THE INFLUENCE OF VISIBLE THINKING ROUTINES (VTR) IN THE DEVELOPMENT OF SPEAKING AND WRITING SKILLS AMONG ABI ENGLISH IMMERSION T5 STUDENTS AT ESCUELA FINCA GUARARÍ, IN HEREDIA, DURING II QUARTER OF 2025

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Thesis submitted to obtain the licentiate degree in Bilingual Preschool Education

Tutor

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Second Quarter 2025

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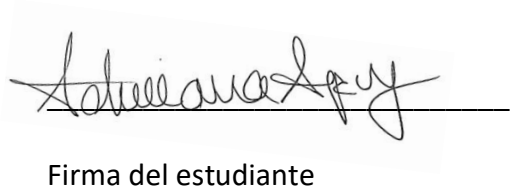

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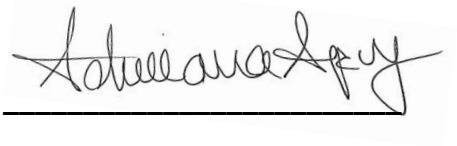

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DEDICATION

To my family, whose unwavering support, love, and encouragement have been my greatest source of strength throughout this learning journey. Their belief in me has fueled my determination to achieve this goal.

To my teachers and mentors, whose guidance and wisdom have shaped my understanding and passion for education. Their dedication to teach and make a difference in education has been a great inspiration.

To all my past and present students who remind me every day of the importance of valuable education and the transformative power of knowledge. You are the reason I strive to make a difference.

Finally, to myself, for the perseverance, the late nights, and the countless hours of dedication that have brought this research to life. May this be just the beginning of a lifelong journey of learning and contributing to the field of 21st Century Education.

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ABSTRACT

This research project examines how Visible Thinking Routines (VTR) influence the development of speaking and writing skills among Transition 5 (T5) students enrolled in the ABI English Immersion Program at Escuela Finca Guararí, in Heredia, Costa Rica, during the second quarter of 2025. Grounded in constructivist learning theory and inspired by Harvard University's Project Zero, this study responds to the need for innovative teaching methods that foster metacognitive skills and communicative competence in early bilingual education.

A pesar de participar en un programa de inmersión, los estudiantes muestran poca confianza y fluidez al expresarse en inglés. Tanto el profesorado como el personal administrativo de la Escuela Finca Guararí han expresado su preocupación por el progreso de los estudiantes en las habilidades lingüísticas productivas, especialmente en la expresión oral y escrita. Entre los factores que contribuyen a este problema se incluyen las dificultades socioeconómicas, la escasa exposición al inglés en casa y la escasa formación docente en estrategias pedagógicas reflexivas y activas.

VTRs serve as structured cognitive tools that support students in articulating their thought processes through verbal, visual, and written expression. Routines such as See-Think-Wonder, Think-Pair-Share, and Claim-Support-Question foster comprehension while simultaneously enhancing language development and critical thinking. Chapter II of this thesis explores the educational value of VTRs and highlights their alignment with Costa Rica's national curriculum, particularly the 2016 MEP English Curriculum and Preschool Teaching Guide, which advocate for active, student-centered learning.

This applied research uses a transversal, descriptive micro-level design. Data collection involved two instruments: an observation checklist assessing student engagement and language use, and a semi-structured teacher interview exploring pedagogical mediation and metacognitive practices. The study focused on 20 T5 students and one teacher within the ABI program.

Findings indicate that VTRs offer visual and verbal support for language acquisition while enhancing student motivation, participation, and cognitive skills. Students demonstrated improved oral expression, idea organization, and reflective thinking. Teachers also reported better lesson planning and increased student autonomy during VTR-based activities.

The study recommends the development of a VTR Guidelines Manual tailored to Costa Rican bilingual preschool contexts. This manual would offer structured routines aligned with national objectives and the specific needs of immersion classrooms, fostering innovation in early language instruction.

Visible Thinking Routines significantly enhance the speaking and writing abilities of preschool students in English immersion settings. Reflective teaching strategies, combined with metacognitive tools and supportive environments, promote comprehensive linguistic and cognitive development.

Keywords: visible thinking routines, English immersion, speaking and writing skills, metacognition, constructivism, active teaching methodologies, linguistic development, qualitative research

ABSTRACTO

Este proyecto de investigación examina cómo las Rutinas de Pensamiento Visible (VTR) influyen en el desarrollo de las habilidades de habla y escritura entre los estudiantes de Transición 5 (T5) matriculados en el Programa de Inmersión en Inglés ABI en la Escuela Finca Guararí, en Heredia, Costa Rica, durante el segundo trimestre de 2025. Basado en la teoría del aprendizaje constructivista e inspirado en el Proyecto Cero de la Universidad de Harvard, este estudio responde a la necesidad de métodos de enseñanza innovadores que fomenten las habilidades metacognitivas y la competencia comunicativa en la educación bilingüe temprana.

A pesar de participar en un programa de inmersión, los estudiantes presentan dificultades para expresarse con seguridad y fluidez en inglés. El personal docente y administrativo de la institución ha manifestado su preocupación por el limitado progreso en el desarrollo de habilidades productivas, especialmente en expresión oral y escrita. Factores como la situación socioeconómica, la escasa exposición al idioma en el entorno familiar y la falta de preparación docente en metodologías activas y reflexivas inciden negativamente en el proceso de aprendizaje.

Los VTR sirven como herramientas cognitivas estructuradas que ayudan a los estudiantes a articular sus procesos de pensamiento mediante la expresión verbal, visual y escrita. Rutinas como Ver-Pensar-Preguntarse, Pensar-Emparejar-Compartir y Afirmar-Apoyar-Preguntar fomentan la comprensión, a la vez que mejoran el desarrollo del lenguaje y el pensamiento crítico. El capítulo II de esta tesis explora el valor educativo de los VTR y destaca su alineamiento con el currículo nacional de Costa Rica, en particular con el Currículo de Inglés y la Guía de Enseñanza Preescolar del MEP de 2016, que promueven un aprendizaje activo y centrado en el estudiante.

El estudio utilizó un diseño de investigación aplicada, descriptiva, transversal y a nivel micro. Se emplearon dos instrumentos de recolección de datos: una lista de cotejo para observar la participación estudiantil y el uso del lenguaje, y una entrevista semiestructurada a la docente del programa para analizar su mediación pedagógica y el enfoque metacognitivo. La muestra incluyó a 20 estudiantes de T5 y una docente del programa ABI.

Los hallazgos indican que las VTR ofrecen apoyo visual y verbal para la adquisición del lenguaje, a la vez que mejoran la motivación, la participación y las habilidades cognitivas de los estudiantes. Los estudiantes demostraron una mejor expresión oral, organización de ideas y pensamiento reflexivo. Los docentes también reportaron una mejor planificación de las clases y una mayor autonomía estudiantil durante las actividades basadas en VTR.

El estudio recomienda la elaboración de un Manual de Directrices para las VTR adaptado a los contextos preescolares bilingües de Costa Rica. Este manual ofrecería rutinas estructuradas alineadas con los objetivos nacionales y las necesidades específicas de las aulas de inmersión, fomentando la innovación en la enseñanza temprana del lenguaje.

Las Rutinas de Pensamiento Visible mejoran significativamente las habilidades de habla y escritura de los estudiantes de preescolar en entornos de inmersión en inglés. Las estrategias de enseñanza reflexiva, combinadas con herramientas metacognitivas y entornos de apoyo, promueven un desarrollo lingüístico y cognitivo integral.

Palabras clave: rutinas de pensamiento visible, inmersión en inglés, habilidades de habla y escritura, metacognición, constructivismo, metodologías de enseñanza activas, desarrollo lingüístico, investigación cualitativa.

CHAPTER I: RESEARCH PROBLEM

1.1 INTRODUCTION

The growing significance of metacognitive and reflective strategies in language learning stands out in contemporary bilingual and immersion education environments. The educational method known as Visible Thinking Routines (VTR) demonstrates its effectiveness through classroom communication improvement and critical thinking development and language learning (Ritchhart, Church, & Morrison, 2011). Visible Thinking Routines (VTR) allow students to present their thinking methods using visual and written and verbal techniques which makes them effective tools to enhance English language learner writing and speaking abilities.

The research explores how Visible Thinking Routines (VTR) affect speaking and writing skills development of ABI English Immersion T5 students at Escuela Finca Guararí, Heredia, in the second quarter of 2025. This research aims to establish a basis for student communicative development through methods that simultaneously drive student motivation and enhance language practice and reflection. Students enrolled in English immersion programs regularly interact with the target language in continuous spoken and written exchanges. Many students face challenges in expressing themselves fluently with confidence and purpose because they lack structured scaffolding and motivational frameworks according to Lyster (2021).

The Visible Thinking Routines (VTR) emerged from Harvard University's Project Zero to assist students in displaying their mental processes so others can understand them (Ritchhart & Perkins, 2008). The use of these routines in bilingual classrooms enables students to organize their thoughts while learning vocabulary and evaluating their comprehension. The Visible Thinking Routines offer English learners a useful approach to enhance their spoken and written abilities through meaningful mental exercises.

Active student-centered education methods form the fundamental structure of public education according to the Costa Rican Ministry of Public Education (MEP). The 2016 English Curriculum for Primary Education supports task-based communicative methods which allow students to use language for authentic reflective interactions (MEP, 2016). ABi supports its educational objectives by implementing meaningful English content which promotes both language development and mental growth of students.

Active methodologies became the educational foundation for transformation under the 2015 Preschool Education Curriculum Teaching Guide introduced by the Ministry of Public Education (MEP). Active methodology originated during Rousseau's time in the 18th century and Pestalozzi adopted his ideas to establish himself as the leading educator who started a major educational and pedagogical transformation that focused on active child-centered collaborative learning.

The teachers at Escuela Finca Guararí have noted students' decreasing motivation levels along with their minimal progress in productive skills specifically when moving from receiving information to creating output. The concerns demonstrate the immediate need to implement teaching strategies which help students master vocabulary and grammar before they can use these skills for idea-based communication.

The research project aims to create a set of Visible Thinking Routines (VTR) guidelines for MEP ABi to improve students' speaking and writing abilities. The study uses structured reflective learning approaches to develop both speaking and writing skills in order to build autonomous bilingual learners who remain engaged and communicatively competent.

1.1.1 Background of the Problem

The present antecedents correspond to journalistic notes, university work and investigative article of a national nature, which are related to the themes and objectives that this project handles. It is

worth mentioning that the topic of Visible Thinking Routines (VTR) in Costa Rica is a research topic that has not yet been extensively investigated; making VTR become a specific theme with low local antecedents. At the moment there is only one thesis related to the problematization of using Visual Thinking Routines in educational contexts in Costa Rica but will not be published until November 2025.

The university student Saskia Cruz from UNED Costa Rica created a pictorial dictionary for the "Computer Applications in Educational Contexts" course (2016) by defining thinking routines as organizational methods that guide students during knowledge processing in 2016. The student used S. Tishman and P. Palme's "Visible Thinking" from Leadership Compass July 2005 to create her pictorial dictionary while she studied it for her course and professor's assignment.

Majida Dajani studied the educational method "Thinking Routines" in his 2016 paper "Thinking Routines as a Pedagogy for English Language Second Language Education in Palestine" to understand their effectiveness for teaching English to Palestinian students. The researcher conducted this action research project within the 2014-2015 academic year. The research study analyzed a total of six fifth-grade and sixth-grade teachers and their students.

Dajani M. spent the entire school year studying teaching resources alongside student-teacher interviews and educational approaches which he used to collect data for analysis. Through the study he determined how Visible Thinking Routines (VTR) affect second language teaching. The research findings demonstrate that thinking routines helped students develop better engagement and confidence in speaking while teachers experienced increased challenges in preparing and delivering the thinking routines. The author demonstrates how thinking routines create positive teacher perceptions because they enhance student learning through better content comprehension and stronger interdisciplinary connections. The mediation strategies implemented thinking routines which created an enjoyable ecological environment that directed teaching practices while students maintained greater focus. Dajani

M. (2016) supports using visual thinking routines to improve both student engagement and language acquisition based on the results from his study on second language teaching.

The research conducted by Valeria Viña in 2019 establishes that "Visible thinking and its essential implementation in preschool education" reveals students develop deeper understanding through verbal or written or drawing their thoughts. According to her research, visible thinking refers to the development of students' thinking skills by using various resources in the classroom, such as thinking routines that allow students to learn through visual activities. The implementation of effective classroom routines requires educators to understand these methods before they model them and teach others about these effective routines (Gholam, 2018, p.161).

The researchers evaluated data to develop preschool learning activity recommendations which would enhance English education at this educational stage where students first learn English thinking abilities and language fundamentals. Viña examines the preschool institutions of Cajicá - Cundinamarca in Colombia to study language comprehension development among students which proves challenging for second language learners. The research results demonstrate the necessity of moving to twenty-first-century teaching methods instead of keeping the traditional second language instruction practices. The author examines various understandings of visible thinking based on Harvard's Project Zero research by Majida Dajani from 2016 and Marzano's metacognitive approach and other worldwide studies evaluating visible thinking skills in preschool. Viña's thesis reveals that visible thinking stands as one of the top effective methods which teaching routines employ to benefit student learning alongside development and understanding and thinking abilities.

