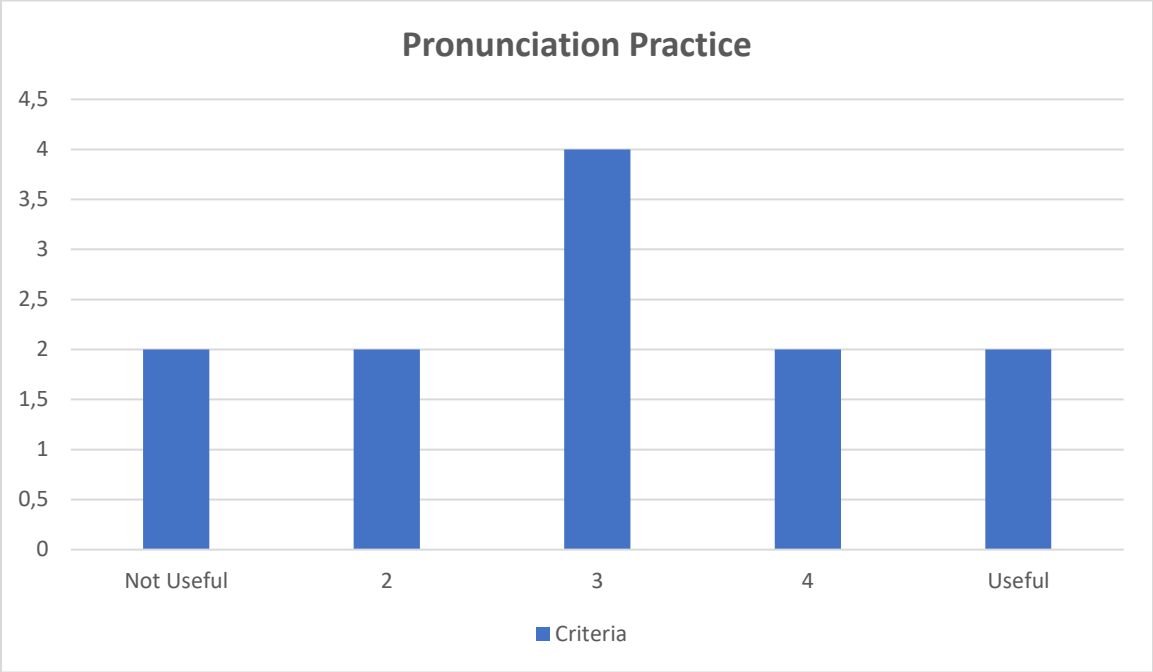
Figure 21. Writing Prompts and Reviews – Mediation Strategy: Conversation.



Source: Semantic differential scale applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 21 illustrates the points of view of the participants as regard to writing prompts and getting reviews through the utilization of ChatGPT to build a conversation. One participant, representing 8% of the data, perceives ChatGPT's role as not useful to some extent. Three participants, 25% of the data, express a neutral opinion. Similarly, three participants, accounting 25% of the data, consider ChatGPT as a somewhat useful tool. Five participants, representing 42% of the data, rates it useful. This analysis indicates a diverse perception in the usefulness of ChatGPT for writing prompts and reviews; nonetheless, there is a positive tendency for its utility.

Figure 22. Pronunciation Practice – Mediation Strategy: Conversation.



The collected data reveals distinct patterns in participants' engagement with the chat.

Figure 22 illustrates the acceptance ratio of ChatGPT in pronunciation practice. Two participants, accounting 17% of the data, perceive this AI tool as not useful. Quite likely for two participants, accounting another 17% of the data, who consider it not useful in some degree. Four participants, 33% of the data, neither agree or disagree with its usefulness. A couple of participants, representing once again 17% of the data, find it useful to some extent in this particular scenario. The final two participants, 17% of the data, perceive the usefulness of ChatGPT. This analysis concludes that there is a divided perception regarding the implementation of ChatGPT to practice pronunciation. According to the data, ChatGPT's value as a pedagogical tool in pronunciation terms within usefulness parameters is moderate.

4.4. CHECKLIST

This checklist instrument seeks to identify the assessment strategies in pedagogical tasks assisted with ChatGPT through the active observation of the participants' performance. The instrument measures six conditions involved in formative assessment, peer assessment and self-assessment with the purpose of acknowledging ChatGPT's integration and support in different assessment methods. These conditions are confidence and use of appropriate language in an interview, effective communication and interaction in a real-life role-play; and time management and appropriate language employ in a conversation.

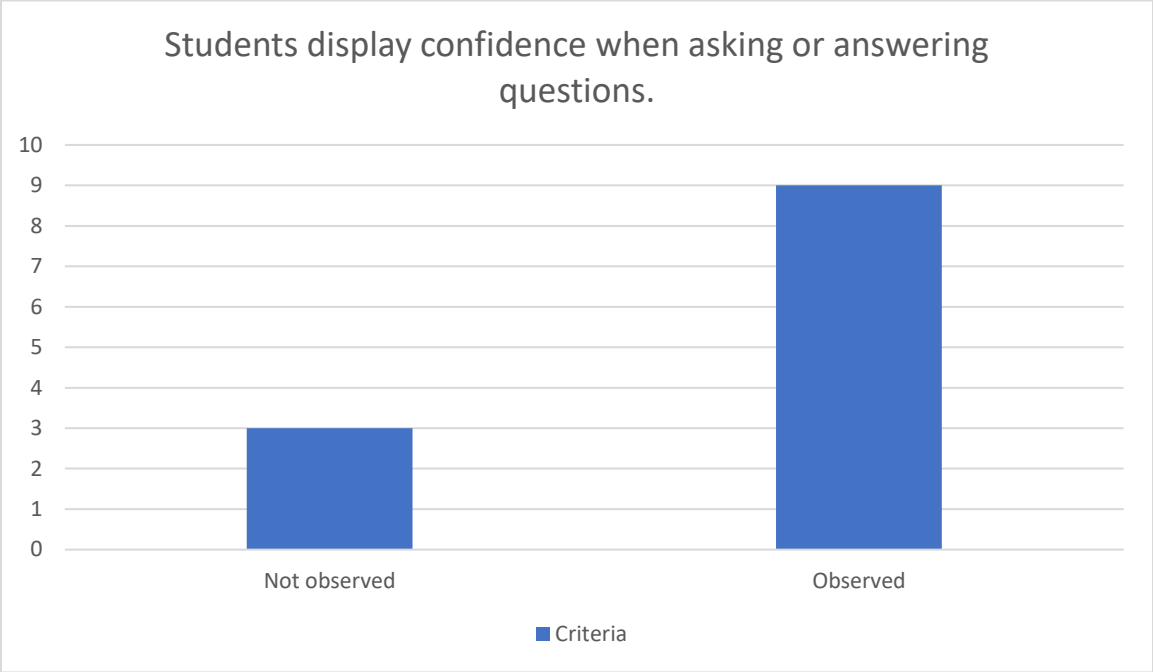
For the formative assessment, the theme is "Where is it?" from Unit #4. The proposed goal (SI.2.) is to ask someone to say something more clearly, to explain something a different way, or to repeat what has been said. This assessment is based on MEP's English syllabus for eighth grade.

