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TITLE

AI Chatbot Interaction on Enhancing Strategic Competence in B1 EFL students.

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DEDICATORY

First of all, I want to dedicate this work to God who has been fundamental in the accomplishment of this work. Finally, to my mother, but for her it would not have been possible to study this master's degree as she plays an important role in my life.

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ABSTRACT

Language learning teaching has been impacted by Artificial Intelligence (AI) and the tools it provides have become an important tool in developing the necessary communicative skills. This research is to find the effect of the AI chatbot interaction for enhancing the learners' strategic competence in B1 English as a Foreign Language (EFL) learners at Colegio Bilingüe Marie Clarac. Based in communicative language teaching and theory of strategic competence, the research design is characterized as mixed methods, comprising pre- and post-test assessments, surveys and interviews to explore chatbot-mediated language learning. The study investigates how planning, monitoring and regulation strategies for effective communication are encouraged by chatbot interactions. It is found that AI chatbots help improve learners' structure of discourse, self-monitor language use, and exploit repair strategies that are conducive to increased conversational fluency and autonomy. Results from the statistical analyses show significant increases in indicators of strategic competence following the intervention, echoing strong evidence of the utility of AI feedback and adaptive scaffolding. This study adds to the existing knowledge base on AI assisted language learning showing how chatbots can be used as apt learning tools in terms of being interactive, responsive, and as a personalised tool of learning. Finally, this research ends with the recommendation on including AI chatbots into EFL curricula to complement the learners' competence gaps in the use of strategies and promote communicative proficiency in real life settings. Longitudinal impacts and the scalability of chatbot mediated learning across different linguistic and educational contexts is a field for future research.

Keywords: AI Chatbots, Strategic Competence, EFL Learning, Language Acquisition, Communicative Strategies

RESUMEN

La enseñanza del aprendizaje de idiomas se ha visto impactada por la Inteligencia Artificial (IA) y las herramientas que ésta proporciona se han convertido en un instrumento importante para el desarrollo de las habilidades comunicativas necesarias. El objetivo de esta investigación es medir el efecto de la interacción con chatbots de IA para mejorar la competencia estratégica de los estudiantes B1 de inglés como lengua extranjera (EFL) en el Colegio Bilingüe Marie Clarac. Basado en la enseñanza comunicativa de idiomas y la teoría de la competencia estratégica, el diseño de la investigación se caracteriza como métodos mixtos, que comprenden evaluaciones pre y post-test, encuestas y entrevistas para explorar el aprendizaje del Inglés mediado por chatbot. El estudio investiga cómo las interacciones con chatbots fomentan las estrategias de planificación, control y regulación para una comunicación eficaz. Se constata que los chatbots de IA ayudan a mejorar la estructura del discurso de los alumnos, a autocontrolar el uso de la lengua y a explotar estrategias de reparación que favorecen el aumento de la fluidez y la autonomía conversacional. Los resultados de los análisis estadísticos muestran aumentos significativos en los indicadores de competencia estratégica tras la intervención, lo que constituye una prueba fehaciente de la utilidad de la retroalimentación y el andamiaje adaptativo de la IA. Este estudio se suma a la base de conocimientos existente sobre el aprendizaje de idiomas asistido por IA, mostrando cómo los chatbots pueden utilizarse como herramientas de aprendizaje aptas en términos de interactividad, capacidad de respuesta y como herramienta personalizada de aprendizaje. Por último, esta investigación concluye con la recomendación de incluir chatbots de IA en los planes de estudio de EFL para acompañar a los alumnos en el uso de estrategias y promover la competencia comunicativa en contextos de la vida real. Los impactos longitudinales y la escalabilidad del aprendizaje mediado por chatbots en diferentes contextos lingüísticos y educativos es un campo para futuras investigaciones.

Palabras clave: Chatbots de IA, Competencia estratégica, Aprendizaje EFL, Adquisición de lenguas, Estrategias comunicativas.

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INTRODUCTION

General background

The integration of AI in education has the potential to revolutionize language learning, particularly in enhancing strategic competence among B1 English as a Foreign Language (EFL) learners. Strategic competence is defined as the ability to use language learning strategies effectively and is crucial for language acquisition and communication success (Oxford, 2017). Despite the importance of this skill, many EFL learners, even those from privileged backgrounds, lack well-developed strategic competence (Gilakjani, 2017). AI chatbots, such as those studied by Karunarathne et al. (2024), Majorana et al. (2022), and Michalon & Camacho-Zuñiga (2023), have shown promise in providing personalized, real-time support that enhances learning experiences and outcomes. These tools offer tailored assistance, promote self-directed learning, and foster continuous engagement, which are essential for developing strategic competence. Additionally, AI chatbots can address the diverse needs of students and provide support outside traditional classroom hours, making them a valuable resource in educational settings. The positive feedback from students and educators alike underscores the potential of AI chatbots in facilitating the acquisition of strategic competence among B1 learners, suggesting a promising direction for future research and implementation. Effective communication hinges on proficient speaking skills which is often recognized as the toughest challenge for EFL learners. Proficiency in speaking enables learners to communicate ideas effectively, participate in conversations, and engage in academic as well as social interactions. Nonetheless, many EFL students find it difficult to speak because of limited vocabulary, issues with pronunciation, and fear of making errors. These issues may affect their overall competency and confidence when it comes to using the foreign language. As a result, there is a great need to improve speaking skills so that learners can use English in real-life contexts with much ease.

This study aims to address this gap in the speaking skill by investigating the impact of AI chatbot interaction on the strategic competence of B1 learners at Colegio Bilingüe Marie Clarac in Tumbaco, Ecuador.

Problem to be investigated and the elements that justify the problem

This study assumes that meaningful interaction in the form of multiple conversations with AI chatbots will boost strategic competence of B1-level language learners through real-

life communicative practice and instant feedback. Namely, how helpful will the application of structured conversations mediated by AI chatbots be to develop learners' use of communication strategies? AI chatbot interactions are expected to establish a low-anxiety setting that guides fluency through strong and mindful training, which in return is expected to foster strategic competence and subsequent improvement of learners' communicative competence in B1 in the target language. In addition, this technological intervention is anticipated to enhance learners' ability to handle communication difficulties, coordinate meaning making and monitor conversation more effectively than traditional classroom instruction.

The problem to be investigated is the lack of strategic competence in the speaking skill in B1 EFL learners at Colegio Bilingüe Marie Clarac. This deficiency manifests as hesitancy in communication, difficulty understanding authentic materials, and limited use of language learning strategies. The sociocultural and economic context of these learners, who come from affluent families and attending a prestigious school may contribute to this problem. They may have limited exposure to diverse language environments and may be less accustomed to independent learning. In the context of EFL education, speaking is often perceived as the most anxiety-inducing skill, leading to reluctance and reduced participation among learners. Such anxiety might be due to fear of negative judgment, low self-esteem, or bad past experiences with speaking activities. As a result, they might refrain from challenging speaking tasks which forms a barrier towards their oral skills improvement. To solve this problem, there is a need to foster supportive environments that are low on anxiety to facilitate confidence and practice. These learners can freely use AI chatbots as conversational partners without the fear AI writing detectors.

AI chatbots provide personalized feedback, scaffolding, and opportunities for autonomous learning, which are essential for developing strategic competence. Strategic competence is crucial for language acquisition as it enables learners to effectively use language strategies to communicate and learn (Oxford, 2017). Despite this, many B1 EFL learners lack well developed strategic competence, hindering their progress in language learning (Gilakjani, 2017). Studies by Sha (2009) and Kohnke et al. (2023) have shown that AI chatbots can significantly enhance language learning by engaging learners in interactive and personalized dialogues, which promote deeper understanding and retention of language concepts.

Additionally, the unique sociocultural and economic context of the target learners in Colegio Bilingüe Marie Clarac in Tumbaco, Ecuador, necessitates research to understand

how AI chatbot interaction can be effectively tailored to their specific needs and challenges. At Colegio Bilingüe Marie Clarac, while students receive substantial instruction in English, opportunities for authentic speaking practice outside the classroom may be limited. This limitation can impede the development of spontaneous speaking skills and the ability to handle real-life communicative situations. Integrating AI chatbots into the learning environment can bridge this gap by offering additional platforms for students to engage in meaningful conversations, thereby enhancing their speaking proficiency and strategic competence.

The implementation of AI chatbots in educational settings has shown promising results in providing consistent, real-time support to learners, thus overcoming barriers such as limited access to qualified language instructors and individualized attention (Kavak et al., 2024. Chang, 2023). Moreover, the ability of AI chatbots to adapt to the pace and style of individual students makes them an invaluable tool in fostering strategic competence. By providing instant feedback and creating an engaging learning environment, AI chatbots can help B1 learners develop the skills necessary to navigate and succeed in their language learning journey.

Precision of the topic

This research proposal clearly fits the Universidad Bolivariana del Ecuador's research line of study labelled as 'Innovation and Applied Technologies', in focusing on the usage of artificial intelligence in language education via the enhanced application of modern chatbot technology, and the subline "Pedagogical Innovation". Here, the application of AI chatbots as an innovation defines a new direction in EFL based on the development of strategic competence for B1 level learners in the Ecuadorian context. To tackle the issue of integrating new methods of language teaching based on the latest technologies helping to present an individual, adaptive, and effective learning process, this investigation lays its focus. This research does not only fall in line with the technological advancement that the Universidad Bolivariana del Ecuador is fostering in educational setting, but also addresses the need for more advanced interaction that embraces artificial intelligence for the better teaching and learning process in order to align with the technological demands of the contemporary society. The ability to speak fluently is not only important for learners at an individual level but also has important societal consequences. Fluently skilled speakers can better engage in global interactions, receive more educational and career opportunities, and productively work in diverse environments. By using AI chatbots to improve speaking skills, learners are able to

better integrate socially, move freely, fulfill private needs, and respond to public demands for skilled communicators in a globalized society.Moreover, this study attempts to justify the effectiveness of the computational linguistics and the application of artificial intelligence system in increasing the strategic competence as a solution to actual educational issues, which serves the university's mission of advancing applied research that applies theories to practical applications in the technological realm.

Research object

The object of this research delves into the intricate dynamics of the teaching-learning process of English as a foreign language (EFL), with a specific emphasis on nurturing strategic competence in B1 learners through innovative AI chatbot interaction. It explores how the integration of AI chatbots within the EFL classroom can create a unique and engaging learning environment that fosters the development of essential communication strategies. This encompasses investigating the extent to which AI chatbot interaction can enhance learners' ability to overcome linguistic obstacles, negotiate meaning, and achieve communicative goals effectively. Additionally, the research aims to examine the diverse ways in which AI chatbots can provide personalized feedback, tailored scaffolding, and targeted practice opportunities, ultimately empowering B1 learners to become more autonomous and confident language users. By scrutinizing the multifaceted interplay between AI chatbot interaction and strategic competence development, this research seeks to contribute valuable insights to the field of EFL pedagogy and inform the design of future language learning interventions.

Research Aim

The central objective of this research is to investigate the impact of AI chatbot interaction on enhancing strategic competence in B1 EFL learners. To accomplish this, the study will employ a mixed-methods approach, seamlessly integrating quantitative and qualitative data collection and analysis techniques.

Specific Research Objectives

The specific objectives of the research are threefold:

To identify the specific strategic competence gaps in the target learners.

To evaluate the efficacy of the AI chatbot intervention in enhancing strategic competence.

To explore the perceptions of B1-level students regarding the impact of AI chatbot interaction on enhancing strategic competence

Conceptual and operational categories

The rapid evolution of artificial intelligence (AI) has sparked a transformative wave across various sectors, and education stands at the forefront of this revolution. Within the realm of language acquisition, AI chatbots have emerged as a beacon of innovation, promising to enhance learners' strategic competence significantly. These sophisticated conversational agents, driven by natural language processing and machine learning, offer a dynamic and interactive platform for language practice and skill refinement. By simulating real-life conversations and providing personalized feedback, AI chatbots have the potential to reshape how learners acquire and employ language strategies, ultimately empowering them to become more effective and confident communicators.

Strategic competence, a cornerstone of language proficiency as defined by the Common European Framework of Reference for Languages (CEFR), encompasses the ability to deploy a diverse range of communication strategies to navigate linguistic hurdles and achieve communicative goals. It involves meticulous planning, execution, and monitoring of communication, coupled with the adept utilization of repair strategies when breakdowns occur. This competence is particularly crucial for language learners at the B1 level, marking their transition from basic to independent language use. However, research has illuminated a concerning gap: students with strong grammar and vocabulary may still struggle to communicate effectively due to insufficient strategic competence (Alem, 2020). This deficiency manifests as hesitancy in communication, difficulty comprehending authentic materials, and a limited repertoire of language learning strategies, impeding their progress and confidence in language acquisition.

Research approaches and Methodology

The research will leverage a variety of data collection methods, including pre- and post-tests, surveys, and interviews. To achieve its objectives, this research will embrace a mixed-methods approach, artfully weaving together quantitative and qualitative data collection and analysis techniques. This multifaceted approach allows for a comprehensive exploration of the research questions, drawing upon the strengths of both numerical and descriptive data.

This research is firmly rooted in the theoretical frameworks of communicative language teaching (CLT) and language learning strategies. CLT underscores the importance of meaningful communication and the use of language in authentic contexts (Richards & Rodgers, 2014). Language learning strategies, on the other hand, pertain to the specific actions and techniques that learners employ to facilitate language acquisition and use (Oxford, 2017). The integration of AI chatbots harmonizes with both frameworks by providing learners with opportunities for interactive and personalized language practice that fosters the development of strategic competence.

The research design will adhere to a pre-test, intervention, and post-test model. The pre-test will assess learners' baseline levels of strategic competence, followed by an intervention period during which learners will actively interact with the AI chatbot. The post-test will then measure any shifts in strategic competence, enabling an evaluation of the intervention's effectiveness.

Research Instruments

Quantitative Methods will play a pivotal role in measuring the tangible impact of AI chatbot interaction on strategic competence. A Likert-scale survey will be used to assess students' initial awareness of strategic competence and their perceptions of AI chatbot interactions. The survey includes items measuring domains such as conversation planning, adaptability, and regulation strategies. Responses will provide baseline data to inform the intervention's design and subsequent analysis of changes post-intervention (Johnson & Onwuegbuzie, 2018).

Pre- and post-tests will be meticulously administered to gauge any shifts in learners' strategic prowess. These tests will be designed to assess students' ability to deploy a range of language learning strategies, such as deciphering meaning from context, utilizing reference materials, and proactively seeking clarification. The resultant data will then be subjected to rigorous statistical analysis to ascertain the significance of any observed changes, providing empirical evidence of the chatbot's influence.

Qualitative Methods will add depth and richness to the research findings by capturing the learners' subjective experiences and perceptions. Open-ended interviews will be conducted with a select group of students, delving into their encounters with the AI chatbot and its perceived impact on their learning. These interviews will provide a window into the learners' strategies for utilizing the chatbot, the challenges they faced, and their overall impressions of the chatbot's strengths and weaknesses. The interview data will be

meticulously analyzed using thematic analysis, a method that systematically identifies and interprets patterns and themes within the data, offering nuanced insights into the learners' perspectives.

Beneficiaries of the proposal

The targeted learners in the Edinburgh B2 class are teenage students, 14 – 17 years of age, mostly Ecuadorian, who obtained a B1 level of English proficiency, by a PET Mock test. As a result of prior learning they have an initial level of mastery of the language and the skills involved in learning any language – vocabulary and grammar. This is due to varying interests of the participants which include technologies, travelling, world culture, among other interests such as job prospects and desire for education abroad after completing high school. Most students are audiovisual learners, learning best in classes that include use of multimedia teaching aids. They show a sort of attitude that include a positive view when it comes to learning English as an important tool in the modern world. Moreover, they recognize the value of intercultural sensitivity, and show great concern for the cultures of Anglophone nations and effects of these cultures on international communication. This awareness actually drives them to use the language because they feel that through this language they will open up to greater opportunities in life. However, they may exhibit a lack of strategic competence and be less accustomed to independent learning. The distinctive sociocultural and economic context of these learners underscores the necessity for research to understand how AI chatbot interaction can be effectively tailored to their specific needs and challenges.

Research Context

This research endeavor aims to delve into the impact of AI chatbot interaction on enhancing strategic competence in B1 English as a Foreign Language (EFL) learners at Colegio Marie Clarac in Tumbaco, Ecuador. Colegio Marie Clarac follows a well-articulated program that incorporates English in a morning shift in order to facilitate improvement of the language on the students. The English subject load consists of two main components: EFL which consists of six weekly periods (40 min each), and LP of four weekly periods (40 min each). Altogether, the scores of these two subjects make up the total of 10, where EFL comprises 80% of the total and LP – 20%. In more detail, the EFL component covers grammar, listening, reading and vocabulary areas, and the LP component – speaking and writing. The institution comprises English levels arranged from A1 to C1+; each level is named by a city’s name- the U.S. cities for upper elementary school, and the U.K. cities for

baccalaureate learners. The institution is registered to the school district 17D09 and AMIE Code of 17H03050. At the end of senior year students are expected to take an international test basing on the level of the proficiency attained.

Practical Contributions, importance and social need

The importance of this study can be viewed in a number of dimensions: All these dimensions have significance towards the concerns and advancement of the use of AI chatbots in language instruction. On the practical level, the study provides the educators with insights as to what AI chatbots are and how they might be applied to education to enhance the speaking skill through strategic competence with the help of powerful tools that will enable teachers to shift from the technical aspect of AI in terms of implementing it into a classroom setting successfully. Thus, when highlighting the possibilities of using chatbots in education, the work empowers teachers to design more meaningful and developmental activities so students can develop strong interpersonal skills with reference to communication difficulties. On a methodological level, the study has the possibility of stimulating the generation of fresh techniques in teaching strategic competence in EFL settings. Therefore, the opportunity to understand the interprofessional relations between AI chatbot interaction and the learning of communication strategies may be the critical path to future instructional models that afford communication development in L2. Technologically, the work provides evidence of the possibilities opened up by AI chatbots to education in languages. Thus, by having highlighted the applicability of this technology in the development of the speaking skill through strategic competence indicated in the study, more research will be conducted into this technology that may result in the creation of more effective uses of chatbots in the future. Last of all, the research concerns a significant social issue by addressing the inconvenient truth that EFL learners seem to be strategically incompetent. In sharping students' communication skills with regard to real-life interactions, the research adds to their mastery of language and helps prepare them in a global village.

Contents of each chapter

All in all, this research aspires to explore the transformative potential of AI chatbots in enhancing strategic competence among B1 EFL learners. Introduction of the research proposal contains background information, problem formulation, objectives of this research, and the corresponding methods. This chapter includes an evaluation of the context for the research with the rationale for the topic, a well-defined topic that is in line with the

institution, and the statements of the research object, aim, and specific objectives. Further, it provides a description of the conceptually defined sub areas and research tools, beneficiaries, the context of application and practical contributions, raising the sense of relevance and pressing social demand for the intended proposal. Chapter 1 expands the theoretical framework based on the specification from the research matrix. It describes the operational matrix in terms of AI Chatbot Interaction and Strategic Competence, specifying the conversation domain, structure, learning objective, adaptivity, management scaffolding, feedback, dialogue, planning, monitoring and regulation. This research framework helps organise the earnings in a clear and logical manner when assessing the effects of interactions with the AI chatbot on strategic competence. In Chapter 2, the research theoretical methods of analysis-synthesis, inductive-deductive, and systemic-structural methods are outlined. It profiles the quantitative and qualitative research approach and defines the instruments used for data collection including pre-treatment questionnaires, knowledge assessment pre and post-tests, and follow-up open-ended interview questionnaires. The chapter also includes an intervention plan with four lesson plans conducted in four weeks where students practice all parts of the FCE speaking exam with AI chatbot assistance. Finally, in Chapter 3 the proposal validation is presented along with the discussion of the analysis of the results obtained as well as the conclusions and recommendations.

CHAPTER 1
THEORETICAL FRAMEWORK

The integration of artificial intelligence (AI) in language learning, particularly through chatbots, has gained increasing attention in recent years for its impact has become crucial in the teaching of English as a Foreign Language (EFL). Strategic competence, one of the dimensions of communicative competence, is defined as the ability to effectively use communication strategies to overcome language barriers as well as to effectively manage communication breakdowns and maintain the flow of conversation resulting in enhanced interaction (Dörnyei & Thurrell, 1991). Strategic competence is crucial for learners to navigate real-life communication scenarios, making it a key area of interest for EFL researchers and educators. This chapter describes the theoretical foundation of the study on the impact of AI chatbot interaction in developing strategic competence among B1 level EFL learners. Drawing from the literature, it explores two primary variables: AI chatbot interaction as well as, strategic competence. The Focus dimension of the AI chatbot interaction, first, defines factors like conversation domain, structure, and learning objectives. The second one, the Adaptivity, focuses on how the chatbot is built to give targeted feedback and scaffold learner progress. The third dimension, Dialogue Management, considers the complexity, accuracy, and fluency of interactions. In parallel, strategic competence is examined across three dimensions: Planning refers to the processes of goal setting and information gathering; Monitoring which involves conversation flow, comprehension and problem-solving; Regulation entails self-evaluation, error correction and, repair strategies.

These antecedents provide the framework by which endeavours in AI chatbots could be utilized to advance strategic thinking in language acquisition, and communicative competence. Based on the findings of previous studies, the use of AI technologies in language learning provides a potential solution to helping learners overcome difficulties in the development of those skills.

1.1 Research background

The integration of AI chatbots in teaching English as a foreign language (EFL) has shown significant potential in enhancing strategic competence. Kavak et al. (2024) explored the multifaceted role of ChatGPT in language education, highlighting its benefits in personalized feedback and customized lesson planning, which are crucial for strategic competence development (Kavak et al., 2024). On the other hand, Pitychoutis (2024) has discussed the transformative potential of AI chatbots in EFL essay writing, emphasizing their

role in offering immediate, personalized feedback and fostering a learner-centered environment (Pitychoutis, 2024). Besides, Shikun et al. (2024) presented findings on how AI chatbots can develop English language proficiency in Chinese middle school students, creating a stress-free and non-competitive learning environment conducive to strategic competence (Shikun et al., 2024). In the study of Amin (2023) it was examined the broader implications of AI and ChatGPT in EFL education, highlighting their role in personalized learning and real-time language practice, which enhance strategic communication skills (Amin, 2023). Overall, these studies collectively underline the potential of AI chatbots to revolutionize EFL teaching by promoting strategic competence through personalized, adaptive, and responsive learning experiences.

Advancements in educational technology have paved the way for innovative approaches to language learning. Within this context, Doris Dippold's article examines the repair strategies users employ when interacting with task-oriented chatbots, revealing that the most commonly used strategies, such as rephrasing, are not always the most effective. It highlights the importance of strategic competence, which enables users to recognize and address misunderstandings in a flexible manner, which is crucial for navigating interactions where chatbots lack contextual understanding (Dippold, 2023). This competence involves the ability to adapt language and communicative strategies to maximize the effectiveness of the interaction, suggesting that users must develop specific skills to interact effectively with artificial intelligence, including quickly identifying problems and implementing appropriate alternatives in their communication.

In the quest to enhance communicative skills, researchers have explored the efficacy of innovative technological tools. Fryer and Carpenter (2006) also delved into the use of AI chatbots to enhance EFL students' conversational skills. They acknowledged the constraints of traditional classroom settings, where opportunities for authentic conversation practice are often limited. To address this issue, they investigated whether chatbot interactions could offer a viable alternative. Through a quantitative methodology, involving standardized tests and analysis of strategy use, they observed a marked increase in strategic competence among participants following chatbot interactions (Fryer & Carpenter, 2006). Specifically, learners became more adept at managing communication breakdowns, a skill that is crucial in real-world interactions. In a role-play scenario involving a restaurant reservation, students could practice using strategies like asking for repetition or confirming details with a chatbot, thereby boosting their confidence and fluency in handling communication challenges.

The incorporation of AI-driven tools in educational settings promises innovative solutions to traditional pedagogical challenges. The article "AI Chatbots in English Language Teaching and Learning: A Critical Review" examines the transformative role of artificial intelligence chatbots in English language teaching, especially in the post-COVID-19 context (Thi Quynh Anh, 2024). Through a mixed methods approach, the study investigates how interaction with chatbots can improve students' strategic competence by providing personalized feedback and fostering self-directed learning. The findings suggest that chatbots not only increase student motivation and satisfaction, but also facilitate the development of critical and problem-solving skills, essential elements for navigating an increasingly digitized and competitive work environment. Integrating these tools into English language learning allows students to better adapt to the demands of the 4.0 job market, improving their ability to communicate effectively and make strategic decisions in their educational process.

As the demand for innovative language teaching tools grows, AI chatbots have emerged as a promising solution. Griol and Molina (2014) in the article "An approach to develop intelligent learning environments by means of immersive virtual worlds" explored the use of Immersive Virtual Environments (IVEs) and Artificial Intelligence techniques to create interactive learning environments (Griol et al., 2014). It focused on the integration of conversational agents, or "metabots", that facilitate oral and visual interaction between students and educational systems, thus improving communication and accessibility. The research highlights that interaction with these chatbots not only fosters collaboration and active learning, but also enhances students' strategic competence by allowing them to explore, experiment and solve problems in a dynamic virtual environment. The results show that students experience an increase in their engagement and understanding of complex concepts, suggesting that the implementation of chatbots in learning environments may be a key factor in developing strategic skills in modern education.. For example, in a group project, students could practice using strategies like summarizing or clarifying with a chatbot to ensure mutual understanding and avoid communication breakdowns.

Recent advancements in educational technology have highlighted the potential of AI chatbots as effective language learning tools. Valeriia Kalenska explored the use of artificial intelligence chatbots in training future teachers, especially in the current educational context of Ukraine (Kalenska, 2024). It highlighted that interaction with chatbots, such as ChatGPT, can significantly improve students' strategic competence by providing an adaptive and accessible learning environment. Chatbots allow learners to customize their learning experience according to their styles, which fosters motivation and confidence in language

use. In addition, the feedback provided by these systems helps learners reflect on their communication skills, which is crucial for the development of strategic competencies. However, the article also mentions disadvantages, such as the possibility of generating misinformation and the need for technical skills to interact effectively with these tools, which highlights the importance of establishing clear guidelines for their implementation in education.

The pursuit of effective language teaching tools has driven researchers to examine the benefits of AI chatbot interactions. The article by Bibauw, François, and Desmet (2022) explored the use of dialogue systems, such as chatbots, in language learning, focusing on their potential to improve learners' strategic competence (Bibauw et al., 2022). Through interactions with chatbots, learners can practice oral and written production in a low-stakes environment, allowing them to develop meaning negotiation skills and receive immediate feedback. The findings suggest that these interactions not only increase language fluency and accuracy, but also foster greater confidence and willingness to communicate, which is critical for strategic competence. In addition, the article highlights the importance of appropriate instructional design that aligns with learning objectives, suggesting that effective implementation of chatbots can offer significant opportunities for autonomous practice and the development of communication skills in diverse contexts.