The research team distributed questionnaires to two different preschool facilities located in Cajicá which served teachers alongside directors. The main objective of the questionnaire was to determine the level of agreement and prior experience regarding the implementation of Visible Thinking Routines (VTR) in the twenty classrooms included in the study. The study data reveal that staff members

support the new proposed strategies yet express hesitation about using Visible Thinking Routines (VTR) on a daily basis. A teacher in the survey disagrees that visible thinking skills should not be integrated into the preschool education program. Most survey participants reported occasional use of thinking routines yet few showed understanding of how Visible Thinking Routines (VTR) benefit classroom learning. Viña directs teachers to follow his recommended routines and instructions about Visible Thinking Routines (VTR) classroom implementation through an established culture of VTR.

The article "Project-based work and active online methodologies in Costa Rica" (2020) published on www.magisterio.net features teacher Karen Rivera who demonstrates her dedication to active teaching methods through international educational training across various platforms. The Honduran teacher implements specific bilingual thinking routines in her English instruction with her students at the San Rafael College of Atenas and Orotina in Alajuela, Costa Rica. Teacher Rivera indicates that although her students already learned about Visible Thinking Routines (VTR) they faced challenges with this active methodology when teaching virtually because of the pandemic. The news article describes how Karen Rivera applies active methodologies by using gamification together with technological mediation and project-based learning.

The document "Guidelines for Pedagogical Mediation for Blended Education" (2021) from the MEP archives shows Visible Thinking Routines (VTR) with guiding questions and prompts should be proposed during connecting moments for research work and learning projects and crossword puzzles and comic strips and digital newspapers and songs and shared stories and digital campaigns about prevention and sustainability topics. The manual lacks specific references to either routine definitions or Visible Thinking Routines (VTR) while it fails to demonstrate how the provided examples connect to Visible Thinking Routines (VTR).

The research findings demonstrate that Visible Thinking Routines (VTR) have gained increasing popularity as an educational tool which improves student learning outcomes across different educational settings. The current lack of research about Visible Thinking Routines implementation in Costa Rica does not diminish the potential benefits these routines bring to student engagement and critical thinking development and second language acquisition. The analysis of multiple sources demonstrates that educators need to learn about these strategies and their correct application for metacognitive teaching practices. The present document aims to enhance educational knowledge by investigating Visible Thinking Routines (VTR) and their learning effects to establish relevant information for national future applications.

1.1.2 Problematization

This research focuses on Transition 5 (T5) students at Escuela Finca Guararí, located in Guararí, Heredia. These students are part of the Alianza para el Bilingüismo (ABi) program, a national initiative by the Ministry of Public Education (MEP) that prioritizes English language acquisition from early childhood. At this institution, students are immersed in English during both the Materno and Transition levels, with the goal of providing full exposure to the target language and fostering strong English language skills—even though they typically lack English reinforcement at home.

During conversations with the ABi teacher and the school principal, both expressed concerns regarding the students' limited development in speaking and writing, as well as their critical thinking abilities. Although all four language macro skills—listening, speaking, reading, and writing—are addressed in immersion programs, speaking and writing tend to present the greatest challenges in second language acquisition at the preschool level.

Given this context, there is a clear need for mediation strategies aligned with active teaching methodologies and meaningful assessment approaches, specifically targeting the development of speaking and writing skills.

Preliminary research into the students' learning needs and the teachers' prior knowledge about this topic led us to consider whether implementing Visible Thinking Routines (VTRs) in the English as a Second Language (ESL) classroom could offer a solution. VTRs may provide a structured and reflective approach that enhances speaking and writing skills by engaging students in critical thinking, thereby creating a more meaningful language learning experience in the preschool immersion context.

1.1.3 Justification

Escuela Finca Guararí serves preschool and school-age children through public funding provided by the Ministry of Public Education (MEP). Located in the San Francisco district of the Heredia province, within the Barrio Guararí area, the institution is committed to fostering the comprehensive development of its students by enhancing their skills and abilities, as well as nurturing creativity, imagination, and personal leadership for their future roles in society.

In 2015, the MEP launched the curricular policy Educate for a New Citizenship, which aims to build a modern, inclusive, and equitable educational system capable of addressing the challenges of the 21st century. This framework emphasizes the need for dynamic, participatory learning strategies that foster core competencies for sustainable development—particularly through the development of critical thinking.

The COVID-19 pandemic further revealed the urgent need for educational strategies that are both motivating and cognitively engaging. According to Mendiguren, Meso, Pérez, and Ganzabal (2023), "there is a need to seek new alternatives and teaching strategies adaptable to bimodality, which combine the ability to educate without forgetting emotion and connection; to find more creative and

innovative alternatives that appeal to participation; and to promote more than ever the active role of students in their learning process."

Campos (2021) explains that autonomous learning involves various cognitive processes, including critical thinking—defined as the use of universally accepted intellectual standards such as clarity, precision, relevance, and depth. In this context, Visible Thinking Routines (VTRs) emerge as effective pedagogical tools that promote critical thinking, motivation, and autonomous learning. These active methodologies engage students responsibly and enrich the learning process for both teachers and students. By using these routines, students develop higher-order thinking skills that enable them to analyze, evaluate, and create new knowledge. Additionally, making thought processes visible fosters metacognition and enhances students' capacity for self-directed learning.

However, the full potential of VTRs remains underutilized in many classrooms due to the lack of clear pedagogical guidance and integration into daily teaching practices. This gap in implementation undermines the effectiveness of teaching mediation, often resulting in reduced student motivation and lower classroom participation.

Given this context, the present research seeks to highlight the importance of incorporating VTRs into preschool English immersion classrooms, where they can support not only linguistic development but also critical and reflective thinking—key competencies for success in a bilingual, 21st-century educational environment.

1.2 FORMULATION OF THE PROBLEM

What is the influence of Visible Thinking Routines (VTR) on the development of speaking and writing skills among ABI English Immersion Transition 5 (T5) students at Escuela Finca Guararí, in Heredia, during the second quarter of 2025?

1.3 OBJECTIVES OF THE INVESTIGATION

1.3.1 General Objective

To analyze the influence of Visible Thinking Routines (VTR) on the development of speaking and writing skills in ABI English Immersion T5 students at Escuela Finca Guararí, Heredia, during the second quarter of 2025.

1.3.2 Specific Objectives

a) To identify the metacognitive strategies embedded in the Visible Thinking Routines (VTR) applied to enhance speaking and writing skills in MEP ABi English Immersion T5 students at Escuela Finca Guararí during the II Quarter of 2025.

b) To examine the development of students' speaking and writing skills of MEP ABi English Immersion T5 students from Escuela Finca Guararí, Heredia, during the II Quarter 2025.

c) To determine the teacher's pedagogical and metacognitive approach to the application of Visible Thinking Routines (VTR) in the MEP ABi English Immersion T5 students from Escuela Finca Guararí, Heredia, during the II Quarter of 2025.

d) To construct a set of Visible Thinking Routines (VTR) guidelines manual that can enhance the development of speaking and writing skills for the MEP ABi English Immersion T5 students at Escuela Finca Guararí, Heredia, during the II Quarter 2025.

1.4 SCOPE AND LIMITATIONS

1.4.1 Scope

The 2017 MEP program introduced a new educational approach that requires preschool teachers to deliver fully immersive English lessons to students aged four to six. One of the main

challenges teachers currently face is implementing this curriculum transformation through active methodologies that also support the development of 21st-century skills.

Over the past 15 years, educational research has expanded our understanding of neuroscience, active learning, mindfulness, critical thinking, the STEAM approach, and project-based learning. Harvard University's Project Zero has contributed significantly to this field by developing thinking routines that help students reflect on their learning processes through questions such as what, how, and why. These routines are supported by a wide range of resources and include graphic organizers designed to foster various types and levels of thinking.

This research seeks to contribute to educational innovation by designing a model that can be adapted to multiple educational levels and learning environments. Although the study is conducted at Escuela Finca Guararí, its core principles can be applied in other institutions with similar characteristics. The findings will serve as a foundation for future teacher training programs and the development of teaching strategies rooted in active methodologies.

The study addresses key aspects of curriculum design and instructional strategies that align with 21st-century educational goals. Visible Thinking Routines are essential for fostering reflective and analytical thinking, as they help create a dynamic, student-centered, and contextually responsive learning environment.

Additionally, this research will provide empirical evidence on how VTRs affect student motivation and pedagogical mediation. These findings are expected to open new pathways for further research into the application of active methodologies across diverse educational settings and student populations.

1.4.2 Limitations

One of the primary limitations of this study is the limited support and interest among some staff members in implementing Visible Thinking Routines (VTR) within the English immersion classroom. While the staff generally expresses openness to new ideas, the actual execution of these strategies is often hindered by a lack of motivation or follow-through.

A second major limitation is the scarcity of prior research in this field, particularly within the Costa Rican context. Although Harvard's Project Zero provides extensive information on the topic, there are very few localized studies that specifically explore how VTRs enhance speaking and writing skills in English as a Second Language (ESL) settings. Currently, only one Costa Rican study directly addresses VTRs as motivational tools in the ESL classroom.

This lack of regional literature makes it challenging to establish a strong theoretical foundation grounded in local realities. Most of the existing research comes from international contexts and therefore must be adapted to suit the Costa Rican educational framework, including curriculum standards and teacher training requirements.

Finally, while this proposal has significant potential to impact classroom practice, its success will depend on factors such as teacher receptiveness, the availability of resources, and sufficient time for implementation and follow-up.

CHAPTER II: THEORETICAL FRAMEWORK

2.1 HISTORICAL BACKGROUND

2.1.1 Using Thinking Routines as a Pedagogy for Teaching English as a Second Language in Palestine

In a 2016 study, Dajani examined the use of thinking routines to enhance comprehension and inquiry skills among Palestinian students, while also increasing their classroom engagement. The action research took place during the 2014–2015 academic year and involved six fourth- and fifth-grade English teachers. Data collection methods included video recordings of classroom sessions, teacher and student reflections, and observation reports.

The analysis revealed both benefits and challenges. Students demonstrated greater engagement and confidence in speaking, while teachers found it difficult to implement the routines due to the additional planning required and their lack of prior experience. Despite these challenges, teachers expressed positive perceptions of thinking routines, noting that they improved content comprehension and fostered interdisciplinary connections. The routines contributed to an enjoyable classroom environment that supported focused learning.

2.1.2 Visible Thinking and the Importance of its Implementation in Preschool Education

Viña (2019) conducted a thesis study exploring the concept of visible thinking in preschool education. Her research gathered information about its definitions, theoretical foundations, and applications in English language learning. She emphasized the role of thinking routines and the development of a thinking culture in early childhood education.

Visible thinking is defined as the development of thinking skills through visual strategies, such as routines that allow students to process and express ideas. Viña stressed that teachers must understand and model these routines effectively to maximize their classroom impact. Her goal was to propose practical activities for implementing visible thinking in preschool, aiming to improve both English learning and foundational cognitive skills during this critical developmental stage.

2.1.3 Use of Visible Thinking Routines (VTR) to generate relevant points for expository writing

This case study emerged from a 2016 cluster school project involving teachers from five secondary schools who identified the pre-writing stage as a common area of difficulty for students. It was observed that students often skipped or minimized this step due to time constraints or lack of understanding. As a result, their writing lacked clarity, cohesion, and depth.

Without proper planning, students struggled to link their ideas effectively or consider alternative viewpoints. While they found it easier to write narrative texts based on personal experiences, they had significant difficulty generating and organizing ideas for more complex genres such as expository writing. Thinking routines were proposed as tools to support idea generation, structure, and reflection in the writing process.

2.1.4 Impact of the visible thinking approach in the EFL class atmosphere

This study explored the impact of visible thinking routines on the learning environment of a first-year high school English class. Participants included two English teachers, a school administrator, and six randomly selected students. Data were collected through student focus groups, teacher and staff interviews, and curriculum analysis.

Preliminary results revealed that while teachers had limited training in using thinking routines, students quickly adapted to the methodology. The study reported a more participatory classroom atmosphere and described the process as leading to the "democratization of the classroom." Students were more involved in classroom discussions and activities, and the school community recognized visible thinking as a valuable, evolving approach expected to continue developing over the following years.

2.2 HISTORICAL CONTEXT (SCHOOL BACKGROUND)

Escuela Finca Guararí operates as a priority care institution located in the San Francisco district of the Heredia canton, near the northeast corner of the Clínica del Virilla. The school was established in response to rapid population growth in the Greater Metropolitan Area, which created urgent demands for improved social services in the Guararí community—an area historically affected by unplanned urban development and limited infrastructure.

The school's foundation was part of a broader social policy initiative aimed at expanding educational access. It began as an annex to Los Lagos School in 1988, when community members took the initiative to construct a building with five classrooms and three restrooms. In 1989, renovations were carried out on the CAI (Centro de Atención Integral de la Caja Costarricense del Seguro Social), along with several deteriorated homes, which were repurposed into classrooms. Due to the lack of adequate facilities, students often attended classes under trees or in the school's corridors.

Through the COPAN (Comité Patriótico Nacional) movement and ongoing advocacy by teachers, the community continuously pressed for improvements. Since its founding, student enrollment has increased significantly, and in recent years, the school has served approximately 1,200 to 1,400 students annually.

Extreme poverty remains a defining characteristic of the Guararí community, qualifying the school for inclusion in the 1995 National Plan to Combat Poverty through the PROMECUM program. This program focuses on delivering high-quality education to underserved populations.

Students at Escuela Finca Guararí face a range of socio-emotional and economic challenges, including domestic violence, substance abuse, neglect, lack of affection and boundaries, and cases of sexual abuse. These conditions often lead to absenteeism, behavioral issues, school dropout, and frequent transfers, all of which impact students' academic performance. In response, various government institutions collaborate to provide targeted social support and intervention.