The peer assessment conditions are evaluated on the theme "Getting what I need at the right place?" from Unit #4 of MEP's English syllabus for eighth grade. The proposed goal (SI.1.) is to ask appropriate questions during a conversation to ensure that the other person understands points being made or information being given.

Finally, the self-assessment's theme is "Welcome to my town?" from Unit #4. The proposed goal (SP.1.) is to give recommendations about convenient places to buy something, according to MEP's English syllabus for eighth grade.

The results of applying the checklist are visually presented in Figures 23 through 28 for analysis and interpretation, addressing the corresponding research goal.

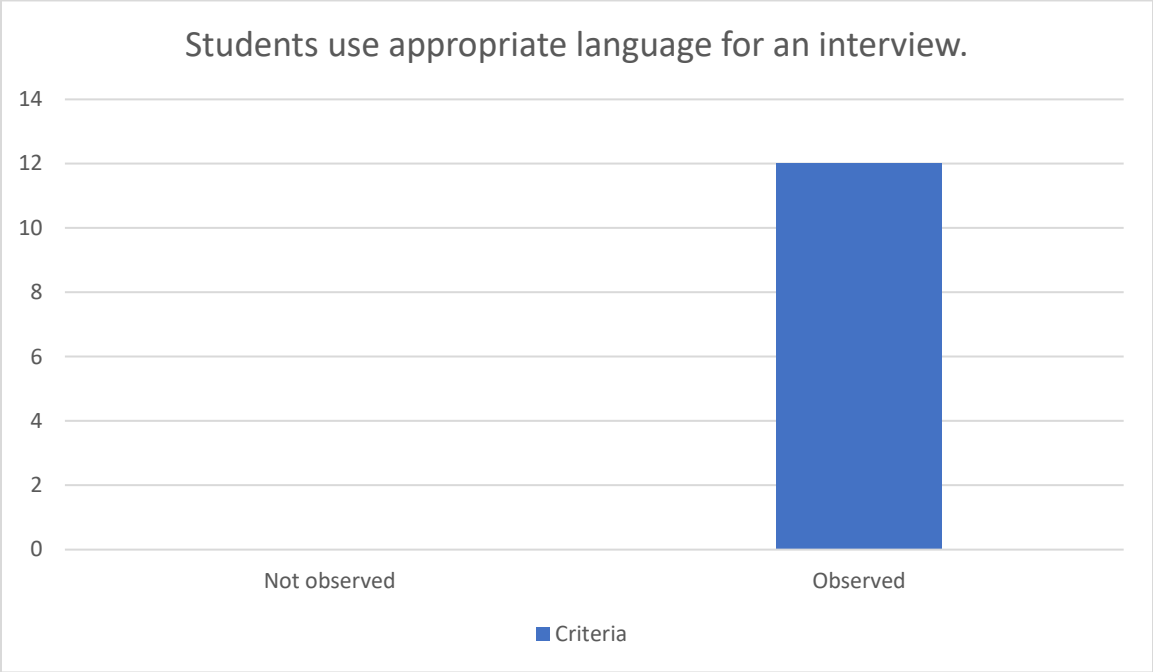
Figure 23. Students display confidence when asking or answering questions.



Source: Checklist applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 23 illustrates the integration of ChatGPT to perform a pedagogical task with a formative assessment. The data indicates that the condition is not observed in three participants, 25% of the data. Contrary to the same condition observed in nine participants, representing 75% of the data. This analysis suggests that the integration of ChatGPT as a system in confidence display is observed in most of the participants, acknowledging this condition of the formative assessment.

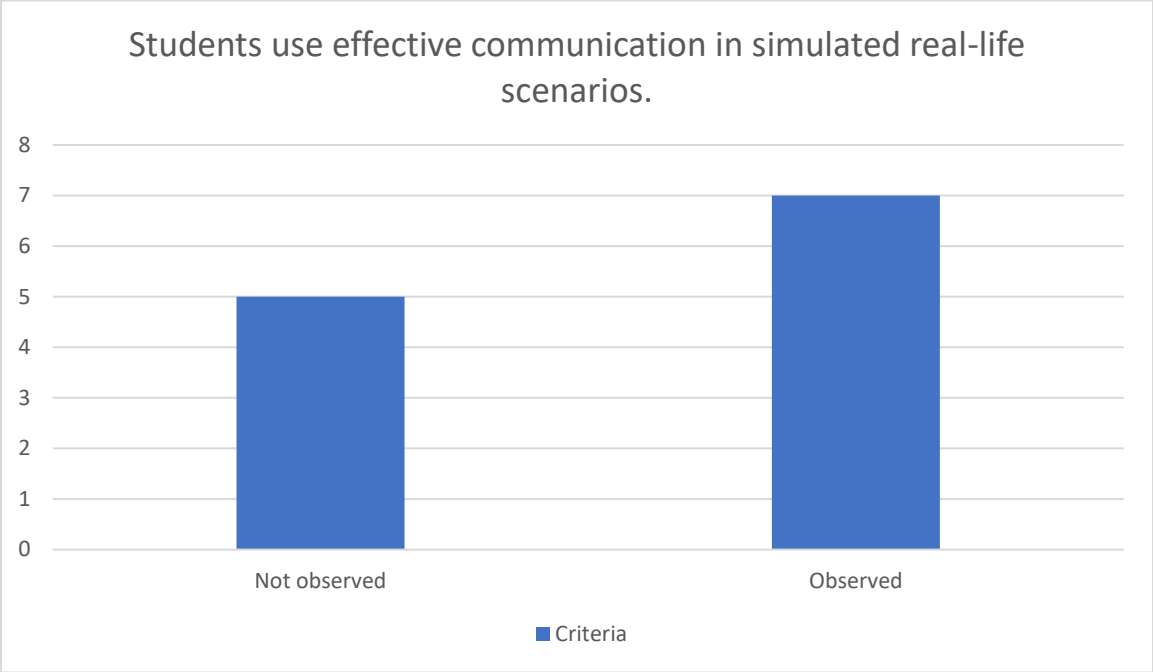
Figure 24. Students use appropriate language for an interview.



