

Colombian English Teachers' Strategies in the Process of Adapting, Creating, and Implementing CLIL Materials for Cooperative Learning Activities

By

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Resumen Analítico del Estudio RAE

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2. Descripción	
<p>En esta tesis de maestría, la autora utiliza un estudio de caso para examinar las perspectivas de un grupo de docentes de inglés en un colegio privado de Cali, Colombia, los cuales hacen parte de un programa AICLE llamado I3D que enseña a estudiantes de 10° y 11° Humanidades, Ingeniería y Ciencia en inglés como lengua extranjera. En particular, se buscó profundizar en sus creencias como docentes AICLE, y cómo estos se reflejan en sus prácticas de creación, adaptación e implementación de materiales para trabajo cooperativo, el cual es también una de las bases de la institución. A través de un cuestionario en escala de Likert, una entrevista semi-estructurada, y unas observaciones de clase, se recogieron los datos relevantes para hacer un análisis en el que se estableció un perfil de los docentes de acuerdo a sus actitudes frente al AICLE. Además, se presenta un estudio de problemas encontrados en el proceso de creación, adaptación y uso de materiales, en conjunto con las estrategias desarrolladas por los profesores para enfrentarlos.</p>	
3. Fuentes	
<p>Alcaraz-Mármol, G. (2018). Trained and non-trained language teachers on CLIL methodology: Teachers' facts and opinions about the CLIL approach in the primary education context in Spain. <i>LACLIL</i>, 11(1), 39-64. https://doi.org/10.5294/laclil.2018.11.1.3</p>	

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4. Contenidos

El presente estudio de investigación se encuentra estructurado en diferentes capítulos que retratan el proceso llevado a cabo para responder a la pregunta de investigación y lograr los objetivos. El primer capítulo introduce el contexto de la investigación desde lo general a lo específico, para llegar a la pregunta de investigación, los objetivos y la justificación. El segundo capítulo aborda la literatura previa regional, nacional e internacional respecto a temas clave como perfiles docentes AICLE y perspectivas del uso de materiales AICLE. También establece unos principios teóricos que apoyan la parte analítica del estudio, tales como los componentes “4C” de las clases de AICLE de Coyle (1999) (contenido, cultura, cognición y comunicación), el perfil de profesor AICLE postulado por El Consejo de Europa (2010), los principios del trabajo colaborativo de Johnson et al. (2008; 2013) y las estrategias para la creación de material AICLE de Moore y Lorenzo (2007).

El tercer capítulo explica el diseño de la investigación, incluyendo la metodología de investigación propuesta, la población y muestra escogida, el protocolo ético, y los instrumentos de recolección de datos. El cuarto capítulo aborda el procedimiento de análisis de datos por medio de la creación y descripción de una serie de categorías. Por último, el quinto capítulo presenta la discusión de los resultados, las conclusiones, las implicaciones para el área de estudio, las limitaciones, y recomendaciones para futuras investigaciones.

5. Metodología

Este estudio empleó un estudio de casos mixto, en dónde se recogieron datos cuantitativos a través de un cuestionario de escala Likert y una checklist para la observación de clases y datos cualitativos a través de una serie de entrevistas semi-estructuradas. Estos instrumentos fueron aplicados a seis docentes de inglés de grados 10° y 11° que hacen parte del programa AICLE de un colegio privado de Cali, Colombia. Los datos fueron analizados usando análisis temático, en donde los datos son codificados y categorizados en diferentes temas, los cuales son explicados de forma narrativa.

6. Resultados

Debido a la naturaleza mixta de esta investigación, una combinación de análisis temático ascendente y estadística descriptiva fue utilizada para analizar la información recogida por los instrumentos de recolección de datos. Se encontraron y discutieron cuatro categorías, las cuales son componentes AICLE, perfil de docente AICLE, aprendizaje cooperativo y materiales AICLE. Cada categoría se desenvuelve en varias subcategorías, explicadas en detalle a continuación.

En la categoría de componentes AICLE, el análisis permitió identificar cómo los participantes articularon sus prácticas y materiales con los cuatro componentes del marco propuesto por Coyle (1999): contenido, comunicación, cognición y cultura. Estas se utilizaron como subcategorías. Con respecto al contenido, los profesores coincidieron en la importancia de seleccionar materiales pertinentes al contexto e intereses de los estudiantes. El componente de comunicación se consolidó como el más consistente, pues los cuestionarios y entrevistas reflejaron actitudes frente al uso del inglés como herramienta de expresión y construcción del conocimiento. Dentro del componente de cognición, los participantes declararon usar material que promueve pensamiento crítico, resolución de problemas y creatividad. Finalmente, en el componente de cultura, los docentes manifestaron buscar materiales culturalmente relevantes en contextos locales e internacionales para fortalecer la competencia intercultural. Sin embargo, las limitadas observaciones de clase no comprobaron estos testimonios al haber estado centrados en presentaciones grupales de estudiantes.

La categoría del perfil de docente AICLE permitió identificar cómo las experiencias, percepciones y competencias de los docentes influyen en sus prácticas y en la relación con los materiales que diseñan y crean. Tres subcategorías se encontraron basados en los criterios más discutidos: experiencia, consciencia del contenido y lenguaje, y estrategias en el salón de clase. A pesar de la falta de formación o práctica previa en AICLE, los participantes demostraron actitudes parte del perfil de docente AICLE del Consejo de Europa (2010). Por ejemplo, destacaron la necesidad de equilibrar el contenido y la lengua extranjera. En casos de desconocer del tema, comentaron que investigan previamente para garantizar rigor, lo que evidencia reflexión sobre su rol pedagógico. Los docentes también aplican estrategias de gestión de aula, selección de materiales y dinámicas colaborativas orientadas al aprendizaje significativo, demostrando apropiación de la metodología. En conclusión, sus perfiles de prácticas y opiniones pueden traducirse en una adopción natural de competencias y estrategias coherentes con la metodología AICLE.

La categoría de materiales AICLE y sus subcategorías (problemas y estrategias) mostró que, aunque la mayoría de los docentes son conscientes acerca de su planificación y adaptación de recursos, también enfrentan dificultades como escasez de materiales auténticos adecuados al nivel lingüístico y cognitivo de los estudiantes, falta de formación profesional y tiempo limitado para ajustar o implementar dichos recursos. Para superar

estos restos, los participantes recurrieron principalmente a la creación de materiales propios y a estrategias que se alinean con los conceptos de Moore y Lorenzo (2007) como re-discursificación de texto auténticos para acompañar textos originales con actividades pedagógicas. Otra estrategia usada es la simplificación, utilizada por cinco de los seis participantes para reducir la complejidad lingüística. La elaboración apareció en menor medida. Los resultados evidencian que los docentes desarrollan estrategias de adaptación para afrontar dificultades y transformar recursos pedagógicos significativos.