The school is situated on an 8,023-square-meter property, according to Mora and Menéndez (1993). Initially, it had two buildings—one with six classrooms and the other with five—as well as a multi-purpose room that occasionally doubled as a classroom. By 1993, seven pavilions had been constructed, offering a total of 34 classrooms. While classroom conditions vary from satisfactory to inadequate, the school has steadily expanded its facilities.

Currently, the institution includes an Academic Resource Center (CRA), a multipurpose court, two storage rooms, and adapted areas for services such as speech therapy, itinerant support, a PIAD lab, photocopying services, interdisciplinary team offices, home education, and religious instruction. Despite these developments, the school continues to face significant infrastructure challenges, including the need for roof repairs, improved drainage systems, sanitary upgrades, and a full repainting of facilities.

Most classrooms are equipped with desks, wooden and acrylic boards, filing cabinets, and shared teacher workstations, many of which were acquired through donations. The preschool and maternal education areas are furnished with adapted equipment appropriate to the developmental needs of young learners.

As a designated priority attention center, the school also offers services from PRIN (Programa de Intervención) and an Interdisciplinary Team composed of a counselor, two psychologists, and a social worker. Additional support includes curriculum facilitators, special education teachers (RM, TL, PA, TEC), permanent and itinerant support staff, two computer labs, a PIAD lab, and a Learning Resource Center (Biblio-CRA).

2.3 CONCEPTUAL FRAMEWORK

2.3.1 Visible Thinking Routines (VTR)

Educational professionals use Visible Thinking Routines (VTR) to make students' thought processes explicit, thereby fostering a classroom culture focused on deep thinking and learning. These

routines help students articulate their reasoning, challenge assumptions, and engage in analytical reflection (Ritchhart et al., 2011). VTRs are designed to strengthen students' cognitive and communicative abilities by providing structured pathways that support deeper engagement with content. Through these routines, students gain greater autonomy over their learning, fostering environments where curiosity and inquiry thrive (Ritchhart, 2020).

Beyond increasing student interest, VTRs contribute directly to the development of critical thinking skills. They encourage learners to examine evidence, connect ideas, and evaluate arguments—mirroring the progression of Bloom's Taxonomy, from factual recall to evaluation and synthesis (Musliha, 2021). Moreover, they allow teachers to gauge student understanding through formative assessment, helping to identify concepts that require further exploration.

In bilingual education, VTRs offer additional benefits by enhancing students' communication skills. They provide students with a "language of learning," strengthening both their oral and written expression through logical idea organization (Ritchhart & Perkins, 2008). This is especially valuable in immersion programs, where students must acquire both content knowledge and language skills simultaneously. Routines such as "I Used to Think… Now I Think" help students trace their own cognitive development, supporting both metacognition and language acquisition.

Constructivist learning theory aligns closely with VTRs, as both emphasize active, student-driven knowledge construction. These routines empower learners to interact meaningfully with content rather than passively receive information, thereby deepening understanding and encouraging connections to prior experiences. As a result, students develop critical and independent thinking habits, along with increased motivation and ownership of learning.

Several core routines are widely used to promote different cognitive and communication skills:

- See-Think-Wonder: Encourages observational skills, inference, and inquiry. Students examine a visual stimulus, interpret it, and ask related questions—promoting curiosity and deeper exploration (Ritchhart, 2020).
- Think-Pair-Share: Strengthens speaking, listening, and collaboration. Students think independently about a question, discuss their ideas with a partner, and then share with the group—fostering a safe space for diverse language abilities (Maghfira, 2020).
- Question-Answer-Connect: Helps learners form questions, seek answers, and link new knowledge to prior understanding, reinforcing both retention and application of content (Ritchhart et al., 2008).
- Claim-Support-Question and Circle of Viewpoints: These promote argumentative writing and multiple perspective analysis. Students develop claims, support them with evidence, and generate reflective questions. This not only strengthens analytical writing but also fosters empathy and intercultural understanding (Ritchhart, 2020).
- Connect-Extend-Challenge: Encourages learners to relate new information to existing knowledge, extend their thinking, and identify areas of uncertainty—supporting knowledge transfer across disciplines and real-life situations (Swartz & Parks, 1994).

The implementation of these routines leads to more reflective, engaged learners with improved comprehension and problem-solving abilities. Students develop metacognitive skills essential for lifelong learning (Hattie & Gan, 2011). VTRs also support inclusive education by allowing for differentiation; routines can be adapted to meet varying language levels, cognitive styles, and learning needs (Tomlinson, 2013).

Furthermore, these strategies foster collaboration and peer learning. Routines like "Think-Pair-Share" and "See-Think-Wonder" promote dialogic learning and peer-to-peer knowledge construction, which improves understanding and social-emotional skills (Genesee, 2016).

Teachers can ensure successful implementation by modeling the routines, providing scaffolding, and gradually increasing complexity as students develop stronger thinking skills. Regular assessment through observation checklists, student reflections, peer feedback, and portfolios can help measure student engagement and critical thinking growth (Hattie, 2009).

Professional development is crucial for effective integration of VTRs. Workshops and collaborative communities of practice allow educators to refine their use of these routines, share experiences, and align them with curriculum goals (Ritchhart et al., 2009).

Ultimately, the impact of VTRs should be evaluated not only through immediate learning outcomes but also through their influence on student dispositions such as curiosity, empathy, persistence, and civic responsibility—hallmarks of transformative, inclusive education (Perkins, 2013).

2.3.1.1 Stages of Visible Thinking

A systematic thinking approach enables students to acquire deep understanding through observation activities along with analytical work and reflective thinking about their thoughts. Several researchers emphasize that students need structured thinking guidance in their classrooms because it enables them to learn and develop cognitive abilities (Perkins, 1992; Ritchhart, 2020; Swartz & McGuinness, 2014). A complete examination of visible thinking phases reveals their role in educational teaching approaches through three essential stages.

The first step of visible thinking requires students to activate their existing knowledge while they discover new material. Teachers should establish an environment that supports inquiry activities and student questioning during this particular time. Students need to establish meaningful learning connections between their existing knowledge and new information according to Perkins (2013) so they can develop conceptual relationships and create hypotheses. VTR strategies that support this stage include:

- The teaching approach "I See, I Think, I Wonder" helps students observe details carefully while developing questions about their subject matter (Ritchhart et al., 2011).
- Students can anticipate upcoming lesson content using the "Predict and Justify" method when they analyze visual or textual indicators (Swartz & McGuinness, 2014).

The purpose of this phase is to generate cognitive engagement with learning, activating critical thinking and stimulating intellectual curiosity. According to Lipman (2003), reflective thinking begins when students are exposed to open-ended questions that challenge them to examine information from different perspectives. The development and organization of ideas into a structured format defines this stage in the knowledge construction process.

The second phase enables students to organize their thoughts and connect ideas between concepts before they develop their thinking in a structured way. According to Ritchhart (2020) students need this learning phase because it enables them to absorb new information that they can add to their established conceptual framework. The following VTR methods help students develop their knowledge construction abilities:

- Students can use "Concept Maps" to create visual representations of essential relationships between concepts (Novak & Gowin, 1984).
- Through "Compare and Contrast" students can recognize the commonalities and dissimilarities that exist between different concepts and events (Swartz & Parks, 1994).
- The "Think-Aloud" technique enables students to develop metacognition through verbalizing their thinking process during problem analysis (Flavell, 1979).

The critical function of collaborative thinking emerges during this phase. Students develop better comprehension through the process of interacting with peers and teachers to examine their ideas and enhance them. The structured thinking method described by Swartz and McGuinness (2014) enables students to obtain knowledge while developing skills for solving problems in practical situations.

The final phase of visible thinking requires students to develop metacognition alongside the application of learned knowledge in new situations. According to Flavell (1979) students who demonstrate metacognitive abilities can control their learning process by assessing their thinking approaches for effectiveness. Teachers should create learning opportunities at this time which include:

- The "I Used to Think... Now I Think" strategy enables students to reflect on their learning through Ritchhart et al. (2011) while showing how their conceptual understanding evolved.
- The "Thinking Red Light, Yellow Light, Green Light" technique from Ritchhart (2020) helps students evaluate their thinking through three categories of mastered knowledge and areas for improvement and topics that create doubt.
- Students should use the "Connect, Extend, Challenge" approach to transfer their learning to new situations by applying knowledge in various disciplines and everyday life contexts according to Swartz & Parks (1994).

This stage enables students to develop autonomy and reflective learning abilities through knowledge consolidation. According to Perkins (1992) students demonstrate flexible understanding when they successfully use learned material across multiple learning environments.

A structured framework for deep and meaningful learning exists in the three visible thinking phases of activation development and metacognition. The process of making thinking explicit enables students to take an active role in their learning activities for developing their skills.

2.3.2 Conceptualization of Pedagogical Mediation

In modern education, pedagogical mediation is understood as the intentional and strategic interaction between teachers, students, and content, supported by appropriate resources and methodologies. It goes beyond content delivery to emphasize meaningful, contextualized learning that aligns with students' developmental stages and cultural backgrounds (MEP, 2021). The teacher plays a

central role in connecting educational materials to students' needs and facilitating knowledge construction rather than passive reception.

This approach represents a shift away from traditional, memorization-based instruction toward a more active and student-centered learning model. According to Alzate-Ortiz and Castañeda-Patiño (2020), pedagogical mediation involves designing purposeful learning strategies that promote student engagement and reflection.

Ausubel's (1968) theory of meaningful learning underpins this concept by asserting that students learn more effectively when they can connect new information to prior knowledge. The teacher, as mediator, must identify those connections and present content in ways that build upon students' existing cognitive structures.

Díaz and Hernández (2002) emphasize the importance of teaching strategies such as advance organizers, analogies, guided discussions, and concept maps. These tools help students reorganize their knowledge, enabling them to develop deeper understanding and construct personal meaning.

Pedagogical mediation not only fosters cognitive growth but also supports affective and motivational development. When students see relevance in the content and actively participate in constructing knowledge, they become more engaged, critical, and autonomous learners (Romero et al., 2010; Tascón, 2003).

2.3.2.1 Didactic Strategies

Didactic strategies are essential tools through which pedagogical mediation is realized. They include methods and resources teachers use to guide meaningful learning and meet instructional objectives. These strategies must be carefully selected and adapted based on the content, student characteristics, and learning context.

Collaborative learning strategies, such as group work and peer tutoring, align with Vygotsky's (1978) sociocultural theory, which posits that knowledge is first constructed socially and then internalized individually. Problem-based and project-based learning approaches also promote active engagement by presenting students with real-world challenges that require inquiry, teamwork, and reflection.

Advance organizers, developed by Ausubel, help activate students' prior knowledge and provide a conceptual framework for new content. Additional strategies like Socratic questioning, analogies, and concept mapping (Novak & Gowin, 1984) foster connections between ideas and support the reconstruction of knowledge.

According to Bruner (1996), the teacher serves as a scaffold—providing temporary support tailored to students' needs until they develop the skills necessary to work independently. The thoughtful application of didactic strategies ensures that students not only acquire information but also internalize learning processes.

2.3.2.2 Pedagogical Mediation in Costa Rica

The Ministry of Public Education (MEP) in Costa Rica officially endorses pedagogical mediation as the foundation for instructional practice. This model encourages teachers to adopt active, innovative methodologies that engage students in meaningful learning experiences.

The 2021 MEP document Guidelines for Pedagogical Mediation for Blended Education recommends incorporating VTRs and other reflective tools during initial learning phases to stimulate curiosity and critical thinking. Activities such as creating comics, digital campaigns, songs, and shared stories are encouraged as ways to connect learning with students' real-life experiences and interests.

Costa Rica's 2016 policy Educate for a New Citizenship emphasizes student-centered learning by promoting varied instructional methods—such as collaborative projects, debates, hands-on activities, and technology integration—that prepare students for 21st-century challenges.

In addition, the 2023 Guidelines for the Pedagogical Planning of Technical Professional Education reaffirm the importance of using diverse and adaptive mediation strategies to ensure all students achieve meaningful learning outcomes and essential competencies.

2.3.2.3 Role of the Teacher in Pedagogical Mediation

As a pedagogical mediator, the teacher plays a multifaceted role in facilitating learning, designing appropriate environments, and guiding students through their educational journey. This role requires more than knowledge transmission—it involves creating the conditions for students to build skills, attitudes, and values that promote lifelong learning.

Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD) illustrates the importance of teacher guidance in helping students accomplish tasks they could not complete independently. Through scaffolding—offering support, feedback, modeling, and appropriate challenges—teachers nurture learners' cognitive, communicative, social, and metacognitive competencies.

Teachers also model thinking strategies, problem-solving approaches, and constructive attitudes toward challenges. This modeling helps students develop the capacity for analysis, synthesis, collaboration, empathy, and self-regulation.

Research confirms that when teachers act as mediators, students gain not only academic knowledge but also the tools and dispositions for continuous learning. The mediating teacher becomes a transformational figure, equipping students with essential 21st-century skills such as critical thinking, creativity, information management, and global citizenship (MEP, 2016).

Students guided by effective mediators demonstrate greater autonomy, motivation, and the ability to transfer learning to new situations. In today's rapidly evolving world, pedagogical mediation is not just an instructional choice—it is a foundational requirement for inclusive, meaningful, and future-ready education.

2.3.3 English Immersion for Preschool Programs

2.3.3.1 Overview of Costa Rica's Immersion Preschool Program

Costa Rica's National Preschool Curriculum promotes the holistic development of young learners by addressing their cognitive, emotional, social, and physical growth. Within this framework, English immersion strategies support not only language acquisition but also the development of critical thinking and creativity. According to Chen, Cerdas, and Rosabal (2022), the curriculum emphasizes equity, inclusion, and lifelong learning through bilingual education (p. 19).