Source: Checklist applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 24 illustrates the employ of appropriate language in an interview assisted with ChatGPT in formative assessment. The data indicates that the entire cluster of participants, accounting 100% of the data, used the appropriate language for an interview task. Therefore, this analysis concludes that the aspect concerning the use of appropriate language in an interview assisted with ChatGPT can be favorable assessed in a formative manner.

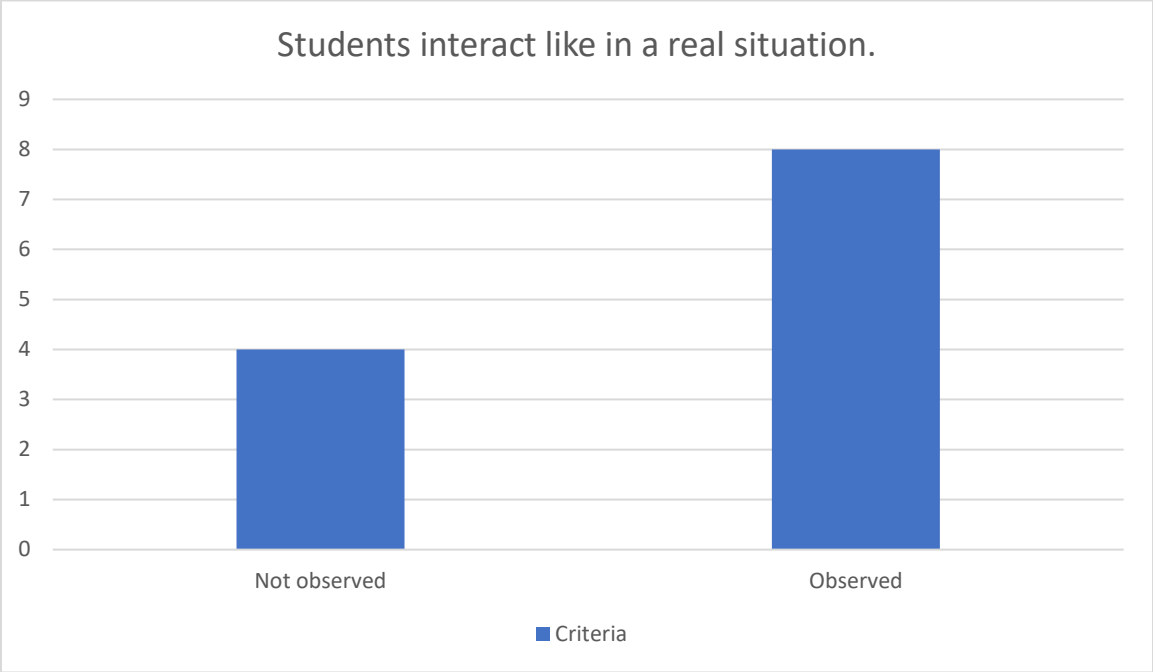
Figure 25. Students use effective communication in simulated real-life scenarios.



Source: Checklist applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 25 illustrates the effectiveness of communication through the use of ChatGPT in a simulated real-life scenario. The data indicates that five participants, representing 42% of the data, did not accomplish effective communication in the proposed role-play task. On the other hand, seven participants were capable of communicating effectively, accounting 58% of the data. This analysis suggests a slightly observed condition in the participants' performance of a role-play.

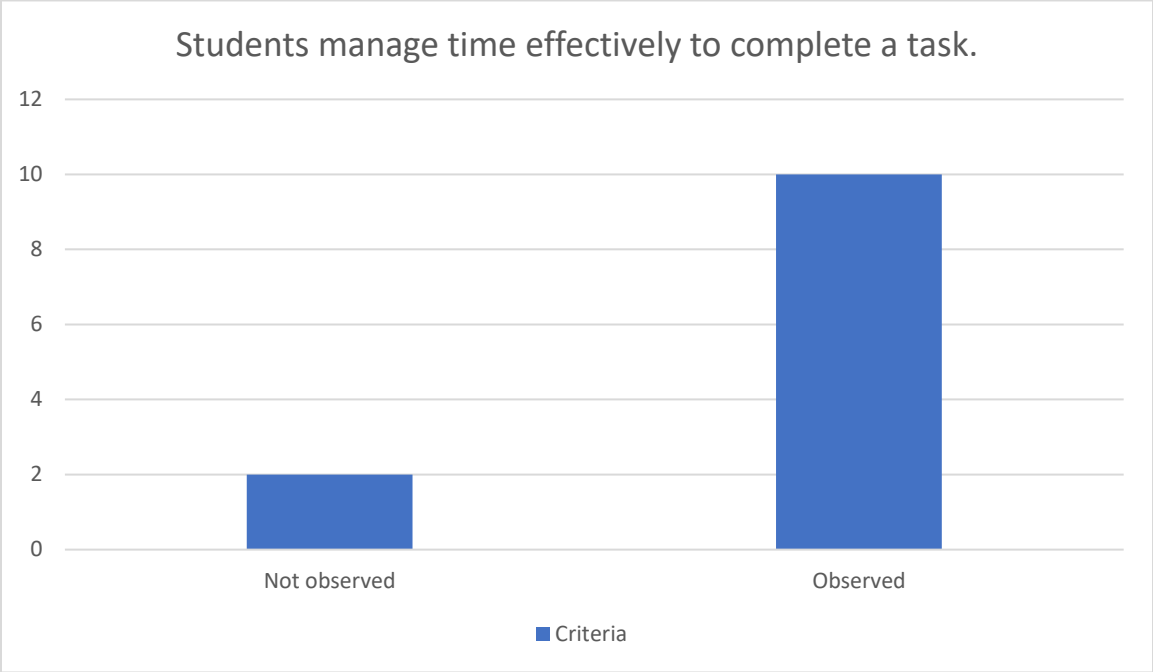
Figure 26. Students interact like in a real situation.