Finalmente, la categoría de aprendizaje cooperativo demostró que los docentes favorecen dinámicas de trabajo en grupo en concordancia con la metodología investigativa primitiva por la institución en donde la investigación se llevó a cabo. Los materiales de los participantes se orientan a fomentar la participación y comunicación en inglés en contextos académicos e informales, lo que responde a las competencias BICS y CALP descritas por Cummins (1979). También se identificaron perspectivas y prácticas que se pueden relacionar con los pilares de Johnson y Johnson (2008; 2013), los cuales fueron utilizados como subcategorías (interdependencia positiva, responsabilidad individual y grupal, interacción promotora, desarrollo de habilidades sociales). Las subcategorías más encontradas fueron interdependencia positiva, responsabilidad individual y grupal e interacción promotora. Se destacó la importancia de conformar grupos con habilidades complementarias, pero el desarrollo de competencias interpersonales y sociales se vio afectado por uso recurrente del español. No se encontraron evidencias de procesos de reflexión grupal sistemática (group processing), lo que señala una futura área de mejora en la implementación. Las observaciones mostraron que las dinámicas cooperativas se articularon principalmente en presentaciones orales de investigaciones previas.

7. Conclusiones

Este estudio subraya el papel de los docentes de inglés como lengua extranjera en un contexto colombiano al adaptar, crear e implementar materiales AICLE para aprendizaje cooperativo. A pesar de la falta de formación formal en AICLE y de enfrentar desafíos como recursos limitados, restricciones de tiempo y falta de experticia en las temáticas, los docentes demostraron planear y utilizar estrategias como la re-discursificación y la simplificación de materiales auténticos existentes para responder a las necesidades de sus aulas. Sus prácticas evidenciaron una alineación intuitiva con los principios AICLE, destacando la reflexión en el uso del lenguaje y contenido, la contextualización del material, y la gestión consciente del aula para fomentar la comunicación y cognición. El aprendizaje cooperativo se estableció como un complemento a estas prácticas para mejorar la producción y la participación en la lengua meta, aunque a veces se vio obstaculizado por la dependencia del español y la ausencia de una reflexión grupal sistemática. En general, los hallazgos resaltan la naturaleza multidimensional del desarrollo de materiales AICLE y

<p>señalan la necesidad de apoyo institucional y formación profesional. Por lo tanto, empoderar a los docentes es esencial para impulsar la agenda de educación bilingüe en Colombia y garantizar una implementación significativa y sostenible de AICLE.</p>	
Elaborado por:	Catalina Flórez Riascos
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Abstract

This mixed research study sought to determine the strategies in the practices of a group of Colombian EFL teachers working at a bilingual private school in the process of adapting, creating or implementing Content and Language Integrated Learning (CLIL) materials for cooperative work. This research is focused on understanding the teachers' when responding with CLIL requirements for material creation and execution within their teaching context and hopes to be helpful for actors involved in the planning and executing of this approach in similar contexts. The concepts of CLIL components, cooperative learning, CLIL material criteria, and CLIL teachers' profile were described. A case study was adopted as a research methodology with a questionnaire, interviews and class observation as data gathering instruments. Findings reveal that challenges reported by the teachers included time constraints, unclear instruction, balancing language and content goals, and authentic material accessibility. The teachers recognize these issues and apply strategies to enhance student engagement and ensure comprehension in both the subject-matter and the target language grounded in experiential knowledge rather than formal CLIL training.

Keywords: CLIL, CLIL material, material creation and adaptation, cooperative work, teacher's profiles

Resumen

Este estudio mixto tuvo el objetivo de determinar las estrategias en las prácticas de un grupo de docentes de inglés colombianos que trabajan en un colegio bilingüe privado en el área del proceso de adaptación, creación e implementación de Aprendizaje Integrado de Contenido y Lenguas Extranjeras (AICLE). Esta investigación se enfocó en comprender sus perspectivas al responder a los requerimientos establecidos por AICLE para crear y ejecutar material en su contexto docente y espera ser útil para los actores involucrados en esta metodología en contextos similares. Para esta investigación se describieron los conceptos de componentes AICLE, aprendizaje cooperativo, criterios de material AICLE, y el perfil del profesor AICLE. Se adoptó un estudio de caso como metodología de investigación con un cuestionario, entrevistas y observaciones de clase como instrumentos de recolección de datos. Los hallazgos revelan que los desafíos reportados por los docentes incluyen limitaciones de tiempo, claridad de instrucciones, equilibrio entre los objetivos lingüísticos y de contenido, y accesibilidad a material auténtico. Los docentes reconocen estos problemas y aplican estrategias para mejorar la participación de los alumnos y garantizar la comprensión de la materia y de la lengua meta basadas en el conocimiento experiencial, en lugar de la formación AICLE formal.

Palabras clave: CLIL, material CLIL, creación y adaptación de material, trabajo cooperativo, perfil docente

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Introduction to the Research Study

This research study identified and analysed the challenges teachers encounter when adapting, creating, and implementing CLIL material for collaborative work in a delimited context, as well as their strategies to overcome said challenges. It is set on the teaching context of the researcher and was meant to explore some teachers' perspectives and strategies when using the CLIL approach, the process and difficulties creating CLIL material, and its implementation for collaborative work, particularly given the lack of previous formal education on CLIL.

The following document is structured in five chapters. The first one is the introduction, where the context of the research problem is exposed, as well as the research questions and objectives that derive from it; finally, the justification for the research is mentioned. The second chapter details the literature review necessary as a framework to answer the research problem. It includes a state of the art of similar research, a theoretical framework with key constructs and a conceptual framework, where they are redefined as indicators for analyzing the data and reaching the objectives. The third chapter is a description of the research design, including the research method, the context of the research, and the instruments and techniques for data collection and analysis. The fourth chapter relays the data analysis. Finally, the fifth chapter discloses the discussion of the results, the conclusions and the research implication for the field of study.

Context of the Research Problem

The privileged status of English as a global lingua franca has driven non-English speaking countries, including Colombia, to develop language policies that promote bilingualism. Foreign language programs proposed by the Ministry of Education over the years have mostly strived for an English-Spanish “bilingualism process,” which is defined in their 2022 bill as a “series of academic initiatives aimed towards the gradual and progressive command of two

languages, that is, the native language and a foreign language” (p. 2). The current program, Programa Nacional de Inglés (PNI) “*Colombia Very Well!*” (2015-2025), reasons that learning English is necessary as it is beneficial for personal, social, and economic development (s.f.). It sets ambitious goals, including having 50% of all 11° students reach a B1+ proficiency by 2050. To meet these standards, educational institutions have adopted various methodologies, one of the most promising being the Content and Language Integrated Learning (CLIL) approach, which presents unique opportunities and challenges in material development and implementation research.

According to Anderson et al. (2023), the current general perception of CLIL in Colombian education is still incipient and usually limited to certain private institutions with “high-performance” students, as they place a heavy emphasis on bilingual education and interdisciplinarity. However, this methodology has a lot of potential for effective education in both private and public Colombian institutions. As CLIL expands, understanding its challenges in its planning and implementation becomes critical. Effective CLIL material is multidimensional and must integrate content, language learning, socio-cultural context and interaction classroom dynamics such as cooperative learning (Coyle, 1999; Morton, 2013). It is because of this complexity that makes the process of creation of adaptation of subject-matter content material challenging.