The integration of AI chatbots into EFL education has shown considerable promise in enhancing strategic competence. The studies reviewed highlight the effectiveness of chatbot interactions in providing real-time conversational practice, immediate feedback, and personalized learning experiences, all of which are crucial for developing learners' ability to manage communication breakdowns and maintain the flow of conversation. As AI technology continues to evolve, its application in language education offers exciting possibilities for improving strategic competence and overall communicative proficiency in EFL learners. Future research should continue to explore the long-term effects of chatbot interactions and investigate ways to integrate these tools seamlessly into existing language curricula. By harnessing the power of AI chatbots, EFL educators can empower their students with the strategic competence necessary to navigate the complexities of real-world communication and achieve their language learning goals, particularly those associated to breakdowns in communication which hinder fluency.

1.2 Independent Variable: AI Chatbot Interaction

AI chatbots, described as intelligent systems designed to interact with users using natural language (Følstad & Brandtzaeg, 2017), offer an innovative platform for language learners. These chatbots provide immediate, personalized feedback, creating a dynamic learning environment (Du & Daniel, 2024). By simulating real-life conversations, chatbots enable learners to practice and enhance their language skills. As Hill et al. (2015) emphasize on that despite the limitations of chatbots, users engage in extensive interactions with them, indicating that these AI systems manage to capture user interest (Hill et al., 2015). These interactions emerging from the usage of AI chatbots is pivotal in providing consistent practice and reinforcing language use in various contexts.

AI chatbot interactions are increasingly recognized for their potential to enhance language learning, especially for B1 students. Studies suggest that AI chatbots facilitate cognitive, metacognitive, and social learning by offering immediate feedback and scaffolding that adjusts to learners' needs. Hidayat-ur-Rehman (2024) emphasizes the importance of AI competence and chatbot usage in digital informal learning, highlighting their role in fostering student engagement through personalized, autonomous interactions (Hidayat-ur-Rehman, 2024). Similarly, Karunarathne et al. (2024) detailed the use of AI-supported chatbots in large classes, which provide personalized assistance and practice questions, promoting an inclusive and reflective learning environment (Karunarathne et al., 2024). Lan et al. (2024) focused on AI chatbots' role in developing self-learning competence by creating environments conducive to inquiry and practice (Lan et al., 2024). Chang (2023) investigates the use of chatbots in Tourism English instruction, demonstrating improved intercultural communicative competence through interactive and problem-solving tasks (Chang, 2023). Lastly, Annamalai et al. (2023) argues that AI chatbots significantly enhance the development of strategic competence in EFL learners by providing continuous opportunities for practice and interaction without the fear of judgment. They help students improve specific communication strategies, such as error identification and clarification, fostering greater confidence in language use. Additionally, chatbots offer personalized feedback, allowing learners to adapt their strategies and enhance their overall language proficiency effectively (Annamalai et al., 2023). These findings collectively underscore the transformative potential of AI chatbots in enhancing strategic competence through structured, adaptive, and interactive learning experiences.

Dimension 1: Focus

In the context of AI chatbot interaction, "Focus" refers to the targeted aspects of the chatbot's conversational capabilities that aim to enhance language learning outcomes (Følstad & Brandtzæg, 2017; Griol et al., 2014; Hill et al., 2015). It encompasses the structured design and implementation of chatbot interactions that directly contribute to the development of English language communication, particularly strategic competence in language learners (Følstad & Brandtzæg, 2017). Focus is a critical dimension because it ensures that the chatbot interactions are purposeful, relevant, and aligned with educational goals, thereby maximizing their effectiveness in language acquisition.

Domain of Conversation

The conversational domains refer to the specific topics or areas covered during interactions (Scott, 2006). It is a vital dimension of focus because it determines the scope and relevance of the dialogues that learners engage in. For B1 students, the domain of conversation should be broad enough to cover various everyday situations but tailored to include scenarios that are pertinent to their learning needs. For example, an AI chatbot might engage students in conversations about ordering food, making travel arrangements, or discussing hobbies (Ahmed et al., 2022). By doing so, the chatbot exposes learners to a wide range of vocabulary and language structures, which is essential for building strategic competence.

Research shows that domain-specific conversations help learners internalize language patterns and contextualize their usage (Kim, 2018). According to Huang et al. (2020), chatbots that simulate real-life scenarios allow learners to practice language in context, enhancing their ability to use language strategically in various situations (Huang et al., 2022). Furthermore, Hill et al. (2015) emphasize that engaging in meaningful dialogues through chatbots helps reinforce language use and aids in the retention of new vocabulary and grammatical structures (Hill et al., 2015). By focusing on relevant domains, AI chatbots provide a comprehensive platform for learners to develop and enhance their strategic competence in language use.

Conversation Structure

Conversation structure for this research refers to the organization and flow of interactions between the chatbot and the learner (Ponting et al., 2019). It is a crucial dimension of focus because a well-structured conversation can facilitate more effective learning. Structured interactions typically follow a logical sequence, starting with simpler exchanges and gradually progressing to more complex dialogues (Guebba, 2021). This

scaffolding approach helps learners build confidence and competence step by step. According to Huang et al. (2023), well-structured chatbot conversations enhance learners' strategic competence by providing them with a predictable yet flexible framework to practice various language functions (Huang et al., 2022). For instance, a chatbot might begin a conversation with a simple greeting, followed by a question about the learner's day, and then move on to a more complex task such as planning an event. Such structured interactions are beneficial as they provide a clear framework within which learners can practice and apply their language skills.

Additionally, structured conversations allow for immediate feedback and correction, which are critical for language learning. AI chatbots can offer instant feedback on learners' responses, helping them to correct mistakes and improve their language use in real-time (Thi Quynh Anh, 2024). This immediate feedback loop is essential for developing strategic competence as it allows learners to refine their language skills continuously.

Learning Objective

The learning objective is the specific goal that each chatbot interaction aims to achieve. It is a fundamental dimension of focus because it ensures that each conversation has a clear educational purpose (S. Zhang et al., 2023). For example, a chatbot might be designed to help learners practice using the past tense by engaging them in conversations about past experiences. Alternatively, it might focus on enhancing conversational skills by simulating a job interview scenario. According to Jeon (2024), having clear learning objectives helps in designing chatbot interactions that are aligned with educational outcomes, making the learning process more effective (Jeon, 2024). Learning objectives can vary from improving specific language skills, such as grammar or vocabulary, to developing broader communicative competencies, such as fluency or cultural understanding.

AI chatbots can adapt to the individual learning needs of students, providing personalized interactions that are tailored to their specific goals. As noted by Baskara (2023), personalized chatbot interactions can significantly improve learning outcomes by providing targeted practice and support (Baskara, 2023). This adaptability is crucial for enhancing strategic competence as it allows teachers to adjust activities to focus on areas where students need the most improvement.

All in all, focus, through its dimensions of domain of conversation, conversation structure, and learning objective, entails a pivotal role in enhancing strategic competence among B1 students. Strategic competence involves the ability to use language effectively and appropriately in various contexts, which is cultivated through consistent practice and

meaningful interactions. AI chatbots, by providing structured and purposeful interactions, help learners develop the ability to navigate different conversational domains, understand and utilize various conversation structures, and achieve specific learning objectives. This comprehensive approach ensures that learners are not only practicing language but also developing the strategies needed to use it effectively in real-life situations

Dimension 2: Adaptivity

Adaptivity in the context of AI chatbot interaction refers to the system's ability to tailor its responses and instructional strategies to the individual learner's needs and progress (Baskara, 2023; Clark & Mayer, 2016). This dimension is essential because it ensures that the chatbot can provide personalized learning experiences that address the unique challenges and strengths of each student. By dynamically adjusting its interactions based on real-time data, an adaptive chatbot can enhance learning efficiency and effectiveness, making it a crucial aspect of strategic competence development.

Adaptivity is significant in language learning as it accommodates the diverse proficiency levels, learning paces, and styles of B1 students. For instance, if a student consistently struggles with a particular grammatical structure, the chatbot can provide additional practice and explanations tailored to that area, thereby supporting the learner's specific needs. This personalized approach is fundamental to fostering strategic competence, as it helps learners develop the skills to manage their learning processes and apply language effectively in various contexts.

Scaffolding Level

The term "scaffolding level" describes the assistance and direction an AI chatbot offers during the learning process. In educational theory, scaffolding is a method that involves offering successive levels of temporary support to help learners achieve higher levels of understanding and skill acquisition (Graham, 2016). In the context of AI chatbots, scaffolding is a dimension of adaptivity because it allows the system to adjust the amount and type of support based on the learner's current level of competence and progress (Jeon, 2024). This graduated support helps learners build confidence and autonomy in their language use, which are critical components of strategic competence.

For example, a chatbot might begin a dialogue with a B1 student by providing detailed prompts and hints to help them construct sentences correctly. As the student's proficiency improves, the chatbot gradually reduces the level of support, encouraging the student to apply their knowledge more independently.

Research by Clark and Mayer (2016) emphasizes that effective scaffolding can significantly enhance learning outcomes by providing the right amount of challenge and support (Clark & Mayer, 2016). Similarly, Zhang et al. (2023) noted that adaptive scaffolding in chatbot interactions can help maintain learner engagement and motivation, leading to better language acquisition (S. Zhang et al., 2023). By adjusting the scaffolding level, AI chatbots ensure that learners receive appropriate support at each stage of their learning journey, facilitating the development of strategic competence.

Feedback Type

The AI chatbot's nature and delivery of corrective information in response to learner inputs are referred to as feedback type. Different types of feedback, such as immediate corrective feedback, explanatory feedback, and motivational feedback, can be tailored to meet the learner's needs and enhance their learning experience (Graham, 2016). It is a crucial dimension of adaptivity because feedback plays a vital role in the learning process, helping learners understand their mistakes, reinforce correct responses, and guide their progress.

In everyday English teaching practice, AI chatbots can provide immediate corrective feedback by highlighting errors in the learner's responses and offering suggestions for improvement (Bibauw et al., 2022). Explanatory feedback, on the other hand, might involve a more detailed explanation of why a particular response is incorrect and how to improve it (Graham, 2016). For instance, if a student incorrectly uses a verb tense, the chatbot might point out the error and provide an example of the correct usage.

Studies by Hattie and Timperley (2007) showed that timely and specific feedback is one of the most powerful influences on student achievement (Hattie & Timperley, 2007). AI chatbots, with their ability to deliver immediate and personalized feedback, can significantly enhance the learning process. Furthermore, feedback that includes motivational elements, such as positive reinforcement and encouragement, can help maintain learner engagement and confidence.

The impact of adaptive feedback on strategic competence is profound. As learners receive tailored feedback that addresses their specific needs and errors, they develop a better understanding of language rules and usage (Bibauw et al., 2022). This process helps them become more adept at monitoring their language use, recognizing mistakes, and applying corrective strategies independently . According to Vygotsky's theory of the Zone of Proximal Development, adaptive feedback helps learners operate within their optimal learning zone, where they can achieve higher levels of competence with appropriate support.

The adaptivity of AI chatbots, through its dimensions of scaffolding level and feedback type, plays a critical role in enhancing strategic competence among B1 students. Adaptive chatbot interactions provide the necessary support and guidance that enable learners to develop these strategies. This continuous, personalized interaction helps learners become more strategic in their language learning, improving their ability to use English effectively and appropriately. By providing personalized and responsive support, AI chatbots create an optimal learning environment that fosters strategic language use and promotes continuous improvement.

Dimension 3: Dialogue Management

When discussing AI chatbot engagement, "dialogue management" refers to the system's capacity to successfully manage and steer dialogues (Ali, 2024). This includes managing the flow of dialogue, understanding user inputs, and providing coherent and contextually appropriate responses. As a critical dimension of AI chatbot interaction, dialogue management ensures that conversations are meaningful and productive, which is essential for facilitating language learning and enhancing strategic competence (Ellis, 2005; Skehan, 1998; Thornbury, 2005). Effective dialogue management allows the chatbot to simulate real-life conversational dynamics, providing learners with valuable practice in using language in various contexts.

Complexity

The ability of a chatbot to manage complex, multi-layered interactions is referred to as complexity (Belda-Medina & Calvo-Ferrer, 2022). This dimension is crucial because it reflects the depth and breadth of the chatbot's conversational capabilities, which are necessary for challenging learners and promoting cognitive engagement (Du & Daniel, 2024). Complex dialogues often involve multiple conversational turns, embedded clauses, and varying levels of abstraction, all of which contribute to a richer language learning experience (Chapelle & Sauro, 2017). For example, in an English language teaching practice, a chatbot might engage a B1 student in a complex conversation about planning a trip. The conversation could involve discussing preferences, comparing options, negotiating details, and making final decisions.

According to Skehan (1998), tasks with higher complexity can lead to greater language development as they push learners to expand their linguistic resources and use language more creatively and flexibly (Skehan, 1998). Such interactions require the learner to use a range of language skills, including vocabulary, grammar, and pragmatics

Accuracy

The capacity of the chatbot to provide replies that are both contextually relevant and grammatically accurate is known as accuracy. (Wollny et al., 2021). This dimension is essential because it ensures that learners are exposed to correct language models, which is critical for developing their linguistic accuracy (Thi Quynh Anh, 2024). Accurate dialogues help learners internalize correct language forms and use them appropriately in different contexts.

In English language teaching practice, a chatbot designed to improve accuracy might correct a student's errors in real-time, providing explanations and examples of the correct usage (Belda-Medina & Calvo-Ferrer, 2022). Research by Ellis (2005) highlights the importance of accurate feedback in language learning, noting that it helps learners refine their language use and avoid fossilizing errors (Ellis, 2005). For instance, if a student incorrectly uses "there" instead of "their," the chatbot can provide the correct form and explain the difference between the two words.

Fluency

In dialogue management, fluency refers to the chatbot's capacity to support seamless and uninterrupted discussions (Bibauw et al., 2022). This dimension is important because it encourages learners to produce language more spontaneously and naturally, which is essential for developing communicative competence (Du & Daniel, 2024). Fluent dialogues help learners build confidence in their speaking abilities and improve their ability to use language effectively in real-time interactions.

According to Thornbury (2005), fluency practice is crucial for helping learners develop the ability to speak confidently and competently in various situations (Thornbury, 2005). In everyday English teaching practice, a chatbot might engage students in role-play scenarios where they need to respond quickly and coherently, such as making small talk at a social event or handling a customer service inquiry. These interactions help learners practice maintaining the flow of conversation without excessive hesitation or pauses.

The dimensions of complexity, accuracy, and fluency within dialogue management significantly impact the development and enhancement of strategic competence in language learners. Complex dialogues challenge learners to think critically and use language creatively, thereby expanding their strategic repertoire. Alternatively, accurate dialogues provide correct language models, helping learners internalize proper forms and avoid common errors. Finally, fluent dialogues encourage spontaneous language use, building learners' confidence and communicative competence. Together, these dimensions ensure that AI chatbot interactions

are not only engaging and interactive but also conducive to comprehensive language development.

1.3 Dependent Variable: Strategic Competence

The development of strategic competence is crucial for enhancing communication in English as a foreign language. Shaik (2024) explores the multidimensional nature of communication proficiency, emphasizing the interplay of linguistic, sociolinguistic, and strategic competencies in shaping communicative abilities. This study highlights the importance of cultural awareness, context sensitivity, and adaptability in real-world communication scenarios (Shaik, 2024). Another significant contribution by Kamil and Anuar (2022) examines employers' viewpoints on strategic competence for workplace communication, underscoring the importance of metacognitive and cognitive strategies to overcome communication breakdowns in professional settings (Kamil & Anuar, 2022). Malykhin et al. (2024) discuss strategic approaches to enhancing communicative competence in English learning, revealing the need for tailored support and increased practice opportunities to address specific challenges in grammar, speaking, and writing (Malykhin et al., 2024). Additionally, Zhang et al. (2022) provide empirical evidence on the relationships among strategic competence, task complexity, and speaking performance in EFL learners, highlighting the moderating role of strategic competence on task performance (W. Zhang et al., 2024). Lastly, an article by the Akeshova et al. (2023) outlines effective methods for forming strategic competence in English teaching using information technologies, stressing the importance of strategic planning and cognitive skills in the communication process (Akeshova et al., 2023). These resources collectively provide a comprehensive understanding of strategic competence and its impact on communication in English as a foreign language.

With respect to speaking, it involves the mastering of verbal and nonverbal strategies in the handling of communication difficulties and in communicating meaning. The communicative competence of this facet allows learners to get around in gaps in linguistic knowledge and to undertake conversation, despite the potential obstacles. Dawit (2020) discusses strategic competence as the capacity of the use of communication strategies in order to counter communication problems in the course of the information transfer and therefore successful interaction.

Strategic competence goes beyond its facilitation of communicative effectiveness; it promotes learner autonomy through extending students’ capacity to cope with unexpected conversational turns and breakdowns of communication (Shaik, 2024). During real life

interactions speakers incur on gaps in linguistic, and hence can make use of a variety of strategies which can include paraphrasing, clarification requests and circumlocution (Kamil & Anuar, 2022). An AI chatbot interaction, as a form of a controlled but flexible environment, is where learners will practice these skills in real time and refine their ability to do things like manage dialogue interruptions, self corrects their error, as well as negotiate and make sense out of meaning (Malykhin, E., Gelman, A., and Baker, S. 2024). Through the practice of persistent chatting mediated by the chatbot, students are more resilient communicators who are equipped with the knowledge and ability to handle a better sophisticated discourse structure, and express their thoughts more fluently, thus enhancing their strategic competence and the overall communicative proficiency (W. Zhang et al., 2024).

In the context of speaking, strategic competence is crucial to effective responding in real time, i.e., immediate responses, and thereby effective managing real time interactions. With well-developed strategic competence, learners may be able to opportunely use tactics of paraphrasing, request clarification, and use fillers in response to unexpected conversational turns. Oktaviana (2021) suggests that in conversation, when the learners fail to grasp something or the lexical gaps appear, they will resort to repair strategies to maintain the coherence of dialogue, otherwise the dialogue can be interrupted or slowed down thus depriving the information flow.

Dimension 1: Planning

Planning is a critical dimension of strategic competence, encompassing the ability to organize, sequence, and prioritize actions to achieve specific communicative goals (Graham, 2016). In the context of language learning, planning involves preparing for communication tasks by considering the linguistic and pragmatic resources required (W. Zhang et al., 2021a). It is essential for developing strategic competence because it enables learners to anticipate potential challenges and plan effective responses, thereby improving their ability to use language purposefully and coherently.

According to Ellis (2005), planning helps learners focus on form and content, enhancing their overall language performance. Planning in language learning involves activities such as outlining the main points of a conversation, predicting possible questions, and preparing appropriate responses (Ellis, 2005). For instance, a B1 student might plan a dialogue for a shopping scenario by thinking about the phrases and vocabulary needed to ask for prices, describe products, and negotiate discounts.

Planning a speaking task helps address potential obstacles and formulate methods for overcoming those challenges. This advanced thinking is important to consider when aiming

to maintain fluency and coherence during conversations. In one example, Zhang et al. 2021 conducted a study that showed learners who participated in extensive planning prior to performing speaking tasks were more fluent, less anxious, and communicated more effectively.

Goal Setting

Goal setting is a subdimension of strategic competence and refers to the process of identifying specific objectives that a learner aims to achieve during a communicative task. It is a crucial component of planning because clear goals provide direction and purpose, guiding learners in their preparation and execution of language tasks (W. Zhang et al., 2021a). In the context of AI chatbot interaction, goal setting helps learners concentrate on achieving specific outcomes, such as mastering particular grammatical structures, expanding vocabulary, or improving conversational skills (Jeon, 2024). For example, a student might use an AI chatbot to practice ordering food in a restaurant, setting a goal to use polite requests and questions accurately.

Focusing on achivement helps learners hone in on the communication skills they need to improve, be it, proper pronunciation, or intonation, or mastering the use of complex sentence structures. This helps in tracking improvement as well as contributes to further enhancement of proficiency in speaking skills. Evidence suggests that learners who focus on specific, attainable goals during speaking practice demonstrate greater improvement in those areas, thus, increasing their strategic competence.

By focusing on a communicative goal, the learner can plan their interactions more effectively, selecting appropriate phrases and practicing their use in context. Research by Locke and Latham (2002) highlights that goal setting enhances motivation and performance, thus providing learners with clear targets and measurable outcomes will spark a boost in their intrinsic motivation.

AI chatbots can support goal setting by prompting learners to define their objectives before starting a conversation. For instance, the chatbot might ask, "What do you want to achieve in today's practice session?" This question encourages learners to reflect on their goals and plan their interactions accordingly. Such targeted practice helps learners develop strategic competence by aligning their efforts with specific communicative objectives.

The effective setting of language learning goals will facilitate the motivation and engagement of students and set a clear roadmap in their language communicative development (W. Zhang et al., 2021a). Setting up specific short term and long term goals like mastering modal verbs for polite request, using polite request in conversation, or improving

pronunciation in complex sentence structure helps them to be more intentional about learning (Jeon, 2024). AI Chatbots drive the goals of conversations, encouraging the learners to measure the progress, improvement and modifying the goals according to that. By iteratively consuming the learning practice, we gain learner confidence and reinforce self regulation and autonomous learning practice—fundamental factors of strategic competence (Locke & Latham, 2002). Aligning AI chatbot practice with CEFR proficiency descriptors enables learners to reach the communicative milestones in a gradual manner and continue that progression over the long term in terms of replacing strategic communication skills besides not only retaining them.

Information Gathering

Planning also includes the process of assembling and arranging pertinent data that is required to complete a communication task. This is known as information gathering (Herrera Chávez, 2024). In language learning, information gathering might involve researching vocabulary, cultural norms, or topic-specific content that can aid in effective communication (Graham, 2016). This skill is essential for strategic competence because it enables learners to access and use the necessary linguistic and contextual knowledge to achieve their goals.

For instance, a B1 student preparing for a job interview might use an AI chatbot to practice answering common interview questions. Before the practice session, the student could gather information about the company, the job role, and appropriate interview etiquette. This preparation ensures that the learner is well-equipped to handle the conversation and respond confidently to various questions. According to Brown (2007), information gathering is a fundamental and relatable to strategic competence, as it allows learners to make informed decisions and engage in meaningful communication (Brown, 2007). This support helps learners access relevant information and integrate it into their practice sessions, enhancing their ability to communicate effectively. Preparing content and context for discussions aids learners participate in meaningful conversations. This is essential for engaging in conversations absent from routine discussion or in professional environments where specialized vocabulary is needed. For example, learners that are expected to argue about environmental topics would gather appropriate vocabulary and contemporary issues for discussions prior to the debates.

AI chatbots can facilitate information gathering by providing resources and feedback tailored to the learner's needs. For example, a chatbot might offer links to articles, vocabulary lists, or cultural tips related to the topic of conversation.

The integration of planning, goal setting, and information gathering within AI chatbot interactions significantly benefits the development of strategic competence in English language learners. Strategic competence is cultivated through deliberate and targeted practice and effective planning enables learners to anticipate challenges and prepare appropriate responses, improving their ability to handle real-life communicative tasks. Besides, goal setting provides direction and motivation, helping learners focus their efforts on specific outcomes and measure their progress. Finally, Information gathering ensures that learners have access to the necessary resources and knowledge to engage in meaningful communication.

AI chatbots, with their adaptive and interactive capabilities, provide an ideal platform for practicing these skills. By simulating real-life conversations and offering personalized feedback, chatbots help learners develop the strategic competence needed to navigate complex communicative scenarios. Learners who practiced with AI chatbots would show significant improvements in their ability to manage conversations, use language strategically, and adapt to different communicative contexts.

Another essential aspect of effective communication is the capacity to collect, process and integrate pertinent information strategically (Herrera Chávez, 2024). In this case, AI chatbots can fill the demonstration- application gap by creating interactive prompts that motivate learners to find contexts of related word, cultural distinction and grammar structure prior to a conversation (Graham, 2016). The process of this video is the same principle of real life, because speakers need to easily access the organized information and sound like they didn’t give a blank moment to keep coherence of the dialogue (Brown, 2007). In addition, the chatbot assisted information retrieval exercises help learners to distinguish between the formal and informal register, therefore, to use the correct register of expressions in proper context. Such practice does make one more linguistically adaptable, which is quite a fundamental skill in managing a wide variety of communicative situations.

Dimension 2: Monitoring

A crucial component of strategic competence is monitoring, which includes the capacity to evaluate oneself and control one's language use in conversation. This involves being aware of and adjusting one's speech for accuracy, coherence, and appropriateness in real-time (W. Zhang et al., 2021b). Monitoring is essential for strategic competence because it helps learners identify and correct errors, ensure their messages are understood, and maintain effective communication (Lanka & Bidu, 2017). By continuously evaluating their

language performance, learners can adapt their strategies to achieve their communicative goals more effectively.

The ability to monitor one's speech activities in real-time is critical for effective communication. Speech monitoring refers to using laanguage in a particular way and watching one's actions and changing them as necessary in order to make them exact. For instance, a learner may make a grammatical mistake in the middle of a sentence, but in order to avoid misunderstanding, he needs to fix it right away. This self-regulator is important for the quality of interaction and for speaking, is an example of strategic competence.

In the context of AI chatbot interactions, monitoring involves the chatbot providing feedback and prompts that encourage learners to reflect on their language use. This process helps learners develop a habit of self-monitoring, which is crucial for improving strategic competence (Li et al., 2024). For example, if a learner uses incorrect grammar, the chatbot might highlight the mistake and suggest corrections, prompting the learner to adjust their output.

Conversation Flow

The smooth progression of conversation without needless pauses or breakdowns is referred to as conversation flow (Parab, 2020). It is a dimension of monitoring because maintaining the flow of conversation requires ongoing self-assessment and adjustment (Lanka & Bidu, 2017). Effective conversation flow ensures that interactions are coherent and engaging, which is vital for successful communication.

For instance, in an English language teaching practice, a chatbot might help a learner practice conversation flow by simulating a casual chat scenario. The chatbot could guide the learner through the conversation by asking follow-up questions and prompting them to elaborate on their responses.

Research by Thornbury (2005) emphasizes the importance of conversation flow in language learning, noting that it helps learners become more fluent and confident speakers (Thornbury, 2005). AI chatbots can enhance conversation flow by providing real-time feedback and suggestions, helping learners to maintain the momentum of their interactions and develop their strategic competence (Bibauw et al., 2022). This practice helps learners develop the ability to keep conversations going, which is essential for real-life interactions.

In order to maintain natural conversation flow, learners must surpass the turn-taking boundary, recognize signals from fellow conversers, and respond accordingly to the interaction. Learners who possess high strategic competence can manage interruptions, change subjects, and re-engage with the addressee which is very important in speaking.

Oktaviana (2021) stated that learners who possess the above stated skills are more able to conduct real life conversations without significant pauses and breakdowns.

Developing a natural rhythm in conversation is critical for fluency and coherence in language use (Parab, 2020). AI chatbots provide learners with a safe environment to engage in sustained discourse, helping them practice turn-taking, topic maintenance, and transition strategies (Lanka & Bidu, 2017). These elements are essential for ensuring that dialogues progress smoothly without abrupt pauses or breakdowns (Thornbury, 2005). By engaging in multiple chatbot-led interactions, learners improve their ability to sustain longer exchanges, practice relevant discourse markers, and develop a more instinctive conversational style. This results in enhanced speaking fluency, reducing hesitations and unnatural silences, which often impede real-world communication effectiveness (Bibauw et al., 2022).