Source: Checklist applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 26 illustrates the engagement in performing a real situation with the aid of ChatGPT. The data indicates that four participants, 33% of the data, had an unsuitable engagement in the proposed pedagogical task. In contrast, eight participants, 67% of the data, demonstrated an optimum engagement in performing a role-play. This analysis shows a predominant observed condition, validating this aspect's assessment.

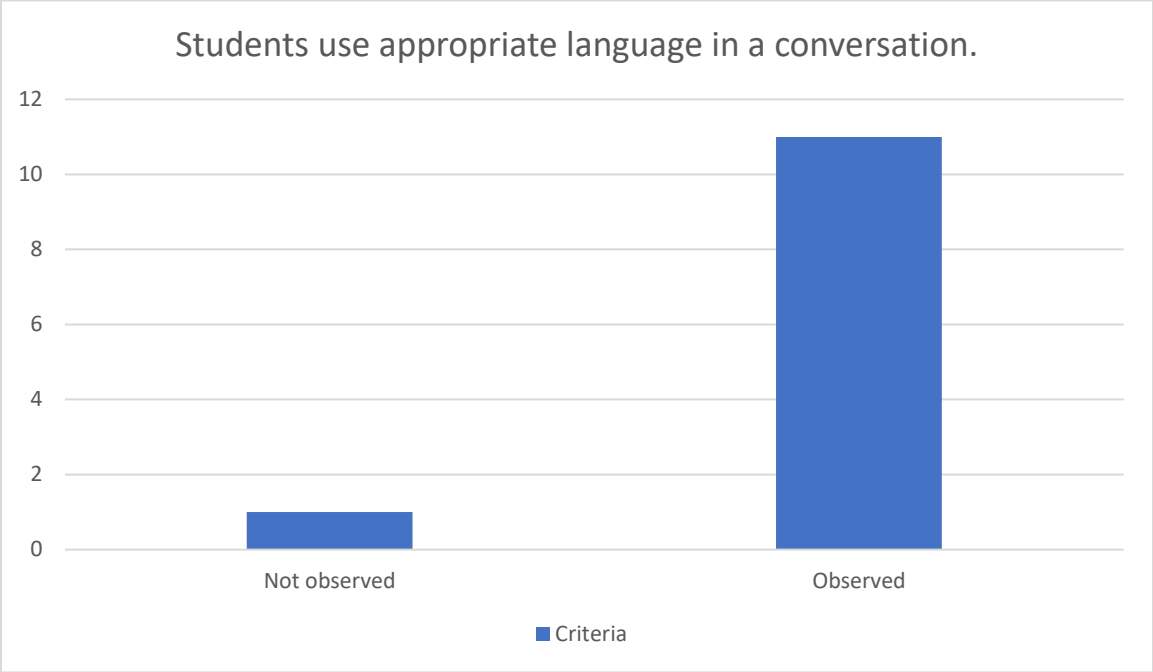
Figure 27. Students manage time effectively to complete a task.



Source: Checklist applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 27 illustrates the effective time management in task completion through the integration of ChatGPT. The data indicates that two participants, 17% of the data, had an inefficient management of time during the conversation, not reaching the target time proposed during the pedagogical task. Conversely, ten participants demonstrated an effective time management, representing 83% of the data. This analysis suggests a major observation of the condition.

Figure 28. Students use appropriate language in a conversation.



Source: Checklist applied to 12 participants at Unidad Pedagógica El Roble, 2024.

Figure 28 illustrates the appropriate language use during a conversation with the support of ChatGPT. The data indicates that one participant, 8% of the data, employed inappropriate language during the conversation task. On the contrary, the rest of the participants, accounting 92% of the data, used appropriate language at all times. This analysis suggests that the observed condition is present in nearly all participants.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS

In this chapter, the research concludes with the presentation of the findings from an exhaustive investigation. This study originated with a proposal aimed at introducing a strategy to improve speaking skills. Consequently, the implementation of ChatGPT as a pedagogical tool emerges in response to this challenge. The collection of data from instruments' application and acquisition of insights through active observation of the participants' learning experiences provide an evidence-based and conclusive framework for this research.

5.1.1. Conclusions Referent to Speaking Skills

Concerning vocabulary, the participants demonstrated a limited and sporadically incorrect use of topic-related words when they were diagnosed, even a few participants employed Spanish language words in speech. The implementation of ChatGPT generated better results in the post-test, exhibiting a remarkable decrease in the difficulties regarding the use of topic-related vocabulary. Additionally, all the participants were capable of speaking without using Spanish language words. In favor of the chatbot's utility, there was a major consent in providing vocabulary options. Another benefit of ChatGPT's role is providing feedback and suggestions, especially regarding translation and synonyms as highlighted by the participants. In summary, ChatGPT had a positive impact in improving the vocabulary skill.

In grammar and coherence terms, the level of performance was varied among the participants in the initial results obtained in the pre-test. After implementing ChatGPT in pedagogical tasks, the participants demonstrated a significant improvement

in the use of correct grammar structures. Coherence was not different since the majority of the participants reported a good performance level. ChatGPT contributed to the participants' grammar and coherence in creating a chronological sequence in arguments, using details to support main ideas and subject-verb agreement. Complementarily, the results from the questionnaire survey show that nearly all the participants found ChatGPT helpful in grammar structures for conversation tasks. Therefore, ChatGPT's implementation provided benefits towards the improvement of the grammar skill.