One probable problem is the lack of formal CLIL teacher training, which can hinder appropriate material creation, adaptation and implementation for their context (Medina & Torres, 2019). Teachers compensate for this insufficiency by employing different adaptive strategies (Hann, 2019). Informal observation conducted in the research setting during the past two years

has suggested that teachers frequently rely on prior examples when developing CLIL materials, highlighting a need for further investigation into their experience.

Existing published CLIL research in Colombia focuses on small-scale empirical studies of teacher education, usually without discussing its impact in the classroom (Corrales & Poole, 2023). Limited studies explore material development and implementation as there are still areas where the methodology is relatively new despite promising attempts to apply it and assess it, as can be observed in Colombia in Mosquera's *CLIL in Colombia: Challenges and Opportunities for its Implementation* (2022). Furthermore, few address how teachers navigate the challenges of material creation and the strategies they use, particularly for collaborative activities.

By identifying this, this study seeks to provide teachers with insight into CLIL material development issues and the strategies they can use to address the requirements of the methodology. Participating educators can benefit from in-depth analysis of their own practices to improve their practices. Moreover, teachers and institutions that wish to implement CLIL can refer to the findings of this research study for information on how to approach challenges they might find when adapting the methodology in their contexts. Finally, as CLIL and CLIL research grows in Colombian educational institutions, this research study contributes to existing investigative work supporting future policy development, curriculum design, and pedagogical innovation in language learning.

Research Question and Objectives

Research Question

What strategies are used by a group of Colombian EFL teachers in a private school in Cali to overcome the challenges in planning and implementing CLIL material for collaborative work?

General Objective

To establish the CLIL profile of a group of Colombian EFL teachers in Cali based on challenges faced when using CLIL material to foster collaborative work and the strategies implemented to overcome these challenges.

Specific Objectives

To describe the process of usage of CLIL material of some Colombian EFL private school teachers in Cali.

To explore the specific challenges faced by EFL teachers in adapting these CLIL materials for collaborative work activities.

To analyze the strategies implemented by the teachers to overcome challenges in adapting, creating, and implementing CLIL materials for collaborative work.

Rationale for the Study

CLIL, as defined by Marsh (2002), combines foreign language learning with subject-matter instruction in disciplines such as history, science, or geography. Its effectiveness lies in using the target language to achieve significant learning, requiring teachers to act as pedagogical mediators with a high level of competence in language skills and subject matter knowledge, as well as the ability of promoting active, independent and collaborative learning.

CLIL has been increasingly well-established and researched in Europe (Goris et al., 2019). One line of such research has focused on teachers' perspectives and opinions on this approach, as well as their practices. This type of research is helpful to identify barriers that prevent educators from reaching CLIL's full potential, such as lack of experience with the methodology, an incorrect or incomplete understanding of its characteristics, and a tendency to

utilize more traditional ways of teaching that focus on form and the use of textbook as the main guide for classes (Rincón & Cuesta, 2019).

Grounded in the researcher's first-hand experience creating CLIL materials for collaborative learning, this study systematically explores the practices of fellow teachers within the same context. Beyond personal relevance, its findings can support Colombian institutions aiming to implement CLIL, offering guidance on material adaptation strategies and curriculum integration. As English continues to serve as a global lingua franca, this research enhances the growing body of studies shaping language learning and pedagogical innovation in Colombia.

Literature Review

This research examines the strategies used by a group of EFL teachers in the adaptation, creation, and implementation of CLIL materials in their classes for collaborative work. This chapter synthesises existing literature related to the research problem to set a theoretical framework for the study and explain the relationships between the main concepts and constructs found in the existing literature with relevant theories. It also allows identifying gaps in existing research, both national and international, on material adaptation and implementation for CLIL and teacher perspectives and challenges. Additionally, the insights presented informed the research design, the selection of constructs and instruments, and the study's focus on teachers' profiles related to CIL material development.

State of the Art

A substantial body of work considers teachers' perspectives on CLIL material, whether created or adapted, to align with CLIL's goals and the teaching context. A thorough revision of these bibliographical sources is essential to comprehend how knowledge has evolved throughout the years across theoretical, conceptual, and methodological frameworks in the field. It also identifies gaps in current literature this study seeks to address. It also justifies the significance of the research problem by highlighting underexplored areas in literature about EFL teachers who use CLIL in Colombian classrooms. It is by no means a conclusive examination, but it outlines past findings and potential considerations for future research.

This section is organized into four different constructs of previous research. The first construct deals with the trajectory and current state of CLIL in Colombia. The second one is studies on teachers' perspectives and challenges while using CLIL. The third construct presents previous research on the use of CLIL for cooperative work. The last one is about the creation and

adaptation of material for CLIL classes. Given the interconnected nature of CLIL research, these constructs can overlap.

Trajectory and Current State of CLIL in Colombia

Prior studies analyzing CLIL implementation in Colombia provide a cursory map of examples of past research and provide a background on some of the approaches that have been used to adopt the CLIL approach. It sets a precedent for researchers, educators, and other interested parties to discover relevant themes and findings in the use of the methodology and to help visualize gaps in the literature for further research. To expand on this first construct, four studies will be discussed.

One notable analysis comes from Corrales and Poole's chapter on *CLIL in Colombia* from *The Routledge Handbook of Content and Language Integrated Learning* (2023). The authors reviewed twenty-four local, national, and international articles between 2010 and 2020 on CLIL research and pedagogy in Colombia. The analysis reveals that CLIL has been applied in all levels of education (from school to higher education) and most frequently in the private sector, as a part of the curricula of bilingual and international schools which invest in their bilingualism programs. However, no official record of the institutions that support CLIL exist. Research is largely empirical, small-scale, and qualitative, with fewer studies conducted on larger scales, longitudinal, or with a quantitative or mixed-methods approach. Studies call for increased professional development for CLIL educators to address misunderstanding of the concept of CLIL. Finally, the research studies analyzed tended to exclude in their framework or literature review studies from other countries, disallowing a much richer reference of international studies.

This article is valuable to contextualize CLIL in Colombia and justifies further research by both displaying the continuous interest in CLIL research in the country and the most common trends and findings found. This shows a gap in the literature reviewed in the article for research on teachers' challenges and strategies when adapting, creating, and implementing CLIL material.

Other studies have explored how CLIL can be compatible in the Colombian context and the benefits it can bring to English classrooms, such as *Content and Language Integrated Learning (CLIL): Considerations in the Colombian Context* by Jaisson Rodriguez Bonces (2012). Rodriguez introduces the characteristics of the methodology, as well as his considerations when implementing CLIL in Colombia's diverse classrooms. He then connects each of the dimensions of CLIL proposed by Coyle (1999) to Colombia's current needs for English education. Thus, he argues that CLIL is relevant because it promotes intercultural awareness in diverse settings (Culture dimension), it enhances communication for global personal and professional opportunities (Environment), it provides students of all levels of education with content suited for their interests (Content), it fosters learning strategies and motivation (Learning Dimension) and improves linguistic competence (Language Dimension).