The curriculum is structured around key developmental domains, including language and communication, social-emotional development, cognition, and artistic expression. These domains are integrated into learning experiences that stimulate active exploration and engagement. As Álvarez (2009) notes, the early acquisition of adaptive linguistic and socio-emotional skills has long-term benefits for students' academic trajectories (p. 33).

Culturally responsive pedagogy is also a vital component of the Costa Rican curriculum. It encourages the inclusion of culturally relevant content that helps students connect academic learning with their lived experiences and traditions. Gay (2018) argues that such pedagogy fosters student engagement and a strong academic identity, especially in diverse classroom settings (p. 23).

English immersion programs provide students with authentic exposure to the target language by using English as the primary medium of instruction. Genesee (2019) affirms that immersion programs

offer natural language learning opportunities that lead to enhanced linguistic and academic development (p. 7).

To be effective, immersion environments must also be supportive. Students need to feel safe and valued in classrooms that allow them to experiment with language at their own pace. Calderón (2011) stresses that making mistakes is a fundamental part of language learning and should be embraced within classroom culture (p. 14).

One core principle of immersion education is the integration of language with content. Students learn subject matter and language simultaneously, which enhances both comprehension and language retention. Lyster (2017) emphasizes that immersion programs must embed language learning within meaningful content to improve vocabulary, syntax, and discourse competence (p. 45).

Another key aspect is cultural awareness. Teachers are encouraged to select materials that reflect diverse perspectives, helping students build respect for cultural differences. Paris and Alim (2017) assert that culturally sustaining pedagogy enhances both linguistic and sociocultural development in bilingual learners (p. 4).

The MEP supports various models of preschool immersion education, including full immersion, partial immersion, and bilingual programs. These are designed to meet the needs of students from different linguistic and cultural backgrounds (MEP, 2020, p. 12).

- Full immersion programs deliver most or all instruction in English, allowing students to rapidly acquire the target language through continuous exposure. Cloud, Genesee, and Hamayan (2020) found that this model significantly boosts language fluency (p. 67).
- Partial immersion programs balance instruction between English and the native language, supporting bilingualism while promoting language flexibility (Espinosa, 2018, p. 38).
- Bilingual programs aim to build literacy and content knowledge in both languages, preparing students for a globalized, multicultural world.

To implement immersion programs effectively, educators must align teaching methods with curriculum standards while promoting language development. Thematic instruction is often used to integrate language and content in a coherent way. Gibbons (2002) explains that thematic units provide a framework for engaging students in purposeful language use across subjects (p. 90).

Visual aids, manipulatives, and other multimodal resources support comprehension and increase classroom participation. Graphic organizers, images, and videos help students make meaningful connections between language and concepts. Herrera, Pérez, and Escamilla (2010) confirm that these tools enhance learning by addressing diverse learning styles (p. 62).

Group learning and peer interaction are also central to immersion pedagogy. Activities such as projects, discussions, and cooperative games encourage oral language development and reinforce collaborative skills. Anatoli (2025) notes that social language use in bilingual settings fosters meaningful communication and interaction (p. 21).

Ongoing assessment and feedback are essential to monitor progress and guide instruction. Language assessments must evaluate both speaking and writing skills, as well as students' comprehension of academic content. Yang (2020) recommends using a variety of assessment tools to identify learning needs and adjust instruction accordingly (p. 35).

2.3.3.2 Speaking and Writing Skills among English Immersion Programs

During the preschool years, children rapidly develop communication abilities that form the foundation for speaking and writing. By age three, most children can construct basic sentences and follow simple instructions, demonstrating emerging control over grammar and vocabulary (North Carolina Association for the Education of Young Children, 2020). By age five, their spoken language becomes more complex, and they begin to tell stories and describe experiences with greater fluency (Wardle, 2020).

These developmental patterns are particularly relevant in immersion programs, where children must acquire a second language. Unlike monolingual learners, bilingual students often go through a silent period at the beginning of their language development journey. Genesee (2016) highlights this phase as a natural part of second language acquisition.

Emergent writing skills also begin to take shape during this stage. Preschoolers progress from scribbling and drawing to forming letters and attempting phonetic spelling. They may label their drawings, write their names, and compose simple sentences using visual prompts and teacher modeling (Neuman & Roskos, 2014). These early experiences lay the groundwork for later literacy success.

To support language and cognitive development, teachers must align classroom activities with developmental stages. Age-appropriate, scaffolded instruction helps students learn the new language without frustration.

English immersion classrooms use natural and interactive methods to support language acquisition. Real-life situations, storytelling, songs, and daily routines provide authentic opportunities for students to hear and use English. Cummins (2021) explains that such exposure supports both Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP).

In addition to language skills, immersion education also strengthens cognitive abilities. Bilingual students often demonstrate superior problem-solving, cognitive flexibility, and metalinguistic awareness compared to monolingual peers (Cummins, 2021). These cognitive benefits enhance students' ability to meet future academic demands.

Effective immersion instruction requires comprehensive scaffolding, visual support, and culturally relevant content. A supportive environment helps children develop positive bilingual identities and fosters respect for linguistic and cultural diversity (Genesee, 2016).

To develop speaking skills, teachers should provide structured and spontaneous opportunities for verbal interaction. Activities such as morning meetings, guided play, and storytelling circles are ideal

for practicing expressive language. Repetitive sentence frames, chants, and songs help build pronunciation, grammar, and fluency (Singleton & Leśniewska, 2024).

Writing development should be supported through visual activities such as labeling, journaling, and shared writing. These strategies bridge the gap between oral and written language and foster student engagement. Writing workshops that include teacher modeling, collaborative writing, and independent practice are especially effective for building confidence in written expression.

Creative storytelling, puppet shows, and collaborative book-making projects also help improve both speaking and writing. These activities promote turn-taking, negotiation of meaning, and shared authorship—all essential components of communicative competence (Gregory, 2023).

2.4 HYPOTHESIS

The implementation of Visible Thinking Routines (VTR) positively influences the development of speaking and writing skills in ABI English Immersion Transition 5 (T5) students at Escuela Finca Guararí, Heredia, during the second quarter of 2025.

2.4.1 Variables Definition

2.4.1.1 Independent Variable (IV)

Implementation of Visible Thinking Routines (VTR)

Visible Thinking Routines are structured cognitive strategies developed by Project Zero at Harvard University, designed to scaffold students' thinking and make it visible through activities such as See-Think-Wonder, Think-Pair-Share, or Claim-Support-Question. In this study, VTR refers to the deliberate implementation of these routines during English immersion classes.

2.4.1.1 Dependent Variables (DV)

- *Development of speaking skills*
- *Development of writing skills*

Speaking and writing are core components of communicative competence in English language learning. Speaking skills involve fluency, coherence, and pronunciation, while writing skills include organization, grammatical accuracy, and vocabulary use. Both skills are essential for meaningful interaction in immersion environments and are influenced by the quality of instructional strategies, such as those that promote active thinking and expression.

CHAPTER III: METHODOLOGICAL FRAMEWORK

3.1 TYPE OF RESEARCH

3.1.1 Purpose (Theoretical or Applied)

The main goal of this research is applied because it aims to find solutions to problems in society. The main purpose of applied research is to resolve problems by discovering functional solutions. The main difference between basic research and applied research lies in their objectives since basic research aims to expand theoretical knowledge but applied research focuses on solving real-world problems (Charlesworth 2024, para. 3). Researchers can discover solutions to research problems and extract vital conclusions while this research process continues.

Every process needs efficiency to select the most effective tools which match the research objectives. The researchers need to follow the procedure to address and solve the collected information so they can achieve the end impact which is the case of this research.

This project investigates how visible thinking routines affect the pedagogical mediation of speaking and writing skills among students at Finca Guararí School. The effectiveness of these strategies stems from their ability to reveal thinking processes which helps teachers detect learning obstacles and enhance their teaching methods.

The fundamental nature of pedagogical mediation goes beyond being a didactic strategy because it represents the core of transformative teaching which humanizes education while developing meaningful learning and essential competencies for the 21st century. The educational process transforms into an integral developmental experience because of its importance which enables schools to develop students who can think and act and coexist in complex and changing environments.

The research findings will offer teachers an implementable teaching approach which can support every student in their classroom. The author investigates a widespread issue affecting public school students so this research has an applied purpose.

The methodology is structured into three phases:

Phase 1 – Diagnostic: A diagnostic phase will be conducted using observation checklists and teacher interviews to identify the current level of speaking and writing skills among students, as well as the existing use (if any) of VTRs in the classroom.

Phase 2 – Intervention: During this phase, a series of Visible Thinking Routines will be systematically integrated into English immersion classes. Lesson plans will incorporate VTRs such as See-Think-Wonder, I Used to Think… Now I Think, and Think-Pair-Share, aligned with the speaking and writing objectives of the preschool curriculum.

Phase 3 – Evaluation: The final phase will involve analyzing the outcomes of the intervention using both qualitative reflections and quantitative assessments. Observation rubrics and teacher reflections will be used to evaluate the development of the target skills and the effectiveness of the implemented strategies.

3.1.2 Temporal Dimension (Transversal or Longitudinal)

Research studies use two time-based dimensions which include transversal and longitudinal approaches. A transversal dimension refers to observational research which collects complete data to study a population at one specific time point for examining variable relationships. (Bhat, n.d., p.1).

The transversal design shares similarities with the longitudinal design because both use observational methods to collect data from the same participants at multiple time points across an extended duration. The duration of a longitudinal study extends from several years to multiple decades based on the research requirements. (Bhat, n.d., p. 8). The longitudinal temporal dimension does not apply to this research because it does not span multiple years or decades and it does not include research from previous years or decades.

This research follows a transversal dimension because it focuses on studying a detailed population at a particular moment while using the present time as the research period. The research period spans from May 2025 through August 2025 to gather data from a sample that remains relatively stable. The research design follows a specific short-term approach to achieve its goals which includes developing and investigating aspects within a defined timeframe.

3.1.3 Framework (Mega-Macro-Micro)

The project framework requires understanding that this study conducts micro-level research because this level serves to analyze populations with limited data. The research draws its population from one grade level group (specific groups) at the Escuela Finca Guararí (a specific institution) located in the province of Heredia (in a specific location). The research design enables the creation of a direct and organized study that delivers meaningful information through clear interpretation.

The proposal operates at a micro level because it studies a single grade level group with one preschool teacher who functions as the guiding teacher for Transition 5 pedagogical mediation processes among 20 students at this educational center. The research contains extensive investigation and detailed analysis because it focuses on specific information. The research preparation became possible through information collection from previous studies and applied instruments which included interviews and observations.

3.1.4 Nature (Quantitative and-or Qualitative)

The research method used in this study is qualitative. Hernández, Fernández, Baptista (2010) states that there are two types of approaches; however, due to the different premises that have supported them since the last century, these currents have "polarized" into two main approaches for research: the quantitative approach and the qualitative approach to research.” Both approaches employ careful, methodical, and empirical processes in their efforts to generate knowledge, so the previous

definition of research applies equally to both, using, in general terms, five similar and interrelated phases.

In terms of the qualities of the research work, it can be noted that it is qualitative because it focuses on the study of a specific and contemporary social problem that needs to be investigated. As a result, we will gather evidence through interviews and to support such a conclusion about the strategy.

3.1.5 Character (Exploratory, Descriptive, Correlational or Explicative)

The research work displays exploratory characteristics because it investigates theoretical or hypothetical phenomena in observed phenomena. The primary goal of exploratory research involves exploration. (Singh, 2022, para. 2). This study aims to deliver fresh knowledge that exists at a low frequency.

The research character of this study it is also descriptive because its main goal consists of describing observed events. Descriptive research contains multiple individual methods which operate under its broad category. The research method enables the analyst to conduct extensive analysis of a phenomenon.

The research has a descriptive nature because its main goal is to establish how visible thinking routines support educational community members during their pedagogical mediation processes. The collected data will enable the instructor to identify which aspects require improvement or need modification or strengthening. The summary of classroom events before, during and after the research will function as a guide to improve student population engagement through recommended strategies which support their development.

According to Hernández et al. (2010), descriptive studies "seek to specify the properties, characteristics, and profiles of people, groups, communities, processes, objects, or any other phenomenon that is the subject of analysis." The research focuses on measuring or collecting

information about concepts or variables independently or together without establishing their relationships (p.80).

3.2 SUBJECTS AND SOURCES OF INFORMATION

3.2.1 Subjects of Information

The research will take place at the Finca Guararí School which operates as part of the public educational network. The educational center operates through three distinct cycles that include preschool and first and second cycle. The educational center operates with 5 to 6 groups spread across each level of nursery through sixth grade.

Hossan, Dato'Mansor, & Jaharuddin (2023) define population as "the group of people to whom we (as researchers) wish to apply our findings" (p. 209). The study will take place at the specified educational center with the Transition Immersion group as the population since most students in this group are between 5 and 6 years old.

The research participants were selected because they received more Immersion principles than students in the Nursery level. The research method seeks to understand the teaching staff's competence and commitment regarding pedagogical mediation improvement at the educational institution.