Pronunciation proved to be the most deficient speaking skill concerning tests. More than two quarters of the participants showed prominent deficiencies in pronunciation at a pre-test stage. Nevertheless, it is evident from the application of the questionnaire survey that implementing ChatGPT to support pronunciation was perceived as a useful practice by a major group of the participants. Some participants noticed that even if they mispronounced some words, ChatGPT would provide the intended word in text format according to context, so they can confirm or edit any vocabulary element. Another facet the participants valued is the chatbot's capability in keeping track of fast speaking. These user-friendly features resulted highly appealing in quick conversation practice.

Notwithstanding the implementation of ChatGPT to support pronunciation, the post-test results indicated only a marginal change in the improvement of this skill. This fact demonstrates that pronunciation is a significant weakness among participants, evidencing a need for further exploration on how ChatGPT can be optimized in learning practices to effectively improve the pronunciation.

According to the questionnaire survey, a little bit more than half of the participants found ChatGPT ineffective in speaking more natural and avoiding excessive pauses. This perception aligns partially with the results obtained in the post-test. On the one hand, there was a minimal improvement in maintaining a natural flow of speech. On the other hand, the improvement rate in avoidance of excessive pauses increased abruptly, reporting that every participant presented a speech free of excessive or unnecessary pauses. Additionally, ChatGPT boosted communicative confidence in most participants. Another benefit is the ability of performing conversational tasks with ease due to the ChatGPT's assistance. The AI tool demonstrated to be mostly useful in preparation phases of speaking practice, enhancing fluency elements eventually. Unfortunately, these analysis' results do not reflect a significant improvement in every area assessed. It is undeniable that ChatGPT contributed in the betterment of the participants' fluency but keeping a natural flow of speech remains a challenge.

In general, the results of this research demonstrated that ChatGPT was highly well-received by the majority of the participants in most proposed contexts, who recognized its value in facilitating various pedagogical tasks. The implementation of the AI chatbot contributed to better results in some areas bridging the performance of language tasks with modern technology. However, some opinions differed from this view, alike some analysis' results that indicated its poor utility in specific contexts. Further investigation into the reasons behind the opinion divergence could provide valuable insights for future research. Likewise, employing different methodologies or integrating other pedagogical practices could guarantee the success of Artificial Intelligence products like ChatGPT in the field of education.

5.1.2. Conclusions Referent to Mediation Strategies

The interview, role-play and conversation are proposed mediation strategies using a methodology from the Action-Oriented Approach with emphasis on demanding active participation, encouraging collaboration among the participants and promoting the application of real-world speaking skills. This research section has the objective of acknowledging these mediation strategies through the utility of ChatGPT.

In the interview, active engagement and personalized vocabulary building were assessed. Based on the semantic different scale's results, almost every participant agreed with ChatGPT's usefulness in some degree for active engagement to perform an interview. As for personalized vocabulary building, slightly more than half of the participants perceived ChatGPT's utility as favorable in preparation to conduct an interview. Since the results add up to 75% of the data above the required 70% threshold for validity, the interview as mediation strategy from the Action-Oriented Approach with the assistance of ChatGPT meets a little bit more than the minimum criteria for validity.

In case of the role-play, it was assessed error correction and feedback as well as speaking practice. The results indicate that the majority of the participants found ChatGPT useful for mistake correction and feedback source on task completion. Regarding speaking practice through role-play, half of the participants agreed with ChatGPT's integration. The general perception reports in favor of performing a role-play with the chatbot's assistance. However, the acceptance value is 7% below the 70% threshold, therefore this mediation strategy is not validated from the generalized view of the participants.

The conversation's aspects assessed in pedagogical task are writing prompts and reviews. According to the instrument results, most of the participants inclined towards the bot's utility in writing prompts for a conversation. In getting reviews of texts, a small group of the participants concurred with ChatGPT's usefulness. Since the results add up to 51% of the data, the minimal percentage for validity is not reached. According to the participants' perception, integrating ChatGPT with this mediation strategy presented a divided opinion.

Taking into consideration the generalized perception of the participants in relation with the usefulness of ChatGPT in task performance. This study shows a favorable tendency for its utility; nevertheless, it is not a predominant tendency among the participants. Only one of the mediation strategies performed in concordance with ChatGPT reached the minimal validity, being the interview rated as a mediation strategy within the range of acceptance by the participants.

5.1.3. Conclusions Referent to Assessment Strategies

The third specific objective of this study seeks to identify the assessment strategies involved in pedagogical tasks assisted with ChatGPT. The instrument application measured the data through the observation of conditions.

Regarding the formative assessment, displaying confidence when asking or answering questions and using appropriate language were the conditions to observe. Confidence was an observed condition in most of the participants meanwhile every participant employed an appropriate language during the performance of the pedagogical task. In the formative assessment as an ongoing process of evaluating participants' learning during the instructional period, the teacher provided timely

guidance on how using ChatGPT exclusively to avoid interfering with the participants' performance in task execution. This way, it was possible to adjust the chatbot's manipulation to get efficacy in the procedures that involved AI integration.

For the peer assessment, the instrument seeks to evaluate the effectiveness of communication in a simulated real-life scenario and interaction in a real situation, both conditions required the use of ChatGPT. The former condition was slightly observed because the participants struggled to achieve an effective communication during the performance of a role-play, more precisely, they encountered difficulties with dialogue follow-up and word misunderstanding. As for the latter, the majority of the participants interacted in a real situation with normality and smugness. Overall, the feedback on each other's performance contributed to task completion. The peer assessment helped the participants to gain new perspectives while collaborating for a common goal.

Self-assessment is the process in which the participants evaluated their own work concerning effective time management in task completion and appropriate language use. A major group of participants managed time in an effective manner to complete the pedagogical task within the set time. Similarly, most of the participants used appropriate language to express themselves during a conversation. Even though conversation is an activity that requires two or more participants, the evaluation of their own performance transpired individually. It was a process of modifying, adjusting and changing verbal arguments during rehearsal.

In conclusion, ChatGPT proved to be an efficient tool in the different assessment strategies, generating positive outcomes and bestowing a variety of improvements in English language communication during the performance of pedagogical tasks.