Comprehension

Understanding spoken or written language accurately is referred to as comprehension. (Graham, 2016). It is a dimension of monitoring because it involves continuously checking and confirming one's understanding of the input received during communication (Darmajanti, 2020; Parab, 2020). Effective comprehension is crucial for responding appropriately and maintaining the coherence of the conversation.

In practice, an AI chatbot might help a B1 student improve their comprehension skills by engaging them in listening exercises or reading passages followed by comprehension questions. The chatbot can provide immediate feedback on the learner's responses, highlighting areas where they misunderstood or missed key information (Annamalai et al., 2023). This interactive practice helps learners develop better comprehension skills, which are essential for effective communication.

Studies by Anderson and Lynch (1988) show that comprehension is a vital component of strategic competence as it enables learners to process and respond to information accurately (Anderson & Lynch, 1988). AI chatbots can support the development of comprehension skills by offering personalized practice and feedback, helping learners to monitor and improve their understanding. Effective comprehension in speaking is not only about words that are stated, but also about words that carry meaning, emotion, and built culture around them. Such understanding enables learners to respond as considered appropriate and keep the communicative relevance of the conversation. For example, understanding sarcasm or humor demands higher level of comprehension.

Effective communication is beyond just understanding as it also involves correctly interpreting the meaning – especially in the event of ambiguity or cultural nuance (Graham

2016). Interactions with the AI chatbot expose the learner to a variety of syntactic structures, idiomatic phrases, and a wide range of speech pattern (Darmajanti, 2020). Results from these studies indicate that listening into AI driven conversations has a positive effect on comprehension due to learners' acquisition of important discourse markers and contextual clues in the conversation (Anderson & Lynch, 1988). Moreover, chatbot driven interactions also reinforce metacognitive awareness among the learners to evaluate their own metacognition and request further clarification proactively which supports strategic competence (Annamalai et al. 2023).

Problem Solving

In the context of language learning, problem solving refers to the capacity to recognize and resolve communication breakdowns (Parab, 2020). It is a dimension of monitoring because it involves recognizing when a problem occurs and taking steps to resolve it (Fauziati, 2015). Effective problem solving ensures that communication can continue smoothly even when challenges arise.

For example, if a learner is unable to understand a word used by the chatbot, they might use strategies such as asking for clarification, requesting a synonym, or checking a dictionary. The chatbot can facilitate this process by providing hints, rephrasing its responses, or offering additional context (Du & Daniel, 2024). This interaction helps learners develop problem-solving skills, which are crucial for maintaining effective communication in real-life situations.

Research by Dörnyei and Scott (1997) highlights the importance of problem-solving strategies in language learning, noting that they enable learners to manage and overcome communicative challenges (Dörnyei & Scott, 1997). AI chatbots can enhance problem-solving skills by simulating real-life communication breakdowns and guiding learners through the process of resolving them. In speaking, problem-solving skills allow students to deal with gaps in understanding, resolve ambiguities, and cope with new topics. For instance, when a learner hears a word they do not understand, they may ask to repeat it, give a short description, or try to figure it out based on the situation. These tactics enable the learner to actively engage in a conversation without the risk of losing communication and breakdown which improves their confidence and competence in speaking.

The integration of monitoring, conversation flow, comprehension, and problem-solving within AI chatbot interactions significantly benefits the development of strategic competence in English language learners. Firstly, effective monitoring enables learners to continuously assess and adjust their language use, improving their accuracy and

appropriateness. Maintaining conversation flow helps learners keep interactions engaging and coherent, which is crucial for real-life communication. Secondly, developing comprehension skills ensures that learners can accurately understand and respond to input, maintaining the coherence of their conversations. Finally, enhancing problem-solving skills enables learners to address and overcome communication breakdowns, ensuring that interactions can continue smoothly even when challenges arise.

Effective troubleshooting of communication barriers is a hallmark of strategic competence (Parab, 2020). Thus, the learners who find it difficult to retrieve the words, organize sentences or to answer the unexpected questions would use avoidance strategies, thereby restricting their linguistic development (Fauziati, 2015). AI chatbots assist in solving the problem by helping students find other ways to perceive it, for instance, seeing anew a way of rewriting the sentences, a way of asking for clarification, or a way of interpreting visual clues within the context (Dörnyei & Scott, 1997). That these techniques contribute to the learners' ability to have more flexibility in conversations, even when they momentarily forgot something the language they needed. Through chatbot led course of problem solving, students develop a portfolio of repair strategies, which will let students to problem solve real world linguistic problems more confidently and deftly over time (Du & Daniel, 2024).

Dimension 3: Regulation

The ability to regulate and control one's language use and learning processes is referred to as regulation in the context of language learning (W. Zhang et al., 2021b). It is a crucial dimension of strategic competence because it encompasses the skills needed to monitor, assess, and adjust language output to meet communicative goals (Tadayon & Ravand, 2016). Effective regulation involves ongoing self-assessment and adjustment to ensure that communication remains accurate, appropriate, and effective (Huang et al., 2022). This self-regulatory ability is essential for learners to navigate various communicative situations successfully and improve their language proficiency over time.

Regulation in speaking involves managing one's cognitive and emotional processes to maintain effective communication. This includes controlling anxiety, staying focused on the conversational topic, and adapting language use to suit the context and audience. For instance, a learner might consciously slow their speech to enhance clarity during a formal presentation. Developing regulatory skills is essential for achieving communicative goals and is a critical aspect of strategic competence.

In AI chatbot interactions, regulation is facilitated through feedback and prompts that encourage learners to reflect on and modify their language use (Belda-Medina & Calvo-

Ferrer, 2022). For example, if a learner makes a grammatical error, the chatbot can point it out and provide corrective feedback, prompting the learner to adjust their response. This interactive process helps learners develop self-regulatory skills, which are crucial for enhancing strategic competence.

Self-Evaluation

Self-evaluation is the process of assessing one's language performance to identify strengths and areas for improvement (Graham, 2016). It is a key dimension of regulation because it enables learners to reflect on their communicative effectiveness and make informed decisions about how to enhance their skills (Tadayon & Ravand, 2016). In the context of strategic competence, self-evaluation helps learners develop a critical awareness of their language use and adopt strategies for continuous improvement.

Chatbots can ask reflective questions such as, "How well did you think you communicated your ideas?" or "What could you improve in your responses?" This process encourages learners to critically assess their performance and set goals for future practice (Alem, 2020). For example, a B1 student might use an AI chatbot to practice speaking on various topics and then review their performance based on the feedback provided. Self-evaluation fosters autonomous learning by helping students take responsibility for their progress and develop metacognitive skills. Self-evaluation in speaking helps learners analyze their performance, determine what to improve upon, and develop goals for future interactions. Such evaluations promote self-direction and further self-improvement. For instance, after a conversation, a learner may reflect on how they perform in terms of vocabulary, fluency, and overall idea presentation, which may trigger more practice in those areas where they feel less competent.

Metacognitive skill of self-evaluation stimulates reflective learning and continuous improvement (Graham, 2016). AI chatbots allow real time self-awareness by providing the learner immediate, targeted feedback on his/her performance and push him/her into the analysis of the strengths and weaknesses (Tadayon & Ravand, 2016). Through the process of this iterative feedback loop, students develop a growth mindset, practise to change the way they speak, improve grammatical accuracy, and increase the range of their vocabulary (Alem, 2020). Moreover, thanks to reviewing the chatbot conversation logs, learners can look into the most common errors that occur and come up with their own personalized strategies for overcoming communication difficulties, which is a key aspect of strategic competence.

Error Correction

Error correction involves identifying and rectifying mistakes in language use (Graham, 2016). It is an essential dimension of regulation because it ensures that learners receive immediate feedback on their errors and can correct them promptly (Lanka & Bidu, 2017). Effective error correction helps prevent the fossilization of incorrect language forms and promotes the development of accurate language use (Negoescu et al., 2019), which is vital for strategic competence.

In everyday English teaching practice, an AI chatbot can provide real-time error correction by highlighting mistakes in the learner's responses and offering suggestions for improvement (Belda-Medina & Calvo-Ferrer, 2022). For instance, if a student incorrectly uses a past tense verb, the chatbot can point out the error and provide the correct form. Research by Ellis (2009) highlights the importance of error correction in language learning, noting that it helps learners refine their language use and improve their overall accuracy (Ellis, 2009). Immediate feedback helps learners internalize correct language patterns and avoid repeating the same mistakes.

Corrective feedback, meaning feedback itself, is driven by AI and takes an important role in sharpening the communicative precision (Graham, 2016). Unlike traditional classroom settings, where correction is done over time, an AI chatbots offer instant correction, allowing a learner to take note of the mistakes made and rectify them immediately (Lanka & Bidu, 2017). This real time intervention essentially helps in minimizing the risk of fossilization where the errors do not fossilize and become part of learners' speech pattern (Negoescu et al., 2019). In addition, AI chatbots can provide contextual corrections by providing learners with instances (examples) of the correct use in actual discourse scenarios (BeldaMedina & CalvoFerrer, 2022). Repeatedly using this interactive feedback system helps learners become more aware of the language they use and to use it more accurately as well as confidently in the language (Ellis, 2009).

Repair Strategies

The techniques employed to address and fix communication breakdowns are known as repair strategies (W. Zhang et al., 2021b). They are a critical dimension of regulation because they enable learners to maintain effective communication even when problems arise (Octaviana, 2021). Effective repair strategies involve recognizing when a breakdown occurs and taking steps to clarify, rephrase, or provide additional information to resolve the issue.

For example, if a learner is unable to understand a word used by the chatbot, they might ask for clarification or request an example. According to Dörnyei and Scott (1997),

repair strategies are vital for maintaining the flow of conversation and ensuring that communication remains effective despite challenges (Dörnyei & Scott, 1997). AI chatbots can facilitate this process by providing synonyms, rephrasing its response, or offering further context (Negoescu et al., 2019). This interaction helps learners develop the ability to manage and repair communication breakdowns, which is essential for strategic competence.

The integration of regulation, self-evaluation, error correction, and repair strategies within AI chatbot interactions significantly benefits the development of strategic competence in English language learners. Successful regulation enables learners to monitor and adjust their language use, ensuring that their communication remains accurate and appropriate. Self-evaluation encourages learners to critically assess their performance and identify areas for improvement, fostering continuous development. Error correction provides immediate feedback on mistakes, helping learners internalize correct language forms and improve their accuracy. Finally, Repair strategies equip learners with the skills to manage and resolve communication breakdowns, ensuring that interactions remain effective even when challenges arise.

For effective dialogue to be sustained, it is essential for people to be able to recognize and rectify communication breakdowns (W. Zhang et al., 2021b). Octaviana (2021) points out that learners often face problems like misinterpretation, lexical gaps, or pronunciation problems and, therefore use repair devices to preserve the conversation coherence. Finally, AI chatbots can be an excellent training site for developing skills of clarification, paraphrase, and discourse repair (e.g., Dörnyei and Scott, 1997). Chatbots offer simulated conversational challenges to learners, in order to allow learners to experiment with different resolution tactics, and to reinforce learner's ability to communicate despite linguistic obstacles (Negoescu et al, 2019). This strategic competence training gradually builds resilience in the learners, such that they'll be able to handle the actual communicative challenges with more ease and flexibility.

Conclusion

The aim of the study is to investigate the impact of AI chatbot interaction on promoting B1 level students' language learning with focus on strategic competence. Based on the findings from this research, chatbots directly address the need to interact with users in natural, dynamic conversations while at the same providing feedback in real time where required, which is critical as real life practice is often seen as vital for improving that particular skill (Følstad & Brandtzaeg, 2017). The findings show that the use of AI chatbots improves cognitive, metacognitive, and social learning, making necessary changes to meet

the identified learner needs (Du & Daniel, 2024; Hidayat-ur-Rehman, 2024). Learners acquire strategies based on structured, domain-specific conversations that provide practical exposure enhancing their strategic competence (Hill et al., 2015; Kim, 2018). It can be noticed that the field of strategic competence, reflected through the planning, monitoring, and regulation, is quite well-developed through the means of AI Chatbots. Planning helps learners set goals and gather information for effective communication, while monitoring involves real-time evaluation of language use, improving accuracy, comprehension, and conversation flow. Regulation, including self-evaluation, error correction, and repair strategies, enables learners to refine their language use and overcome communication challenges. The interactive and adaptive nature of AI chatbots provides tailored feedback and targeted practice, ensuring learners can develop and apply strategic competence in real-life scenarios.

CHAPTER 2
METHODOLOGY FOR THE INVESTIGATION AND DIAGNOSIS

The research on the enhancement of strategic competence through AI chatbot interaction explores an emerging paradigm within second language acquisition (SLA). Strategic competence refers to the ability of language learners to utilize various strategies for overcoming communication barriers, particularly when facing lexical gaps or difficulties in language output (Cambridge English, 2020). This competence is crucial for B1-level English as a Foreign Language (EFL) learners who are often at a transitional stage in their language development. AI-driven interventions, such as chatbots, offer a unique opportunity to enhance this strategic competence, providing learners with personalized, on-demand opportunities to practice language in a low-stakes environment. This research, conducted at Colegio Bilingue Marie Clarac in Ecuador, investigates how AI chatbot interactions influence learners' communication strategies and their awareness of strategic competencies, with the goal of improving their overall language proficiency (Creswell & Plano Clark, 2017; Dörnyei, 2020; Cohen et al., 2018).

Incorporating a mixed-methods approach allows for a comprehensive analysis of the research question by combining both qualitative and quantitative data. This approach is particularly effective in the context of language acquisition research, where the combination of numeric data (e.g., test scores) and in-depth personal insights (e.g., interview responses) can offer a more holistic view of the learning process (Creswell & Plano Clark, 2017). By using pre- and post-tests, the study can quantify improvements in students' strategic competence, while the qualitative data from surveys and interviews provides rich, contextual information about how these improvements are experienced by the learners. Moreover, mixed methods allow for the triangulation of data, enhancing the validity of the findings by corroborating results from different sources (Tashakkori & Teddlie, 2010). This methodology aligns with the need to explore both the effectiveness of AI chatbots as an educational tool and the broader impact on students' communicative strategies.

A mixed-methods design is particularly well-suited to this research because it allows for a more nuanced understanding of how AI chatbot interactions influence learners’ strategic competence. While quantitative methods measure objective changes in learners' skills, qualitative methods provide valuable insights into the learners' subjective experiences, motivations, and challenges (Dörnyei, 2020). The combination of these approaches ensures that both the effectiveness of the intervention and the learners' perspectives are fully captured,

leading to a richer and more comprehensive analysis. Additionally, the use of both types of data supports the development of tailored interventions that are grounded in both statistical evidence and real-world learner feedback. By adopting this mixed-methods design, the study addresses the complexity of strategic competence development, ensuring that both measurable outcomes and personal learning experiences are considered (Johnson & Onwuegbuzie, 2018; Creswell & Creswell, 2018; Braun & Clarke, 2006).

2.1 Research Questions

1. What are the specific gaps in strategic competence among B1 EFL learners at Colegio Bilingüe Marie Clarac?
2. To what extent does the AI chatbot-based intervention enhance the strategic competence of B1 EFL learners at Colegio Bilingüe Marie Clarac?
3. What are the perceptions of B1-level students regarding the impact of AI chatbot interaction on enhancing their strategic competence?

2.2 Description of the Opeationalization Matrix

Conversational and cognitive aspects of AI chatbot interaction are combined and operationalized as the complex matrix for studying how AI chatbot interaction can be used to augment strategic competence. Following are the types of the independent variable (AI Chatbot Interaction) on the basis of which there are three dimensions: Focus, Adaptivity, and Dialogue Management. Focus was chosen as a dimension to highlight structured goals in conversational goals, which is comparable with aims of learning objectives and domain converance topics (Luxton, 2016). How chatbots through indicators such as Domain of Conversation, Conversation Structure and Learning Objective lead learners to task specific outcomes will be shown. Adaptivity was considered as a dimension to emphasize the use of scaffolding and personalized feedback in developing learner autonomy (Vygotsky, 1978). Scaffolding Level and Feedback Type indicate how chatbots provide support depending upon the degree of the learner's performance. The last dimension is the Dialogue Management, which applies Complexity, Accuracy and Fluency (CAF) to ensure good levels of dialogue complexity, accuracy and fluency (Shen et al., 2021), which are essential for simulating the real conversation.

Strategic Competence is organized as dependent variable into three dimensions of Planning, Monitoring and Regulation. Pintrich (2000) defined the Planning dimension as regards learners' readiness to enact wicked needs by setting the goal and gathering necessary

information. By doing so, Goal Setting and Information Gathering indicators indicate how learners organize themselves to deal with conversational tasks. Monitoring dimension emphasizes on real time awareness of Conversation Flow, Comprehension and Problem Solving (Brown, 1987) such that learners can accommodate themselves to communication challenges. As a last mention, the Regulation part centers on metacognitive strategies including Self Evaluation, Error Correction and Repair Strategies (Zimmerman, 2002), learners use to refine their performance iteratively.

In the context of this framework, the value of adaptive chatbot interactions as a springboard for developing critical skills for good thinking strategically is discussed, and a holistic framework of AI tools and language learning outcomes.

OPERATIONALIZATION MATRIX

Meso (Dimensions) **Micro (Indicators)**

Independent Variable	Conceptual Definition	Dimension	Indicators	Scales
AI ChatBot Interaction	AI chatbots, also referred to as conversational agents, are computer programs designed for dialogues that simulate human-like conversations. They employ various AI techniques such as natural language processing, machine learning, neural networks, information retrieval, and deep learning. Their integration into language learning aligns with the interactionist approach, which posits that language acquisition. (Tai, & Chen, 2024)	**Focus**	Domain of Conversation Conversation Structure Learning Objective	**Strongly Disagree** **Disagree** **Neutral** **Agree** **Strongly Agree**
		Adaptivity	Scaffolding Level Feedback Type	
		Dialogue Management	Complexity Accuracy Fluency	

Dependent Variable	Conceptual Definition	Dimension	Indicators	Scales
Strategic Competence	Strategic competence refers to knowledge of communicative strategies and how to use them. These strategies can be in forms of achievement of communicative goals, time-gaining strategies, self-monitoring, and interacting strategies (Zamzamy, 2021)	**Planning**	Goal Setting Information Gathering	**Open-ended questions** **Prettest** **Posttest**
		Monitoring	Conversation Flow Comprehension Problem Solving	
		Regulation	Self-Evaluation Error Correction Repair Strategies	

2.2 Delimitation of Population, Sample, and Sampling

The student population at Marie Clarac Bilingual School, located in Tumbaco, consists of 269 students. However, the sample considered for this study consisted of 10 students, 14-17 years of age, in the Edinburgh B2 class; all students were identified as B1-level English speakers based on PET Mock tests. Sampling is the process of selecting a subset of individuals from a larger population, ensuring that they adequately represent the population's characteristics (Creswell & Creswell, 2018)." For this study, purposive or intentional sampling was employed, guided by specific criteria:

1) **Age and Educational Context**: Participants are teenagers aged 14 to 17, currently attending the Edinburgh B2 class at Colegio Bilingüe Marie Clarac.
2) **English Proficiency**: The students have a B1 level of English proficiency, as determined by standardized PET Mock tests.
3) **Developmental Suitability**: At this stage, students are developmentally primed to enhance strategic competence, which supports their communicative effectiveness.
4) **Technological Affinity**: Their demonstrated interest in technology aligns with the study's use of AI-based tools, fostering engagement and relevance to future career aspirations.
5) **Institutional Support**: The school environment supports their participation in innovative learning methodologies, ensuring the feasibility of AI-driven interventions.
6) **Parental Consent**: Parents of nearly all participants have provided consent, allowing their children to engage in the study.

Table 1

Sample Population

Participants	Sample Population	Percentage
Woman	7	70%
Men	3	30%
Total	10	100%

Elaborated by the author.

2.3 Needs Analysis

With regards to this research proposal, the purpose of the needs analysis was to determine and close the specific gaps in strategic competence present in B1 level learners in Colegio Bilingúe Marie Clarac. The model upon which the analysis was based was Hutchinson and Waters' (1987) model that differentiates between target needs and learning needs. Interviews and surveys showed that students at this level understood the significance of attending English, as it is very important to learn English to be able to do their jobs and study in the future. Although they had mastered what they consider sufficient levels of speaking and listening skills, they recognized the missing parts in their real time communication, relatively speaking; their fluency in discussions and their comprehension while conversing at speeds that beat fast! Analysis also showed that students wanted to be more engaged with a more practical and interactive content having to do with travel, cultural exchange and global issues, which will help them be engaged and motivated.

In order to understand more deeply the needs of the learners, their existing levels of proficiency and learning preference, and their attitudes toward English, a more detailed analysis of them was carried out. It has been found in the analysis that students were motivated to improve their English, but they had problems in planning and monitoring their speech during real time interaction. They were related to the students' inability to utilize self-regulation strategies and difficult managing conversation flow. To fulfill these needs the proposed intervention suggests using AI chat bots to aide structured speaking practice, providing personalized feedback and the development of strategic competence. This approach agrees with the learners' interest in having more interactive learning, technology based learning that answers their needs regarding improvement in speaking fluency, listening comprehension and self – regulation in language use.

2.4 Research context

Colegio Bilingüe Marie Clarac in Tumbaco, Pichicha follows a well-articulated program that incorporates English in a morning shift in order to facilitate improvement of the language on the students. The English subject load consists of two main components: EFL which consists of six weekly periods (40 min each), and LP of four weekly periods (40 min each). Altogether, the scores of these two subjects make up the total of 10, where EFL comprises 80% of the total and LP – 20%. In more detail, the EFL component covers grammar, listening, reading and vocabulary areas, and the LP component – speaking and writing. The institution comprises English levels arranged from A1 to C1+; each level is

named by a city's name- the U.S. cities for upper elementary school, and the U.K. cities for baccalaureate learners. The institution is registered to the school district 17D09 and AMIE Code of 17H03050. At the end of senior year students are expected to take an international test basing on the level of the proficiency attained

2.5 Research Stages

The investigation was divided into six stages: 1) delimitation of the problem, 2) theoretical revision, 3) elaboration of the instruments, 4) application of the instruments, 5) data analysis, and 6) redaction of the conclusions and recommendations. In the first stage, it was required to administer a speaking mock test of the FCE exam assessed by a rubric-based scoring of Strategic Competence. In essence, this phase was used to identify the study's focus and select the appropriate methodology. During the second stage, the researcher collected data on prior studies and researchers who had explored and developed various projects related to the topic at hand. In the third stage, the instruments were developed and prepared to be administered to the students who participated in the project. The instruments used were a pretest, a posttest, a likert-survey, and an open-ended interview (up to 50 words). These instruments were reviewed and approved by two experts. In the fourth stage, the researcher applied a pretest, a posttest, a survey, and an interview to obtain data for the analysis and results of the study. In the fifth stage, data was analyzed to gather results that allowed to realize the improvement of the students. In the sixth and last stage, the results were presented as well as the conclusions and recommendations in a final report of the information obtained during the study.

These instruments were reviewed and approved by two experts. In the fourth stage, the researcher conducted a pretest, a posttest, a likert survey, and an open-ended interview to collect data for analysis and study results. In the fifth stage, the data was analyzed to determine the students' improvement. In the sixth and final stage, the results, along with conclusions and recommendations, were presented in a final report summarizing the information obtained during the study..

Table 2

Research Stages

Stages of the research project	Description	Activities	Performers

Delimitation of the problem	Define the object ofthe study and the methodology.	Review of previous information and research.	Researcher Tutor
Literature review	Define the Theoretical Framework.	Explore bibliographic information.	Researcher
Elaboration of Instruments	Establish the required criteria to obtain data for the study.	Elaboration of a pretest, a posttest, asurvey, and an interview.	Researcher Experts to validatethe instruments.
Application of Instruments	Apply the instruments to gather information.	Apply for the pretest, posttest, survey, and interview.	Researcher
Data analysis	Elaborate a report with the results to assess the situation of the students.	Application of the statistical analysis for the data attained to infer conclusions.	Researcher
Final report on data and conclusions	Gather the results ofthe investigation.	Elaborate a final report with the data and write conclusions and recommendations.	Researcher

Elaborated by the author.

2.6 Research Scope

This research is primarily descriptive and explanatory. It aims to explore the impact of AI chatbot interaction on enhancing the strategic competence of B1 EFL learners at Colegio Marie Clarac in Tumbaco, Ecuador. The descriptive aspect focuses on assessing learners' initial strategic competence and describing how effective AI chatbot interactions are to foster communication strategies. The explanatory dimension investigates the extent to which AI chatbots improve learners' abilities to manage lexical gaps, sustain conversational flow, and employ repair strategies. The research further seeks to clarify how structured conversations with chatbots, combined with personalized feedback and scaffolding, contribute to the development of strategic competence, ultimately enhancing overall communicative proficiency.

2.7 Type of Research

This research employs a mixed-methods approach, combining field and experimental study designs. The field aspect is justified by the need to collect data directly from classroom settings, allowing for authentic observations of AI chatbot interactions within real-world educational environments (Dörnyei, 2020). The experimental component involves implementing a controlled intervention wherein one group engages with AI chatbot activities while another serves as a control group. This design facilitates the measurement of causal relationships between chatbot usage and improvements in strategic competence. Both quantitative and qualitative data collection methods are utilized to ensure comprehensive insights, aligning with the principles of triangulation to enhance validity (Tashakkori & Teddlie, 2010).

2.8 Description of the Instruments Based on the Selected Research Approach

The study employs a range of instruments designed to capture both quantitative and qualitative data, ensuring alignment with the mixed-methods framework.

An organized questionnaire will be drafted for the purpose of assessing students' initial awareness of strategic competence and their understanding of AI chatbot interactions. The survey is expected to encompass items measuring domains such as conversation planning, adaptability, and regulation strategies. They will respond to each item using a 5-weight Likert scale, from 1 (Never) to 5 (Always). This approach is aligned to methodologies employed in previous works that attempted to assess language learning strategies. The result will become the baseline data to develop the AI chatbot intervention and follow-up analysis on post-intervention change. A battery of pre- and post-tests will be painstakingly designed and administered to the learners to gauge strategic competence. These tests will be used to assess the ability of students to employ a variety of language learning strategies, such as extracting meaning from context, using reference materials or seeking clarification. Employing equivalent test forms in pretest-posttest research design is vital since it assures reliability and validity in measuring learning outcomes. The statistical analysis to which this data will be subjected will be as rigorous as any other to determine the significance of any changes observed and to provide empirical evidence for such influence.

With semi-structured interviews, learners will express their experiences and perceptions with AI chatbots concerning their education and other cases. Here, these experiences will entail the students' experiences with the AI chatbot and how it is expected to

impact their learning. The interviewees will be encouraged to share how they use the chatbot, the obstacles that they face, if any, as well as their impressions regarding the strengths and weaknesses accompanying the chatbot. The data from this interview will be analyzed thematically. Thematic analysis is a methodology for the systematic identification and interpretation of patterns and themes within qualitative data giving the researcher a nuanced understanding of subjects in the context of their own perspectives.