He also reasons some essential conditions necessary for successful CLIL implementation, including teacher preparation in both the subject area and target language, collaboration with content-area teachers, and consideration of socioeconomic and institutional constraints, such as insufficient English level, lack of resources and lack of support from the national educational authorities can make its implementation difficult. As with Corrales and Poole's research, Rodriguez sets a precedent for the use of CLIL in Colombia to address the current needs in Colombia's EFL classrooms, cementing the importance of adapting the approach to the environment. This is reflected in all aspects of CLIL, including the materials.

In a similar vein, Jhon Eduardo Mosquera (2022) provides an overview of CLIL in Colombia, outlining three key challenges: English's privileged status shaped by sociopolitical forces, de-contextualized language policies and curricula, and lack of teacher training in CLIL. He also identifies three opportunities: using CLIL research to deepen understanding of its implementation, expanding CLIL beyond English to engage a wider population, and fostering new professional development prospects for educators. Mosquera encourages further research on CLIL's connection to teacher identity, material adaptation, and curriculum design, as well as studies that explore languages beyond English for CLIL instruction.

Edgar Garzón Díaz documented his experience using a CLIL pedagogical intervention in a school in Bogotá in his article *From cultural awareness to scientific citizenship: implementing content and language integrated learning projects to connect environmental science and English in a state school in Colombia* (2018). His research used technology-enhanced CLIL to teach science and it was based on questionnaires, interviews, a teacher's journal, interviews, and artifacts. It underscores CLIL's potential for integrating content and language, fostering motivation, cooperative learning, and scientific citizenship—the ability to apply classroom knowledge in real-life situations using critical thinking and creativity. Additionally, Garzón Díaz's study highlights the cultural dimension in CLIL-based projects, emphasizing the importance of contextualizing lessons within students' own environments while comparing them to global perspectives. His work strengthens the argument that CLIL is compatible with collaborative learning, demonstrating how sociocultural settings shape curriculum development and lesson planning.

Not every CLIL implementation attempt in Colombia has been successful, as there are still many challenges that need to be addressed and solved. An example is Marian Isáziga's

undergraduate thesis *Exploración de percepciones y prácticas frente a la enseñanza de contenidos en lengua extranjera* (2018), which investigated the perspectives of primary school teachers in a private bilingual school in Cali using CLIL to teach mathematics. Through interviews and classroom observation, the study categorized teacher perspectives and contrasted them with recent literature on teaching mathematics using a second language. It was an ethnographic study that employed an inductive qualitative method.

The study found discrepancy between institutional expectations of the class, teacher perceptions, and the actual practices. While the schools placed importance on the use of the foreign language in the classroom to develop content and language skills, the teachers argued they do not always fulfill the expectations of the school despite trying to use English in class as much as possible. However, observations revealed that students favored their native language to work on their activities due to a lack of experience from teachers and a flawed curriculum design that promotes “bilingual education” to parents and students without assessing the students’ needs.

The research presented suggests that educators and researchers believe CLIL can be used in the Colombian context. Nevertheless, there is also a need to fulfill certain conditions, such as teacher support and development. Some challenges include lack of teacher training and preparation on CLIL, as well as unsuitable resources. These negative aspects could affect the quality and effectiveness of the CLIL materials used. This is not explicit in the articles reviewed, and thus research is needed to explore how these challenges are reflected in the implementation. Further research is necessary to examine CLIL implementation in Colombia, address existing barriers, and connect findings to international studies.

Teachers' Perspectives and Challenges when Using CLIL

The second construct discusses research on teachers' perspectives regarding the benefits and challenges of using CLIL in their practices. Given the sheer number of articles found on international repositories and databases, a sample of two national and four international articles was selected to exemplify findings across investigations and provide a balanced understanding of how educators experience CLIL.

Colombia has a considerable number of articles that describe teachers' feelings towards the use of CLIL. This is the case of *Situated Practice in CLIL: Voices from Colombian Teachers*, by Juan Carlos Torres Rincón and Liliana Marcela Cuesta Medina (2019). The objective was to define the factors that came into place when implementing CLIL in Colombian schools. Through interviews, web-based questionnaires, field journals and observations, the researchers identified positive and negative aspects of the use of CLIL of six teachers to construct a vision of how to better achieve the goals set in the contexts of the Colombian bilingualism plan for schools.

Findings revealed that there were still significant barriers for implementing CLIL in a way that satisfies the standards set by the Ministry of Education's bilingualism plan. Teachers lacked experience with "alternative pedagogies," and their instruction focused on textbook-based form instead of content focus, skill development, and encouragement of creativity and group work, key elements of a CLIL methodology. The authors appealed to actors involved in class planning (teachers, textbook designers, stakeholders, curriculum developers, etc.) to consider professional development on CLIL as a bridge between the theory and the actual practices, since the two concepts seemed to be disconnected in the participants' own behavior.

On a grander scale, *Teachers' attitudes, perceptions, and experiences in CLIL:*

A look at content and language by Jermaine McDougald (2015) surveyed 140 Colombian teachers on their experiences implementing CLIL, and how they have shaped their conception of this approach. It was found initially many implemented it without formal training. However, they agreed that it can be effective for developing students' language and content goals. The teachers also mentioned a need for training on the subjects they teach. Another issue was the material, as they needed to adapt material to use in their classes because they could not find material suitable for their classrooms. This can be related to them also stating that CLIL requires time for lesson planning.

Even though this research studies do not specifically delve into the teachers' perception on CLIL material and creation as it is the purpose of this study, they provide broad insights into the experiences and challenges of some Colombian educators using this approach. This provides potential reasons for these difficulties as identified by the teachers themselves that can be later compared with the results identified by this research. McDougald's findings in fact identify material as one of the concerns according to the teachers, which validates the need for research that focuses on this aspect.

Three studies will be discussed that describe teachers' perceptions in an international context. The first one is *Teacher Perspectives on CLIL Implementation: A Within-Group Comparison of Key Variables* by María Dolores Milla and Antonio Casas (2017), who conducted qualitative study in a Spanish school implementing a bilingual program to foment plurilingualism in a mostly monolingual setting. It used data taken from interviews and questionnaires to analyze 101 teachers' opinions on the program to describe how CLIL was being used in the areas of methodology, material, and evaluation.

Overall, most of the teachers CLIL positively for improving the students' L2 levels, since it allowed them to use methodologies such as cooperative learning. They reported a considerable range of materials used in their classes which were prepared by the teachers. As for negative views, the teachers said teacher training was insufficient. As with some of the works above, this study reinforces the role of CLIL materials in shaping teachers' perspectives and recognizes cooperative learning as a support for the use of CLIL. It pertains to this study's intent of using CLIL material as support for collaborative work activities to strengthen the Communication components it promotes.