5.2. RECOMMENDATIONS

As of today, ChatGPT continues updating and incorporating new features for better user engagement, gifted by the rapid advancements in the fields of Artificial Intelligence and modern technologies. The accessibility to AI products becomes more and more common which provides the perfect scenario of opportunities for investigation with the purpose of integrating these tools' utility within society's practices from the most basic ones to those of high complexity.

Evidently, there is still much to research about these trending chatbots that could potentially benefit education. Studying the challenges and limitations in using Artificial Intelligence with pedagogical purposes might help to refine these tools' employment in learning practices in upcoming research. Particularly, this study prioritized the benefits of implementing ChatGPT in improving a selection of speaking skills without acknowledging the negative impact of educational uses or potential drawbacks; for instance, over-reliance on technology or the ethical concerns in equitable access to Artificial Intelligence technology. Therefore, it is recommended to inspect these areas.

Another recommendation is to explore a broader range of learning methodologies and approaches that can be incorporated with AI. This research focused on the implementation of ChatGPT with the Action-Oriented Approach as a communicative methodology that emphasizes the students' role as social agents in the performance of pedagogical tasks. However, it is worth considering how other frameworks might complement or expand the effectiveness of AI chatbots in learning practices. By analyzing the interplay between emerging technologies and pedagogical innovation, future research may enlarge the resources that generate competence success.

Finally, it is important to mention that the participants used the free version of ChatGPT, meaning that some features were not available for a complete interactive experience. In case of some of the participant's apps, the free-trial for the advanced voice mode had already expired by the time they initiated the tasks. This feature holds a great potential for conversation purposes that was not employed at all in some cases or with regularity in some others. Researching about this and other features may add new findings that could enhance AI's role, provide valuable insights or uncover overlooked aspects not treated in this research.

CHAPTER VI

PROPOSAL

6.1. PROPOSAL OF THE RESEARCH

This research proposal emerges from the utmost need of adding up a pedagogical strategy that leads to competence success in English language communication. ChatGPT is presented as a supportive and interactive tool that can intervene into the learning experiences of EFL students in search of improving their speaking skills. Therefore, this study's main goal is to identify the benefits of implementing ChatGPT as a pedagogical tool in improving speaking skills for a student population.

6.2. PLACE TO BE DEVELOPED

This proposal is implemented at Unidad Pedagógica El Roble in Santa Barbara in the province of Heredia, a MEP'S public institution from Circuito 03 at Dirección Regional de Heredia (DRH). This high school has ninety-three students enrolled in eighth grade, being this the target population for this research.

6.3. OBJECTIVES OF THE PROPOSAL

6.3.1. General Objective

a) To analyze the benefits of implementing ChatGPT as a pedagogical tool in improving speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

6.3.2. Specific Objectives

a) To identify the benefits of using ChatGPT in improving the speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

b) To identify mediation strategies from the Action-Oriented Approach for self-guided learning of the English language through the use of ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

c) To identify the assessment strategies in pedagogical tasks assisted with ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

6.4. DESCRIPTION OF PEDAGOGICAL TASKS

Based on the Action-Oriented Approach, ChatGPT is implemented in the performance of pedagogical tasks aimed to build and hone speaking skills. As per the linguistic competences for oral production, they are defined as speaking interaction (SI) and speaking production (SP). The participants perform English language tasks related to these two linguistic competences. For speaking interaction, the student's role is of a speaker and listener. On the other hand, speaking production involves the individual oral production addressed to an audience. Moreover, the themes employed in this research are subjects or disciplinary topics for discourse, conversation or composition. The goals proposed in MEP's curriculum are can-do performance descriptors which outlines the specific skills the students can perform within a particular role or context.

In order to assess the participants' performance regarding speaking skills at a pre-test stage, a thematic speech is proposed from unit #3 of the English syllabus for eighth grade. The theme is "Let's celebrate: Holidays and Festivals around the World." The speaking production goal is to describe a holiday, celebration and festival in a short presentation, prepared in advance but not read, in pair-share or small group. The

participants have five minutes to prepare a speech about a chosen festival celebrated in Costa Rica or worldwide. Then, each participant presents to their classmates' audience without exceeding the two minutes assigned for speech. Similarly, the participants are assessed in a language task concerning any improvements in their speaking skills after implementing of ChatGPT. This post-test is proposed as the final evaluation. At this point, the participants are allowed to use ChatGPT in preparation for their dialogues. The time for preparation is, once again, five minutes. However, the participants have no time restriction in this occasion. The theme is "How can I get there?" included in Unit #4 from the English syllabus. The speaking production goal is to tell a simple direction (e.g., how to get to a location) as well as offers simple explanations to others. By using a city map on the whiteboard, the participants role-play a situation in which they exchange information to get to a specific place.

As regards to the mediation strategies, this proposal suggests the interview, role-play and conversation as techniques to facilitate task completion without the guidance or support of the teacher. Nevertheless, the participants receive from the teacher the instructional procedures and explanations previous to the task development. From there, they perform the assigned task without any intervention from the teacher. In this scenario, the assessed linguistic competence for oral production is speaking interaction. Each mediation strategy has a fifteen-minute planning and ten-minute execution.

REFERENCES

Abbott, M. & McKinney, J. (2013). Understanding and Applying Research Design. John Wiley & Sons.

Adamopoulou, E & Moussiades, L. (2020). An Overview of Chatbot Technology. IFIP Advances in Information and Communication Technology. DOI: 10.1007/978-3-030-49186-4_31

Burns, A. (2019). Concepts for Teaching Speaking in the English Language Classroom. LEARN Journal: Language Education and Acquisition Research Network Journal, *Volume 12, Issue 1, January 2019.* https://files.eric.ed.gov/fulltext/EJ1225673.pdf

Campos, F. (1994). Raíces de mi Pueblo: Una Visión al Pasado para Comprender el Presente. Imprenta Nacional.