Combining these qualitative and quantitative measures will enable this study to present a complete comparison of the efficiency derived in terms of strategic competence improvement using AI chatbot interactions by EFL students at B1 levels.

2.7.1 Student Survey on Strategic Competence

A Likert-scale survey is used to assess students' initial awareness of strategic competence and their perceptions of AI chatbot interactions. Through the administration of the survey, it was possible to establish what the specific gaps in strategic competence among the B1 students were at the beginning of the study. The survey includes items measuring domains such as conversation planning, adaptability, and regulation strategies. Responses provide baseline data to inform the intervention's design and subsequent analysis of changes post-intervention (Johnson & Onwuegbuzie, 2018).

2.7.2 Student Interviews on AI Chatbot Interaction

After the administration of the post-test, students are asked to complete open-ended interviews in order to understand their perception of the chatbot. These interviews based on the constructs of the operation matrix including planning, monitoring and regulation provide the qualitative information of the perception of students and their experiences. Such a method as thematic analysis will help determine repeated patterns and get a deeper understanding of the effect of the use of chatbots on the development of strategic competence (Dörnyei, 2020).

2.7.3 Pre- and Post-Test Assessments

Pre- and post-tests modelled on the speaking section of the First Certificate in English (FCE) exam are administered to evaluate strategic competence before and after the intervention. These assessments focus on the use of repair strategies, maintenance of conversational flow, and management of lexical gaps. Performance comparisons provide quantitative evidence of the intervention's impact (Cambridge English, 2020). Pre- and post-tests, both taking 14 minutes, boast inter-session reliability to track the progress, whereas surveys and interviews are collected to add context to the results. The use of both quantitative

and qualitative approaches provide confident and detailed assessment of the competence that the chatbot improves among the students.

2.9 Ethical Considerations In Research Instruments

The ethical integrity of the study is paramount, especially given the involvement of minors. Informed consent will be obtained from all participants, with additional parental consent required for those aged 14-17. The consent form will clearly explain the study's objectives, procedures, potential risks, and benefits, ensuring both participants and their guardians fully understand the research before committing. The consent process will also include an option for participants to withdraw at any point without consequences, reinforcing the voluntary nature of the study (Creswell, 2018).

Privacy and confidentiality will be rigorously maintained throughout the study. Minimal personal data, such as names, gender, and age, will be collected, with no identifiable information disclosed in any reports or publications. To protect participants' anonymity, audio-visual recordings will only capture the back of students, avoiding facial recognition. Data will be anonymized during analysis and reporting to prevent any identification (Baker, 2020).

Data will be securely stored on encrypted, password-protected servers, ensuring that all collected information is protected from unauthorized access. Personal data and recordings will be stored separately from analytical files, accessible only to authorized members of the research team. Regular audits of data access and security protocols will be conducted to ensure continued protection (Patel & Clark, 2021).

While risks to participant welfare are minimal, minor inconveniences such as discomfort with the AI chatbot, or technical issues may arise. These will be mitigated by designing a supportive, user-friendly chatbot interface, and by offering research assistants to provide immediate assistance if needed. Participants will also have the option to skip any uncomfortable interactions (Jones & Alpert, 2019).

Finally, the study guarantees voluntary participation, with participants free to withdraw at any time without penalties, and their data will be promptly removed from the study upon withdrawal.

2.10 Description of the Methodological Proposal

The research proposal started with the diagnosis of students English language proficiency which took place with the testing of PET mock exam in the academic year 2023-

2024. Having determined their proficiency, students took the pre-test. The pre-test consisted of the Speaking section from FCE exam. The scores about the level of strategic competence in students were obtained by means of arubric tailored to measure Strategic competence in student's performance during the speaking section from FCE exam. After that, the intervention was conducted. Students attended 4 lessons, one per week with a duration of 160 minutes each lesson. Once the intervention concluded, students took the post-test and finally, they expressed their perceptions and experiences of interacting with AI chatbots and how whether it influenced or not their overall strategic competence.

2.11 Description of the Evaluation and Validation of the Proposal

The proposal's evaluation framework integrates expert feedback and iterative refinements. Criteria for validation include alignment with theoretical constructs, coherence with learner needs, and scalability of the chatbot-based interventions. Tools and methods are rigorously piloted to ensure reliability and relevance (Patton, 2015).

2.11.1 Expert Validation

The validation of the instruments used in this study was conducted by the researcher's thesis tutor, PhD. Jacqueline López, an expert in language acquisition and educational research. Three instruments were evaluated: two targeting the dependent variable (the Likert-scale survey and the pre- and post-tests) and one addressing the independent variable (the open-ended interview).

To facilitate this process, a validation matrix was developed, outlining the specific indicators related to each item within the survey and the interview. This matrix ensured alignment between the research constructs and the instruments, enhancing both content and construct validity. The survey items, for instance, were explicitly linked to dimensions of strategic competence such as planning, monitoring, and regulation. Similarly, the interview questions were mapped to constructs including focus, adaptivity, and dialogue management as detailed in the operational matrix (Dörnyei, 2020).

The pre- and post-tests were modelled on the FCE speaking section, ensuring alignment with established language assessment standards (Cambridge English, 2020). This design provided a robust framework for assessing the impact of the AI chatbot intervention. Feedback from the thesis tutor confirmed the clarity and relevance of the test tasks, ensuring that they accurately measured the intended constructs.

The validation process also included iterative feedback from the thesis tutor. Suggestions for refining item wording and ensuring the coherence of the instruments were

incorporated into the final versions. This collaborative approach ensured that all instruments were theoretically grounded and practically applicable to the research context. As a result, the instruments are positioned to provide reliable and valid data for analyzing the effects of AI chatbot interactions on enhancing strategic competence.

2.12 Summary Evaluation

The evaluation for summary assessment provides cross-sectional tabulations of pilot testing with expert reviews addressing a thorough assessment of feasibility and reliability, as well as predicting their eventual outcomes on intervention with the AI chatbot in real-world classrooms. Pilot testing consists of AI chatbot simulations within controlled educational settings: observing how it works, while collecting initial evidence about its impact on learners' strategic competence. Expert reviews are possibilities in discussing design, usability, and pedagogy alignment with educators and AI experts regarding the chatbot. All evaluations together ensure that the AI chatbot is close to being technologically sound but should actually also be pedagogically effective-aligned to educational objectives and learner needs. These findings are expected to demonstrate the extent to which the chatbot promises to give a personalized learning experience, induce independent learning, improve engagement, and thus be a catalyst in developing a strategic competence among students. Such thorough evaluations would help the researcher ascertain potential challenges and guide required improvements prior to widespread rollout (Johnson & Onwuegbuzie, 2018).

2.13 Data Collection and Compilation

Data gathering includes a systematic approach of pre- and post-test Likert surveys and open-ended interviews, from which the impact of interaction with the AI chatbot will be judged, the determinant being learners' strategic competence. Pre-test measures should define the initial baseline of these students' strategic competence and determine the post-test development after exposure to the chatbot. Likert surveys will investigate the nature of students' presupposed awareness of strategic competence and their responses towards "I learned a strategy from AI", "Did anyone tell you when to use a strategy/battle plan?" and "Leaving your mind behind: That's not a strategy". Open-ended interviews will give qualitative insight into personal experiences of students with the chatbot in an attempt to elicit finer details regarding perceived effectiveness or areas needing improvement. All these methods are conducted in controlled environments following standardized procedures to ensure greater reliability and possible reduction of bias in data gathering. Such painstaking

detail will lend high credibility and accuracy in data gathered and be the basis for subsequent analysis (Creswell & Creswell, 2018).

2.14 Data Analysis

The combined collection and analysis of quantitative and qualitative data within the framework of an intervention offer a more comprehensive understanding of its impact on learners' strategic competence. The quantitative data, consisting of pre- and post-tests and Likert scale surveys, are entered into statistical software for rigorous analysis, which includes computation of descriptive statistics for summaries of central tendency and distribution pattern to identify baseline competence and progress over time. The inferential analysis such as paired t-tests is used to determine the significance of changes observed in the strategic competence of students, for example, in the area of conversational repair and planning (Dörnyei, 2020). Qualitative data from open-ended interviews are verbatim transcribed into thematic analysis, a process systematically typified by identifying and interpreting the patterns and themes of data. Codifying frameworks have been developed in line with constructs like planning, monitoring, and regulation, reflecting the operationalized dimensions of strategic competence. In so doing, the model of duality guarantees a thorough grasp of what is measurable or assessable and what is deeply embedded in the learner's experience of the chatbot intervention (Braun & Clarke, 2006).

Quantitative Data Analysis

Quantitative data from pre- and post-tests will be analyzed using descriptive and inferential statistics. Descriptive statistics, including means and standard deviations, will summarize participants' performance levels before and after the intervention. Paired sample t-tests will be conducted to determine significant differences between pre- and post-test scores, offering insights into the effectiveness of AI chatbot interactions in improving strategic competence (Creswell & Creswell, 2018). These tests will be administered face-to-face to ensure controlled and reliable conditions for data collection.

The Likert-scale survey results will undergo frequency distribution analysis to identify patterns in students' perceptions of their strategic competence and experiences with the chatbot. Correlation analysis will examine relationships between survey responses and test performance, deepening the understanding of how students' attitudes align with measurable improvements (Johnson & Onwuegbuzie, 2018).

Qualitative Data Analysis

Qualitative data from online interviews will be analyzed using thematic analysis. The responses will be transcribed, coded, and categorized into themes aligned with the constructs of planning, monitoring, and regulation. This approach will uncover recurring patterns and nuanced insights into students' experiences and perceptions of the chatbot's role in enhancing their strategic competence (Braun & Clarke, 2006). Tools such as NVivo or Atlas.ti will be employed to ensure systematic coding and thematic identification.

Integration of Findings

A triangulation method will be employed to integrate quantitative and qualitative findings, ensuring a robust interpretation of the data. Quantitative test results will be compared with thematic insights from interviews and survey responses to validate findings and provide a holistic understanding of the intervention's impact (Tashakkori & Teddlie, 2010). The integration process will address potential biases introduced by differing data collection modalities (online and face-to-face) to ensure the reliability and validity of conclusions.

Data Entry and Coding

Quantitative data is entered into statistical software for analysis, while qualitative responses are transcribed and coded using thematic categories. Coding frameworks align with constructs such as planning, monitoring, and regulation, reflecting the operationalized dimensions of strategic competence (Braun & Clarke, 2006).

Descriptive Analysis

Descriptive statistics constitute an essential part of the summarization of vital quantitative findings. Such measures include mean, median, mode, standard deviation, and range in order to present a clear understanding of tendencies central and dispersion in the dataset. The measures give a picture of overall learner performance, as well as the baseline and progress through time in the intervention. For example, examining the distribution pattern through survey responses and test scores may reveal common trends as well as exceptions which point to specific areas in which learners excel or may need help. Such analysis lays the groundwork for advanced inferential statistics which allow more fine-grained exploration of the data, leading to more informed interpretations (Cohen et al., 2018).

Thematic Analysis

Recruit participants in open-ended interviews to collect qualitative data on learners' perceptions and experiences with the AI chatbot. The analysis looks for repeated patterns

such as planning, monitoring, and regulation-in registering variable influences on adaptive strategies and communicative behaviors in connection with the chatbot for example, themes may be drawn from increased learner confidence in conversation planning or their ability to simultaneously monitor and adjust their language use in real-time. These findings will further shed light on the enhanced strategic competence of this chatbot, offering insights that stand in stark contrast to what my quantitative data will show (Braun & Clarke, 2006).

Comparative Analysis

A critical part of the study evaluates the assistant's role in implementing the chatbot approach-AI-enabled approaches. Paired t-tests were conducted to determine the significant improvement in the students' strategic competence in terms of conversational repair and planning. This framework design identifies and tests the allied means of two related groups in determining whether they differ from one another in terms of their statistical significance. The examination of these differences will enable the study to determine the degree to which the intervention helped improve learners' strategic abilities. This rigorous analysis, as such, gives empirical evidence for the intervention's efficacy, giving basis to draw conclusions about its effectiveness and possible generalisation (Dörnyei, 2020).

Triangulation and Integration

The triangulation methodology enhances both the validity and reliability of the study findings by integrating amounts of multiple data sources and methods. The study creates a holistic appreciation of the chatbot's impact on students' strategic competence by combining quantitative evidence based on survey and test outcomes with qualitative input acquired via interviews. For example, test score improvements can be contextualized against learners' experience with and perceptions of the innovation to create a more rounded assessment of its effectiveness. This multidimensional approach mitigates singular-method study biases and strengthens credibility in research outcomes (Tashakkori & Teddlie, 2010).

Interpretation and Conclusions

Research findings are understood in relation to a wider theoretical context of Second Language Acquisition (SLA) and strategic competence development. On statistical analysis, learners made major strides in their use of communication strategies, reinforcing the standpoints that interaction with AI-based chatbots improves strategic competence. Though qualitative insights from interviews suggest an appreciation for chatbots as supportive tools providing instant feedback and opportunities for independent practice, which resonate with other principles of learner-centered pedagogy, these findings hold out the hope of AI chatbots as scalable and adaptive tools in EFL learning. These tools would present personalized

experiences unachievable in the conventional classroom. Notwithstanding, the findings point towards challenges resulting from learners' fear of AI interaction at the beginning and the little training they have to make the most of chatbot use. The conclusions draw on the pedagogical implications for language instructors, suggesting that AI chatbots can complement the traditional teaching format (Dörnyei, 2020; Tai & Chen, 2024). The future directions of research entail an investigation into the long-term impact of chatbot-interactions and widening studies beyond learner populations to validate and generalize the present results.

CHAPTER III
PROPOSAL PRESENTATION AND VALIDATION

3.1 Presentation of the Proposal

This chapter delineates the design, implementation, and validation of an AI-driven pedagogical intervention aimed at enhancing strategic competence in B1-level English learners through interactions with ChatGPT. Grounded in task-based language teaching (TBLT) principles, the proposal integrates simulated Cambridge FCE Speaking Exam tasks to target learners' planning, monitoring, and regulation strategies. The intervention employs a pretest-intervention-post-test design, with ChatGPT serving as both examiner and conversational partner to replicate authentic exam conditions.

3.1.1 Justification of the Proposal

Artificial Intelligence(AI) chatbots' incorporation into EFL instruction addresses the urgent need for novel and personalized learning tools geared toward promoting the B1 learner's strategic competence. Resource constraints often hinder classroom learning from providing the required individualized attention and immediate feedback, which in turn affects the learners' essential soft skills. AI chatbots like ChatGPT provide scalable solutions through authentic conversational simulations that lead to active engagement and strategic language application. Research demonstrates that by developing a low-stress, low-stakes learning atmosphere to practice and experiment with language, AI chatbots can develop speaking skills considerably (Shikun et al., 2024). They also provide instant tailored feedback for students to recognize and focus on their linguistic weaknesses, which is important for developing strategic competence in language learning (Xiao et al., 2024).

3.1.2 Importance of the Proposal

This is indeed a well-structured intervention and will go a long way in EFL context by employing AI-based chatbots to enhance students' strategic competence, which is an important aspect of communicative competence in real life. This will further give the students authentic, interactive dialogues through which they will develop critical, communicative strategies such as planning, monitoring, and regulating language. Studies have shown that students are very likely to practice their target language more often while engaging AI chatbots, which in turn increases their involvement in class activities and hence encourages them to share ideas (Li et al., 2025). Further, the introduction of AI-based conversational agents in language learning is found to augment learners' learning motivation and increase

their engagement in digital personalized learning environments, which are very vital 21st-century skills (Klímová & Ibna, 2023). The enhancement of these competencies will make not only individual students' conditions better but will also improve and elevate the classroom practices in EFL education.

3.1.3 Feasibility of the Proposal

The implementation of AI chatbots in EFL instruction is both practical and achievable, given the increasing accessibility and sophistication of AI technologies. AI chatbots can be seamlessly integrated into existing curricula, providing learners with additional practice opportunities without overburdening educators. The adaptability of AI chatbots allows customization to meet the specific needs and proficiency levels of learners, ensuring that the interactions remain relevant and effective. Furthermore, research has demonstrated that AI chatbots can significantly aid students in acquiring both receptive and productive vocabulary knowledge, indicating their efficacy as language learning tools (Koç & Savaş, 2024). The scalability of AI chatbot interventions also means that they can be deployed across various educational contexts, making them a viable solution for enhancing strategic competence in diverse EFL learning environments.

3.1.4 Availability of the Proposal

The proposed AI chatbot intervention is available for implementation using existing technology like ChatGPT for interactive conversational learning experiences. Given that AI chatbots are widely available, they can be embraced by educational institutions without requiring extensive infrastructure investment. Consequently, AI chatbots are user-friendly, ensuring that both teachers and learners can easily use them, encouraging widespread adoption. Leveraging AI chatbots, the proposal thus provides an opportune and viable solution for improving strategic competence among B1-level EFL learners.

3.1.5 AI Chatbot Interaction Design

The proposed intervention utilizes ChatGPT’s dynamic role-play capabilities to simulate Cambridge FCE Speaking Exam tasks (Parts 1–4), structured through tailored prompts that target strategic competence development. Three design variables underpin this approach: focus, which directs conversations toward specific domains (e.g., hobbies, education) and objectives (e.g., comparing ideas); adaptivity, enabling ChatGPT to modulate feedback complexity based on learner performance (e.g., simplifying prompts for struggling students); and dialogue management, prioritizing fluency, accuracy, and repair strategies during interactions. For instance, a Part 2 task instructs ChatGPT to act as an examiner,

prompting learners with a 1-minute monologue task (e.g., “Describe two photographs”) and subsequently providing feedback on fluency, vocabulary, and coherence. This scaffolded design aligns with Fryer et al.’s (2020) findings on chatbots’ efficacy in reducing speaking anxiety through iterative, low-stakes practice, thereby creating a safe environment for learners to experiment with language production and error correction.

3.1.6 Alignment with Strategic Competence Indicators

Three dimensions embedded in the intervention foster strategic competence, which is operationalized as the ability of learners to deal with communication breakdowns (Bachman & Palmer, 1996). Goal oriented prompts presenting the need for a timed response (e.g. “Develop a 60 second response”) and keyword brainstorming tasks are similar to requirements found in the real speaking exam. ChatGPT reinforces the idea of monitoring thanks to its real time feedback, including for example, highlighting too many pauses and suggesting phrases for fillers (“Let me think”). These post interaction self-evaluation surveys encourage reflection of error correction strategies (such as "How did you rephrase unclear ideas?"), which provides recommendations for regulation. Through the integration of these metacognitive processes, the intervention tackles cognitively and linguistically the obstacles B1 learners encounter, thereby covering all aspects of development of strategic competence, both as a skill and as a measurable construct.

3.1.7 Workflow of the Intervention

The 6-week intervention uses a three-stage process to maximize the way skills are acquired. A baseline strategic competence is first established via a pretest that involved an FCE Speaking mock exam and the analytic scales used to score it (planning, monitoring, regulation: 0–5 each). After that, learners become immersed in task specific role plays in four weekly ChatGPT sessions (120 minutes each), e.g. negotiating ideas for collaborative tasks in Part 3, followed by feedback review and further iterative practice. Finally, a post-test is carried out using a parallel FCE Speaking exam in order to measure progress, and to predict improvement according to research from Chong and Reinders (2020) on technology mediated task-based language teaching. With this, longitudinal engagement is guaranteed while structured practice is balanced with adaptive learning pathways needed to prevent learners’ motivation from disappearing as well as skill retention.

3.2 General and Specific Objectives

General Objective:

To enhance B1 learners' strategic competence in oral communication through structured AI chatbot interactions replicating FCE Speaking Exam tasks.

Specific Objectives:

1. To improve planning strategies via goal-oriented prompts (e.g., timed responses).
2. To develop monitoring skills through real-time feedback on comprehension and problem-solving.
3. To foster regulation abilities by encouraging self-correction during chatbot interactions.

3.3 Theoretical Foundations

Three theoretical frameworks are synthesized in order to scaffold the intervention. The metacognitive blueprint from Strategic Competence Theory (Bachman & Palmer, 1996) is planning, monitoring, and regulation based communication. In terms of Sociocultural Theory (Vygotsky, 1978), ChatGPT is put forward as a scaffolded "expert" in learners' ZPD (Zone of Proximal Development) to be able to manage from assisted to independent performance. AI in Language Learning research (Huang et al., 2022) shows how chatbots provide adaptive and personalized feedback which cannot be done within traditional classroom settings. By integrating these three theoretical frameworks in a tripartite manner, the rigor of the intervention is ensured and, at the same time, the learning outcome as the intervention could be maximized due to alignment of technological innovation with pre–existing pedagogical principles.

3.4 Characteristics of the Proposal

To most effectively prepare for the FCE exam, I have integrated three core characteristics into the proposal's design. The FCE task authenticity guarantees the adjustability with Cambridge assessment standards given that the prompts, for instance, part 3 collaborative tasks, force the learners to cooperate with ChatGPT as they would with a peer in the actual exam. As stated by Saville and Hargreaves (2021), such fidelity to exam criteria helps learners develop skills that are directly applicable to exams. ChatGPT is equipped with adaptive feedback mechanisms that favor corrective and motivational comments, e.g., without obscuring grammatical errors in sentences, uplifting successful linking words in a sentence (something that is in line with Heift's intelligent tutoring systems, 2010, which

adjust scaffold depending on proficiency level of a learner). Alongside this, dual role simulation and alternation of roles between ChatGPT as examiner and candidate additionally hones strategic competence, as this way ChatGPT is able to practise bidirectional formulation of questions and revision of responses, which has been demonstrated by Galaczi and Taylor (2018) to strengthen conversation agility. Together, these attributes form a pedagogically robust framework for combining the ability in AI in conjunction with the examination of language skill development.

3.5 Structure and Dynamics of the Proposal

It applies a pretest-intervention-post-test design and measures progress through analytic measures (0–5 per dimension of strategic competence) expecting a score increase compared to the results according to Chong & Reinders (2020). The sessions are structured and follow a protocol which includes: 1) a learner interaction phase during which learners take part in 15-minute role plays with task specific prompts based on answering examiner questions; and 2) a feedback review in which learners evaluate ChatGPT's output with regards to fluency, accuracy, and repair strategies. For instance, fluency feedback may suggest that chunking parts of ideas into shorter phrases, and accuracy corrections may be targeted towards verb tense errors such as from the sentence, 'I have went' to 'I went'. Strategic repair guidance facilitates circumlocution techniques including 'defining library as a "place with books,"' as indicated by Bachman and Palmer's (1996) framework. The bipartite structure is such that it allows for systematic skill building yet is adaptive towards one's individual needs.

3.6 Description of the Type of Proposal

Chatbot technology is integrated with Cambridge Speaking exam pedagogy to create this AI task-based intervention, for which three implementation pillars are required. ChatGPT acts as the technological resource for context aware dialogs essential to simulating the nuanced examiner candidate dialogs. The need for human resources in the implementation of chatbots includes the training of teachers to be able to interpret the feedback patterns of the chatbot and in addressing technical issues, so that there will be a pedagogical synergy between the AI and the instructor support. In line with Creswell's (2018) guidelines for human subjects research, all ethical safeguards including data storage (anonymized data), opt out options are followed, considering that participants are of minor status. The proposal effectively operationalizes Huang et al.'s (2022) model of AI driven linguistics learning by

embedding the components and positioning ChatGPT as both tool and tutor in a ZPD built from a socioculturally informed ZPD.

Resources

The targeted resources used in the intervention adjust to the profiles of beneficiaries. One of the human resources elements is an English teacher trained in AI feedback interpretation to align chatbot outputs with curriculum goals. Adapted FCE rubrics, tailored ChatGPT prompts, and audio recording software are material that caters to the beneficiary cohort: 14–17-year-old Ecuadorian of B1 English language proficiency. In particular, these students, who are labeled as audiovisual learners, feel comfortable with the chatbot's multimedia interaction style, which is consistent with their sense of audiovisual learning and preference to perform technology integrated tasks. In addition, the intervention is designed to directly support their academic and professional aspirations in global culture and education abroad and this encourages a strong interest in global culture and education abroad.

3.7 Validation of the Proposal

3.7.1 Content Validity

The instruments used in this study were validated by the researcher's thesis advisor PhD. Jacqueline López, an expert in language acquisition and educational research. Two of the instruments tested were designed to address the dependent variable, which was a Likert-scale survey and pre and post-tests, while the third one, an open-ended interview, dealt with the independent variable. An operationalization matrix was established to correspond each item in the survey and the interview listed along with the specific indicator in the matrix. The use of this matrix ensured alignment of the research constructs to the instruments items, hence improving the content validity (Dörnyei, 2020). For instance, the survey items were directly related to the dimensions of strategic competence (planning, monitoring and regulation). Likewise, the interview questions corresponded with key constructs including focus, adaptivity and dialogue management. Mock exams of the FCE speaking section were employed as pre and post-test and the tailored rubrics assessing strategic competence dimensions adhered to the standards of the established Cambridge language assessment criteria (Cambridge English, 2020). Furthermore, the validation was conducted under the guidance of the thesis advisor who gave feedback on item wording and instrument coherence for iteration. However, these suggestions were integrated into the final versions which made sure that all instruments were grounded in theory but were also applicable in the research

context. As such, the validated instruments are conceived for the purpose of producing assessable and reliable as well as valid data for analyzing the effects of AI chatbot interventions on strategic competence.

3.7.2 Instrument Reliability

The standardized scoring rubrics of the FCE Speaking mock exam strengthen its reliability as a pretest/post-test. It was aimed to develop a tailored rubric to account for strategic competence following FCE rubrics' benchmarks, which assigned 0–5 ratings on the criteria adapted from Bachman and Palmer (1996) model of strategic competence: planning, monitoring, and regulation. To tighten the scope of questions, surveys were pilot tested with 10 learners to spot the ambiguities and fix it and it was found broad questions needed to rephrase (e.g., "How helpful was ChatGPT?") to leverage questions intended to gather information from a specific construct (e.g., "How did ChatGPT improve your goal-setting?"). Similar to the open-ended interview, the protocol around strategic competence indicators was refined to avoid asking leading questions and enable adequate reflection of learners' experiences. These methods are consistent with Dörnyei's (2020) suggestions for reducing measurement error in mixed methods designs, capturing data collection tools which allow the reader to reproduce and be precise about the efficacy of the intervention.

3.7.3 Statistical Validation

Paired t-tests were used to perform a quantitative analysis by comparing pretest and post-test scores in the three strategic competence dimensions where $p < .05$ was the significance threshold. The within-subject design and parametric data distribution of this study can justify this approach. Thematic analysis (Braun & Clarke, 2006) will be conducted on qualitative data derived from interviews in which codes will be drawn inductively from transcripts. To account for potential confounding variables, i.e. learners' exposure to AI tools prior to the study, performance metrics will be cross referenced with survey responses by triangulation of quantitative and qualitative findings. Creswell (2018) proposes this mixed-methods framework which allows for a full coverage of how mediated practice with ChatGPT influences strategic competence development.