3.2.2 First Hand Sources

Table 1

Firsthand Sources Used in the Research Process

Author or Authors	University or Organization	Country	Year
Ritchhart, R., Church, M., & Morrison, K.	Harvard Graduate School of Education	United states of America	2011

Ritchhart, R.	Harvard Graduate School of Education	United states of America	2020
Gholam, A.	Bahrain Teachers College, University of Bahrain	Bahrain	2018
Dajani, M.	Arab American University – Jenin	Palestine	2016
Viña, V.	Universidad Nacional Abierta y a Distancia (UNAD)	Colombia	2019
Cloud, N., Genesee, F., & Hamayan, E.	Rhode Island College McGill University	United states of America & Canada	2000
Genesee, F.	McGill University	Canada	2016
Wardle, F.	University of Phoenix	United states of America	2020
Ministerio de Educación Pública	Ministerio de Educación Pública	Costa Rica	2016 2021

Source: Developed by Adriana Apuy Rojas (2025)

3.2.3 Second Hand Sources

Table 2

Second Hand Sources Used in the Research Process

Author or Authors	University or Organization	Country	Year
Vygotsky, L. S.	Institute of Psychology, Moscow	Russia	1978
Bruner, J. S.	Harvard University	United States of America	1996
Cummins, J.	University of Toronto	Canada	2021

Gay, G.	University of Washington	United States of America	2018
Gibbons, P.	University of Technology Sydney	Australia	2002
Flavell, J. H.	Stanford University	United States of America	1979
Díaz Barriga, F., & Hernández Rojas, G.	Universidad Nacional Autónoma de México (UNAM)	Mexico	2002

3.3 SAMPLE SELECTION

The study will be conducted at Escuela Finca Guararí, located in Heredia, Costa Rica. The target population consists of students enrolled in the Transition 5 (T5) level of the ABI English Immersion program. This group was selected due to their participation in a full English immersion environment and the observed challenges in their productive language skills.

A non-probability convenience sampling method will be used. The sample includes one group of approximately 21 students, as well as their assigned English immersion teacher.

3.3.1 Probabilistic or Not Probabilistic

The research employs non-probabilistic purposive sampling as its sampling method. The selection process focused on the population which received the most English Immersion methodology exposure. The research method enables the collection of detailed information that directly addresses study objectives about pedagogical mediation and language skill development through Visible Thinking Routines implementation.

The research adopted this sampling method because it aims to study educational phenomena within a specific context rather than generalize to a wider population. According to Palinkas et al. (2015)

purposive sampling functions as a common qualitative research technique for identifying relevant cases that demonstrate the phenomenon of interest (p. 534). The selection of Transition Immersion students who received the most intervention exposure will produce valuable data about VTR's impact on bilingual preschool students' speaking and writing development.

3.4 TECHNIQUES AND TOOLS TO COLLECT INFORMATION

3.4.1 Observation Checklist: Student Engagement and Metacognitive Strategy

The observation checklist and field note guide serves to detect and study metacognitive strategies in Visible Thinking Routines (VTR) used by MEP ABi English Immersion T5 students at Escuela Finca Guararí during the II Quarter of 2025. The instrument focuses on three established VTRs—See-Think-Wonder, Think-Puzzle-Explore, and I Used to Think… Now I Think…—which serve as scaffolds to enhance student reflection and critical thinking and engagement. The tool enables real-time observation of students' planning and monitoring and evaluation behaviors during classroom interactions to reveal their internal cognitive processes that enhance their speaking and writing skills.

The main function of this instrument involves collecting qualitative data about student metacognitive strategy use when implementing VTRs. The tool enables the researcher to assess VTRs' effectiveness in developing metacognition through its ability to track student strategy usage and engagement levels and teacher scaffolding practices. The field notes and checklist structure enable systematic and replicable observations which maintain alignment with research goals to enhance understanding of visible thinking effects on language learning results in immersive educational contexts.

3.4.2 Observation Checklist: Speaking and Writing Performance in Preschool Activities

The observation grid serves to evaluate student speaking and writing abilities during classroom activities using A2/B1 level descriptors from the Common European Framework of Reference for

Languages (CEFR) and official performance indicators from Costa Rica's Ministry of Public Education (MEP). The evaluation system assesses communicative competencies through its structured framework which examines fluency and coherence alongside grammar control and vocabulary use and interactional ability. The observation tool establishes specific criteria to evaluate student verbal and written communication across three topic categories using basic structured language. The assessment tool includes three rating sections that evaluate students' functional language use and grammatical accuracy and their ability to express personal opinions and ideas and narratives.

The instrument functions to deliver dependable real-time classroom evidence about students' productive language abilities. The grid enables precise and unbiased assessment through its alignment with CEFR and MEP standards which helps teachers detect student strengths and weaknesses.

3.4.3 Teacher Interview: Metacognitive Teaching Indicators for Visible Thinking Routines (VTR)

The interview design serves to collect detailed qualitative information about teachers' VTR knowledge and their implementation of these routines to develop student metacognitive abilities. The first section of the interview explores teachers' prior knowledge about VTRs by asking about their introduction to the routines and their self-assurance in using them as well as their understanding of specific strategies including See-Think-Wonder and Think-Puzzle-Explore. The information gathered in this section helps understand how teachers apply VTRs in their teaching practice.

The instrument aims to discover typical methods and effective approaches teachers use VTRs to help students develop metacognitive abilities. The interview provides complete understanding of metacognitive teaching practices through its combination of teacher background information with classroom strategy documentation. The gathered information will help develop better training programs for teachers and instructional coaching methods and curriculum planning to enhance student critical thinking and reflective learning through VTRs.

The instruments were validated by:

- M.Ed. Jeffry Montero Nuñez – University Professor at Universidad Hispanoamericana
- Dra. Norma Calvo Cascante – Education Faculty Dean at Universidad La Salle
- M.Ed. Noelia Mena Varela – University Professor at Universidad Hispanoamericana
- M. Ed. Josette Hamrick – Curriculum Facilitator at Guildford County Schools, NC, USA
- Lcda. Sandra Cango – Spanish Immersion Teacher, NC, USA

3.5 OPERATIONALIZATION OF VARIABLES

The research procedure examines and demonstrates the variables of the research. Likewise, the instruments used to analyze the process are shown. The following chart presents the general objective of the research, the specific objectives, and the variable of each one, in the same way, the conceptual definition, instrumental definition, and the operational definition.

General Objective: To analyze the influence of Visible Thinking Routines (VTR) on the development of speaking and writing skills in ABI English Immersion T5 students at Escuela Finca Guararí, Heredia, during the second quarter of 2025.

Specific Objectives	Variable	Conceptual Definition	Instrumental Definition	Operational Definition
To identify the metacognitive strategies embedded in the Visible Thinking Routines (VTR) applied to enhance speaking and writing skills in MEP ABi English	Metacognitive strategies in VTR	Metacognitive strategies are processes used to plan, monitor, and evaluate one's understanding and performance. VTRs are instructional	Observation checklist guide based on VTR frameworks such as "See-Think-Wonder", "Think-Puzzle-Explore", and "I Used to Think… Now I Think…"	Observation of student engagement and use of strategies during VTR implementation; field notes on frequency and type of metacognitive

Immersion T5 students at Escuela Finca Guararí during the II Quarter of 2025.		frameworks that support critical thinking and metacognition through structured visual scaffolds.		strategy per session.
To examine the development of students' speaking and writing skills of MEP ABi English Immersion T5 students from Escuela Finca Guararí, Heredia, during the II Quarter 2025.	Speaking and writing skills	Writing skills refer to the cognitive and linguistic abilities involved in producing coherent and meaningful written texts in a second language. They include organization, grammar, vocabulary, content development, and the ability to revise and self-correct. Speaking skills involve the ability to express ideas orally with clarity, fluency, and appropriate language use.	Observation grid based on CEFR A2/B1 indicators and MEP descriptors to assess speaking and writing performance in classroom activities.	Systematic observation of students' oral and written language during classroom tasks.

To determine the teacher's pedagogical and metacognitive approach to the application of Visible Thinking Routines (VTR) in the MEP ABi English Immersion T5 students from Escuela Finca Guararí, Heredia, during the II Quarter of 2025.	Teacher's pedagogical and metacognitive approach	The pedagogical approach refers to the strategies, methods, and techniques used by teachers to facilitate learning. Metacognitive approach refers to how teachers guide students in thinking about their own thinking.	Interview form based on metacognitive teaching indicators.	Interview notes to identify patterns in teacher facilitation, scaffolding, and reflective questioning.
To construct a set of Visible Thinking Routines (VTR) guidelines manual that can enhance the development of speaking and writing skills for the MEP ABi English Immersion T5 students at Escuela Finca Guararí, Heredia, during the II Quarter 2025.	VTR guidelines manual	A structured set of practices based on VTRs that help promote student metacognition and enhance oral and written production in English.	Manual design template including objectives, step-by-step routines, sample activities, and assessment tips based on field results.	Compilation of best practices and adapted VTRs based on research findings; piloted and revised using expert feedback and classroom trials.

Source: Developed by Adriana Apuy Rojas (2025)

CHAPTER IV: DATA ANALYSIS

4.1 INTRODUCTION

This chapter presents the results obtained through the diagnostic, implementation, and evaluation phases of the action research. The analysis aims to determine the influence of Visible Thinking Routines (VTR) on the development of speaking and writing skills in ABI English Immersion Transition 5 (T5) students at Escuela Finca Guararí. The discussion draws connections between the observed outcomes and the theoretical framework, highlighting the impact of VTRs on students' linguistic, cognitive, and metacognitive development.

4.2 CONTEXT AND DESCRIPTION OF THE METHODOLOGY

The research took place over five weeks during the second quarter of the 2025 school year in a Transition 5 classroom within the ABI English Immersion program. The group consisted of 21 students between the ages of five and six. These learners came from a low socio-economic background and exhibited varying levels of English language exposure and developmental readiness.

A total of 3 VTR-integrated sessions were planned and implemented, focusing on speaking and writing activities linked to thematic units such as "My Family," "The Environment," and "Healthy Habits." Routines such as See-Think-Wonder, I Used to Think… Now I Think, and Think-Pair-Share were embedded into lesson plans.

The implementation emphasized student participation, the use of visual prompts, and reflective questioning to stimulate oral and written language output.

4.3 ANALYSIS OF STUDENT ENGAGEMENT AND METACOGNITIVE STRATEGIES

4.3.1 Visible Thinking Routine: See–Think–Wonder Routine

The following analysis focuses on the implementation of the See–Think–Wonder Visible Thinking Routine during Week 1 of the research, within the thematic unit "The Environment." The activity was

conducted with a group of 21 Transition 5 (T5) students as part of the ABI English Immersion program at Escuela Finca Guararí. A high-impact visual prompt depicting a polluted river and affected wildlife was used to stimulate observation, interpretation, and inquiry among the students. The analysis is based on direct classroom observations and assesses five key student engagement indicators to determine the effectiveness of the routine in promoting active participation, language use, and metacognitive behaviors.

Analysis of Student Engagement: See–Think–Wonder Routine	
Indicator	Observations
Active Participation in Group/Class Discussion	Rating: 4 (High) Most of the students were eager to participate when the routine was introduced with a large visual poster. 17 out of 21 students raised their hands or volunteered to share what they saw or thought. Students responded with statements such as "I see a *basura* in the water" and "I think *peces están enfermos*." Several students who were previously quiet began contributing when they were given time to observe first. The visual element stimulated curiosity and fostered engagement in whole-group sharing.
Verbalization of Thoughts, Questions, or Ideas	Rating: 4 (High) Students verbalized original observations and ideas, frequently using routine language such as "I see…", "I think…", and "I wonder…". Their statements included insightful reflections like: "I see *botellas y plástico*." "I think *animales no respiran*." "I wonder *porque ensucian*." Although students started their responses in English using the correct sentence stems, most

	transitioned into Spanish when expressing more complex ideas, which provided further insight into their thinking and language limitations.
Initiative in Using the Routine Steps	Rating: 3 (Moderate) About half of the students showed some initiative in using the routine steps without direct prompting. Others required guidance to move from observation to interpretation. Still, many spontaneously used the stems "I see" or "I think" when raising their hands, indicating initial internalization. The observed pattern of beginning in English and continuing in Spanish suggests students were developing routine familiarity but still required language support.
Sustained Attention to the Task	Rating: 4 (High) Students remained attentive throughout the session, particularly when interacting with the image and listening to peers' responses. There was minimal off-task behavior. The visual component and clear sequence of steps helped sustain attention, and students showed genuine interest when prompted to draw or label elements of the scene. Sentence stems provided structure and helped maintain cognitive focus during the activity.
Collaboration and Response to Peer Input	Rating: 3 (Moderate) Students demonstrated emerging collaborative skills. Some responded to peer ideas by expanding or connecting their own ("*La tortuga está pegada*" followed by "*Sí, porque la malla la tiene atrapada*"). However, most contributions remained individual. The use of shared sentence

	starters helped scaffold listening and interaction, but modeling was not observed to deepen peer-to-peer dialogue or use of target language.

Source: Developed by Adriana Apuy Rojas (2025)

Field Notes: Frequency and Type of Metacognitive Strategies Observed: See–Think–Wonder Routine	
Indicator	Observations
Planning (e.g., setting goals, organizing thoughts)	Rating: 2 (Low) Few students demonstrated clear planning behavior. While a handful paused to examine the image before speaking, most responses appeared spontaneous and unstructured. Only two or three students verbally indicated what they were going to focus on ("*Yo solo voy quiero el* fish"), suggesting early efforts at organizing ideas. However, the majority responded with isolated observations rather than pre-planned sequences.
Monitoring (e.g., checking for understanding, asking for clarification)	Rating: 2.5 (Low) A small number of students exhibited signs of monitoring their understanding. This included asking simple clarification questions (e.g., "*¿Eso es basura o un basurero?*") or adjusting their responses after peer input. However, most learners required adult prompts to reconsider their ideas. The limited use of self-correction or spontaneous clarification indicates that students are still learning to evaluate their comprehension during tasks. Monitoring was more evident when the teacher asked reflective questions, rather than initiated by the students themselves.