Cook, V. (Eds). (2013). Second Language Learning and Language Teaching. Routledge, Taylor & Francis Group. https://books.google.co.cr/books?id=Ma0uAgAAQBAJ&pg=PA67&hl=es&source=gbs_toc_r&cad=1#v=onepage&q&f=false

Creswell, J. (2014) Research Design. Qualitative, Quantitative and Mixed Methods Approaches. (4th Ed). SAGE Publications. https://archive.org/details/methodology-alobatnic-libraries-creswell/page/n185/mode/2

Creswell, J. & Creswell, J. (2018) Research Design. Qualitative, Quantitative and Mixed Methods Approaches. (5th Ed). SAGE Publications. https://extranet.ogs.edu/ogsdial/upload/OXFORD/2024/2643/resources/Creswell_2018.pdf

Gray, D. (2014). Doing Research in the Real World. (2nd Ed). SAGE Publications. https://books.google.co.cr/books?id=l4dEQTQl1NYC&printsec=frontcover&hl=es&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Haristiani, N., Danuwijaya, A., Rifa, M. & Sarila, H. (2019). Gengobot: A Chatbot-Based Grammar Application on Mobile Instant Messaging as Language Learning Medium. Journal of Engineering Science and Technology. *Vol 14, No. 6 (2019)* 3158–3173

Huddlestone, R & Pullum, G. (2005). A Student's Introduction to English Grammar. Cambridge University Press. https://archive.org/details/studentsintroduc0000hudd/page/n5/mode/2up

Knill, O., Carlsson, J., Chi, A., & Lezama, M. An Artificial Intelligence Experiment in College Math Education. Harvard Mathematics Department. https://people.math.harvard.edu/~knill/preprints/sofia.pdf

Kothari, C. (2004). Research Methodology. Methods and Techniques. (2nd Ed). New Age International (P). https://archive.org/details/researchmethodol0000koth

Long, M. (2015). Second Language Acquisition and Task-Based Language Teaching. (1st Ed). Wiley Blackwell. DOI: 2014015377

Ministerio de Educación Pública (2016). Programas de Estudio de Inglés Tercer Ciclo de la Educación General Básica y Educación Diversificada.

Morris, P & Sarapin, S. (2020). Mobile phones in the classroom: Policies and potential pedagogy. Journal of Media Literacy Education, 12(1), 57-69, 2020 https://doi.org/10.23860/JMLE-2020-12-1-5 ISSN: 2167-8715

Nº 34425-MEP-COMEX (2008, March 28). Declaratoria de Interés Público y Nacional La Iniciativa Gubernamental Denominada “Costa Rica Multilingüe.” La Gaceta. https://www.imprentanacional.go.cr/pub/2008/03/28/COMP_28_03_2008.html#_Toc194385851

Neff, G & Nagy, P. (2016). Talking to Bots: Symbiotic Agency and the Case of Tay. International Journal of Communication 10:4915-4931 https://www.researchgate.net/publication/309101946_Talking_to_Bots_Symbiotic_Agency_and_the_Case_of_Tay

Nilsson, N. (2010). The Quest for Artificial Intelligence: A History of Ideas and Achievements. Cambridge University Press. https://archive.org/details/questforartifici0000nils/page/n5/mode/2up

Nimavat, K. & Champaneria, T. (2017). Chatbots: An overview Types, Architecture, Tools and Future Possibilities. International Journal for Scientific Research & Development. *Vol. 5, Issue 07, 2017* | ISSN (online): 2321-0613

Nunan, D. (2003). Practical English Language Teaching. McGraw-Hill. https://archive.org/details/practicalenglish0000nuna/page/n3/mode/2up?q=fluency

Nunan, D. (2004) Task-Based Language Teaching. (1st Ed). Cambridge University Press. https://archive.org/details/taskbasedlanguag0000nuna

Nguyen, Dinh., Nguyễn, Lộc., & Tran, Tuyen. (2021). Task-Based Approach: An Overview. European Journal of English Language Teaching. DOI: 10.46827/ejel.v7i1.4090

OECD (2015). The Measurement of Scientific, Technological and Innovation Activities Frascati Manual 2015 Guidelines for Collecting and Reporting Data on Research and Experimental Development. https://www.oecd.org/en/publications/frascati-manual-2015_9789264239012-en.html

Parupalli, R. (2019). The Importance of Speaking Skills in English Classrooms. VS Publications. Alford Council of International English & Literature Journal (ACIELJ) *Vol-2, Issue-2 ,2019* ISSN:2581-6500

Programa Estado de la Nación (2021). Octavo Informe Estado de la Educación. CONARE. https://estadonacion.or.cr/?informes=informe-estado-de-la-nacion-2021

Programa Estado de la Nación (2023). Noveno Informe Estado de la Educación. CONARE. https://estadonacion.or.cr/?informes=informe-estado-de-la-educacion-2023

Robles, S. (2019). Going back to the Action-Oriented Approach: reading the new contributions in the Companion Volume of CEFR (2017). Alabe Revista de Investigación sobre Lectura y Escritura 10(19):1-17
DOI: 10.15645/Alabe2019.19.10

Roos, S. (2018). Chatbots in Education: A Passing Trend or a Valuable Pedagogical Tool? Department of Informatics and Media, Uppsala University. https://www.diva-portal.org/smash/get/diva2:1223692/FULLTEXT01.pdf

Russell & Norvig (2010). Artificial Intelligence. A Modern Approach. (3rd Ed). Pearson Education. https://archive.org/details/artificial-intelligence-modern-approach-3rd-ed.-russell-norvig/page/27/mode/2up?view=theater&q=DEFINITION+AI

Samuda, V. & Bygate, M. (2008). Tasks in Second Language Learning. (1st Ed). Palgrave Macmillan.

Sánchez, A. (2004). The Task-based Approach in Language Teaching. International Journal of English Studies. https://www.academia.edu/6024886/The_Task_based_Approach_in_Language_Teaching

Schmitt, N. (2000). Vocabulary n Language Teaching. Cambridge University Press. https://archive.org/details/vocabularyinlang0000schm/mode/2up?q=VOCABULARY

Sunyoung, K., Shim, J., & Shim J. (2023). A Study on the Utilization of OpenAI ChatGPT as a Second Language Learning Tool. Journal of Multimedia Information System. DOI: https://doi.org/10.33851/JMIS.2023.10.1.79

Tiu, J., Sibonghanoy, E., Osias, K., Balicoco, R., Wenceslao, S. & Asentado, D. (2023) Enhancing Oral Proficiency: Effective Strategies for Teaching Speaking Skills in Communication Classrooms. International Multi-Disciplinary Journal of Education. *Volume 1, Issue No. 6 (2023)* | ISSN: 2994-9521

Tuomi, I. (2018). The Impact of Artificial Intelligence on Learning, Teaching, and Education: Policies for the Future. Publications Office of the European Union. DOI: 10.2760/12297

Urmilla, Rai. (2010). English Language Communication Skills. (1st Ed). Himalaya Publishing House.