3.7.4 Ethical Validation

All participants aged 14–17 provided a parental informed consent for the study to proceed in line with the strictest ethical protocols. According to Creswell's (2018) ethical guidelines, consent forms outline the purpose of the study, the procedures, and the rights, voluntary participation, and the right to withdraw at any time without any penalty. Video

recordings are de-identified, capturing only participant's backs so that face recognition cannot be done, and data is only stored on encrypted servers with multi-factor authentication (Baker, 2020; Patel & Clark, 2021). Chatbot induced anxiety will be mitigated by providing research assistant real time technical support in order to help participants and offering them the chance to skip questions and to exit the study at any time. These safeguards, in conjunction with inhuman institutional research board approval, protect international standards regarding human subjects of research, achieving a balance between methodological rigor and welfare of the participant.

Research Question 1

What are the specific gaps in strategic competence among B1 EFL learners at Colegio Bilingüe Marie Clarac?

Several gaps in strategic competence were notably identified after the administration of the Likert survey. The 10 B1 students from Colegio Mariec Clarac reflected common insights regarding their awareness of strategic competence and expectations of AI chatbot interaction. 5 out of the 10 items were used to assess specific aspects of strategic competence: planning, monitoring, and regulation. The other 5 items evaluated student's expectations for AI chatbot interaction in accordance with focus, adaptability and dialogue management.

Statement 1: "I believe practicing English with a chatbot (for example, answering questions about my interests) would help me improve my conversational skills."

The responses to this question suggest that most students believe that practicing English with a chatbot would indeed enhance their conversational skills. This is evident from the higher number of responses in the "Agree" and "Strongly Agree" categories. The graph indicates a significant inclination towards agreeing with the statement, reflecting that learners recognize the value of chatbot interactions in improving their fluency and comfort in speaking. Skeptical views on whether chatbots improve conversational abilities, allied with a lack of exposure to such technology, could have resulted in some learners remaining neutral or disagreeing. This area needs to be further explored into students' understanding of how chatbots work as a language-learning tool. Other than that, most of the responses favor chatbot usage.

Table 3

Practicing English with a chatbot would help me improve my conversational skills

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Neutral	1	10%
Agree	7	70%
Strongly Agree	2	20%
Total	10	100%

Elaborated by the author

Figure 1

Practicing English with a chatbot would help me improve my conversational skills

Elaborated by the author

Statement 2: "I think interacting with a chatbot in structured speaking tasks, like talking about photos for 1 minute, could help me organize my ideas better."

In the current question, a majority of students agree that structured tasks with chatbots such as photo description would help them better organize their ideas. These results weigh heavier in the "Agree" and "Strongly Agree" categories than in "Neutral" or "Disagree" and

show a strong belief that structured practice can help in organization while speaking. This indicates that students understand the importance of preparation and structuring an interaction, and they consider chatbots a means of doing so. On the other hand, a few responses do still agree, or disagree, which may bring up discontent with the artificialness of the tasks and raise some uncertainty as to their actual utility. These gaps indicate the need to get effective speaking tasks into the chatbot interactions so that their real-life usefulness can be highlighted.

Table 4

Interacting with a chatbot in structured speaking tasks could help me organize my ideas better

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Neutral	2	20%
Agree	7	70%
Strongly Agree	1	10%
Total	10	100%

Elaborated by the author

Figure 2

Interacting with a chatbot in structured speaking tasks could help me organize my ideas better

Elaborated by the author

Statement 3: "I feel that getting feedback from the chatbot, such as suggestions or corrections, would improve my English skills."

Feedback that a chatbot provides is mostly positively rated by most students, with a fairly strong majority agreeing that corrections and suggestions would enhance their English ability. This suggests that students appreciate the importance of constructive feedback, which is a vital element in the process of learning. The very few neutral or disagreeing responses could point to doubts about the quality of feedback from an AI or its effectiveness, compared to a human teacher. Furthermore, the absence of "Strongly Agree" for certain students could signal a lack of confidence in the chatbot's capacity to give subtle and fine-grained types of feedback. This calls for improvement in development work for the chatbot.

Table 5

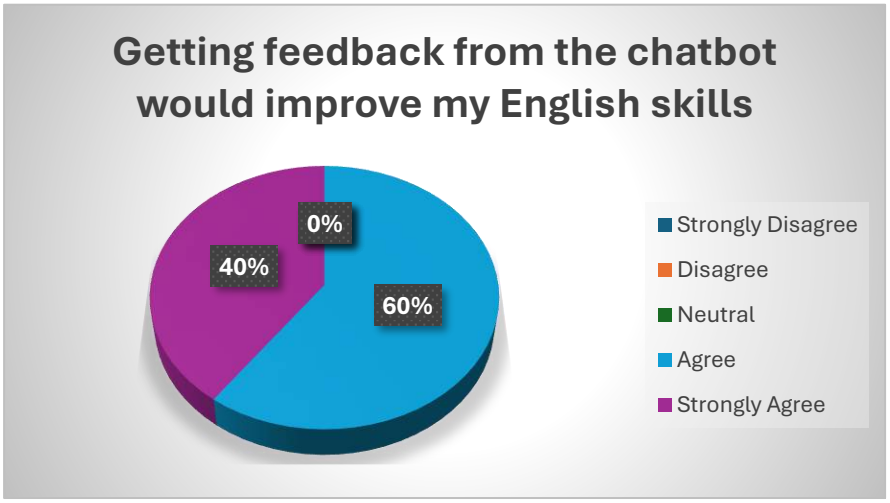
Getting feedback from the chatbot would improve my English skills

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Neutral	0	0%
Agree	6	60%
Strongly Agree	4	40%
Total	10	100%

Elaborated by the author

Figure 3

Getting feedback from the chatbot would improve my English skills



Elaborated by the author

Statement 4: "I expect the chatbot will adapt to my needs and provide help when I struggle, such as giving me examples or prompts."

Here, it is expected that a considerable number of students would want the chatbot to take their needs into consideration and provide assistance when any difficulty arises. An encouraging response from the majority, therefore, indicates confidence in the supposed ability of the chatbot to cater for individualized assistance. In contrast, a smaller percentage chooses neutral or disagree; this may reflect doubt about how well a chatbot could accommodate individual learning needs, particularly in real-time conversation. The disparity in these responses calls for more adaptive features in a chatbot, demonstrating its ability to respond to individual learning needs.

Table 6

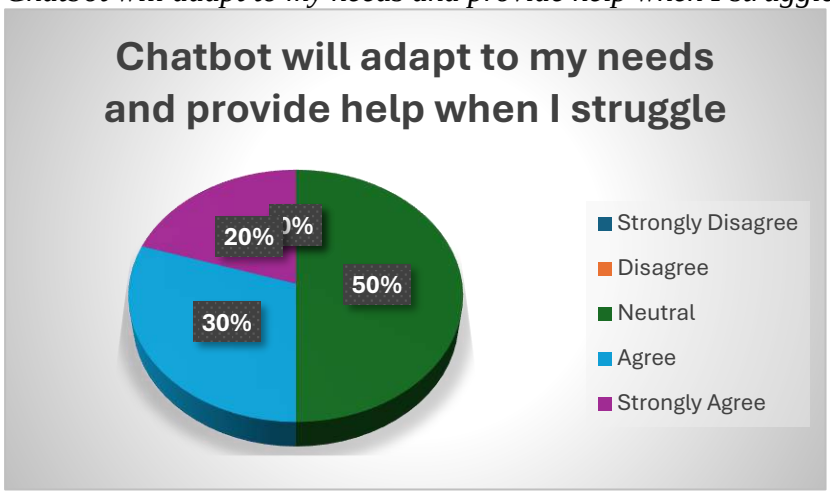
Chatbot will adapt to my needs and provide help when I struggle

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Neutral	5	50%
Agree	3	30%
Strongly Agree	2	20%
Total	10	100%

Elaborated by the author

Figure 4

Chatbot will adapt to my needs and provide help when I struggle



Elaborated by the author

Statement 5: "I believe regular conversation practice with the chatbot will help me become more fluent in English (for example, speaking without pauses)."

The analysis reveals that students generally view favorable possibilities for regular training using chatbots to enhance fluency. Most students agree that, given constant chatting practice, they could become more confident speakers who can interact without hesitating. A few students maintain a neutral stance or disagree, perhaps based on the assumption that interactions with chatbots cannot realistically simulate life conversations. These differences indicate that a larger number of students will have to engage in sufficient varied, dynamic conversations with chatbots before they fully appreciate their worth in fluency development.

Table 7

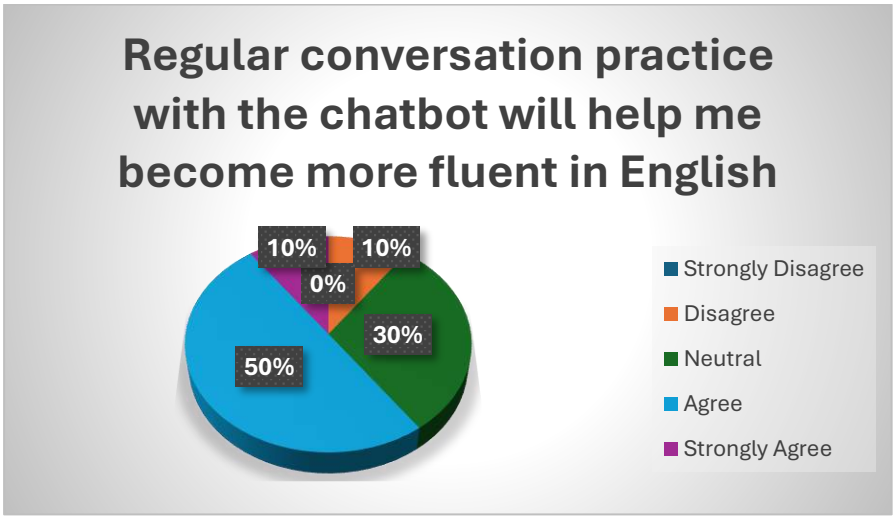
Regular conversation practice with the chatbot will help me become more fluent in English

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	1	10%
Neutral	3	30%
Agree	5	50%
Strongly Agree	1	10%
Total	10	100%

Elaborated by the author

Regular conversation practice with the chatbot will help me become more fluent in English

Figure 5



Elaborated by the author

Statement 6: "I set specific goals for my speaking improvement, like speaking more naturally or making fewer grammar mistakes."

A significant number of students report the practice of setting specific goals to improve their speaking. This indicates a degree of self-awareness and willingness to apply themselves to the bettering of their language skills. On the other hand, there are answers of neutrality or disagreement, which might suggest maybe not all students see this practice in use, or some students do not feel able to set relevant learning goals. This gap highlights the necessity for interventions designed to help students with setting specific, achievable speaking goals in their language development.

Table 8

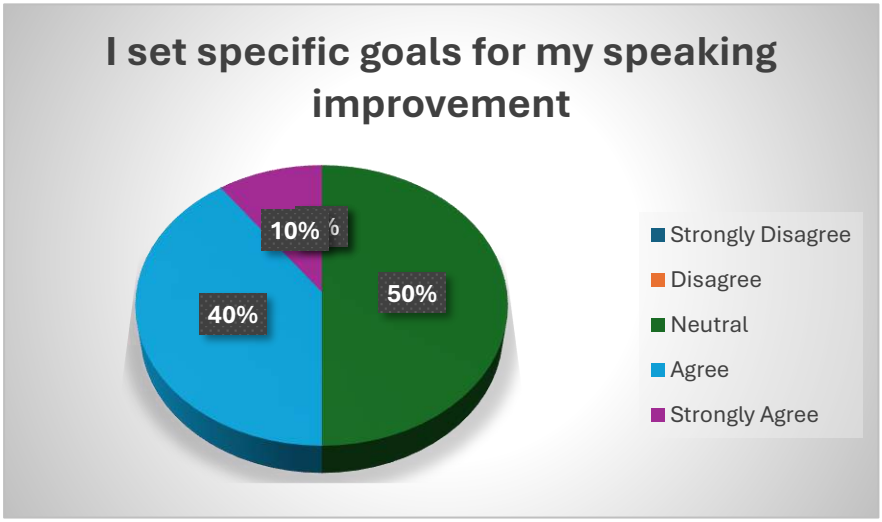
I set specific goals for my speaking improvement

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Neutral	5	50%
Agree	4	40%
Strongly Agree	1	10%
Total	10	100%

Elaborated by the author

Figure 6

I set specific goals for my speaking improvement



Elaborated by the author

Statement 7: "I feel confident gathering information I need for speaking tasks, like thinking of key points for a conversation or comparing photos."

The majority of students feel confident about gathering information for speaking tasks, suggesting that they feel competent in thinking critically and organizing ideas for a conversation. This means that students believe that they can draw on this knowledge when facing speaking tasks with some semblance of organization. However, a smaller number seems to be doubtful or disagree for the reason of organizing their thoughts rather spontaneously, which with varying results, is another challenge. This gap seeks, therefore, to suggest some additional mix of conversations where students really feel confident, plus perhaps some more work with retrieval and organization of information in real-time speaking tasks.

Table 9

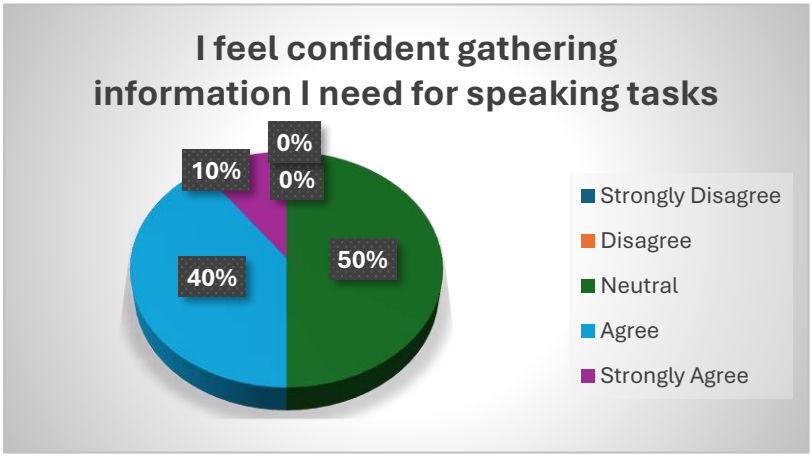
I feel confident gathering information I need for speaking tasks

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Neutral	5	50%
Agree	4	40%
Strongly Agree	1	10%
Total	10	100%

Elaborated by the author

Figure 7

I feel confident gathering information I need for speaking tasks



Elaborated by the author

Statement 8: "I often check my understanding during conversations and adjust if I don't understand, like rephrasing or asking for clarification."

The results have shown that a great number of students self-monitoring their conversations and adjusting when they don't understand during conversation. This points to good strategic competence, in that students understand the need to ensure comprehension during conversations. However, some students in the neutral or disagree categories might imply that they are either not confident enough to ask for clarification or feel that self-monitoring is an unnecessary task. These gaps show that some students would require more training on effective ways to deal with misunderstandings in conversation.

Table 10

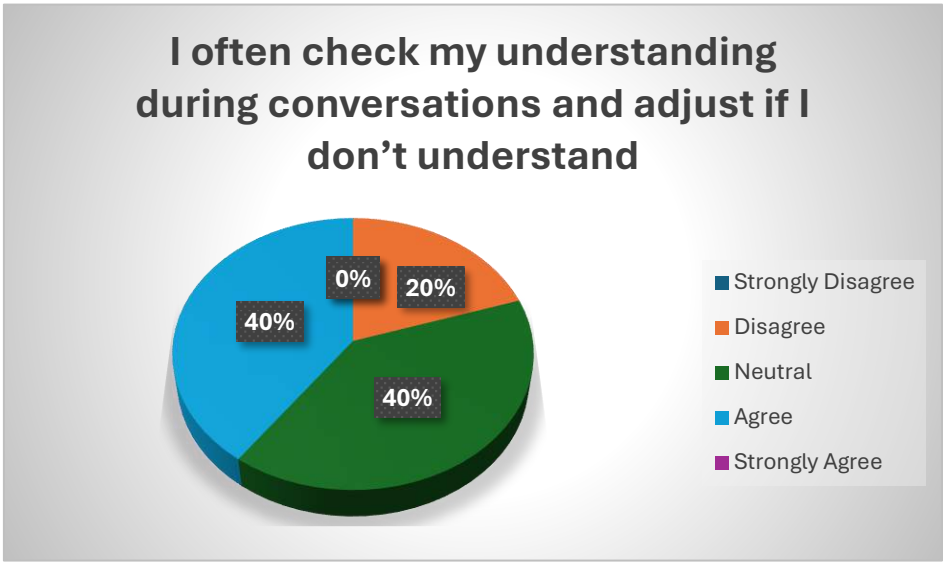
I often check my understanding during conversations and adjust if I don't understand

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	2	20%
Neutral	4	40%
Agree	4	40%
Strongly Agree	0	0%
Total	10	100%

Elaborated by the author

Figure 8

I often check my understanding during conversations and adjust if I don't understand



Elaborated by the author

Statement 9: "After speaking in English, I usually reflect on how I did and consider what I could improve."

Even though metacognitive awareness of their language skills would account for the majority of students reflecting on their speaking performance after conversations, it is a positive indicator of their willingness to engage in self-assessment and improvement. However, students remaining neutral and even disagreeing are probably reflecting a lack of such assessment regarding their own speaking performance since they may have been time-pressed or unaware of the benefit of doing so. This gap further emphasizes the need to support learners' reflective practice as a whole so as to nurture long-term language development.

Table 11

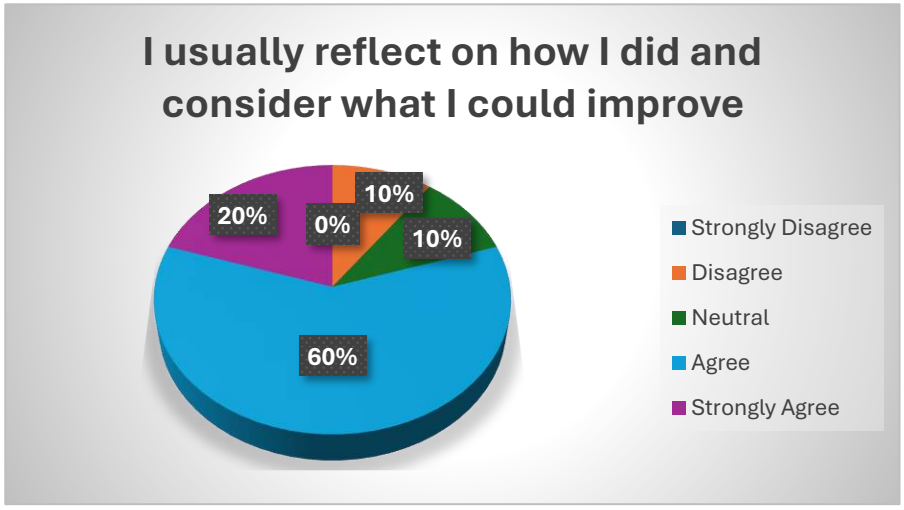
I usually reflect on how I did and consider what I could improve

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	1	10%
Neutral	1	10%
Agree	6	60%
Strongly Agree	2	20%
Total	10	100%

Elaborated by the author

Figure 9

I usually reflect on how I did and consider what I could improve



Elaborated by the author

Statement 10: "I know how to fix misunderstandings during a conversation, like rephrasing what I said if the listener seems confused."

Most students feel confident in their ability to repair misunderstandings that arise with conversations, an essential skill in the development of communicative competence. In reporting intervention effects, reference was made to the importance of clarification and rephrasing in situations of breakdowns in communication. But again, some students remain neutral, and others disagreed, which may signal a struggle in awareness of breakdowns or in mobilizing conversational repair. Thus, this reveals an area in need of direct instruction and practice in conversation repair strategies so that all students are equipped to manage communication breakdowns effectively.

Table 12

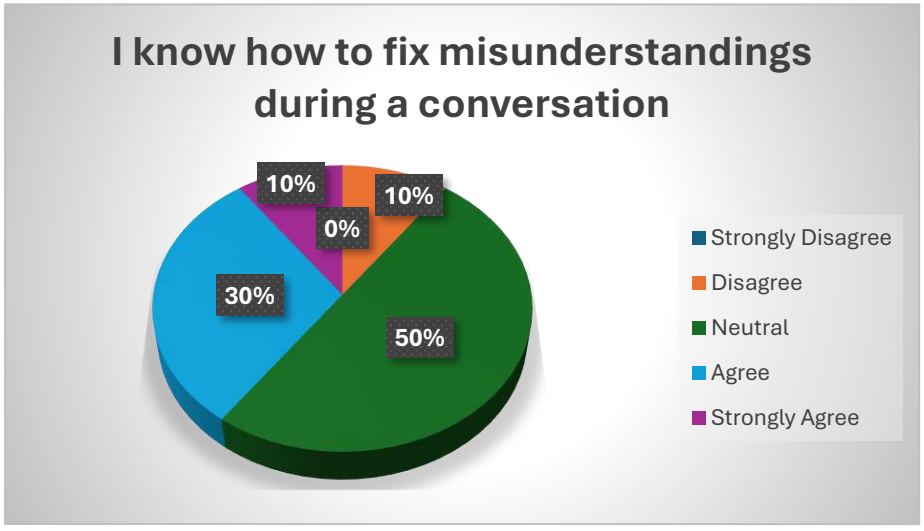
I know how to fix misunderstandings during a conversation

Indicators	Frequency	Percentage
Strongly Disagree	0	0%
Disagree	1	10%
Neutral	5	50%
Agree	3	30%
Strongly Agree	1	10%
Total	10	100%

Elaborated by the author

Figure 10

I know how to fix misunderstandings during a conversation

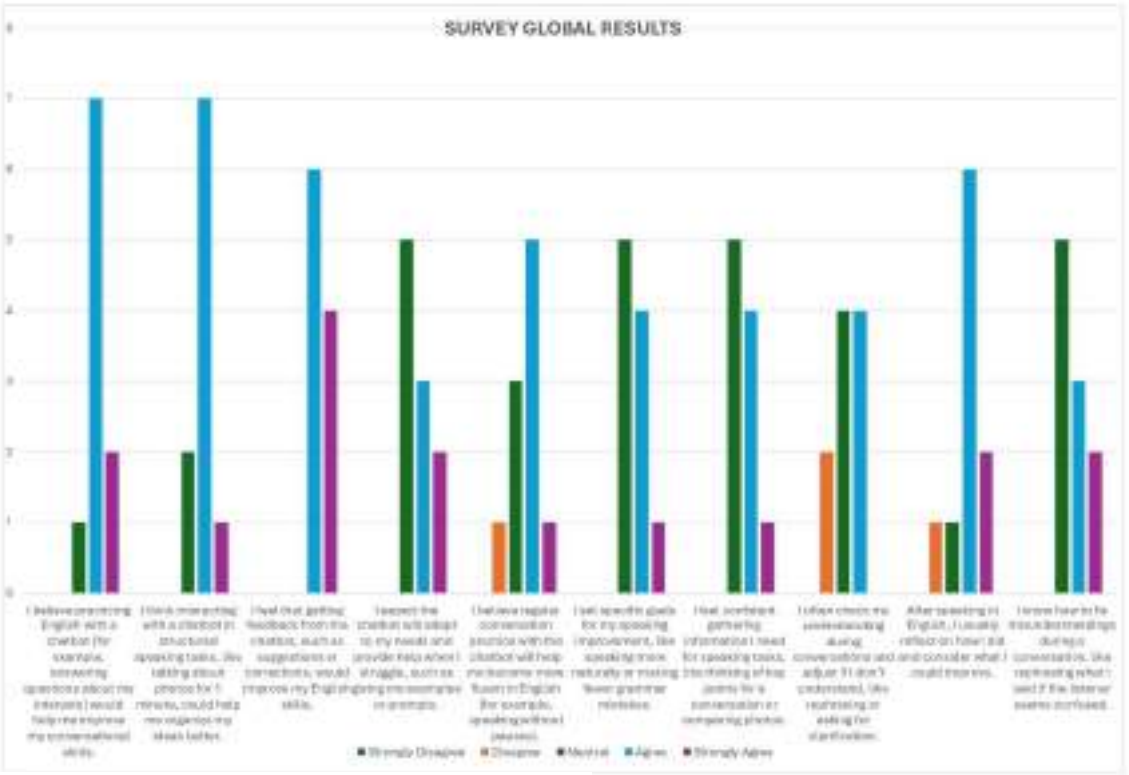


Elaborated by the author

As shown in figure 11, students showed favourable anticipation to interact with AI powered chatbots; while, on the other hand, regarding students' specific gaps in strategic competence, results reported that students do not take ownership of their own language learning process by not setting specific goals for speaking improvement.

Figure 11

Survey Global Results



Elaborated by the author

Findings analysis revealed a noteworthy deficiency with respect to **planning**, especially in the area of **goal setting**, and **information gathering**; thereby, only a small proportion of these students were certain of what specific types of speaking improvement could be set, i.e. fluency or grammatical accuracy. It follows that lack of structured approaches for self-improvement by many learners hinders long term language development (Oxford, 2017). Additionally, responses revealed that before the speaking task, they had difficulties in **gathering** key **information** and, as such, were unprepared as well as hesitant. In line with this, research indicates that poor planning skills cause poorly organized speech production and consequently, poor communication (Ahmed et al., 2022). Based on that, since strategic competence is tightly coupled with metacognitive awareness, targeted instruction to

the goal setting frameworks and the information processing strategies would help in closing the planning gaps (Akeshova et al., 2023).

Another area were **monitoring skills** or, in other words, comprehension checks and real-time adjustments. Most of the students found it challenging to actively monitor their understanding during the conversations, especially rephrasing when not sure or asking for clarification. Such a finding indicates lack of **self-regulation** without which communication and interactive engagement are not effective (Ellis 2005). Studies have revealed that learners who find monitoring difficult are more likely fall apart in terms of communication, particularly because of inadequate real-time processing and response formulation when breakdowns occur.(Alem, 2020). Chatbot based interactions deliver instant feedback and scaffolding which would give opportunities to implement AI driven practice that could reinforce self-monitoring techniques by enhancing the students' own awareness of their speech patterns and comprehension gap (Ahmed et al., 2022).

A few weaknesses in the regulatory aspect of strategic competence (regulation) were also spotted, in terms of **self-evaluation** and **repair strategies**. A large portion of students also reported not giving much thought to their speaking performance after a conversation, and reported that they did not think about how to do it better. In addition, respondents were unsure about how to repair misunderstandings, for instance, by rephrasing when a listener seems to be in confusion. It indicates that there is a lack of metacognitive strategies that would be necessary for independent learning and subsequent continuous improvement (Oxford, 2017). Since AI chatbots can simulate online real time interaction and provide feedback to the students directly, incorporating structured chatbot based reflection tasks could also encourage learners to self-evaluate their speech and reflect on their repair strategies (Akeshova et al., 2023). Effective responses to these challenges of adaptation to conversational regulation will foster the capacity to make learners adapt and improve autonomously in conversational settings.

The gaps established after the survey administration were outlined into a table that guided AI chatbot intervention design as shown in Table 3.