The second research article is *Trained and Non-Trained Language Teachers on CLIL Methodology: Teachers' Facts and Opinions about the CLIL Approach in the Primary Education Context in Spain* by Germa Alcaraz-Mármol (2018). CLIL-trained and untrained language teachers were surveyed to compare their teaching practices and attitudes, testing the hypothesis that having previous CLIL training impacts teacher's opinions and practices in the classroom. Findings showed that fewer than 50% of teachers surveyed had no training. Trained teachers felt confident in the way they practiced CLIL in class, whereas non-trained teachers felt they did not use the methodology properly. Trained teachers also used a wider variety of materials, while non-trained ones heavily used the required textbook. The study concluded that compulsory CLIL methodological training for teachers is essential to ensuring educators feel equipped to implement the approach effectively and provide quality education.

Some articles focus on the challenges untrained teachers are likely to face when using CLIL to highlight the negative consequences of failing to implement this methodology properly. This is seen in Nina Lazarevic's article *CLIL Teachers' Reflections and Attitudes: Surviving at The Deep End* (2019). It is a mixed methods study in a Serbian bilingual high school

participating in a national project since 2004 that encourages English in natural sciences classes. Lazarevic used questionnaires, interviews, and observations to gather information on the English teachers' practices and attitudes. The research highlights recurring issues found in previous studies: no support for teachers unfamiliar with CLIL, inadequate teaching materials, and an unclear curriculum that failed to incorporate both content and language skills. As a result, the teachers build their own CLIL teaching philosophy based on their knowledge and experience.

The previous text allows us to discern a strong interest in exploring the perspectives of language teachers who use CLIL, trained and otherwise. Common challenges these educators face are a lack of confidence in their practices, difficulties with class material, and uncertainty about balancing target language practice and content learning. As seen with Lazarevic and Alcaraz-Mármol's studies, teacher training has a significant impact on these obstacles. It is, then, necessary to consider it as a challenge that can affect the research problem of this research. While some research touches on materials, it is often secondary to broader issues, suggesting the need for deeper investigation into its role in effective CLIL instruction.

CLIL and cooperative work

Another construct in the existing state of the art that must be considered is previous research on the joint use of CLIL and cooperative work in the classroom. Three articles were chosen as a sample to present some findings concerning how the CLIL methodology has been linked to cooperative work, how the two can be used together to enhance their benefits, and teachers' perception regarding this implementation.

One perspective of the combined use of CLIL and cooperative learning in the classroom is *A Blend of CLIL and Cooperative Learning Creates a Socially Constructed Learning*

Environment by Maria Inés Pistorio. The author uses Casal's (2008) work as reference to indicate how learning theories that influence cooperative learning, such as constructivism, social constructivism and humanism can be valuable in CLIL. This is the framework for their methodology, which is a pilot study implemented in a large heterogeneous class in an Argentinian school. A constructivist model applied to CLIL was applied, focusing on group work. It was found that there was an improvement in the language skills of the participants, and that the cooperative work fostered student autonomy, motivation, innovation, teamwork, and professional development. This study exemplifies how CLIL and cooperative work can be used together as their principles, philosophy and goals largely overlap. As a result, the positive outcomes of the two approaches, which in the research were increased language skills and development of teamwork, motivation, and creativity, are likely to be reinforced or even enriched.

It is also possible to find research articles that present teachers' perspectives on the implementation of cooperative learning in a CLIL approach, like the mixed study *Developing Cooperative Learning Through Tasks in Content and Language Integrated Learning* by María del Carmen Ramos Ordóñez and Victor Pavón Vázquez (2015). Using a questionnaire, they gathered insights from 25 teachers that implemented both cooperative learning and task-based learning in a CLIL class. Questions were focused on their effects in the classroom, their experiences, the difficulties they encountered, and the benefits in reaching the learning goals. The results indicated that cooperative learning and task-based learning can enhance students' engagement by connecting their interests with meaningful learning. Despite this, teachers did not feel confident when using cooperative learning for CLIL, relating it to their lack of experience and their inherent level of difficulty. This resulted in time constraints, and difficulty drawing

students' interest, among other problems. To address these issues, the educators suggested training on these approaches and collaborating with other teachers if possible.

A more recent study is *Cooperative learning in the CLIL classroom: Challenges perceived by teachers and recommendations for Primary Education* by Cristina Castillo Rodriguez and Beatriz Fernández Prat (2022). Surveys from thirty-five teachers from Spain were analyzed to identify their perceptions on the use of Cooperative learning in their classrooms. Results indicated that most believed Cooperative learning is a useful tool for bilingual education, but perceived challenges like difficulty using the target language for communicating in groups and understanding the content of the task, maintaining motivation of the students, managing classroom dynamics such as noise levels and group behavior. The teachers reflected that cooperative learning in CLIL tasks can be effective when students receive clear instructions on how groups work and when the assessment allows the educator to measure the content, language and cooperative skills of the students.

From these previous studies it can be pointed out that an association between cooperative learning and CLIL has already been established, as the two share principles and characteristics that make it possible to achieve positive results in the EFL classroom. Yet, in the last two studies the educators whose perceptions were analyzed identified some challenges related to the use of target language, the motivation of the students when trying these new alternatives that can lead to difficulty in classroom management, and an increase of time needed to plan lessons.

Teachers' Perspective on CLIL Material Creation and Implementation

It has been mentioned in the previous constructs that within the findings disclosed in the research papers, one of the features usually found when analyzing teachers' perceptions and

performance is their relationship with the material they use for their classes. However, there are fewer examples of articles that decide to focus solely on this aspect inside the regional, national, and international contexts. For this last construct, four texts with these characteristics will be examined.

One perspective is Hann's in her article *The problem with materials in CLIL: Needs and perspectives of Austrian CLIL history teachers* (2019). This qualitative study used interview analysis to determine how five Austrian secondary school CLIL history teachers found and adapted material for their class and the challenges and strategies when designing material when already established resources were unavailable. Teachers reported discontent about the lack of CLIL material, resulting in creating the materials or adapting them from native speaker resources. They use similar strategies to adapt materials, like simplifying the original material, restructuring it to create activities with the original resources, and adapting it to suit their classroom needs. Lastly, they called for CLIL history material appropriate for Austrian curricula that would reduce the time spent creating and adapting material and also training courses on material design.

Teachers' perception of CLIL and web-based material implementation in a primary school by Waloyo, Khoiriyah and Farah (2021) is another example of research on teachers' perspectives on the use of CLIL materials. This was a mixed research study with an online survey as a data collection method to gather information on their perception about web-based material used for CLIL, identifying an overall positive opinion but also some challenges such as lack of English competence, lack of appropriate material and lack of ICT facilities.