Willis, J. (1996). A Framework for Task-based Learning. Pearson Education Limited. https://archive.org/details/frameworkfortask0000jane/page/n3/mode/2up

Zemčík, T. (2019). A Brief History of Chatbots. DEStech Transactions on Computer Science and Engineering. DOI: 10.12783/dtcse/aicae2019/31439

ANNEXES

Pre-Test

Objective: To identify the benefits of using ChatGPT in improving the speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

Description: This checklist is designed with the purpose of assessing the participants' performance regarding oral production before the implementation of ChatGPT as a pedagogical tool. Students prepare and get familiar with the topic in advance before being assessed. It is expected to hear spontaneous responses.

Aspects to Evaluate	Needs Improvement	Barely Acceptable	Satisfactory
1. Do students employ topic-related vocabulary?			
2. Do students speak with absence of Spanish language words?			
3. Do students use correct grammar structures?			
4. Do students show coherence during the speech?			
5. Do students have accurate pronunciation of words?			
6. Do students connect word sounds when speaking?			
7. Do students maintain a natural flow of speech?			
8. Do students speak without excessive pauses?			

Post-Test

Objective: To identify the benefits of using ChatGPT in improving the speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

Description: This checklist is designed with the purpose of assessing the participants' performance regarding oral production after the implementation of ChatGPT as a pedagogical tool. Students prepare and get familiar with the topic in advance before being assessed. It is expected to hear spontaneous responses.

Aspects to Evaluate	Needs Improvement	Barely Acceptable	Satisfactory
1. Do students employ topic-related vocabulary?			
2. Do students speak with absence of Spanish language words?			
3. Do students use correct grammar structures?			
4. Do students show coherence during the speech?			
5. Do students have accurate pronunciation of words?			
6. Do students connect word sounds when speaking?			
7. Do students maintain a natural flow of speech?			
8. Do students speak without excessive pauses?			

Questionnaire Survey

Objective: To identify the benefits of using ChatGPT in improving the speaking skills in eighth graders from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

Description: This questionnaire survey is designed with the purpose of identifying the benefits of using ChatGPT in improving the speaking skills in eighth graders. Based on their experience and interaction, students respond a set of 8 close-ended questions about implementing ChatGPT as a pedagogical tool to support their speaking skills during oral production.

1. Do you think that ChatGPT facilitated the completion of tasks regarding speaking English?
   - **a)** Yes, significantly.
   - **b)** No. Tasks are still difficult to complete.
2. Did using ChatGPT increase your vocabulary options in oral production?
   - **a)** Yes, indeed.
   - **b)** Not at all.
3. Do you agree with the use of ChatGPT for a more accurate pronunciation?
   - **a)** I agree.
   - **b)** I disagree.
4. Was ChatGPT a helpful tool in the grammar structures employed for conversation tasks?
   - **a)** Yes, it was a helpful tool.
   - **b)** No, it was not.

5. Do you feel more confident in engaging in conversations in English after using ChatGPT?
   - **a)** Yes. I feel more confident.
   - **b)** Not really.
6. Can you speak more natural and avoid excessive pauses with the help of ChatGPT?
   - **a)** Yes, I can.
   - **b)** No. I cannot.
7. Do you consider ChatGPT as a source of beneficial suggestions and feedback?
   - **a)** Yes, highly beneficial.
   - **b)** No. I do not consider it a beneficial source.
8. Are you able to perform tasks in real-life scenarios easily if ChatGPT is available?
   - **a)** Definitely.

Semantic Differential Scale

Objective: To identify mediation strategies from the Action-Oriented Approach for self-guided learning of the English language through the use of ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

Description: This Semantic Differential Scale has the purpose of identifying appropriate mediation strategies for self-guided learning of the English language through the use of ChatGPT. It measures the engagement of the participants with the AI tool in real-life scenarios proposed with the task-based approach.

Based on your experience while working with ChatGPT, write a check mark on the number representing the level of usefulness 

1. Active Engagement (engage in interactive activities, conversations or simulated interviews)

1 Not Useful	2	3	4	5 Useful
◎	◎	◎	◎	◎

2. Personalized Vocabulary Building (ask for definition, sentence example, etc.)

1 Not Useful	2	3	4	5 Useful
◎	◎	◎	◎	◎

3. Error Correction and Feedback (identify, correct mistakes and request explanations)

1 Not Useful	2	3	4	5 Useful
◎	◎	◎	◎	◎

4. Speaking Practice through Role-play (engage in role-play scenarios to practice conversations)

1 Not Useful	2	3	4	5 Useful
◎	◎	◎	◎	◎

5. Writing Prompts and Reviews (ask for feedback on sentence structure, coherence and vocabulary use. Rewrite sentences to sound more natural)

1 Not Useful	2	3	4	5 Useful
◎	◎	◎	◎	◎

6. Pronunciation Practice (offer phonetic transcriptions or guidance on how to pronounce words)

1 Not Useful	2	3	4	5 Useful
◎	◎	◎	◎	◎

Checklist

Objective: To identify the assessment strategies in pedagogical tasks assisted with ChatGPT from Unidad Pedagógica El Roble in Santa Barbara, Heredia during the III quarter 2024.

Description: This instrument seeks to identify the assessment strategies used to evaluate pedagogical tasks from the observation of students' performance while implementing ChatGPT. For the purpose of this study and nature of the tasks, three types of assessments have been chosen.

Evaluating aspects:	**Aspect observed in assessment**	
	No	**Yes**
1. Formative assessment in peer-led interview.		
Students display confidence when asking or answering questions.		
Students use appropriate language for an interview.		
2. Peer assessment in role-play.		
Students use effective communication in simulated real-life scenarios.		
Students interact like in a real situation.		
3. Self-assessment in conversation.		
Students manage time effectively to complete a task.		
Students use appropriate language in a conversation.		