Table 13

Strategic Competence Gaps

Gap	Strategic Competence Aspect	Question Item
Lack of goal setting	Planning	I set specific goals for my speaking improvement, like speaking more naturally or making fewer grammar mistakes.
Difficulty in information gathering	Planning	I feel confident gathering information I need for speaking tasks, like thinking of key points for a conversation or comparing photos.
Weak comprehension monitoring	Monitoring.	I often check my understanding during conversations and adjust if I don’t understand, like rephrasing or asking for clarification.
Limited self-evaluation	Regulation	After speaking in English, I usually reflect on how I did and consider what I could improve.
Struggles with repair strategies	Regulation	I know how to fix misunderstandings during a conversation, like rephrasing what I said if the listener seems confused.

Elaborated by the author

Research Question 2

To what extent does the AI chatbot-based intervention enhance the strategic competence of B1 EFL learners at Colegio Bilingüe Marie Clarac?

In order to gauge the effect of the interaction with the AI chatbot, a Cambridge FCE Speaking mock exam was modified to include distinct rubric specifications which encompassed strategic competence patterns as shown in Table 4. Planning, monitoring and regulation strategies were accurately assessed by pretest and posttest (Cambridge FCE Speaking mock exam). These modifications were made in order to be able to capture students' ability to structure their responses, self-monitor and repair communication breakdowns, key elements in strategic competence development (Akeshova et al., 2023). The use of the Paired T-test was utilized to see if there were any significant improvements seen after a six-week AI chatbot intervention. As this test can be used to compare the means of dependent samples, it makes it easy to have a direct examination of individual progress before and after the intervention (Ahmed et al., 2022).

These research's devices comprising pretest and posttest were mock FCE Speaking examinations sourced from Cambridge. The purpose was to act as standardized measures of the participants' speaking skills before and after intervention. The pretest was conducted at the beginning of the study, and it served as a baseline measurement of students' speaking performance. The intervention was conducted after the administration of pretest evaluation for one month, from January 6 until February 6, 2025. The intervention was composed of four lesson plans; each emphasizing a specific part of the Speaking section of FCE. Each example lesson included four stages: (1) Instruct and Model, presenting useful tips and strategies for the specific part of the speaking section; (2) Guided Practice-in which students practiced asking and answering conversational questions using real-time feedback generated through chat with the chatbot; (3) Independent Practice-in which students created their practice as if taking the real exam; and (4) Assessment-evaluation of students' performance based on interaction with the chatbot. The first lesson was conducted between January 6 and January 10, the second, between January 13 and January 17, the third, January 20 to January 24, and the fourth, from January 27 to February 6. The last test was done on February 6 to determine the students' post-intervention speaking abilities for a subsequent comparison with their pre-intervention levels.

Table 14

Rubric for Assessing Strategic Competence

Criteria	Excellent (5)	Good (4)	Satisfactory (3)	Needs Improvement (2)	Unsatisfactory (1)
Planning	Demonstrates clear goal setting and thorough information gathering, effectively preparing for the interaction.	Shows good goal setting and information gathering, with minor gaps in preparation.	Displays some goal setting and information gathering, but lacks depth or clarity.	Limited goal setting and information gathering, resulting in unclear objectives.	No evidence of goal setting or information gathering; unprepared for interaction.
Monitoring	Maintains excellent conversation flow, demonstrates strong comprehension, and effectively solves problems as they arise.	Generally, maintains conversation flow, shows good comprehension, and solves problems with minor issues.	Manages conversation flow with some interruptions; comprehension is adequate but problem-solving is inconsistent.	Struggles with conversation flow and comprehension; rarely solves problems effectively.	Fails to maintain conversation flow; poor comprehension and no problem-solving evident.
Regulation	Engages in thorough self-evaluation, effectively corrects errors, and employs diverse repair strategies during interactions.	Shows good self-evaluation, corrects most errors, and uses some repair strategies effectively.	Some self-evaluations are present; error correction is inconsistent; limited use of repair strategies.	Minimal self-evaluation: struggles with error correction and rarely uses repair strategies.	No self-evaluation: fails to correct errors or use repair strategies during interactions.

Elaborated by the author

As can be shown in Table 15 and 16, the pretest and posttest results display a clear upward trend in strategic competence, with improvement shown in all the three measured areas: planning, monitoring, and regulation. The average pretest planning score was 3.65, minimum 3 and maximum 4.5, and in the posttest the planning score increased to an average of 4.00, maximum 5 and minimum 3. Similarly, average monitoring scores were 3.65 (min: 2, max: 5) and 4.1 (min: 2.5, max: 5) in the pretest and posttest, respectively. The measure of regulation also increased significantly from the average of 3.35 (min: 3, max: 4) to 3.85 (min: 3.5, max: 4.5).

Table 15

Pretest Score Variability

Metric	Min	Max
Planning	3	4,5
Monitoring	2	5
Regulation	3	4

Elaborated by the author

Table 16

Posttest Score Variability

Metric	Min	Max
Planning	3	5
Monitoring	2,5	5
Regulation	3,5	4,5

Elaborated by the author

Such shifts are signs of a general strengthening of strategic competence, which implies that the interaction with AI-empowered chatbots itself functioned as a reliable mediator for students to plan responses, monitor performance, and handle the communication breakdowns (Akeshova et al., 2023). The statistical analysis argues that the results show that while the gains were not outlier driven, most of students did experience gains.

The nuances of the intervention's impact can be seen when looking at a more granular analysis of each of the strategic competence indicators. In terms of planning as seen in Table 17, students increased their ability to make their speech logical and at the same time set goals for communicative effectiveness.

Table 17

Planning Pretest and Posttest Results

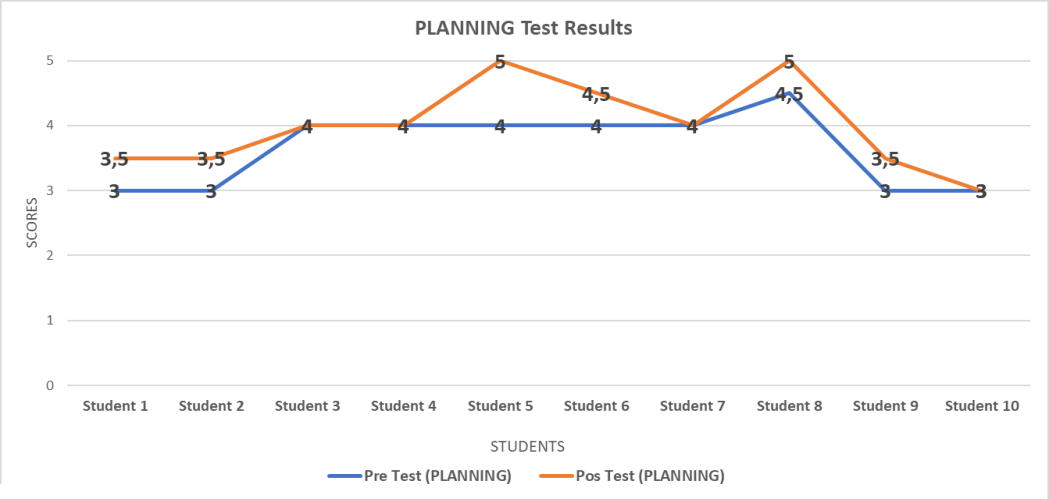
Nº	Pretest (PLANNING)	Posttest (PLANNING)
Student 1	3	3,5
Student 2	3	3,5
Student 3	4	4
Student 4	4	4
Student 5	4	5
Student 6	4	4,5
Student 7	4	4
Student 8	4,5	5
Student 9	3	3,5
Student 10	3	3
Average	3,65	4,00
Standard Deviation	0,58	0,67

Elaborated by the author

The mean planning score increased from 3.65 in the pretest to 4.00 in the posttest, which is an indicator of an enhanced ability in goal setting and information gathering, two major sub components. The increase in percentage scores from 73% to 80% showed a gain of 0.0 – 1.0 points, most learners did make progress. The drop in the standard deviation from 0.58 to 0.67 indicates that competence also is uniform across the group. The AI chatbot interaction reinforced conversational objectives and promoted structured learning, which would have facilitated students' speech planning by promoting more effective outcomes, meaning that students would have prepared responses in a more confident and organized manner.

Figure 11

Planning Comparison Pretest and Posttest



Elaborated by the author

As the statistical graph shows in Figure 11, the scores for planning post intervention have a consistent upward trend. The posttest line drops above the pretest line indicating learners improved their ability in planning conversations. Structured chatbot interactions also peak in individual performance where explicit support is provided for organizing ideas & setting goals. By analyzing the difference in scores between the pretest and posttest, adaptivity of chatbot was noted since learners were delivered tailored feedback and scaffolding which in turn helped them to refine their conversational preparation strategies. This notion fits well with the principles of Dialogue Management, which improved complexity, accuracy, and fluency (CAF) in chatbot, enabled simulations of actual real communication settings. Finally, the graph supports numerical analysis that the AI chatbot interactions meaningfully contribute to improving the planning skill through providing goal setting abilities and adaptive support in real time.

In terms of monitoring, self-monitoring skills, critical for real-time conversational adjustments demonstrated substantial improvement as can be shown in Table 18.

Table 18

Monitoring Pretest and Posttest Results

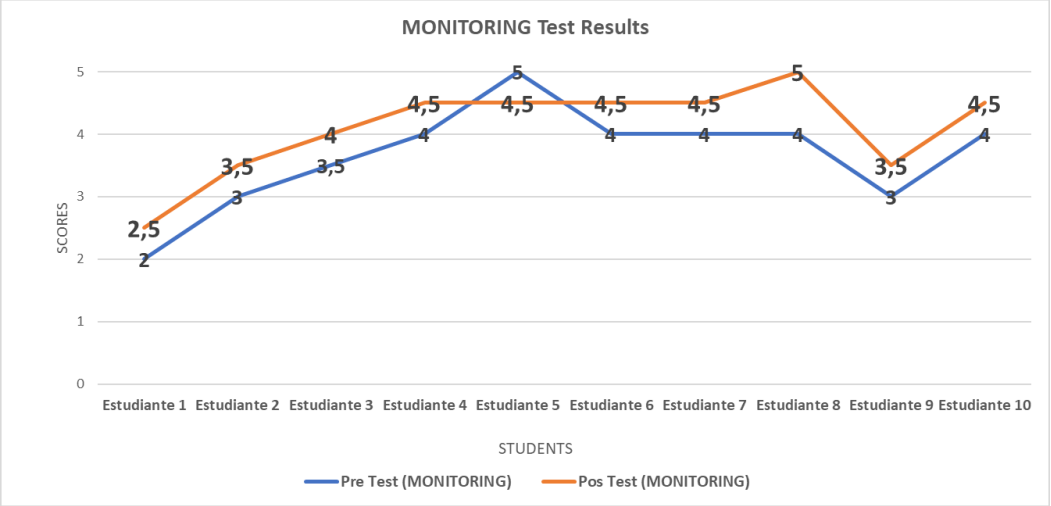
Nº	Pretest (MONITORING)	Posttest (MONITORING)
Student 1	2	2,5
Student 2	3	3,5
Student 3	3,5	4
Student 4	4	4,5
Student 5	5	4,5
Student 6	4	4,5
Student 7	4	4,5
Student 8	4	5
Student 9	3	3,5
Student 10	4	4,5
Average	3,65	4,10
Standard Deviation	0,82	0,74

Elaborated by the author

The AI chatbot interaction greatly improved students' monitoring skills which constitute an integral part of strategic competence. The mean score from the pretest monitoring was 3.65 and at the posttest monitoring was 4.10, demonstrating improvement in the real-time awareness of conversation flow, comprehension, and problem solving strategies. Besides, the percentages also improved from average 73% to 82% with gain from 0.0 to 1.0 points, supporting a better students' ability to track comprehension and dynamically adjust speech. After intervention, the standard deviation went from 0.82 to 0.74, implying greater uniformity in learners' performance. This enhancement is, therefore, attributable to the chatbot's adaptation of scaffolding and personalized feedback, which reinforced monitoring strategies by encouraging learners to detect misunderstandings, advocate for changes in response, and sustain conversation flow. Structured prompts of the chatbot and instant corrective feedback enabled more active engagement in internalizing the chatbot's suggestions of effective monitoring techniques for spoken communication.

Figure 12

Monitoring Comparison Pretest and Posttest



Elaborated by the author

Looking at figure 12, the posttest line is always above the pretest line, showing that the students' stronger self-regulation strategies developed as they interacted with the AI. Specifically, periods of high performance reflected occasions when chatbot scaffolding led to significantly higher effects in facilitating adaptive comprehension adjustments and problem solving skills. The results gap between pretest and posttest confirmed that AI driven monitor support led to an improvement in the learners' spoken interactions, therefore, the chatbot intervention was very successful in promoting learner's ability to monitor and adjust speaking dynamically in real-time conversation.

Lastly, the intervention yielded substantial gains in regulation skills, which are crucial for repairing misunderstandings and refining spoken communication as is depicted in table 19.

Table 19

Regulation Pretest and Posttest Results

Nº	Pretest (REGULATION)	Posttest (REGULATION)
Student 1	3	3,5
Student 2	3	3,5
Student 3	3,5	4
Student 4	3	3,5
Student 5	4	4,5
Student 6	4	4,5
Student 7	3	3,5
Student 8	4	4

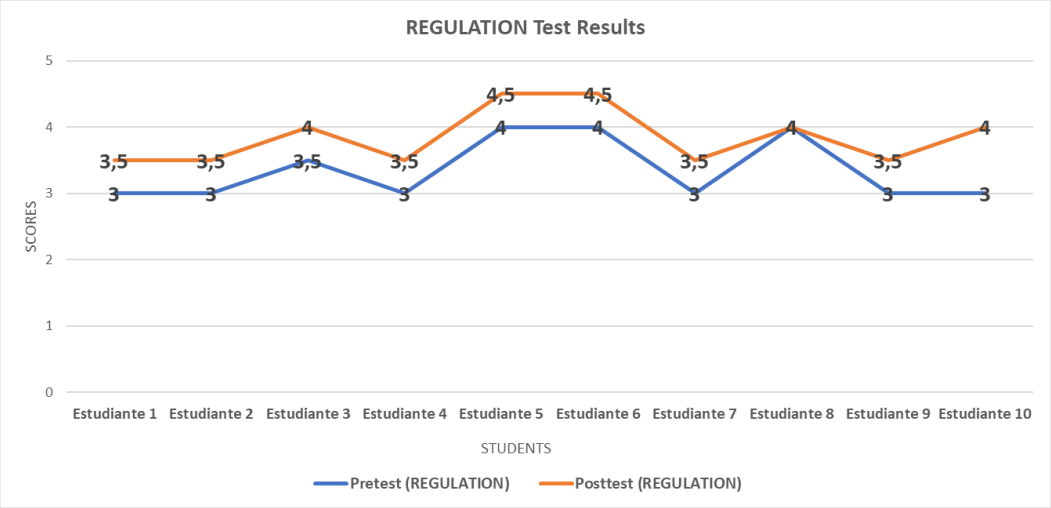
Student 9	3	3,5
Student 10	3	4
Average	3,35	3,85
Standard Deviation	0,47	0,41

Elaborated by the author

The table shows the increase of the mean regulation score from 3.35 to 3.85, which means that the ability for self-evaluation, error correction, and repair strategies improved. Furthermore, the average percentage scores increased from 67% in pretest to 77% in posttest, demonstrating more effective way of adjusting speech when communication breakdowns occurred. Finally, the standard deviation went down from 0.47 to 0.41, which means participants were more uniform in their use of strategic self-regulation skills, implying that chatbot interactions had increased the uniformity of strategic self-regulation skills among learners. Adaptive scaffolding and real time feedback mechanisms of chatbot enabled scaffolding of structured error identification and self-correction opportunities which accounted for the improvement made by the learners.

Figure 13

Regulation Comparison Pretest and Posttest



Elaborated by the author

The overall improvement of learners' ability to regulate their speech effectively, measured by the overall improvement, is verified through the posttest line being above pretest line in Figure 13. The chatbot's Dialogue Management dimension allowed learners to analyze their spoken errors, restructure responses and more academically refine their conversational style. The upward trend of the graph points to that with the support from chatbot, more autonomous speech adjustment in response to feedback was performed and continuous

learning was achieved. Notably, peaks of performance in the posttest occurred after chatbot induced interventions that promote structured self-correcting strategies. This affirmed research claims that AI generated corrective feedback encourages metacognitive engagement, letting learners reflect on and bolster their performance while delivering oral productions in real time.

The intervention dynamically helped learners identify errors, modify responses, and strategically use language by providing task specific outcomes within a structured conversational domain. Somehow, through the integration of the Conversational and Cognitive AI aspects within the chatbot framework, a measurable and statistically significant improvement in the students' ability to self-regulate speech was observed, thus successfully testing out the efficacy of AI assisted interventions in helping students become autonomous in language learning.

Table 20

T-test Results

N	Dimension	T-test	
		T-statistic	P-value
10	Planning	-3,28	0,010
	Monitoring	-3,86	0,004
	Regulation	-6,71	0,0001

Elaborated by the author

Results from the Paired T-test ($p < 0.05$) substantiate that the observed improvements were statistically significant and imply that the intervention played a part in the students' development of strategic competence. The p-values of the mean scores in planning, monitoring, and regulation showed a statistically significant increase ($p=0.010$, 0.004, and 0.0001, respectively) corresponding to the efficacy of the intervention. This could corroborate the statement that the AI chatbots act as good supplementary tools for EFL learners in helping them learn languages through guided feedback (Alem, 2020; Akeshova et al., 2023).

Finally, significant gains in planning, monitoring, and regulation in posttest scores, were observed, indicating that the AI chatbot based intervention helped B1 EFL learners at Colegio Bilingüe Marie Clarac improve their strategic competence.

Research Question 3

What are the perceptions of B1-level students regarding the impact of AI chatbot interaction on enhancing their strategic competence?

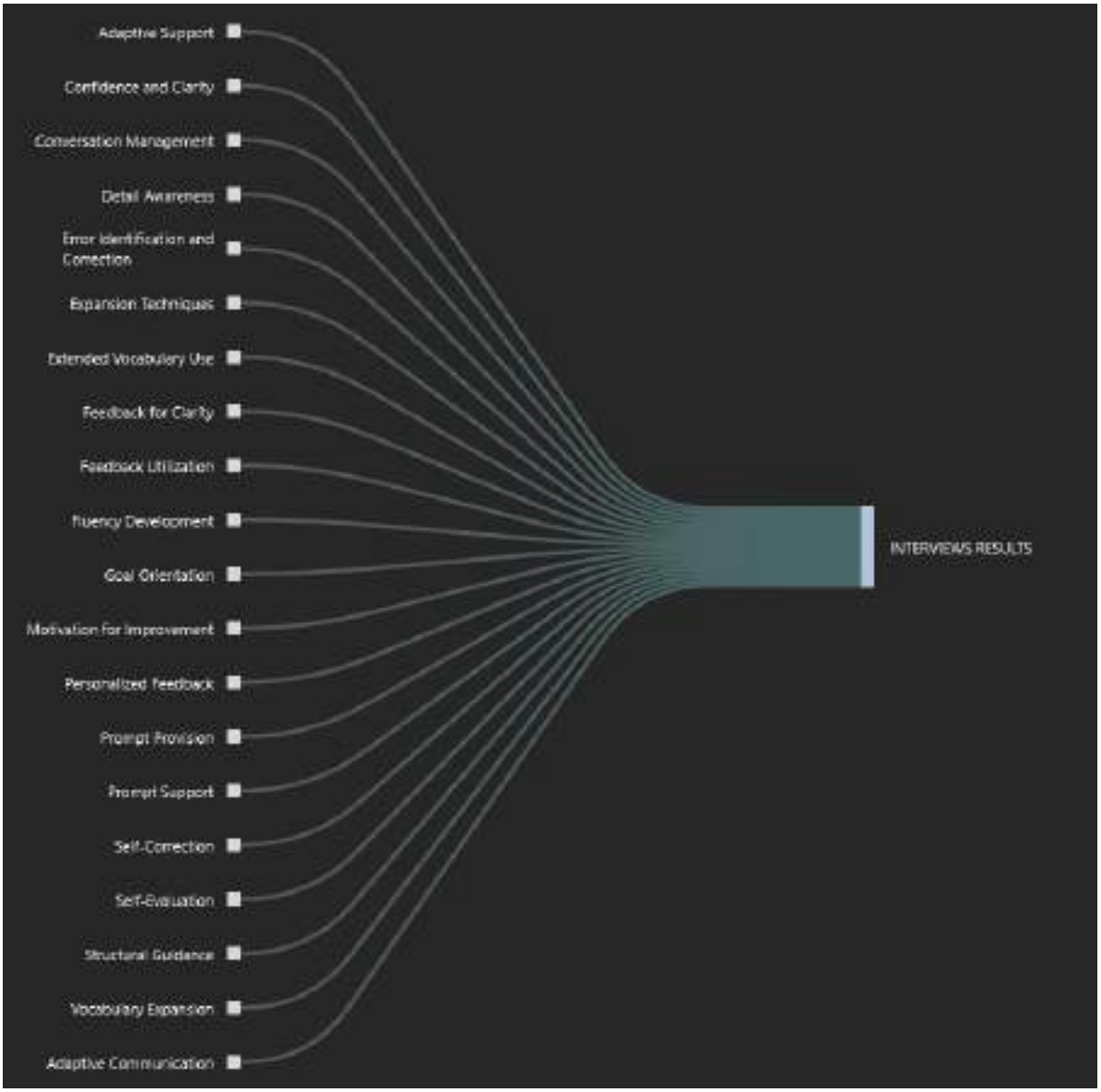
The open-ended interview sought a perspective view from students on the uses of AI chatbots to improve English communication skills with an emphasis on strategic competence development. Edinburgh B2 students the interview in order to express the perceptions about their experience interacting with the AI chatbot. The instrument consisted of 10 items. The corresponding thematic analysis of the qualitative data was conducted on ATLAS.ti from which common codes were drawn as shown in Figure 14 to be further parsed and sorted into a table.

The ten questions in the interview were designed to capture different aspects of strategic competence, such as conversational focus, adaptivity, dialogue management, planning, monitoring, and regulation. The purpose was to explore students' perceptions of the chatbot interactions and their speaking abilities, the strategies to resolve potential speaking problems, the setting of possible goals, and self-monitoring.

The questions targeted different components of strategic competence: One area examined how the chatbot was supportive in helping students with organizing their thoughts (Learning Objective); some addressed how adaptive the chatbot was in giving constructive feedback and support (Adaptivity); there were a number of items addressing how the chatbot made students aware of keeping activities in focus during conversational flow and solving speaking difficulties (Dialogue Management and Monitoring). In addition, self-regulation questions were included so that the students could discuss how they evaluated their own performance and made some changes (Self-Evaluation and Repair Strategies). The interview was planned in a way that responses would be no less than 20 words long so that detailed answers could give a good account of students' experiences and ideas. The interview primarily aimed to measure the extent of the effectiveness of AI chatbots in raising students' strategic competence in English communication.

Figure 14

Coding Interview Results



Elaborated by the author

Planning

Based on the results from the thematic analysis of the interviews as seen in Figure 15, students emphasized that **vocabulary expansion** was one of the major effects; many students found that feedback from the chatbot introduced to them new lexical items and expressions that helped them formulate more precise and contextually fitting responses (Nation, 2001). Moreover, the experience of the chatbot led to **goal-oriented** behaviour, as the students reported that they **set specific linguistic goals**, e.g. aim to improve the fluency, or to enlarge the vocabulary, which is consistent with the notion of self-directed learning.

Figure 15

Planning Thematic Analysis

Elaborated by the author

Vocabulary Expansion

"Practicing with the chatbot improved my use of vocabulary and words in general"; "The chatbot gave me new vocabulary and ways to express myself better"; "It gave me tips such as vocabulary and syntax recommendations"

Goal Orientation

"I now focus on precision and rich vocabulary"; "I started setting small, measurable goals"; "I began aiming to be a better English speaker"

Confidence and Clarity

"Helped me explain my ideas clearly without rushing"; "It deepened my thinking and made me confident"; "I became more confident in expressing ideas naturally"

Extended Vocabulary Use

"I expanded my vocabulary and responded more fluently"; "The chatbot helped me connect and lengthen my ideas"; "It provided useful vocabulary for handling long discussions"

Motivation for Improvement

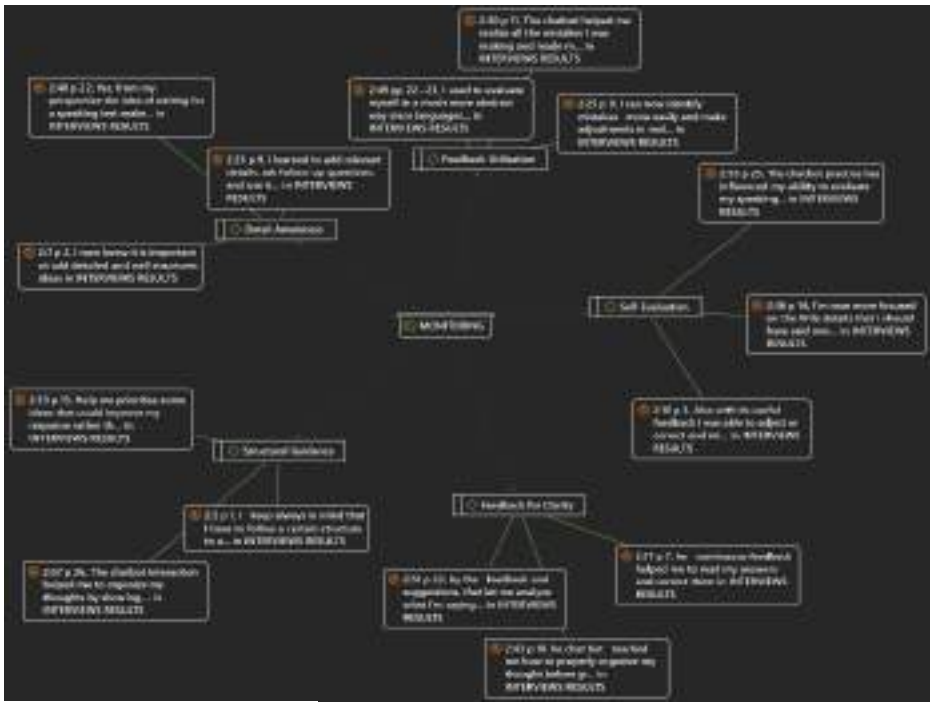
"It motivated me to set both daily and long-term goals"; "The chatbot influenced me to practice more and improve my speaking"; "I set even higher goals to improve my speaking for a better future"

Monitoring

This dimension was positively impacted by chatbot interaction according to Figure 16. The importance of providing **structural guidance** as well as immediate feedback was highlighted by students because **it enabled them to organize their thoughts more effectively** and also to assess their performance in real time. Formative feedback is seen to help learners **self-monitor** through being able to identify mistakes and **make adjustments** in time (Hyland, 2003). This was consistent with the fact that students mentioned being more **aware of** the grammatical **accuracy** and **coherence**, as a result they produced more coherent sentences as well as a logical progression in their spoken output (Ellis, 2009).