Morton's chapter *Critically Evaluating Materials for CLIL: Practitioners' Practices and Perspectives* in the book *Critical Perspectives on Language Teaching*, edited by Gray (2013)

surveyed Fifty-two CLIL teachers from Europe on their use of CLIL material. It was found that these teachers preferred adapting authentic material for their classes or even creating their own rather than using CLIL-focused textbooks, though this practice demanded time and effort. Four categories of concerns from the teachers emerged: ensuring the material fit learners' needs and context, designing effective and engaging tasks, balancing time and effort spent in material development, and cultural and contextual appropriateness. This research is relevant for its insights into material challenges as a methodological reference for questionnaire-based studies on teachers' opinions on their practices related to the design, adaptation, and implementation of CLIL material and possible concerns or challenges that arise from that process.

When it comes to the views of CLIL teachers of the strategies used to adapt text, *CLIL Teaching Materials and Text Modification* by Yu (2019) was chosen as part of the state-of-the-art sample. Yu employed thematic interviews and an analysis of the teaching materials to examine the practices of five secondary English teachers and evaluate the strategies they used to modify the texts as part of their resources. A literature review of over 60 studies established a theoretical framework for the evaluation. Results displayed that the teachers used textbooks in both Finnish and the target language, texts created by them, and adaptations of authentic target language material. Three types of text adaptation strategies were found, based on Lorenzo's (2008) model of input modification as well as the theoretical framework mentioned: simplification, elaboration, and re-discursification. Re-discursification and elaboration were used by all teachers, and simplification seemed to be preferred by less experienced teachers.

Methodologically, Yu's study shares key elements with this research, particularly in its use of interviews to analyse materials designed or adapted by CLIL teachers. Most importantly, it focuses on the strategies the teachers use as part of their practices for those processes, which is

not usually seen in CLIL research. Its theoretical framework is useful as well, as it can be considered when implementing the analysis of the practices of the participants in this research.

The last research article in this section is the mixed-methods case study *Can engaging L2 teachers as material designers contribute to their professional development? Findings from Colombia* by Banegas, Corrales, and Poole (2020), that explained how 16 Colombian university EFL teachers developed as professionals while creating CLIL materials whilst part of a CLIL workshop, with four later interviewed about their participation. Findings suggest that engaging teachers in material design foster professional growth in aspects such as creativity, motivation, and teacher identity. This benefits institutions that provide courses, as teachers with knowledge of CLIL material design will create material useful for the context of their classroom and the expectations of the institution in both language and content learning.

These articles confirm that teacher training in CLIL material is beneficial for their professional self-conception and development by equipping them with the skills necessary to create appropriate material for their classes. However, material creation remains a significant challenge in CLIL due to the lack of education and the difficulty of finding available material for their classroom context. As a result, teachers employ strategies to counteract this problem. These findings raise questions relevant to this research, including the contrast between the obstacles found in the different settings explored in this section and those found in Colombia and the influence of said strategies in the teachers' practices and their profile as CLIL educators.

Based on the current state of research found in the three constructs discussed above, it is evident that CLIL is a topic of rich pedagogical research in a variety of contexts. In Colombia, the trajectory and considerations based on our contexts have been explored. It has also been proven that teachers' perspectives on how they use CLIL, particularly when they are not trained,

are a viable area of investigation. Finally, the assortment of challenges that teachers face when creating and implementing CLIL material is a problem that needs to be addressed, especially when considering educational settings that have specific needs, such as in the case of Colombia.

Theoretical Framework

The theoretical framework presented here sets the foundations of this research study by describing the most relevant theories surrounding the key concepts of the research problem, which are: Content and Language Integrated Learning (CLIL), the use of materials in CLIL, cooperative work and CLIL, and CLIL teacher profiles.

Content and Language Integrated Learning (CLIL)

Amongst various English teaching methodologies, several propose content-centered learning to develop the students' subject-matter knowledge and second or foreign language acquisition, usually known with the comprehensive title of bilingual education. Examples of these methods include Content-based Instruction, English Medium Instruction, English for Specific Purposes, and Content and Language Integrated Learning. Due to their similarities, these may be used interchangeably.

CLIL was introduced in the 1990s by the European Union as part of a plurilingual education policies plan (Council of Europe, 2007), which follows a “dual-focused” approach. It integrates the target language to promote content and language proficiency and it focuses more on fluency rather than accuracy. Although it is possible to concentrate on one of the two, subject-specific content and language must be fully integrated into the class (Coyle et al., 2010). Gabillon (2020) establishes that this approach “evokes epistemological constructs based on sociocultural and cognitivist theories” (p. 100). It uses language and communication as a vehicle

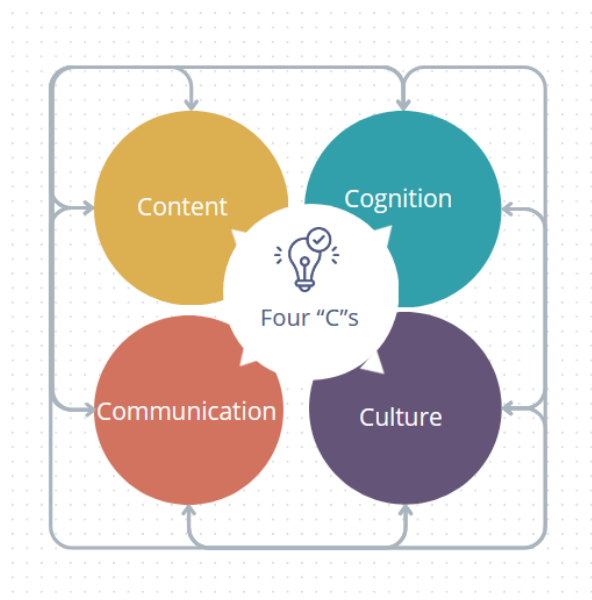
for knowledge acquisition and construction within a social context that promotes collaboration, incorporating components of sociocultural theories such as mediation and scaffolding. CLIL also supports cognitivist views through the complex interplay of lower- and high-order processing skills between students, content and environment within language learning.

One of the CLIL's most recognized pedagogical frameworks formulated for CLIL is Coyle's "Fours C's" model (1999). It is meant to serve as a guide that includes four interdependent elements considered essential for building and implementing appropriate CLIL classes:

- *Content*: the topics of the subject matter and how it is constructed as the student builds on increasingly complex knowledge and (meta)cognitive skills,
- *Communication*: the use of language in the classroom for solving the activities proposed and interacting with others,
- *Cognition*: the development of lower- and higher order processing skills,
- *Culture*: exposure to the student's own culture as well as other perspectives to create awareness and cultural competence.

Figure 1

The four “C” Components of CLIL as described by Coyle.



Note: Graphic representation of the relationship between the four “C”s based on Coyle’s model. Own creation.

These elements directly inform all aspects of the CLIL classroom, which effectively includes this research’s focus of the creation and adaptation of materials. This is true of all elements, but more so considering how “Communication” directly links to the construct of collaborative learning included in the research problem.