Evaluating (e.g., reflecting on what was learned, adjusting thinking)	Rating: 2 (Low) Evaluative thinking was emerging but inconsistent. Some students revised their thoughts after listening to others (e.g., "I think *el río está un poco sucito, pero también limpio*"), showing developing awareness of contrasting viewpoints. However, this occurred in only a small group and typically after teacher prompting. Independent evaluation—especially regarding the quality of one's own response—was minimal.
Connecting Prior Knowledge (e.g., linking past experiences to new ideas)	Rating: 3 (Medium) This was the most observable metacognitive strategy during the routine. Several students made connections between the visual prompt and their own experiences or previous lessons. Statements such as "*Ahhh esa basura yo la vi en el play*" or "*Yo siempre recogo la basura de la* table." reflected an ability to relate personal knowledge to new content. While this behavior was not universal, about half the class made some type of connection, indicating moderate development of this strategy.
Questioning (e.g., posing insightful or curious questions)	Rating: 3 (Medium) The "wonder" phase of the routine prompted genuine curiosity from several students. Questions like "*¿Los* fish *se pueden morir*?" or "*¿Por qué las personas no usan el basurero y ensucian*?" reflected interest and a desire to understand cause and effect. However, most questions were simple and lacked deeper inquiry. Also, while 70% of students used the English

	starter "I wonder…," the continuation of the question was often in Spanish.

Source: Developed by Adriana Apuy Rojas (2025)

The See–Think–Wonder Visible Thinking Routine implementation with 21 Transition 5 students produced noticeable patterns of student engagement together with developing metacognitive behaviors. Students showed high levels of verbal participation and sustained attention and used routine language stems across the five engagement indicators. The majority of students maintained consistent participation through structured group discussions and visual prompts while most students started their responses with English sentence starters before continuing in Spanish. The students showed collaboration and peer interaction but these behaviors were not consistent since they only extended a few peer ideas.

Student metacognitive strategy performance fell between low and medium levels. The group showed planning and monitoring and evaluative behaviors but these behaviors did not appear throughout the entire group. The strategies of connecting prior knowledge and posing simple questions appeared more frequently during the "wonder" phase. The students needed teacher scaffolding to perform most metacognitive actions yet they showed limited ability to use these strategies independently.

The observations show that the routine helped students stay engaged while introducing basic metacognitive practices. The students' responses showed that their cognitive processes needed structured guidance and modeling throughout the activity because they were still developing.

4.3.2 Visible Thinking Routine: Think–Puzzle–Explore Routine

The following analysis focuses on the implementation of the Think–Puzzle–Explore Visible Thinking Routine during Week 2 of the research, within the thematic unit "Healthy Habits." The activity

was conducted with a group of 21 Transition 5 (T5) students enrolled in the ABI English Immersion program at Escuela Finca Guararí. A visual prompt featuring a lunchbox with a mix of healthy and unhealthy food items was used to stimulate prior knowledge, curiosity, and exploration. The analysis is based on direct classroom observations and evaluates five key engagement indicators and metacognitive strategies to determine the extent of student participation, understanding, and reflection during the activity.

Analysis of Student Engagement: Think–Puzzle–Explore	
Indicator	Observations
Active Participation in Group/Class Discussion	Rating: 2 (Low) Only 9 out of 21 students actively participated without prompting. Others remained passive or confused about what to say during each phase of the routine. The "think" section elicited some recall (e.g., "*Las* apples *son saludables*"), but during the "puzzle" and "explore" phases, participation declined. Students were unsure of what was expected, and few volunteered answers.
Verbalization of Thoughts, Questions, or Ideas	Rating: 2 (Low) Verbal expression was limited to short, factual statements (e.g., "Fruits *es buena*"). Few students offered questions or elaborated on their thoughts. When prompted to say what they were curious about, most were silent or repeated ideas already stated. Sentence starters ("I'm puzzled by…") were modeled by the teacher, but only about 40% of the students used them, and many reverted to Spanish or off-topic comments.
Initiative in Using the Routine Steps	3. Initiative in Using the Routine Steps Rating: 2 (Low)

	Students showed confusion moving from “Think” to “Puzzle” to “Explore.” Only a few followed the sequence without direct support. While some used the correct English stems, most waited for peers to speak first or copied responses. Independent use of the routine steps was minimal.
Sustained Attention to the Task	Rating: 2 (Low) Attention was maintained during the initial image observation, but decreased during abstract phases like “Puzzle” and “Explore.” Students showed signs of distraction (e.g., fidgeting, talking) when asked to verbalize questions or investigations. Several became disengaged when they did not understand the task, although drawing activities helped briefly recapture focus.
Collaboration and Response to Peer Input	Rating: 2 (Low) Few students responded to peer ideas or built on them. Group interaction was mostly parallel rather than collaborative. Even when working in small groups, students tended to repeat their own ideas or rely on teacher mediation. There was little evidence of active listening or idea expansion.

Source: Developed by Adriana Apuy Rojas (2025)

Field Notes: Frequency and Type of Metacognitive Strategies Observed: See–Think–Wonder Routine	
Indicator	Observations
Planning (e.g., setting goals, organizing thoughts)	Rating: 2 (Low) Only a few students demonstrated evidence of planning. Most responses in the “think” phase were spontaneous or copied from peers. Students

	did not appear to set goals for what they wanted to learn or explore, nor did they sequence ideas intentionally. Without explicit teacher direction, most struggled to generate structured responses.
Monitoring (e.g., checking for understanding, asking for clarification)	Rating: 1 (Low) There was minimal self-monitoring. Students who did not understand the task did not ask for help or clarification. Several provided answers unrelated to the routine steps, and most did not revise or adjust their ideas. Monitoring was only observed when the teacher directly asked, "Does this make sense?" prompting a handful of students to reconsider their answer.
Evaluating (e.g., reflecting on what was learned, adjusting thinking)	Rating: 2 (Low) Evaluative thinking was limited. Very few students changed or expanded their responses during the routine. When asked what they could explore or learn more about, most repeated earlier thoughts or gave no response. Reflection required significant prompting and was mostly teacher-led.
Connecting Prior Knowledge (e.g., linking past experiences to new ideas)	Rating: 2 (Low) Some students made surface-level connections (e.g., "*Yo* eat *manzanas en la casa.*"), but most struggled to relate their personal experiences to the broader theme. These connections were typically expressed during the "think" phase, and did not extend into the "puzzle" or "explore" phases. Prior knowledge activation was limited in depth and frequency.
Questioning (e.g., posing insightful or curious questions)	Rating: 2 (Low) The "puzzle" stage of the routine was particularly challenging. Few students formulated original

	questions. Common responses were vague or prompted (e.g., "¿*Qué es saludable*?"). Several students remained silent during this phase. When asked to say what they were curious about, most needed examples or rephrasing support.

Source: Developed by Adriana Apuy Rojas (2025)

During the Think–Puzzle–Explore routine students showed low to moderate engagement together with limited metacognitive behavior. The beginning of the activity produced some student engagement yet their participation dropped substantially when the activity shifted to its abstract "Puzzle" and "Explore" stages. The students made short factual statements during the activity but their collaborative exchanges and independent use of routine steps decreased in frequency. The students lost focus from their task when the linguistic or cognitive requirements became more demanding and they only showed minimal responses to peer input and failed to expand on shared ideas.

The students maintained low metacognitive performance throughout all assessment indicators. The students showed minimal evidence of planning and monitoring and evaluation while depending heavily on teacher guidance. Students demonstrated knowledge connections in their responses during the "Think" phase yet these connections did not consistently lead to advanced inquiry. The questioning phase produced minimal output and only a few students managed to ask original or curious questions. The introduction and modeling of English sentence starters did not lead to consistent use among students who mostly responded in Spanish while needing help to finish the task.

The routine presented major obstacles to students because it demanded advanced thinking abilities and self-directed language skills. The findings indicate that students are at a developmental phase regarding their engagement and metacognitive abilities when using structured thinking routines in their second language.

4.3.3 Visible Thinking Routine: I Used to Think… Now I Think…

The following analysis examines the use of the I Used to Think… Now I Think… Visible Thinking Routine with a group of 21 Transition 5 (T5) students at Escuela Finca Guararí, implemented during the fourth week of the intervention. The activity followed classroom experiences related to family roles, emotional bonds, and diversity within family structures. The goal was to support student reflection by prompting them to articulate shifts in understanding over time. Observational data focuses on student engagement and the use of metacognitive strategies during the session.

Analysis of Student Engagement: I Used to Think… Now I Think…	
Indicator	Observations
Active Participation in Group/Class Discussion	Rating: 4 (High) Most of the students (16 out of 21) actively shared their reflections. Most responses were given during circle time or in small group settings. Although verbal contributions were mostly in Spanish, students confidently expressed meaningful comparisons (e.g., "I think… *antes creía que la familia solo era mamá y papá, ahora pienso que también pueden ser mis abuelos*").
Verbalization of Thoughts, Questions, or Ideas	Rating: 4 (High) Students verbalized complete and relevant reflections, beginning with "I think," followed by their thoughts in Spanish. Some students added explanations or personal examples, demonstrating ownership of the routine. The quality of the ideas was strong, even with minimal use of the target language beyond the structured phrase.

Initiative in Using the Routine Steps	Rating: 3 (Moderate) Approximately half of the students used the routine without prompts, initiating their responses with "I think" and continuing in Spanish. Visual aids and prior modeling supported this process. Others needed reminders to complete both parts of the reflection, particularly when distinguishing between former and current thinking.
Sustained Attention to the Task	Rating: 4 (High) Students remained engaged throughout the activity. They listened attentively to their peers, responded with supportive gestures, and were eager to share.
Collaboration and Response to Peer Input	Rating: 3 (Moderate) Some students referenced their classmates' ideas when sharing their own thoughts. For example, "*Como dijo Sofía, yo* think *que la familia era solo la que vive conmigo, pero ahora creo que también son los que me cuidan.*" These moments demonstrated active listening and a growing sense of collaboration.

Source: Developed by Adriana Apuy Rojas (2025)

Field Notes: Frequency and Type of Metacognitive Strategies Observed: I Used to Think… Now I Think…	
Indicator	Observations
Planning (e.g., setting goals, organizing thoughts)	Rating: 3 (Moderate) Some students paused before responding or whispered their ideas beforehand. A few students verbalized a plan by saying things like, "*Voy a*

	hablar de mi hermana." This indicates emerging planning behavior, supported by the routine's structure and thematic familiarity.
Monitoring (e.g., checking for understanding, asking for clarification)	Rating: 3 (Moderate) Self-monitoring was observed as students revised or adjusted their sentences mid-response. One student, for example, said: "I think… *antes pensaba eso… pero ya pienso*…" This reflected internal evaluation and clarification, even if primarily in Spanish.
Evaluating (e.g., reflecting on what was learned, adjusting thinking)	Rating: 4 (High) Students clearly demonstrated an ability to compare and contrast past and present thinking. Many cited classroom activities or stories as influencing their new understanding (e.g., "*Una familia no tiene que vivir juntos, como en el cuento del niño con las dos casas*").
Connecting Prior Knowledge (e.g., linking past experiences to new ideas)	Rating: 4 (High) Most students made personal connections to the concept of family. Statements such as "*yo pensaba que la familia era solo mamá y papá, pero ahora también es mi tía que me cuida*" showed the integration of life experience with classroom learning.
Questioning (e.g., posing insightful or curious questions)	Rating: 3 (Moderate) Though not the focus of this routine, several students posed relevant questions during peer sharing or reflection, such as: "¿*Y mi perrito también es parte de la familia*?" or "¿*La* teacher *es familia si nos cuidan?".*

Source: Developed by Adriana Apuy Rojas (2025)

The I Used to Think… Now I Think… routine achieved moderate to high levels of student engagement and metacognitive performance with the 21 participants. The students maintained active involvement through verbal communication and focused attention during the entire activity. The sentence structure enabled students to express themselves effectively while the reflective nature of the routine helped them develop their thinking through prior knowledge application.

Students displayed strong evidence of metacognitive strategies through their evaluation of prior knowledge and their ability to connect it. The students demonstrated planning and monitoring abilities although these skills needed further development in certain cases. The initial English sentence stems appeared in about 75% of student responses despite most students continuing their thoughts in Spanish. The routine proved successful in promoting reflection and cognitive engagement and bilingual expression at appropriate developmental levels.

4.4 ANALYSIS OF SPEAKING AND WRITING PERFORMANCE IN PRESCHOOL ACTIVITIES

This section analyzes the students' observable development in speaking and writing performance based on a teacher-administered checklist completed during each classroom session. The instrument focused on key indicators related to sentence construction, phonetic writing, labeling, idea organization, and verbal expression in English. It provided a cumulative record of student progress and challenges during the implementation of Visible Thinking Routines within the thematic units of The Environment, Healthy Habits, and My Family.

4.4.1 Speaking Performance Analysis According to CEFR and MEP Criteria

The speaking skills of preschool students were evaluated using descriptors from the Pre-A1 and A1 levels of the Common European Framework of Reference (CEFR) which are implemented in the MEP

English Curriculum for preschool education in Costa Rica. The assessment includes each criteria with their corresponding findings.

The first descriptor which requires students to use one-word or short phrases to name familiar objects, animals or people (Pre-A1, MEP: Identifies and names objects in the environment) was observed in 17 out of 21 students throughout the intervention. Students mainly displayed this behavior during the See–Think–Wonder routine and vocabulary review sections of their lessons. The students pointed out main theme components using basic terms such as “tree,” “trash,” “mom,” and “dog” while visual aids or repetitive songs and chants served as triggers. Students displayed code-mixed speech when they used partial English language together with their native language such as “el river” and “my mamá” which showed their limited English vocabulary but fluent Spanish abilities. The students responded primarily on their own initiative when they received the question “What do you see?” or needed to explain their drawings.