Figure 16

Monitoring Thematic Analysis



Elaborated by the author

Structural Guidance

"I now follow a certain structure to answer the best"; "The chatbot interaction helped me organize my thoughts by showing, comparing, and discussing different photos"; "It taught me to prioritize ideas instead of giving vague answers"

Feedback for Clarity

"The continuous feedback helped me read my answers and correct them"; "It gave me advice before and after answering, helping me organize my thoughts"; "I was able to analyze what I said and restructure my ideas"

Self-Evaluation

"It helped me identify mistakes and correct them"; "I analyze what I say and make adjustments"; "I am more critical and focused on details"

Feedback Utilization

"I can evaluate myself using the chatbot's feedback"; "The chatbot's corrections helped me adjust my speaking in real time"; "Feedback helped me improve my performance faster"

Detail Awareness

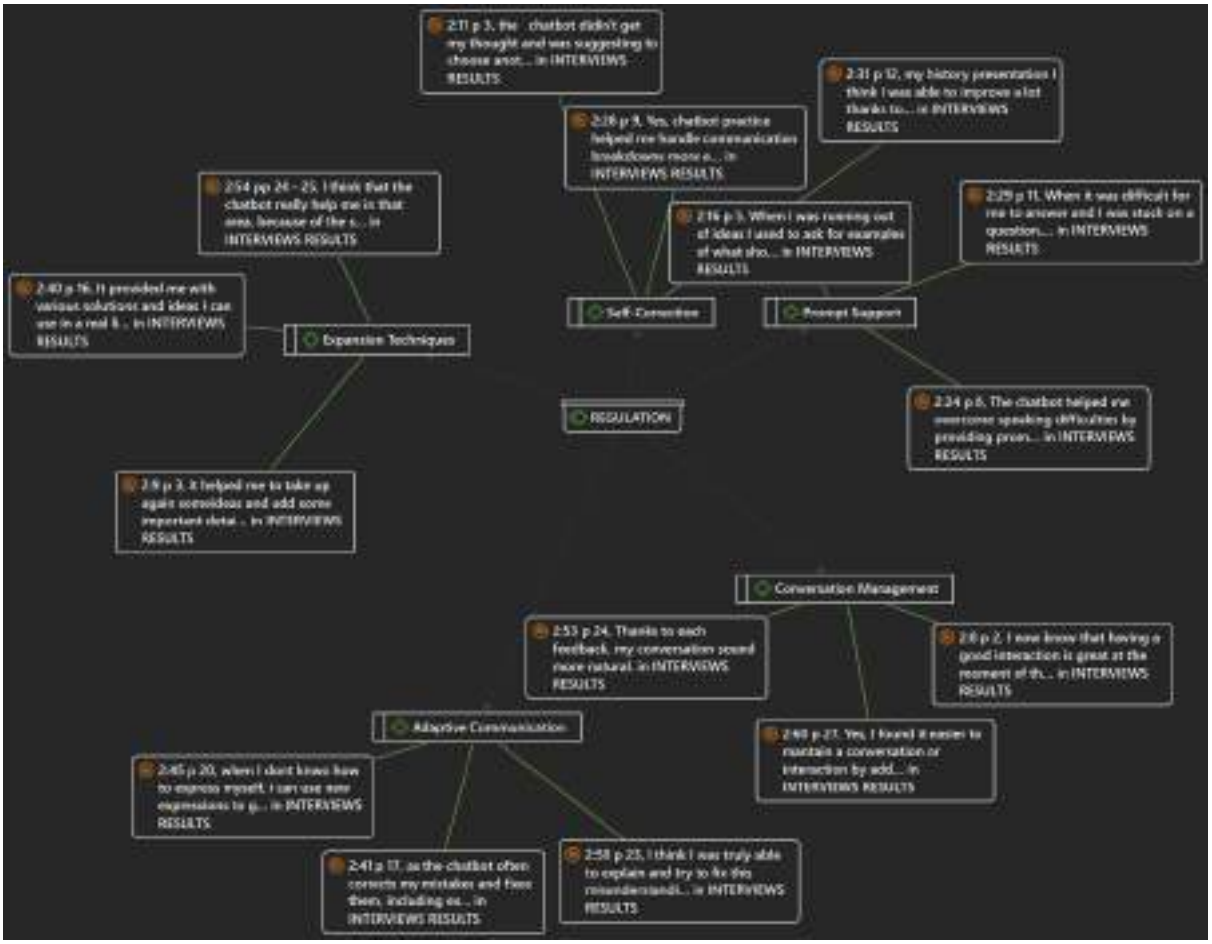
"Now I am aware to add well-structured ideas"; "I learned to add relevant details and use transition phrases"; "I became more aware of how much detail I provided"

Regulation

The chatbot interaction appeared most transformative in the final component of regulation. Students reported adopting learned **adaptive communication** strategies, for instance, rephrasing to avoid breakdowns, and using fillers to increase **fluency of conversation**. Adaptive approaches conform well with strategic competence frameworks emphasizing compensatory strategies for managing the communication gaps (Dörnyei & Scott, 1997). These regulatory behaviors were reinforced by the chatbot's capacity to provide prompts and solutions at moments of hesitation (Goh & Burns, 2012) in order to bolster their resilience to conversational challenges.

Figure 17

Regulation Thematic Analysis



Elaborated by the author

Self-Correction

"I corrected my ideas when the chatbot misunderstood me"; "I rephrased and clarified my ideas during breakdowns"; "I fixed vocabulary mistakes in a history presentation"

Adaptive Communication

"I used new expressions to buy time when stuck"; "I found alternative ways to express my thoughts"; "I explained and corrected errors with more confidence"

Prompt Support

"It provided me prompts and alternative expressions"; "I asked for examples when I ran out of ideas"; "It suggested ideas when I was stuck"

Expansion Techniques

"Helped me take up previous ideas and add details"; "Gave me solutions to keep the conversation engaging"; "Provided solutions and ideas for real-life conversations"

Conversation Management

"I found it easier to maintain a conversation by adding questions"; "After feedback, my conversation sounds more natural"; "I know that a good interaction is important during the test"

The findings point towards chatbot assisted practice as helpful to improve strategic competence, nevertheless, some limitations were found. Many students even revealed that the chatbot helped to plan and monitor, but at times gave unhelpful, generic feedback and thus had to be clarified further. Such practice is consistent with studies that show the need for personalized scaffolding in technology assisted language learning. In addition, the students raised the issue of over reliance on the support of AI and emphasized the need for balancing interaction with AI with peer and teacher feedback in order to build overall communicative competence (Warschauer, 2004). Therefore, it appears that AI chatbot interaction helped B1 level students to develop their strategic competence, which is, namely, to enhance their planning, monitoring and regulation abilities (see Table 21). This resonates with existing literature on the efficiency of interactive media in serving the purpose of autonomous learning and strategic language use (Benson, 2011).

Table 21

Code Categorization

Planning	Monitoring	Regulation
Vocabulary Expansion	Structural Guidance	Self-Correction
Goal Orientation	Feedback for Clarity	Adaptive Communication
Motivation for Improvement	Self-Evaluation	Prompt Support
Extended Vocabulary Use	Feedback Utilization	Expansion Techniques
Confidence and Clarity	Detail Awareness	Conversation Management
Vocabulary Expansion	Structural Guidance	Self-Correction

Elaborated by the author

LIMITATIONS

Despite its contribution, this study cannot be taken without acknowledging its limitations in order to direct future research and implementation. The sample size is the main limitation. Due to the small group limit on the generalizability of the findings to a wider population, this study used a relatively small group of B1 learners. Although the findings of this study suggest positive results regarding interaction with AI chatbot and strategic competence, further research with larger and more diverse populations is required to confirm these results to different educational environments and levels of proficiency.

Another limitation involves the length of the intervention. The six-week period of AI chatbot integration provided valuable insights into short-term improvements in strategic competence. While the study did not consider possible long-term retention of strategic competence skills beyond the intervention, language acquisition is a long-term process. Future studies should employ longitudinal designs to determine whether such improvements in planning and monitoring as well as regulation are experienced on a more permanent basis and in natural communicative situations.

Furthermore, AI chatbots are successful at improving strategic competence but are not exactly the same as human interaction. The absence of nonverbal cues, emotional intelligence in chatbot responses can be a problem for learners to develop pragmatic competence which should be a vital aspect of real-life conversation. However, this limitation could be addressed through future studies of learning models which includes chatbot interaction along with teacher led exercises to encourage strategic operational competence.

Lastly, the strategic competence was measured through both quantitative and qualitative variables. This mixed method approach provided a more robust understanding from the collection of data, however, the assessment of conversational competence is still intrinsically subject to some degree. There is potential bias in (the interpretation of) learners' interactions and self-reported perceptions. As a result, the development of more objective and standardized assessment frameworks on strategic competence of such AI mediated learning environments is a topic of future research.

FINDINGS

The aim of this research study was to investigate the contribution of AI chatbot interaction to improve the strategic competence of B1-level EFL learners at Colegio Bilingue Marie Clarac. This objective was realized through the applications of several instruments, including pretest and posttest assessments, a Likert-scale survey, and qualitative interviews. The analysis of data generated clear resulting evidence regarding how intervention met research objectives and profoundly evinced impact that AI chatbots would have on the gain in strategic competence.

The first research question aimed to identify particular gaps in the strategic competence of B1 EFL learners at the institution. The findings revealed that there were clear weaknesses in the areas of planning, monitoring, and regulation. The students had difficulties in setting clear learning goals in the use of the language, in gathering adequate information for speaking tasks, and in maintaining the flow of oral conversation. Another big gap was insufficient self-regulation, which involved problems in rephrasing or asking for clarification during breakdowns in communication. Results were inferred and based on pretest data in which students were very challenged when planning their speech and managing communication.

The second research question answered the extent by which AI- chatbots intervention would impact increase the students' strategic competence. Results from the posttest indicate that significant improvement across the three areas of strategic competence-planning, monitoring, and regulation-was made by students. The data showed that students were better able to plan their reactions, maintain conversation flow, and regulate their speech after interaction with the chatbot. Using paired t-tests for statistical analysis, these developments were confirmed as significant and not due to random chance, given the high p-values. This indicates that the AI chatbot effectively promoted strategic competence for the students through real-time feedback and scaffolding during practice sessions.

The third research question intended to inquire about the students' perceptions of the effects of the AI chatbot on their strategic competence. The qualitative analysis resulting from interviews showed that, according to the students, the chatbot was very effective in organizing their minds as far as their vocabulary is concerned. Many of the students also reported that the chatbot helped them to set a goal in their speaking improvement such as targeting fluency and grammatical accuracy. Besides, they found that the chatbot could provide feedback and adapt according to their needs, which assisted them in monitoring their

speech and self-correction when necessary. However, some of them mentioned that feedback is generic sometimes and suggested that they should be given more personalized support to enhance their experience further.

The intervention generalized its purpose towards enhancing participant strategic competence by successfully meeting the proposed objectives. Through merging AI-mediated interactions with the task-based language teaching format students obtained individualized feedback for speaking practice of authentic tasks. Through both planning and monitoring speech activities participants developed capable self-regulation tactics. Strategic competence development in language learners became possible significantly because of the chatbot's structured tasks along with adaptive guidance and feedback process.

Ultimately, the proposal demonstrated the feasibility and relevance of using AI chatbots as an innovative tool in language learning. The results confirm that AI chatbots can serve as a valuable resource for EFL learners, offering a scalable and personalized solution to improve speaking skills. The findings suggest that future research could further explore how AI chatbots can be optimized to provide even more targeted support, particularly in addressing specific gaps identified during this study. The integration of AI in language learning not only enhances students' strategic competence but also contributes to the broader goal of fostering autonomous learners who can effectively manage their language development.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The use of AI chatbot interactions in language learning has enabled new directions to improve strategic competence in EFL learners. The purpose of this study has been to assess if AI chatbot is effective promoting planning, monitoring and regulating skills to B1 level students at Colegio Bilingüe Marie Clarac. The research analyzed data from pre and posttests, surveys, and also interviews, utilising the findings to empirically prove that chatbot based interventions can help develop learner autonomy and communicative adaptability. The outcome of this study finds its fit into the ongoing discussions on AI-mediated language education and its pedagogical implications.

Results of this study suggest that AI chatbot interaction can play a major role in improving strategic competence of B1 EFL learners (from Colegio Bilingüe Marie Clarac). Chatbot has proven effective through structuring, adapting, and simulating interactive conversations aimed at improving learners' planning, monitoring, and regulating abilities in their language use. Data from the pretest and posttest assessments, surveys, and interviews provided plenty of evidence to show that learners' strategic competence was positively influenced by the intervention. The mean improvements across the three dimensions of strategic competence—planning, monitoring, and regulation—indicate that AI chatbots serve as an effective supplementary tool in fostering communicative adaptability and autonomy among EFL learners.

This research is one of the key contribution in that it systematically applies AI chatbot technology for language learning, based on a well-defined theoretical framework. Based on the principles of Focus, Adaptivity, and Dialogue Management for chatbot interactions between learners and the chatbot, this study shows how AI mediated interventions can scaffold learners' engagement with meaningful communicative practices. Structured conversation design has been important to this process because the chatbot is able to tailor feedback to the individual learning needs. Vygotsky (1978) theory of scaffolding agrees with this since learners are gradually taught communicative strategies that facilitate their ability to run conversations by themselves although with guidance. Based on the results in the planning dimension, we can conclude that chatbot interactions assist learners to establish communicative goals, gather necessary information for speech production and plan to achieve their goals efficiently.

Even though the scope of such a chatbot project is very limited, it can serve as a template and a place where I can test various lightweight techniques, which can then be applied in other projects for greater usability. The slight increase in standard deviation across the planning scores implies that learners responded variably to the intervention such that, students benefited more from the intervention than others. The variability suggests it requires more research into how an AI chatbot can be tuned to accommodate different learning styles and cognitive processing strategies of EFL learners. The results of monitoring show that learners have enhanced ability of tracking their conversational flow, comprehending input in real time, and solving problems arising from the breakdown of communication. The chatbot's immediate feedback mechanism triggered a self-correction and real time correction, strengthening metacognitive awareness and facilitating an increased involvement in language monitoring. These findings confirm previous studies on AI mediated language learning in regard to chatbots leading to an increase of autonomous learning by facilitating the provision of learners with continuous, structured interactional support.

RECOMMENDATIONS

This study provides several significant recommendations to leverage on the findings to optimize the integration of AI chatbot interaction and improving strategic competence among B1 EFL learners. Firstly, educators should embed AI chatbots as a supplementary tool during the existing curriculum to provide learners with structured opportunity to practice conversational skills outside the classroom. Since previous research has demonstrated that chatbot interactions lead to the development of planning, monitoring, and regulation skills, this is an opportunity to include them in regular language instruction that promotes the development of such skills in a consistent manner. Besides, the nature of chatbot interactions can also help learners develop their strategic competence as they can experiment with strategic competence in various communicative contexts in the real world (such as professional interviews or travel conversations).

Second, the design of chatbot should prioritize adaptivity and personalized feedback mechanism. This study demonstrated that scaffolding and error correction both have positive effects on learners' capacity to self-regulate their speech. Future implementations should include dynamic feedback systems that change dynamically based upon the response of learner, ensuring a tailored learning experience. Furthermore, the strategic competence practice that are supported by a chatbot should include a variety of levels of conversational complexity, so that learners can move from structured dialogues to spontaneous conversations. This guarantees the promotion of fluency and accuracy, as well as understanding skills.

Thirdly, teacher training programs concerning methodologies for AI assisted language learning is required. AI chatbots have many advantages, their successful integration into language instruction requires educators to understand their functionalities and pedagogical implications. The training programs designed for teachers should concentrate on how they can instruct the students to make the best out of the chatbot interactions; including how to set goals, monitor the conversation flow and effectively solve the problems in the dialogue management. Also, encouraging ongoing research and cooperation between the language educators and the AI developers to refine chatbot algorithms and align them with the best pedagogical practices.

Finally, there should be consideration of institutional investment in future long term with AI driven learning technologies. We expect that resources should be allocated in schools or language centers to device an AI chatbot system adjusted to the educational context in

which the school or the language center offers its teaching services. Reducing disparities in language learning opportunities will be ensured by providing equitable access to AI enhanced learning experiences to all the students, regardless of the socioeconomic background. Longitudinal studies should also investigate AI chatbot interaction on learners's overall communicative competence for the long run as a means to maximize their potential with these tools in developing sustained strategic competence.

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Appendix 2 – Investigation planification for the study proposal

UNIVERSIDAD BOLIVARIANA DEL ECUADOR
ANEXO II

"PLAN DE INVESTIGACIÓN PARA LA PROPUESTA, QUE DEBERÁ SER REVISADO Y APROBADO POR LA COMISIÓN DE TITULACIÓN DE CADA PROGRAMA AL CONCLUIR EL TALLER I"

TITLE OF THE PROPOSAL: AI CHATBOT INTERACTION ON ENHANCING STRATEGIC COMPETENCE IN B1 STUDENTS
AUTHOR: CARLOS DÍAZ ORTIZ

The integration of AI chatbots in enhancing strategic competence among B1 students represents a significant advancement in language education. Research indicates that AI interactions can foster learners' ability to employ communicative strategies effectively (Belda-Medina & Calvo-Ferrer, 2022). By engaging with AI chatbots, students can practice real-life conversational scenarios, improving their problem-solving skills and adaptability in communication. This approach aligns with the communicative language teaching principles, emphasizing the practical use of language in authentic contexts (Richards & Rodgers, 2014). Moreover, incorporating AI-driven activities in the curriculum not only aids in achieving linguistic proficiency but also supports the development of critical thinking and intercultural competence, preparing students for a globalized world (Godwin-Jones, 2023). By simulating diverse communicative situations, AI chatbots can help learners navigate conversations more fluidly and confidently, thus enhancing their overall strategic competence in English.

1. Brief analysis and description of the situation that justifies the presentation of this proposal.

The integration of AI in education has the potential to revolutionize language learning, particularly in enhancing strategic competence among B1 English as a Foreign Language (EFL) learners. Strategic competence is defined as the ability to use language learning strategies effectively and is crucial for language acquisition and communication success (Oxford, 2017). Despite the importance of this skill, many EFL learners, even those from privileged backgrounds, lack well-developed strategic competence (Gilakjani, 2017). AI chatbots, such as those studied by Karunarathne et al. (2024), Majorana et al. (2022), and Michalon & Camacho-Zuñiga (2023), have shown promise in providing personalized, real-time support that enhances learning experiences and outcomes. These tools offer tailored assistance, promote self-directed learning, and foster continuous engagement, which are essential for developing strategic competence. Additionally, AI chatbots can address the diverse needs of students and provide support outside traditional classroom hours, making them a valuable resource in educational settings. The positive feedback from students and educators alike underscores the potential of AI chatbots in facilitating the acquisition of strategic competence among B1 learners, suggesting a promising direction for future research and implementation. This study aims to address this gap by investigating the impact of AI chatbot interaction on the strategic competence of B1 learners at Colegio Bilingüe Marie Clarac in Tumbaco, Ecuador.

2. Statement of the problem to be investigated.

The problem to be investigated is the lack of strategic competence in B1 EFL learners at Colegio Bilingüe Marie Clarac. This deficiency manifests as hesitancy in communication, difficulty understanding authentic materials, and limited use of language learning strategies. The sociocultural and economic context of these learners, who come from affluent families and attend a prestigious school, may contribute to this problem. They may have limited exposure to diverse language environments and may be less accustomed to independent learning.

3. Justification of the research

AI chatbots provide personalized feedback, scaffolding, and opportunities for autonomous learning, which are essential for developing strategic competence. Strategic competence is crucial for language acquisition as it enables learners to effectively use language strategies to communicate and learn (Oxford, 2017). Despite this, many B1 EFL learners lack well-developed strategic competence, hindering their progress in language learning (Gilakjani, 2017). Studies by Sha (2009) and Kohnke et al. (2023) have shown that AI chatbots can significantly enhance language learning by engaging learners in interactive and personalized dialogues, which promote deeper understanding and retention of language concepts.

Additionally, the unique sociocultural and economic context of the target learners in Colegio Bilingüe Marie Clarac in Tumbaco, Ecuador, necessitates research to understand how AI chatbot interaction can be effectively tailored to their specific needs and challenges. The implementation of AI chatbots in educational settings has shown promising results in providing consistent, real-time support to learners, thus overcoming barriers such as limited access to qualified language instructors and individualized attention (Kavak et al., 2024; Chang, 2023). Moreover, the ability of AI chatbots to adapt to the learning pace and style of individual students makes them an invaluable tool in fostering strategic competence. By providing instant feedback and creating an engaging learning environment, AI chatbots can help B1 learners develop the skills necessary to navigate and succeed in their language learning journey.

4. Description of the relationship between the proposal and the research lines of the university.

This research aligns with the university's research lines in the areas of technology-enhanced language learning and educational innovation. It contributes to the ongoing exploration of how AI can be leveraged to improve language education and addresses the need for research on effective pedagogical approaches for learners from diverse socioeconomic backgrounds.

5. Object of the research

The object of this research delves into the intricate dynamics of the teaching-learning process of English as a foreign language (EFL), with a specific emphasis on nurturing strategic competence in B1 learners through innovative AI chatbot interaction. It explores how the integration of AI chatbots within the EFL classroom can create a unique and engaging learning environment that fosters the development of essential communication strategies. This encompasses investigating the extent to which AI chatbot interaction can enhance learners' ability to overcome linguistic obstacles, negotiate meaning, and achieve communicative goals effectively. Additionally, the research aims to examine the diverse

ways in which AI chatbots can provide personalized feedback, tailored scaffolding, and targeted practice opportunities, ultimately empowering B1 learners to become more autonomous and confident language users. By scrutinizing the multifaceted interplay between AI chatbot interaction and strategic competence development, this research seeks to contribute valuable insights to the field of EFL pedagogy and inform the design of future language learning interventions.

6. General objective (one)

- To investigate the impact of AI chatbot interaction on enhancing strategic competence in B1 EFL learners at Colegio Bilingüe Marie Clarac.

7. Specific objectives (three)

- To identify the specific strategic competence gaps in the target learners.
- To design and implement an AI chatbot-based intervention to address these gaps.
- To evaluate the effectiveness of the intervention in enhancing strategic competence.

8. Description of the variables of the study (independent & dependent)

Independent Variable: The independent variable in this study is AI chatbot interaction. AI chatbots, described as "intelligent systems designed to interact with users using natural language" (Følstad & Brandtzaeg, 2017), offer an innovative platform for language learners. These chatbots provide "immediate, personalized feedback, creating a dynamic learning environment. By simulating real-life conversations, chatbots enable learners to practice and enhance their language skills. As Hill, Randolph Ford, and Farreras (2015) state, "chatbots offer a unique opportunity for interactive learning, allowing students to engage in meaningful dialogues that promote language acquisition." This interaction is pivotal in providing consistent practice and reinforcing language use in various contexts.

Dependent Variable: The dependent variable in this study is strategic competence, which refers to the ability to employ effective communication strategies to overcome linguistic challenges. As Dörnyei and Scott (1997) explain, "strategic competence involves the use of both verbal and non-verbal strategies to manage communication difficulties." In language learning, this competence is crucial for students to navigate conversations successfully. Nakatani (2010) emphasizes that "strategic competence plays a significant role in enhancing learners' communicative performance by enabling them to handle breakdowns in communication." Through AI chatbot interactions, students can develop this skill, benefiting from the continuous and adaptive feedback provided by the chatbots, which helps them manage and resolve communication issues.

9. Description of the research approaches, methods, data collection

Research Theoretical Methods

- **Analysis-synthesis:** This method will be employed to analyze and synthesize the data collected from various sources, including pre- and post-tests, surveys, interviews, and observations. The analysis will involve breaking down the data into smaller components, identifying patterns and relationships, and synthesizing the findings into a coherent whole. This approach will help to identify the specific ways in which AI

chatbot interaction influences strategic competence and to develop a comprehensive understanding of the phenomenon.

- **Inductive-Deductive:** This research will utilize both inductive and deductive reasoning. Inductive reasoning will be used to generate hypotheses and theories based on the data collected. Deductive reasoning will be used to test these hypotheses and theories against the existing literature and to refine the research questions. This iterative process will help to ensure that the research findings are grounded in both empirical evidence and theoretical frameworks.
- **Systemic-structural:** This method will be used to examine the complex relationships between the different components of the research, including the learners, the AI chatbot, the instructional materials, and the learning environment. By understanding how these components interact, we can identify the factors that contribute to the success or failure of the intervention and develop recommendations for future research and practice.

Research Approaches:

This research will adopt a mixed-methods approach, combining quantitative and qualitative data collection methods.

- **Quantitative Methods:** Pre- and post-tests will be administered to measure changes in strategic competence. The tests will assess students' ability to use various language learning strategies, such as guessing meaning from context, using reference materials, and seeking clarification. Besides, a survey will be conducted prior to administering the tests with the aim of gathering current student's insights into strategic competence
- **Qualitative Methods:** Interviews will be conducted with students to gather their perceptions of the AI chatbot interaction and its impact on their learning to gain insights into how students used the chatbot during the intervention and the types of strategies employed.

Data Collection

- **Pre- and post-tests:** Speaking and writing tests will be administered before and after the intervention to measure changes in strategic competence. The tests will assess students' ability to use various language learning strategies, such as guessing meaning from context, using reference materials, and seeking clarification. The results of these tests will be analyzed using statistical methods to determine the significance of any observed changes.
- **Surveys:** A Likert-scale survey will be administered to students before the intervention to gain insights into the current learners' strategic competence awareness. The survey will assess students' capabilities in using language strategies when breakdowns in communication arise. The survey results will be analysed using descriptive and inferential statistics.
- **Interviews:** Semi-structured interviews will be conducted after the intervention with a subset of students to gain deeper insights into their experiences with the AI chatbot. The interviews will explore students' perceptions of the chatbot's strengths and weaknesses, their strategies for using the chatbot, and the challenges they faced. The interview data will be analyzed using thematic analysis to identify recurring themes and patterns.

10. Description of the beneficiaries and their main characteristics.

The beneficiaries of this research are the 12 B1 EFL learners at Colegio Bilingüe Marie Clarac. As previously described, these students are typically aged 15-16, come from affluent families, and are motivated to learn English. They are tech-savvy and open to using technology in their learning. However, they
may lack strategic competence and may be less accustomed to independent learning.

11. Description of the research context

The research will be conducted at Colegio Bilingüe Marie Clarac, a private bilingual school in Tumbaco, Ecuador. The school has a reputation for academic excellence and attracts students from affluent families. The school has a well-equipped computer lab and a strong emphasis on technology integration in education.

12. Description of the practical contributions of the proposal.

This research has the potential to make several practical contributions:

- **Pedagogical Implications:** The findings can inform the development of effective instructional strategies and materials that incorporate AI chatbot interaction to enhance strategic competence in EFL learners.
- **Technological Innovation:** The study can contribute to the growing body of research on the use of AI in language learning, paving the way for further innovation in this field.
- **Educational Equity:** By addressing the specific needs of learners from affluent backgrounds, this research can contribute to promoting educational equity and ensuring that all learners have access to effective language learning tools and resources.

13. Importance of the proposal from the following perspectives: Professional, methodological, technological, and social need

- **Professional:** This research can enhance teachers' understanding of how to effectively integrate AI chatbots into their teaching practice to promote strategic competence.
- **Methodological:** The study can contribute to the development of new methodological approaches for teaching strategic competence in EFL contexts.
- **Technological:** The research can demonstrate the potential of AI chatbots as a valuable tool for language learning, encouraging further exploration and development of this technology.
- **Social Need:** By addressing the lack of strategic competence in EFL learners, this research can contribute to improving their language proficiency and communication skills, which are essential for success in the 21st century.