Cooperative Learning and CLIL

Cooperative learning (CL) creates opportunities for small-group activities, leveraging students’ diverse skills and abilities to potentiate their learning by working together, thus benefiting all members (Johnson & Johnson, 1993). Depending on the task, CL can be structured as formal (groups complete assignments with defined objectives, role and assessments) or

informal (ad-hoc student groups collaborate briefly during one part of the class). Effective CL planning requires five basic elements, which will be important for assessing the pertinence of the group activities proposed by this research's participants (Johnson et al., 2008; 2013):

1. Positive interdependence: All members must understand the collective responsibility for the outcome of their work.
2. Individual and group accountability: The group must be accountable for their roles.
3. Promotive interaction: All members function as each other's support system on an academic and personal level.
4. Social skills development: Group members learn interpersonal skills to have a positive learning environment.
5. Group processing: The group is conscious of their progress toward the achievement of their goal and makes changes in their dynamics or strategies if needed.

Using CL requires teachers to shift their classroom from traditional teacher-centered instruction to give students more responsibility over the task at hand (Jacobs, 2004). They must deal with problems such as finding the suitable difficulty level of the activity, ensuring continuous engagement, promoting team building through the heterogeneity of its members, controlling the noise level and incorporating the use of L2 not only in the final product, but also in the group interactions as they work together to create it.

Cooperative learning's focus on meaningful interaction and group work is compatible with Coyle's 4Cs Framework, as it offers a controlled environment where students develop their cognitive, interpersonal, and language skills by actively communicating with both teachers (by using scaffolding) and classmates (Casal, 2016). As for foreign language skills, CL can also develop in students *Basic Interpersonal Communication Skills* (BICS), which is the language

used in familiar and informal interactions with others, and *Cognitive Academic Language Proficiency* (CALP), the language necessary for discussion around the content proposed in class (Cummins, 1979).

CLIL materials

In English teaching, materials encompass any resource that facilitates language learning. They expose students to new input, review lessons, or help novice teachers in lesson planning (Richards, 2001). Materials constitute students' main source of contact with the target language along with the teacher and must reflect institutional curriculum objectives. In ESL, material design first started gaining interest with the rise of popularity of English for Specific Purposes in the sixties but has since then become a subject of research centered on understanding what materials are the most appropriate according to the learning context (McGrath, 2011).

McGrath categorizes English language materials into three categories:

- Textbooks proposed by the institution or the Ministry of Education and its supplementary material, such as workbooks, audiovisual aids, and digital resources.
- Commercial didactic materials that work as reference or practice material, like dictionaries, skills books, and grammar manuals.
- Teacher-prepared materials, which are developed to accompany didactic or authentic materials. The latter can be texts, recordings, realia, or audiovisual content.

Material development is a multi-step process, requiring teachers to transform the original material into a pedagogical tool that aligns with students' needs and broader educational goals. The input must be selected based on language skills (writing, speaking, reading, or writing),

linguistic features (grammar and vocabulary), students' proficiency level, cognitive processes, among others. After that, exercise types that assess the students' understanding of this input must be designed (Richards, 2001). Finally, teachers must monitor the performance of the students while using the material.

The planning, preparation, and implementation of CLIL learning resources is one key aspect for successful class development (Karabassova & Orabayeva, 2024). CLIL material can come from a variety of sources, categorized by Moore and Lorenzo (2007) in teacher-produced original material, "undiluted" authentic material, and adapted authentic material. It is the latter that tends to be most common amongst CLIL teachers to follow the requirements set by the 4Cs framework and must use the additional language to transmit content that meets the students' linguistic, cognitive, and communicative needs. There are several authors who have proposed criteria for producing quality CLIL material such as Mehisto (2012), who suggests ten criteria:

1. They make the intention of the language, content and learning skills objectives visible to the students.
2. They foster academic language proficiency.
3. They foster learning skills development and autonomy.
4. They include formative assessment, such as self and peer assessment.
5. They create a safe learning environment.
6. They foster cooperative learning.
7. They incorporate authentic language use.
8. They foster critical thinking.

9. They foster cognitive fluency through scaffolding.

10. They create meaningful learning situations.

CLIL material often originates from non-pedagogic sources and must be created or adapted by the teachers to fit with the learning environment and instructional goals, guided by a needs analysis. Educators must balance the content-cognitive demand and the language cognitive demand (Grandinetti et al., 2013). If a text is demanding cognitively or if it presents difficult information about the subject-matter, it should compensate by presenting an easier language, and vice versa. To achieve this, CLIL teachers resort to strategies of material adaptation, as observed by Moore and Lorenzo as *simplification*, *elaboration* and *re-discursification*. These will be explored in more depth below.

Simplification. Simplifying a text or resource implies reducing its linguistic complexity to make it more digestible for the learner. Some examples of simplification strategies are:

- Reducing the length of the sentences that comprise the text,
- Locating key vocabulary to front positions in the sentence,
- Lexical simplification and restriction of range of vocabulary,
- Limiting use of more complex syntactic or semantic relations in sentences,
- Replacing words for L1 cognates.

Elaboration. The educator adds information that explains key aspects of the text. Like simplification, it has the objective of reducing cognitive complexity, but it does so without affecting its original linguistic complexity and length. Common elaboration strategies are:

- Highlighting key concepts or ideas,
- Repeating or paraphrasing key concepts,
- Adding information to clarify more difficult parts of the text.

Re-discursification. This strategy is more complex than the last two, as they require the educator or material designer to reappropriate the meaning and discourse type of the text to transform it into a pedagogical one. Re-discursification strategies include:

- Inserting engaging activities like guiding reading questions,
- Transforming the text from ideational (delivering knowledge) to involving (engaging with the reading personally),
- Adding aids such as footnotes, graphs, multimedia, glossaries, pre-, while- and post-listening/reading tasks, etc.,
- Providing the text within a pedagogical discourse (for example, task-based learning project-based learning, etc.).

The theories presented above are closely related to this research project's objective of assessing the characteristics of the teacher-created materials and understanding the strategies that the teachers may utilize in their process of developing or adapting said materials based on the requirements and interests of their students.

CLIL teachers' profiles

The characteristics of CLIL demand a restructuring of the role of teachers in the classroom. The European Framework for CLIL Teacher Education created by the Council of Europe (2010) proposes that CLIL teachers acquire a series of attributes or competences, which are:

1. Examination of their attitudes towards language, teaching, and learning and their effect on their students, as well as understanding their professional identity and their competence in both the language and the content.
2. Understanding of the primary features of CLIL, such as the definition, outcomes, and strategies of use in the context of the school curriculum.

3. Content and language awareness, leading to the use of strategies to support language and content learning while including critical thinking and cultural perspectives, all while drawing on the theoretical framework of CLIL (i.e., constructivism).
4. Appropriation of the methodology and assessment to build learner capacity, cooperate with co-workers, use didactic strategies, set goals, and create and assess meaningful learning experiences.
5. Constant reflection of their use of CLIL in the classroom to improve their practice.
6. Creation of resources and environments that promote the core features of CLIL and help reach the objectives set.
7. Knowledge of classroom dynamics and management techniques that foster the co-construction of learning by using communication and cooperative learning.
8. Expertise on CLIL management and ability to collaborate with the stakeholders involved in the learning process (students, parents, administrators, other teachers, amongst others).