The second descriptor indicates that students can follow basic classroom instructions with support through gestures or one/two-word answers (Pre-A1, MEP: Follows basic classroom instructions with support). The evidence showed that 18 out of 21 students demonstrated comprehension and partial production skills. The students immediately and correctly responded to English commands like “Stand up,” “Color this,” or “Point to the animal” when the teacher used gestures and visual signals. Most students provided appropriate one-word answers during oral questions such as “blue,” “yes” or “me” especially during comprehension checks and group discussions. Students responded with single words or repeated what their peers had said when asked open-ended questions like “What do you think?”. The majority of student interactions took place in group sessions and transition periods and required only physical signals from teachers and peer examples as support.

The Pre-A1 level of the MEP English Curriculum defines the ability to repeat or mimic short phrases and songs as a key indicator. A total of 19 out of 21 students took an active part in classroom

singing along with choral repetition tasks. Students consistently repeated songs that included familiar routines especially those tied to thematic units (e.g. environmental actions, family, healthy habits) with correct rhythm and intonation. Students repeated fundamental phrases “I see,” “I think” and “I wonder” when participating in group recitations by following either the teacher’s guidance or hand gestures. Students sang along to songs during transitions and welcome routines without any encouragement which showed their strong auditory memory skills. Eight students showed independent repetition of phrases after direct teacher prompts but this behavior was not common. Students learned sentence starters and common phrases through imitation which enhanced their understanding of routines yet their responses stayed confined to memorized patterns without additional information.

The ability to express basic needs and emotions using simple words was observed in 10 out of 21 students according to A1 level of the MEP. The expressions occurred mainly during structured times such as morning meetings and emotional check-ins and after physical activities. Students combined English sentence starters with Spanish emotional vocabulary to express themselves by saying phrases such as “I want water” “I feel happy” and “Estoy triste.” Students produced these expressions primarily after seeing visual cues including emotion cards and classroom routines. Full English expressions of need or feelings occurred infrequently. Students either used Spanish for their responses when asked about feelings or needs or they used incomplete English sentences with body gestures. The students learned English through direct teacher modeling which they then immediately imitated in this context.

The descriptor “Can interact in short exchanges when the other person speaks slowly and clearly” (A1, MEP: Greets, says goodbye, and uses classroom expressions) appeared in different degrees among the students. Thirteen students independently started greetings using “Hello,” “Bye,” or “Thank you” by the fourth week of the intervention. Students used English for exchanges during arrival time dismissal time and when obtaining materials from the teacher. Functional exchanges such as asking for permission (“Can I go?”) or taking turns (“It’s my turn”) were rarely initiated in English; instead, most

students used Spanish for these interactions or relied on gestures. Students responded to these expression types whenever peers or the teacher demonstrated them. Most students showed strong understanding of classroom English but their productive language consisted mostly of standard expressions.

The observation data from the intervention period showed that Transition 5 students primarily displayed speaking skills which corresponded to Pre-A1 and early A1 CEFR levels as specified in the MEP Preschool English Curriculum. Most students consistently used one or two words to identify familiar things and follow straightforward directions especially when they received visual support and followed established routines and demonstrations. Most students participated in songs and chants which demonstrated their strong ability to mimic and listen to sounds. The observation team detected emerging abilities which involved basic need expression and short classroom interactions although students needed structured assistance to succeed. The students demonstrated progressive development in listening skills and memorized language and initial functional communication in their second language even though they produced few spontaneous words in English.

4.4.2 Pre-Writing Performance Analysis According to CEFR and MEP Criteria

The assessment presents how the 21 T5 students developed their writing skills during preschool through CEFR descriptors for their stage of development. The descriptors from the Ministry of Public Education (MEP) matched the emergent literacy curriculum and were used to monitor student development during the Visible Thinking Routine (VTR) period. The researchers analyzed both motor and cognitive elements of early writing by observing drawing as a representation method alongside symbol usage and name identification skills.

The first observed ability involved students drawing or making scribbles to depict objects along with stories or ideas. The Pre-A1 level descriptor from the MEP matches the objective of encouraging

children to convey ideas by drawing and early mark-making. All members of the group displayed this ability. The entire group of 21 students created drawings that reflected the VTR prompts which included environmental concerns and family life and healthy practices. Students included symbolic drawings that they accompanied with verbal explanations. A student created a heart containing multiple stick figures while stating "This is my family porque me quieren" which showed their understanding of concepts through visual creation. The students consistently showed thematic relevance and emotional engagement in their drawings as they felt confident about using drawing to communicate.

The second descriptor evaluated whether students could successfully trace or copy letters and shapes with support at the Pre-A1 level which matches the MEP objective to help children develop early letter formation skills through visual or tactile aids. Sixteen students from the group of twenty-one were observed drawing letters by using templates and writing tools and sand trays. Students performed tracing activities most often during I Used to Think… Now I Think… routine phases when they linked words to their drawings. Among the students some wrote letters in reverse order or mirror image and some needed adult help to stay within lines or finish drawing the shapes. The students displayed better fine motor control and visual-motor coordination abilities as the sessions continued.

Many students in the classroom demonstrated the ability to recognize their names as well as attempt writing them. The Pre-A1 descriptor followed the MEP standard for teaching children to identify and write their personal names. At the end of Week 4 all 18 students showed consistent name writing on their worksheets and drawing pages. Students who performed the task independently or referred to laminated name tags displayed on their desks or received verbal teacher guidance. The three remaining students wrote their names with only the initial letter or showed uncertainty thus requiring structured assistance. Students performed name writing daily which served as a practical tool to build letter knowledge and writing self-assurance.

Students demonstrated the ability to use symbols or invented spelling to represent words at the A1 level according to the MEP's definition of emergent writing. Eleven students showed this behavior by creating approximations of familiar vocabulary and thematic terms through their written words. Students used single letters "M" for "mamá" and "P" for "perro" as well as extended phonetic letter combinations like "BTE" for "bate" and "ST" for "sol." The students demonstrated this behavior more frequently during the later stages of intervention when they performed reflection and labeling routines such as Now I Think…. The students combined their invented spellings with drawings to express their meanings.

The assessment evaluated students' capacity to write from left to right while making marks which corresponds to A1 expectations and the MEP objective of print directionality development. Twelve students showed consistent left-to-right movement when tracing or writing on paper while copying their names or familiar words. Students achieved left-to-right progression with lined paper and finger-tracing activities and direct teacher modeling. The students showed no pattern in their letter or symbol placement since their marks appeared randomly throughout the page or formed vertical columns or empty spaces. The writing patterns mostly appeared in students who were developing their fine motor skills or needed additional visual cues. The combination of writing guides with model examples helped students who did not know directionality to improve their understanding of it.

The pre-writing performance evaluation across the group showed different yet advancing early literacy behaviors among students. All students expressed their thoughts through drawing and mark-making which they supported with verbal explanations. Most students improved their tracing and copying abilities with visual or tactile support while name recognition and name writing remained consistent among all students until the end of the intervention. About half of the group members used invented spelling together with phonetic approximations which showed their basic knowledge of sound-symbol connections. The students demonstrated print directionality skills in more than half of the class

although the remaining students needed structured support and extra modeling. The collected data show students demonstrated writing behaviors at Pre-A1 and A1 CEFR levels while showing normal developmental progression in fine motor skills and symbolic representation and early phonological awareness skills within the VTR-supported learning environment.

4.5 ANALYSIS OF METACOGNITIVE TEACHING INDICATORS FOR VISIBLE THINKING ROUTINES (VTR)

This section presents an analysis of the instructional strategies employed by the teacher to support the development of metacognitive skills in preschool learners through the implementation of Visible Thinking Routines (VTRs). The data was gathered through a semi-structured interview with the English teacher of the Transition 5 (T5) group at Escuela Finca Guararí, within the context of the ABI English Immersion Program. The interview explored the teacher's use of planning, scaffolding, prompting, modeling, and feedback as part of her daily practice. These indicators were examined in alignment with established principles of metacognitive instruction to evaluate the extent to which teaching practices supported student reflection, language development, and active engagement with cognitive routines during the research.

Reflective Questioning in VTR: Teacher Practices for Metacognitive Growth	
What would be your definition of Visible Thinking Routines?	The teacher defined VTRs as "tools that help children say what they see and what they think." She added, "They are good because they help students explain ideas with pictures." This description captures the surface-level objective of See–Think–Wonder but does not show awareness

	of the broader scope or variation among other VTRs. Her answer reflected a practical classroom understanding rather than a theoretical or structured definition.
How do you integrate Visible Thinking Routines (VTRs) into your lesson planning?	Lesson planning was primarily aligned with thematic content. She shared, "I plan the routine around the picture and the topic. If we talk about animals, I look for a picture with animals and teach the words first." This shows an organized and language-focused approach but lacks the integration of multiple routines tailored for different cognitive purposes (e.g., comparison, reasoning, or revision). The emphasis remained on vocabulary and visual prompts.
How do you guide students to make their thinking visible during a routine?	The teacher described using repetition and modeling as primary tools. She said, "I always say the sentence first: 'I see a tree,' and then they repeat. Sometimes they say it in Spanish, and I say it again in English." Her strategy promoted participation but was centered around language repetition rather than metacognitive questioning. While supportive of early language development, the focus remained on producing language rather than reflecting on thought.

What types of reflective questions do you use during or after a VTR session?	She explained, “I ask them, ‘Why do you think that?’ or ‘What else?’ but sometimes they don’t answer.” While this shows an attempt to promote elaboration, her approach to reflection was limited to extending basic responses rather than facilitating self-monitoring, comparing ideas, or evaluating understanding—key components of deeper metacognitive engagement.
How do you assess whether students are applying metacognitive strategies during VTRs?	She explained, “I ask them, ‘Why do you think that?’ or ‘What else?’ but sometimes they don’t answer.” While this shows an attempt to promote elaboration, her approach to reflection was limited to extending basic responses rather than facilitating self-monitoring, comparing ideas, or evaluating understanding—key components of deeper metacognitive engagement.
What challenges have you encountered while implementing VTRs to support metacognitive growth?	The teacher identified language as the primary barrier: “Sometimes they don’t know the word or just say it in Spanish.” She also mentioned attention span and motivation: “They get tired fast or don’t want to talk.” These are common challenges in early childhood education, but her strategies for addressing them (e.g., modeling, allowing Spanish, shortening activities) focused

	more on engagement than on deepening metacognitive thinking.
How do you adapt or differentiate VTRs for students with diverse learning needs?	She stated, “Some kids need more time or I go and help them say something. I use hands or point to things.” Her response illustrates responsive and inclusive classroom practices but not differentiation of routines themselves. Adaptations were centered on access to participation rather than cognitive complexity or scaffolding of metacognitive processes.
Which specific VTRs do you find most effective for promoting student metacognition? Why?	The only routine she described in detail was See–Think–Wonder. She said, “That one is my favorite because it is easy. They see the picture and can say something fast.” She did not refer explicitly to Think–Puzzle–Explore or I Used to Think… Now I Think… unless prompted, and her descriptions of these reflected assumptions about what the names suggested rather than implementation based on pedagogical knowledge.
Can you share an example of a successful VTR activity where students demonstrated strong metacognitive engagement?	The teacher described using a photo of a polluted river: “One girl said, ‘I see bottles and trash,’ and then another said, ‘That’s bad.’ I think they understood the picture.” While this reflects engagement and affective connection, the

	example lacked evidence of metacognitive behaviors such as drawing inferences, comparing ideas, or reflecting on one's learning process. The activity was successful in eliciting verbal and emotional responses but did not show deeper reflective engagement.
Is there anything else you would like to share about your experience using VTRs to promote metacognition in the classroom?	She concluded, "I like the routines because they help all students talk. Even the shy ones say something. They feel proud." This response highlights the positive classroom culture fostered by VTRs, particularly See–Think–Wonder, but again centers on verbal participation rather than metacognitive strategy development. Her experience demonstrates success in supporting emergent expression but limited use of routines for guiding students through structured reflection or conceptual change.

Source: Developed by Adriana Apuy Rojas (2025)

The interview showed that the teacher consistently used See–Think–Wonder as a classroom routine with enthusiasm yet her grasp of Visible Thinking Routines (VTRs) and their role in developing metacognitive strategies remained limited. The teacher focused on vocabulary preparation and modeling and student verbal participation through sentence starters including "I see" and "I think." She modified her teaching approach to support different students while creating an environment that

encouraged language production yet she only mentioned Think–Puzzle–Explore and I Used to Think… Now I Think… through routine names and classroom intuition instead of structured pedagogical implementation.

The teacher considered verbal statements as evidence of student thinking because students used “I think” or described pictures but she did not explain methods to evaluate student cognitive shifts or planning and evaluation processes. The teacher implemented VTRs in her practice through expressive language and student engagement but she did not effectively teach metacognitive strategies or adapt the routines for different learning needs. The research indicates that teachers require additional professional development to master metacognitive teaching methods and to use VTRs as reflective thinking instruments.

CHAPTER V: CONCLUSION AND RECOMENDATIONS

6.1 CONCLUSIONS

This chapter synthesizes the key findings derived from the five-week implementation of Visible Thinking Routines (VTR) in the Transition 5 (T5) ABI English Immersion classroom at Escuela Finca Guararí. Through a qualitative, applied, and descriptive design, this research evaluated the impact of VTRs on the development of speaking and writing skills among preschool learners. Data from classroom observations and teacher interviews confirm that VTRs foster linguistic growth, metacognitive awareness, and active participation, even in contexts of limited English exposure.