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Appendix 3 – Communication of the assigned tutor

DATOS PARA LA COMUNICACIÓN DEL TUTOR ASIGNADO POR PARTE DE LA COORDINACIÓN DE LA MAESTRÍA Y ACEPTACIÓN DEL ESTUDIANTE.

Por parte de la Comisión

Nombre del Programa de Maestría: MAESTRÍA EN PEDAGOGIA DEL INGLES COMO LENGUA EXTRANJERA

Nombre y apellidos del estudiante: Carlos Díaz Ortiz

Tema de trabajo de Titulación:

AI CHATBOT INTERACTION ON EHANCING STRATEGIC COMPETENCE IN B1 EFL STUDENTS

Tutor que se asigna: Phd (c) Jacqueline Elizabeth Lopez Lopez

Por parte del estudiante

Manifiesto estar de acuerdo con el tutor designado para la conducción del proceso de titulación

Si __x__ No ____

_____

Criterio de la Comisión Académica del Programa de Maestría
La Comisión académica del Programa de Maestría para el proceso de titulación en reunión efectuada en fecha_____, vista la solicitud del estudiante, procedió a la asignación del tutor correspondiente y una vez aceptado el tutor por parte del estudiante: Aprueba el inicio del proceso de titulación

_____

PhD. Josué Bonilla Tenesaca

Presidente del Comité Académico del Programa de Maestría en pedagogía del inglés como lengua extranjera

Appendix 7 – Authorization to conduct the research

:

CERTIFICATE OF VALIDATION OF THE MEASUREMENT INSTRUMENTS THROUGH EXPERT JUDGEMENT

TITLE OF RESEARCH: AI Chatbot Interaction on Enhancing Strategic Competence
AUTHOR(S): Carlos Díaz
Variable: AI Chatbot Interaction (Independent Variable)

N	INDEPENDENT VARIABLES DIMENSIONS / Items	Pertinence 1		Relevance 2		Accuracy 3		Suggestions/ observations
		Yes	No	Yes	No	Yes	No	
1	**Focus** -Domain of Conversation -Conversation Structure -Learning Objective							
2	**Adaptivity** -Scaffolding Level -Feedback Type							
3	**Dialogue Management** -Complexity -Accuracy -Fluency							

Comments (specify if there is sufficiency**):**_____

Assessment of applicability: **Applicable [ ]** **Applicable after correction [ ]** **Not applicable [ ]**

Validator's full names. Dr/ MSc**: TUTOR'S NAME…… I.D..:……**

Validator's area of expertise: ……ACADEMIC DEGREE
……

[1]**Pertinence:The item corresponds to the theoretical concept declared.**.
[2]**Relevance:** The item is appropriated to represent the component declared in the specific dimensions of the variable.
[3]**Accuracy:** The item is understandable, concise, direct and clear.
Note: Applicable means when all items established are enough to measure the dimensions.

Date:……., 20……..

Expert's signature.

CERTIFICATE OF VALIDATION OF THE MEASUREMENT INSTRUMENTS THROUGH EXPERT JUDGEMENT

TITLE OF RESEARCH: AI Chatbot Interaction on Enhancing Strategic Competence
AUTHOR(S): Carlos Díaz
Variable: Strategic Competence (Dependent Variable)

N	DEPENDENT VARIABLES DIMENSIONS / Items	Pertinence 1		Relevance 2		Accuracy 3		Suggestions/ observations
		Yes	No	Yes	No	Yes	No	
1	**Planning** -Goal Setting -Information Gathering							
2	**Monitoring** -Conversation Flow -Comprehension -Problem Solving							
3	**Regulation** -Self-Evaluation -Error Correction -Repair Strategies							

Comments (specify if there is sufficiency**):**_____

Assessment of applicability: **Applicable [ ]** **Applicable after correction [ ]** **Not applicable [ ]**

Validator's full names. Dr/ MSc**: ……..** **I.D..:……**

Validator's area of expertise: ……

Date:……., 20……..

[1]**Pertinence:The item corresponds to the theoretical concept declared.**.

[2]**Relevance:** The item is appropriated to represent the component declared in the specific dimensions of the variable.

[3]**Accuracy:** The item is understandable, concise, direct and clear.

Note: Applicable means when all items established are enough to measure the dimensions.

Expert's signature.

Appendix 8 – Hutchinson and Waters (1987) Needs Analysis Model

TARGET NEEDS		
According to Hutchinson and Waters (1987) target needs are mainly related to *'what the learner needs to do in the target situation'*. To answer this statement, practitioners should gather information about the learners' necessities, lacks and wants.		
Necessities	**Lacks**	**Wants**
They are the academic or occupational requirements of the target situation. What students need to know to function effectively in the target situation (Robinson, 1991).	They have to do with what students ignore or cannot do in English (Robinson, 1991).	These are the personal expectations of the students and hopes towards acquiring English. What they would like to get from the language course. These needs are very personal (Robinson, 1991).

GENERAL QUESTIONS	**ANSWERS**	**WHAT PROCEDURES OR INSTRUMENTS DID YOU USE TO ANSWER THESE QUESTIONS?**
Why is the English language needed here?	English is needed here because is a compulsory subject in all the levels in a view to getting an international certificate by the time students finish senior year. In turn, students are sorted according to their proficiency level, and they climb the way up. English classes are divided into EFL and Language Production. In order for them to be promoted to the next English language level (From A1 to C1+), students must pass a Cambridge mock test from their current level.	Survey Interviews Questionnaire Diagnostic Test
How will the English language be used?	It will be used in language production classes at the computing lab wherein students will have the opportunity to enhance their current level of strategic competence through AI Chatbot interactions. For that reason, speaking and writing compose the focus of the lesson plans.	Survey Interviews Questionnaire
What will the content areas be?	Enhancing strategic competence is achieved through AI chatbot interactions tailored to the book Compact First B2. The focus of the contents are speaking and writing sections from FCE exam.	Syllabus, curriculum, Descriptors of the level CEFRL
Who will the learner use the language with?	Edinburg B2 students will interact among them other than their teachers.	Curriculum & syllabus
Where will the English language be used?	Mostly, during language production classes at Colegio Bilingüe Marie Clarac as these are meant to primarily address practice of speaking and writing sections of FCE exam .	Syllabus & curriculum
When will the English language be used?	It will be used for the most part during EFL and with a particular focus on Language Production classes, which are exclusively meant for making use of the language acquired during EFL, be it orally or written.	Syllabus & curriculum

LEARNING NEEDS			
Learning needs is the gap between the learner's current level of knowledge and skills, and the level of knowledge and skills required to perform a task or a set of tasks. This framework focuses on numerous factors such as who the learners are, their socio-cultural background, learning background, age, gender, prior knowledge of specialized content, prior knowledge of English, attitudes towards English, attitudes towards cultures of the English-speaking world. Hutchinson and Waters suggested asking the following questions to analyze learning needs:			
GENERAL QUESTIONS	**SPECIFIC QUESIONS**	**ANSWERS**	**WHAT PROCEDURES OR INSTRUMENTS DID YOU USE TO ANSWER THESE QUESTIONS?**
Why are the learners taking the course?	Compulsory or optional? Apparent need or not? Are status, money, and promotion involved? What do students think they will be able to do when they acquire the knowledge? What would be the attitude of the students towards the course? Do they really want to improve their English?	Students taking part in this study belong to an upper-middle social stratum. They attend classes at a private and upper-middle social class institution located in Tumbaco, Pichincha. English is a required academic subject at all educational levels because students expect to receive an international certificate upon graduation from the eleventh grade. This requirement underlines apparent importance of English: it is a means for improving one's status, gaining better job, and, quite possibly, promotion in the future. Perceived benefit include improved interpersonal communication when Engish is mastered; students think that they will be useful in academic and careers. As a result, they have a positive attitude toward the course because their main aim is to proceed through the proficiency levels from A1 to C1+ by passing the Cambridge mock test at each level. In general, the students are determined to enhance their English ability.	SURVEY INTERVIEW
How do the learners learn?	What is their learning background? What is their concept of learning and teaching? What methodology will be attractive to them?	CLIL APPROACH CLT APPROACH TASK BASED LEARNING APPROACH NATURAL APPROACH	SURVEY INTERVIEW
What resources are available?	Number of teachers with an international	All the members of the teachers' staff hold a	OBSERVATION ORAL INTERVIEW

	certification? The attitude of teachers towards this group? Knowledge and attitude of teachers towards the content of the subject? Knowledge and attitude of teachers towards the resources for the subject? Opportunities for activities outside of class?	Cambridge Certification. Classrooms at Colegio Bilingue Marie Clarac are equipped with computers, Smartlink, Internet, Whiteboard, Markers, Students' Books, audio-lingual and audio-visual materials, therefore the majority of teachers are pleased with the resources provided. Teachers are fond of the Edinburgh B2 class because students are excellent as well as with the methodology embraced by the institution to English language teaching. Teachers and students alike have the opportunity to engage in outdoors activities provided that those are stated in the plannings.	
Who are the learners?	Age/Sex/Nationality? What do they already know about English? What knowledge do they have of the matter? What are their interests? What teaching styles are they used to? What is their attitude towards English? What is their attitude towards the cultures of the English-speaking world?	The learners are teenagers ranging from 14 to 17 years old. They have achieved an English proficiency of B1 which was validated by a PET mock test. They are aware of the importance of English in a globalized word and aim to pursue better job opportunities as well as travel and study abroad once they finish high school. The majority of students are audiovisual and have a positive attitude towards the learning of English. Finally, regarding their attitude towards an English-speaking world, they agree upon how relevant it is nowadays developing an intercultural awareness in a world where English plays an important role.	SURVEY QUESTIONNAIRE
Where will the course take place?	Are the surroundings pleasant, dull, noisy, cold?	"Colegio Bilingüe Marie Clarac" is a private institution located in Tumbaco, Pichincha. It has a pleasant 24-hectare campus surrounded with nature and adequate facilities that foster good living. Teaching of English is divided into two components: EFL (6	PEI

		weekly hours) and Language Production (4 weekly hours). Both subjects amount to an overall score of 10. 80% for EFL and 20% for LP. EFL addresses grammar, listening, reading and vocabulary, while Language Production speaking and writing. The institution arranges English levels from A1 up to C1+ or American English. Each level is labeled with the name of a city. USA cities for upper elementary school, and UK cities for baccalaureate. The research proposal is meant for Edinburgh B2 class in which students English level proficiency corresponds to B1.	
When will the course take place?	Time of day? Every day once a week? Full-time, part-time? Concurrent with need or pre-need?	English classes are divided into EFL and Language production. The intervention will be applied during Language production classes. Classes are held in 2 periods of 40 minutes twice a week.	Data of your proposal

Note: Hutchinson and Waters (1987) also recommend the use of multiple methods of data collection – such as interviews, observation, and informal consultations with sponsors, learners and others involved – to deal with the complexity of target needs.

Appendix 9 – Interview

Interview Questionnaire: Student Perceptions of AI Chatbot Interaction for Enhancing Strategic Competence

Thank you for participating in this interview. We are interested in your experiences using AI chatbots to practice and improve your communication skills in English.

1. (Focus - Domain of Conversation): **How did practicing with the chatbot in conversation tasks, such as talking about your interests, help improve your speaking skills?**
2. (Focus - Learning Objective): **In what ways did the chatbot interaction (for example, discussing photographs or tasks) help you organize your thoughts?**
3. (Adaptivity - Feedback Type): **How helpful was the feedback provided by the chatbot in improving your speaking? Could you provide an example?**
4. (Adaptivity - Scaffolding Level): **Did you feel the chatbot adjusted its support to match your needs? For example, did it offer prompts or examples when you needed help?**
5. (Dialogue Management - Complexity): **How did the chatbot practice affect your ability to handle complex speaking tasks, like the longer discussions?**
6. (Planning - Goal Setting): **How has your approach to setting goals for improving your speaking changed after practicing with the chatbot?**
7. (Monitoring - Conversation Flow): **Did you find yourself more aware of keeping the conversation going smoothly, such as by adding details or asking questions?**
8. (Monitoring - Problem Solving): **How did the chatbot help you find solutions when you faced difficulties in speaking tasks, like running out of ideas or getting stuck?**
9. (Regulation - Self-Evaluation): **How has the chatbot practice influenced your ability to evaluate your speaking and make adjustments?**
10. (Regulation - Repair Strategies): **Did you find yourself better able to fix communication breakdowns (like misunderstandings) after the chatbot practice? Can you give an example?**

Appendix 10 – Survey

Survey

Objective:

The purpose of this survey is to gather your perceptions of your own strategic competence in English communication and expectations with AI Chatbot Interaction. Your responses will help us understand how you approach communication challenges and use different strategies to navigate conversations.

Thank you for participating in this survey. We are interested in learning about your experiences and feelings regarding your ability to communicate effectively in English, especially when faced with difficulties.

Please read each statement carefully and indicate your level of agreement using the scale provided. There are no right or wrong answers, so please answer honestly based on your own experiences.

1 - Strongly Disagree

2 - Disagree

3 - Neutral

4 - Agree

5 - Strongly Agree

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
(Focus - Domain of Conversation) **I believe practicing English with a chatbot (for example, answering questions about my interests) would help me improve my conversational skills.**					
(Focus - Conversation Structure) **I think interacting with a chatbot in structured speaking tasks, like talking about photos for 1 minute, could help me organize my ideas better.**					
(Adaptivity - Feedback Type) **I feel that getting feedback from the chatbot, such as suggestions or corrections, would improve my English skills.**					
(Adaptivity - Scaffolding Level) **I expect the chatbot will adapt to my needs and provide help when I struggle, such as giving me examples or prompts.**					
(Dialogue Management - Fluency) **I believe regular conversation practice with the chatbot will help me become more fluent in English (for example, speaking without pauses).**					

(Planning - Goal Setting) **I set specific goals for my speaking improvement, like speaking more naturally or making fewer grammar mistakes.**					
(Planning – Information Gathering) **I feel confident gathering information I need for speaking tasks, like thinking of key points for a conversation or comparing photos.**					
(Monitoring - Comprehension) **I often check my understanding during conversations and adjust if I don't understand, like rephrasing or asking for clarification.**					
(Regulation - Self-Evaluation) **After speaking in English, I usually reflect on how I did and consider what I could improve.**					
(Regulation - Repair Strategies) **I know how to fix misunderstandings during a conversation, like rephrasing what I said if the listener seems confused.**					

Appendix 11 – Lesson Plans

❑ Basic ☒ Intermediate ❑ Advanced

Lesson Plan #1

Business/Materials	Lesson Objectives
• AI chatbot for interaction. • Rubric for feedback. • Prompts and questions prepared for Part 1 of the FCE Speaking Section.	1. Familiarize students with the format and requirements of Part 1 of the FCE Speaking Section. 2. Enhance their strategic competence by practicing self-introductions and responding to personal questions. 3. Develop fluency, vocabulary range, and confidence through guided and independent practice.

Warm-up and Objective Discussion

- Begin with a brief discussion: "What do you think makes a good first impression in a speaking exam?"
- Share lesson objectives: "Today, we'll focus on preparing for the first part of the FCE Speaking Section. We will practice introducing ourselves, answering personal questions, and using strategies to manage the interaction confidently."

Instruct and Model	❑ R	❑ W	❑ L	x S

1. Present useful expressions and tips for Part 1, such as:
    - "It's a pleasure to meet you."
    - "From my perspective..."
    - "Could you elaborate on that?"
2. Use the AI chatbot to model an ideal interaction, demonstrating clear introductions and effective responses.

Guided Practice	x R	x W	❑ L	❑ S

1. Interactive practice with the AI chatbot:
    - Students respond to questions such as:
        - "Can you introduce yourself?"
        - "What are your hobbies?"
    - The chatbot provides real-time feedback and encouragement.
2. Teacher monitors and offers feedback on vocabulary, and strategic use of expressions.

Independent Practice	x R	x W	❑ L	❑ S

1. Role-play exam simulation with the AI chatbot acting as the examiner:
    - Students answer a series of questions, such as:
        - "What are your future career plans?"
        - "Can you describe a memorable experience you've had?"
2. Students reflect on their performance and record new expressions or strategies they found useful.

Assessment	x R	x W	❑ L	❑ S

1. Teacher evaluates student performance using the rubric with the aid of Chatbot:
    - **Criteria:** Planning, Monitoring, Regulation
    - Scores range from 1 (Unsatisfactory) to 5 (Excellent).
2. Provide personalized feedback:
    - "Thank you for your collaboration in taking part in this research project, [Student's Name]. Your score is [Score]."
    - Highlight areas for improvement and commend strengths.

❑ Basic ☒ Intermediate ❑ Advanced

Lesson Plan #2

Business/Materials	Lesson Objectives
• AI chatbot for interaction. • Rubric for feedback. • Prompts and questions prepared for Part 2 of the FCE Speaking Section.	1. Familiarize students with the format and requirements of Part 2 of the FCE Speaking Section. 2. Enhance their strategic competence by practicing comparing and contrasting two images and expressing their opinions. 3. Develop fluency, vocabulary range, and confidence through guided and independent practice.

Warm-up and Objective Discussion

- Begin with a brief discussion: "Why do you think comparing and contrasting skills are important for effective communication?"
- Share lesson objectives: "Today, we'll focus on preparing for the second part of the FCE Speaking Section. We will practice describing, comparing, and contrasting two pictures, as well as expressing personal preferences with reasons."

Instruct and Model	❑ R	❑ W	❑ L	x S

1. Present useful expressions and tips for comparing and contrasting:
   - "The first picture is more vibrant, while the second one looks much calmer."
   - "This option seems more practical than the other one because it's easier to access."
   - "Both pictures show..., In the first picture..., while in the second picture..."
   - "They might be..., It seems like..."
2. Use the AI chatbot to model an ideal response, demonstrating the use of expressions and strategies for effective comparison.

Guided Practice	x R	x W	❑ L	❑ S

1. Interactive practice with the AI chatbot:
   - Students are presented with a practice prompt, such as:
     - "The first picture shows a crowded beach, while the second shows a peaceful mountain hike. Compare and contrast these two activities."
   - The chatbot provides real-time feedback and encouragement.
2. Teacher monitors and offers feedback on organization, use of expressions, and fluency.

Independent Practice	x R	x W	❑ L	❑ S

1. Role-play exam simulation with the AI chatbot acting as the examiner:
   - Students are given a set of two pictures and a specific question to answer, such as:
     - "Which activity do you think is more relaxing and why?"
   - Students prepare for 1 minute and then speak for 1 minute.
2. Students reflect on their performance and record new expressions or strategies they found useful.

Assessment	x R	x W	❑ L	❑ S

1. Teacher evaluates student performance using the rubric with the aid of Chatbot:
   - Criteria: Planning, Monitoring, Regulation
   - Scores range from 1 (Unsatisfactory) to 5 (Excellent).
2. Provide personalized feedback:
   - "Thank you for your collaboration in taking part in this research project, [Student's Name]. Your score is [Score]."
   - Highlight areas for improvement and commend strengths.

❑ Basic ☒ Intermediate ❑ Advanced

Lesson Plan #3

Business/Materials	Lesson Objectives
• AI chatbot for interaction. • Rubric for feedback. • Prompts and questions prepared for Part 3 of the FCE Speaking Section.	1. Familiarize themselves with the format and requirements of Part 3 of the FCE Speaking Section. 2. Enhance their strategic competence by practicing collaborative discussions and reaching decisions. 3. Develop fluency, vocabulary range, and confidence through guided and independent practice.

Warm-up and Objective Discussion

- Begin with a brief discussion: "What do you think is key to having a productive discussion and reaching an agreement with someone?"
- Share lesson objectives: "Today, we'll focus on preparing for the third part of the FCE Speaking Section. We will practice expressing and justifying opinions, agreeing and disagreeing, and collaboratively reaching decisions."

Instruct and Model	❑ R	❑ W	❑ L	x S

1. Present useful expressions and tips for collaborative discussions:
   "I can see why you think that, but I would argue that..."
   "From my point of view, the most important thing is..."
   "If we look at it from another angle, we could also consider..."
   "Let me think about that for a second..."
2. Use the AI chatbot to model an ideal collaborative discussion, demonstrating how to exchange ideas, agree or disagree diplomatically, and reach a decision.

Guided Practice	x R	x W	❑ L	❑ S

1. Interactive practice with the AI chatbot:
   Students are presented with a collaborative task prompt, such as:
   "How has technology changed the way we learn, and what do you think the future of education will look like?"
   The chatbot plays the role of a peer, engaging the student in a discussion.
2. Teacher monitors and offers feedback on collaboration, use of expressions, and logical structuring of responses.

Independent Practice	x R	x W	❑ L	❑ S

1. Role-play exam simulation with the AI chatbot acting as the other candidate:
   Students are given a task prompt, such as:
   "What role do exercise and diet play in maintaining good health, and how can people improve their lifestyle choices?"
   Students discuss the prompt for 5 minutes, working collaboratively with the chatbot to explore ideas and reach a decision.
2. Students reflect on their performance and record new expressions or strategies they found useful.

Assessment	x R	x W	❑ L	❑ S

1. Teacher evaluates student performance using the rubric with the aid of Chatbot:
   - **Criteria:** Planning, Monitoring, Regulation
   - Scores range from 1 (Unsatisfactory) to 5 (Excellent).
2. Provide personalized feedback:
   - "Thank you for your collaboration in taking part in this research project, [Student's Name]. Your score is [Score]."
   - Highlight areas for improvement and commend strengths

❑ Basic ☒ Intermediate ❑ Advanced

Lesson Plan #4

Business/Materials	Lesson Objectives
• AI chatbot for interaction. • Rubric for feedback. • Prompts and questions prepared for Part 4 of the FCE Speaking Section	1. Familiarize themselves with the format and requirements of Part 4 of the FCE Speaking Section. 2. Enhance their strategic competence by practicing extended discussions and expressing well-justified opinions. 3. Develop fluency, vocabulary range, and confidence through guided and independent practice.

Warm-up and Objective Discussion

- Begin with a brief discussion: "Why is it important to justify your opinions when discussing a topic with others?"
- Share lesson objectives: "Today, we'll focus on preparing for the fourth part of the FCE Speaking Section. We will practice discussing various topics, justifying our opinions, and engaging in meaningful conversations."

Instruct and Model	❑ R	❑ W	❑ L	x S

1. Present useful expressions and tips for extended discussions:
   - o "In my opinion…"
   - o "That's a good point, but I think..."
   - o "What I find interesting is…"
2. Use the AI chatbot to model an ideal discussion, demonstrating how to justify opinions, agree or disagree diplomatically, and extend the conversation logically.

Guided Practice	x R	x W	❑ L	❑ S

1. Interactive practice with the AI chatbot:
   - o Students respond to questions such as:
     - ▪ "How has technology changed the way we learn, and what do you think the future of education will look like?"
     - ▪ "What are the advantages of remote work for both employees and employers?"
   - o The chatbot plays the role of a peer, engaging the student in a back-and-forth discussion.
2. Teacher monitors and offers feedback on vocabulary, and strategic use of expressions.

Independent Practice	x R	x W	❑ L	❑ S

1. Role-play exam simulation with the AI chatbot acting as the examiner:
   - o Students answer a series of questions, such as:
     - ▪ "What role do exercise and diet play in maintaining good health, and how can people improve their lifestyle choices?
   - o Students discuss the prompt for 4-5 minutes, engaging in a meaningful conversation and justifying their opinions.
2. Students reflect on their performance and record new expressions or strategies they found useful.

Assessment	x R	x W	❑ L	❑ S

1. Teacher evaluates student performance using the rubric with the aid of Chatbot:
   - o **Criteria:** Planning, Monitoring, Regulation
   - o Scores range from 1 (Unsatisfactory) to 5 (Excellent).
2. Provide personalized feedback:
   - o "Thank you for your collaboration in taking part in this research project, [Student's Name]. Your score is [Score]."
   - o Highlight areas for improvement and commend strengths.

Appendix 12 – Pretest and Posttest

Pre-Test & Post-Test (FCE Cambridge speaking section)

Part 1

2 minutes (3 minutes for groups of three)

Good morning/afternoon/evening. My name is …….. and this is my colleague ……

And your names are?

Can I have your mark sheets, please? Thank

you.

- Where do you live, *(Candidate A)*?
- And you, *(Candidate B)*?

First we'd like to know something about you.

Select one or more questions from any of the following categories, as appropriate.

Likes and dislikes

- **How do you like to spend your evenings? ..... (What do you do?) (Why?)**
- **Do you prefer to spend time on your own or with other people? (Why?)**
- **Tell us about a film you really like.**
- **Do you like cooking? (What sort of things do you cook?)**

Special occasions

- **Do you normally celebrate special occasions with friends or family? (Why?)**
- **Tell us about a festival or celebration in** (candidate's country)**.**
- **What did you do on your last birthday?**
- **Are you going to do anything special this weekend? ..... (Where are you going to go?) ..... (What are you going to do?)**

Media

- **How much TV do you watch in a week? (Would you prefer to watch more TV than that or less? (Why?)**
- **Tell us about a TV programme you've seen recently.**
- **Do you use the internet much? (Why? / Why not?)**
- **Do you ever listen to the radio? ..... (What programmes do you like?) (Why?)**

Part 2
4 minutes (6 minutes for groups of three)

In this part of the test, I' m going to give each of you two photographs. I' d like you to talk about your photographs on your own for about a minute, and also to answer a question about your partner's photographs.

(Candidate A), it' s your turn first. Here are your photographs. They show people who are helping other people in different situations.

Place Part 2 booklet, open at Task 1, in front of Candidate A.

I' d like you to compare the photographs, and say how important it is to help people in these situations.

All right?

Candidate A
1 minute
Interlocutor Thank you.

(Candidate B), do you find it easy to ask for help when you have a problem? ..... (Why? / Why not?)

Candidate B
approximately 30 seconds
Interlocutor Thank you. (Can I have the booklet, please?) Retrieve Part 2 booklet.

Now, (Candidate B), here are your photographs. They show people spending time in different gardens.

Place Part 2 booklet, open at Task 2, in front of Candidate B.

I' d like you to compare the photographs, and say what you think the people are enjoying about spending time in these gardens.

All right?
Candidate B
1 minute ..
Interlocutor
Thank you.

Candidate A
approximately 30 seconds

(Candidate A), which garden would you prefer to spend time in? (Why?)

Interlocutor

Thank you. (Can I have the booklet, please?) *Retrieve **Part 2** booklet.*

Part 4

Interlocutor Use the following questions, in order, as appropriate:

- Do you think you have to spend a lot of money to have a good holiday? (Why? / Why not?)
- Some people say we travel too much these days and shouldn't go on so many holidays. What do you think?
- Do you think people have enough time for holidays these days? ..... (Why? / Why not?)
- Why do you think people like to go away on holiday?
- What do you think is the biggest advantage of living in a place where there are a lot of tourists?
- What can people do to have a good holiday in (candidate's count)) ..... (Why?)

Thank you. That is the end of the test