Regarding the general objective, which was to examine the influence of Visible Thinking Routines (VTR) on the development of speaking and writing skills among ABI English Immersion T5 students at Escuela Finca Guararí, it is concluded that VTRs have a positive and transformative impact. The five-week implementation showed that these routines not only fostered linguistic growth but also supported the emergence of metacognitive awareness and reflective thinking among young learners. The structured nature of VTRs, combined with visual prompts and teacher scaffolding, allowed students to organize and express their thoughts in English with increasing fluency and confidence, even in a context of limited language exposure.

In relation to the first specific objective, which aimed to identify the metacognitive strategies embedded in the Visible Thinking Routines applied in the classroom, it is concluded that young learners began to exhibit early forms of metacognitive behavior. Routines such as I Used to Think… Now I Think… encouraged reflection, conceptual change, and justification of ideas. These findings demonstrate that with appropriate facilitation, preschoolers can engage in self-monitoring, questioning, and evolving understanding—key indicators of metacognitive development.

Regarding the second specific objective, which focused on examining the development of students' speaking and writing skills, it is concluded that the use of VTRs led to observable progress in both areas. Students transitioned from isolated vocabulary use to constructing simple but meaningful

sentences that reflected personal experiences and thematic content. Observation checklists confirmed improvements in fluency, vocabulary range, and sentence structure, all aligned with CEFR pre-A1 and MEP standards.

With respect to the third specific objective, which sought to determine the teacher's pedagogical and metacognitive approach during the implementation of VTRs, it is concluded that the teacher played a central role in guiding the process through scaffolding, reflective questioning, and differentiated instruction. While the teacher demonstrated strong commitment and enthusiasm, the data also reveal a need for deeper understanding and training in metacognitive facilitation to ensure more systematic and intentional application of the routines.

Finally, regarding the fourth specific objective, which involved the construction of a VTR-based manual to enhance oral and written production, it is concluded that the research findings provided a solid foundation for the creation of a practical and context-sensitive tool. The proposed manual aligns international best practices with the Costa Rican curriculum and offers concrete strategies to promote thinking, expression, and inclusion in immersion classrooms.

The findings reveal that VTRs serve as powerful scaffolding tools, enabling children to externalize and organize their thoughts through structured speaking and writing activities. For students with minimal English exposure outside the classroom, these routines created meaningful contexts for communication, reducing language anxiety and increasing confidence.

This study represents the first documented academic analysis of VTRs in Costa Rican preschool bilingual immersion settings. It offers a practical and theoretical framework that contextualizes Harvard's Project Zero methodologies within the Costa Rican educational system. By aligning international best practices with local realities, the research contributes to the national dialogue on active methodologies, early bilingual education, and metacognition.

This work serves as a foundation for future theses, research-action projects, and professional development initiatives. Its findings provide empirical support for enhancing MEP policies related to bilingual immersion, critical thinking development, and early language instruction. It also suggests the urgent need for teacher training programs that embed VTRs as part of reflective and student-centered pedagogy.

Costa Rica has the potential to lead regional innovation in inclusive and transformative early bilingual education. Realizing this potential will require systemic investment in teacher development, curriculum reform, and child-centered practices that make thinking—and learning—visible from the earliest years.

The results of this study confirm the original hypothesis that the implementation of Visible Thinking Routines (VTR) positively influences the development of speaking and writing skills in ABI English Immersion Transition 5 (T5) students at Escuela Finca Guararí. The evidence gathered through structured classroom observations and teacher interviews demonstrated clear improvements in students' verbal participation, vocabulary use, sentence formation, and reflective thinking. Routines such as *See–Think–Wonder* and *I Used to Think… Now I Think…* facilitated both expressive language development and metacognitive awareness, even among students with limited English exposure at home. The observed linguistic and cognitive gains, combined with increased student autonomy and engagement, validate the effectiveness of VTRs as instructional strategies for early bilingual education. These findings support the hypothesis and highlight the potential of VTRs to enhance communicative competence in preschool immersion settings.

6.2 RECOMENDATIONS

Based on the research findings, and in recognition of the unique context of ABI programs and the Costa Rican preschool system, the following recommendations are proposed:

A. Develop a National VTR Implementation Manual for Preschool:

MEP, in collaboration with university experts and experienced practitioners, should create a formal manual on the use of Visible Thinking Routines tailored to Costa Rican preschool immersion settings. The manual would promote consistency, equity, and accessibility across preschool programs, particularly those serving high-needs populations. This document should include:

- Step-by-step guidance for VTR integration
- Sample age-appropriate routines
- Graphic organizers adapted for pre-literacy stages
- Strategies for multilingual and multicultural inclusion

B. Expand Pre-service and In-service Teacher Training on VTRs:

Teacher training programs at the university level must incorporate specific coursework on metacognition, critical thinking, and active methodologies including VTRs. For current teachers, MEP should prioritize VTR-focused workshops as part of professional development cycles. Educators who understand the cognitive science behind VTRs are more likely to use them effectively and consistently. Training should include:

- Modeling and co-teaching VTRs
- Differentiation for diverse learners
- Using VTRs as formative assessment tools
- Strategies to link VTRs with CEFR and MEP objectives

C. Foster Collaborative Learning Communities Among Preschool Educators:

Schools and educational circuits should promote the formation of professional learning communities (PLCs) where preschool teachers can share VTR experiences, challenges, and successes. These communities could be virtual or in-person and serve as safe spaces for

experimentation, reflection, and mutual support. Such communities can reduce professional isolation and build teacher confidence in using new methodologies.

D. Promote Family and Community Awareness of Thinking Routines:

To reinforce VTRs beyond the classroom, schools should develop parent workshops or digital materials that explain the purpose of thinking routines and suggest simple ways to use them at home. For example, “See–Think–Wonder” can be used during Storytime, walks in the neighborhood, or while viewing pictures. When families understand the approach, they become partners in fostering reflective, expressive children.

E. Conduct Broader, Comparative Research in Other ABI Schools:

To deepen national understanding, future research should expand the sample to include other ABI institutions across diverse socio-geographic contexts. Comparative studies could explore: variations in VTR use across different teaching styles, longitudinal effects of VTRs on bilingual development, student-parent perceptions of learning through VTRs. This would build a robust body of knowledge and inform large-scale curriculum decisions.

In doing so, Costa Rica would be affirming its commitment to a child-centered, cognitively enriched, and bilingual early education model—one that empowers even the youngest learners to be thinkers, speakers, writers, and citizens of the world.

CHAPTER VI: PROPOSAL

6.1 TITLE OF THE PROPOSAL

Visible Thinking Routines (VTR) Manual for Bilingual Preschool Education: A Didactic Tool to Strengthen Oral and Written Expression in MEP ABI Immersion Programs

6.1.1 Development Location

Escuela Finca Guararí, located in the district of San Francisco, Heredia, Costa Rica. This is a public institution identified as a priority care center due to its high social vulnerability. The proposal is designed specifically for its Transition 5 (T5) group, which participates in the Ministry of Public Education's (MEP) ABI English Immersion Program.

6.1.2 Institution in Charge

Ministry of Public Education of Costa Rica (MEP) – Dirección de Educación Preescolar y Departamento de Idiomas Extranjeros, in collaboration with the preschool teaching staff of Escuela Finca Guararí.

6.1.3 Target Population

The proposal is directed at preschool teachers working within MEP's ABI English Immersion Program, especially those teaching Transition 5 (ages 5–6). Indirect beneficiaries are the preschool students who are beginning to acquire English as a second language in a full immersion context.

6.1.4 General Objective

a) To design a didactic manual of Visible Thinking Routines (VTR) tailored to the developmental and linguistic level of Transition 5 students in Costa Rican immersion classrooms, aimed at enhancing oral and written language skills through reflective and active strategies.

6.1.5 Specific Objectives

a) To select and adapt developmentally appropriate Visible Thinking Routines for the preschool English immersion setting.

b) To design integrated activities that promote oral and written expression in English using selected VTRs.

c) To provide practical guidelines for teachers regarding the implementation, mediation, and assessment of VTRs.

d) To align the manual with national curricular guidelines, CEFR pre-A1 descriptors, and active learning methodologies.

e) To foster inclusion and educational equity in vulnerable learning contexts through accessible, motivational, and thought-provoking strategies.

6.1.6 Estimated Budget

Resource / Activity	***Estimated Cost (CRC)***
Graphic design and layout of the manual	₡150,000
Printing of 20 physical copies	₡100,000
External technical and pedagogical review	₡50,000
Teacher training workshop (materials and logistics)	₡75,000
Total Estimated	₡375,000

Note: A digital version of the manual will also be distributed free of charge through MEP's official platforms (e.g., Caja de Herramientas, TecnoIdeas, Direcciones Regionales).

6.1.6 Proposal Development

The proposal consists of the creation and implementation of a Visible Thinking Routines (VTR) Manual designed specifically for Costa Rican preschool immersion classrooms. It includes:

- A theoretical introduction to VTRs based on Harvard's Project Zero.
- Step-by-step explanations of each selected routine: See–Think–Wonder, Think–Pair–Share, I Used to Think… Now I Think…, among others.
- Activity examples aligned with preschool thematic units (e.g., family, community, we are different and alike, etc) to support speaking and pre-writing development.
- Suggestions for differentiated instruction using Universal Design for Learning (UDL) principles.
- Tools for qualitative assessment: checklists, formative feedback models, and student observation templates.

The manual is grounded in constructivist pedagogy and active learning, encouraging student-centered participation, critical thinking, and collaborative dialogue. It promotes meaningful use of English in real-life contexts while developing cognitive and emotional competencies.

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ANNEXES

Annex #1 - Observation Checklist: Student Engagement and Metacognitive Strategy

Field Observation Log: Student Engagement and Metacognitive Strategy Use in VTR

Date: _____

Grade/Group: ABi English Immersion T5

Routine Observed: ☐ See-Think-Wonder ☐ Think-Puzzle-Explore ☐ I Used to Think… Now I Think…

1. Student Engagement Indicators

Engagement Indicator	Rating (1–Low / 5–High)	Observed Behaviors / Examples
Active participation in group/class discussion	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
Verbalization of thoughts, questions, or ideas	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
Initiative in using the routine steps	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
Sustained attention to the task	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
Collaboration and response to peer input	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	

2. Field Notes: Frequency and Type of Metacognitive Strategies Observed

Metacognitive Strategy	Observed Student Behavior	Notes/Examples
Planning (e.g., setting goals, organizing thoughts)		
Monitoring (e.g., checking for understanding, asking for clarification)		
Evaluating (e.g., reflecting on what was learned, adjusting thinking)		
Connecting prior knowledge (e.g., linking past experiences to new ideas)		
Questioning (e.g., posing insightful or curious questions)		

Source: Developed by Adriana Apuy Rojas (2025)

Annex #2 - Observation Checklist: for Speaking and Writing Performance in Preschool Activities

Observation Grid for Speaking and Writing Performance in Preschool Activities

Aligned with CEFR Pre-A1 to A1 Indicators and MEP Early Childhood Descriptors

Date: _____

Grade/Group: ABi English Immersion T5

1. *Speaking Performance Criteria*

Descriptor	CEFR Level	MEP Descriptor	Notes / Examples
Can name familiar objects, animals, or people using single words or short phrases	Pre-A1	Identifies and names objects in the environment	
Can respond to simple instructions or questions with gestures or one/two-word answers	Pre-A1	Follows basic classroom instructions with support	
Can repeat or mimic short phrases and songs	Pre-A1	Participates in songs, chants, or rhymes	
Can express basic needs or emotions with simple words	A1	Uses words like 'I want', 'I feel', etc.	
Can interact in short exchanges when the other person speaks slowly and clearly	A1	Greets, says goodbye, and uses classroom expressions	

2. *Pre-Writing Performance Criteria*

Descriptor	CEFR Level	MEP Descriptor	Notes / Examples
Can draw or scribble to represent objects, stories, or ideas	Pre-A1	Expresses ideas through drawing and early mark-making	
Can trace or copy letters and shapes with guidance	Pre-A1	Begins to form letters with visual or tactile support	
Can recognize and attempt to write their name	Pre-A1	Identifies and copies their name in writing	

Can use symbols or invented spelling to represent words	A1	Demonstrates emergent writing behaviors	
Can follow a left-to-right progression in drawing or mark-making	A1	Shows early concepts of print directionality	

Source: Developed by Adriana Apuy Rojas (2025)

Annex #3 - Teacher Interview: Metacognitive Teaching Indicators for Visible Thinking Routines (VTR)

Teacher Interview Form: Metacognitive Teaching Indicators for Visible Thinking Routines (VTR)

Purpose: To explore teacher practices related to facilitation and reflective questioning in the implementation of Visible Thinking Routines (VTR) to foster metacognitive development.

Date: _____

Grade/Group: ABi English Immersion T5

1. What would be your definition of Visible Thinking Routines?
2. How do you integrate Visible Thinking Routines (VTR) into your lesson planning?
3. How do you guide students to make their thinking visible during a routine?
4. What types of reflective questions do you use during or after a VTR session?
5. How do you assess whether students are applying metacognitive strategies during VTRs?

6. What challenges have you encountered while implementing VTRs to support metacognitive growth?
7. How do you adapt or differentiate VTRs for students with diverse learning needs?
8. Which specific VTRs (e.g., See-Think-Wonder, Think-Puzzle-Explore) do you find most effective for promoting student metacognition? Why?
9. Can you share an example of a successful VTR activity where students demonstrated strong metacognitive engagement?
10. Is there anything else you would like to share about your experience using VTRs to promote metacognition in the classroom?

Source: Developed by Adriana Apuy Rojas (2025)