These attributes were created for teachers who undergo CLIL training programs, which would not reflect the reality of educators that do not have preparation prior to their own implementation of the approach in their classes. As this last scenario is the case of the participant of the study, it will be needed to analyze if untrained teachers possess these characteristics, and to what extent.

Similarly, Pavón and Ellison (2013) indicate that for a CLIL program to be successful educators with high linguistic and content competencies are required. They must also “develop a language consciousness that triggers their awareness of their own foreign language input” (p.70)

and students' output, to integrate the two competencies into one coherent lesson by using the target language as an instrument that facilitates learning. CLIL teachers must adapt or change their strategies to fit a participative classroom in which students can communicate with their peers both informally (BICS) and academically (CALP).

Teachers are also in charge of planning for the linguistic and cognitive demands of their classes. Activities must involve critical thinking and problem-solving skills where students demonstrate the knowledge they acquired, how they did so and how it can be useful to them outside of the classroom. The use of language is likewise important. Because of the complexity of the cognitive processes exercised in class, teachers must be able to employ an array of strategies to scaffold their input in a way that is comprehensive for students without oversimplifying the information or avoiding some subjects. Pavón and Ellison list schemes such as using visuals, giving students glossaries with keywords and expressions, using synonyms or antonyms when explaining unknown vocabulary, and relying on gestures and body language.

Research Design

This chapter outlines the methodology framework used to establish the strategies teachers utilize when confronting challenges in the process of the adaptation, creation, and implementation of CLIL material for cooperative work. It describes the methodological design, study context, and data collection and analysis instruments, emphasizing their relevance in addressing the research problem.

Methodological Design

Research Method

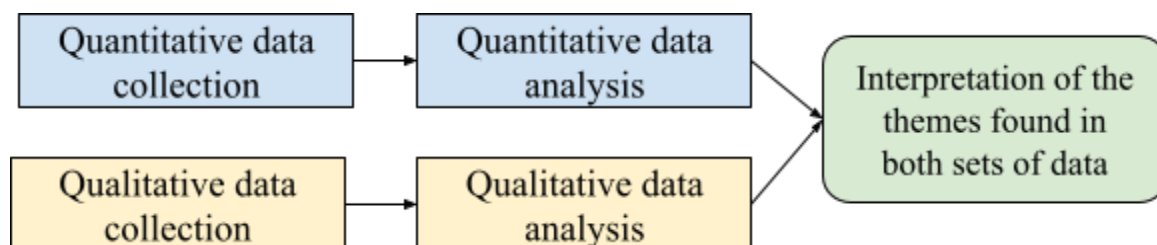
This study analyzes the circumstances of a small group of teachers that share a common context, which is the use of a CLIL approach in a private school in Cali, Colombia. Its objective is to comprehend a particular phenomenon within their teaching practices, which is the adaptation, creation, and implementation of CLIL material for cooperative work, as well as their own reactions to this situation that translate into their strategies. As the data collected to better understand this phenomenon was both quantitative and qualitative, this study utilizes a mixed approach by means of a case study to address the research question.

Mixed-methods research combines both quantitative and qualitative data for collection, analysis and interpretation of data (MacKey & Gass, 2016). It involves a “multi-level analysis” of the data in complex issues, where quantitative data can complement the qualitative one, and vice versa (Dörnyei, 2007). It also strengthens the validity of the information, as the use of different methods works as triangulation. When deciding to use a mixed approach, the relationship between the two types of data is complementary. The study follows a concurrent triangulation model, collecting and analyzing both types of data simultaneously to answer the research question (Cress & Clark, 2007). Finally, the results are then merged or integrated

(Figure 2). This model is usually employed when the research does not involve an intervention, as there is no need to utilize data collection instruments at different moments of the investigation to measure its impact.

Figure 2

Concurrent Triangulation Model



Note. Figure adapted from Malau-Aduli and Alele (2023).

Case studies provide a holistic description of a group affected by a particular event during over (MacKey & Gass, 2016). They must be a bounded system- that is, the situation studied must be clearly defined and limited to a specific context (Merriam & Tisdell, 2015). In this research, the case study is delimited to the experiences of a group of 10^o and 11^o teachers at a school in their practices of creation, adaptation, and implementation of CLIL material for collaborative work.

Context of the Research

Population and sampling procedures

The sample of the teachers selected was chosen using the nonprobability sampling approach of convenience sampling, as it is useful for small-scale research where participants agree to be studied based on some characteristic in common (Creswell, 2012). Six of the total 20

English teachers were chosen because they oversee tenth and eleventh grade classes that correspond to the program's approach to teaching technical content.

The research focuses on English teachers at Colegio Freinet, a private school in La Buitrera, Cali. The institution prioritizes bilingualism as a necessary skill for social and professional opportunities (Freinet, n.d.). As such, English instruction is divided into thirteen levels based on the Common European Framework. Starting from grade 4^o, students receive daily two-hour English lessons and must pass three international English exams (KET, PET, and IELTS) to graduate as bilingual learners.

In 2022, the school introduced an educational program for secondary school students called *International Three Dimensions* or I3D. This program divides the English class into three areas or dimensions: Engineering and Innovation, Earth Nature and Health and Humanities. Students choose their area based on interests and vocational motivation. Each of the three terms of the school year is dedicated to a topic related to the area of knowledge, focusing on technical vocabulary and oral and written production. While CLIL is not mandated as the approach to use in I3D classes, its content-centered learning structure aligns with principles.

Ethical Protocol

Educational research often focuses on human subjects (educators, students, and other stakeholders), which makes ethical considerations necessary to protect their privacy and well-being by ensuring informed consent and secure data handling (McMillan & Schumacher, 2010). Research ethics identify a series of principles which serve as a guide to follow, like the respect for people and communities, non-maleficence and beneficence, and justice (Azoury et al., 2018). Two of these principles were identified as relevant for this research project. Primarily,

respect for persons, as the study focuses on the perspectives and practices of a group of teachers. It also involves the principle of beneficence and non-maleficence, since the participation of the sample in the research could be considered beneficial as a critical evaluation of their practices for improvement. The main general ethics issues are then related to privacy, confidentiality, impartiality, validation (proper data management and analysis), and possible indirect benefits of participation in the study.

Ethical Considerations in the Design & Access of the Research.

Potential ethical concerns that arise in the first stage of the research process are the recruitment of the participants and the access to the research sites. A permission letter was presented to the school administration detailing the objective of the research and the data (Appendix 1). Also, all participants were briefed before signing a letter of informed consent (Appendix 2), ensuring voluntary participation without any possible pressure or “coerced participation” and respecting their right of refusal (Azoury et al., 2018). Sampling followed case study methodology without bias or exclusion.

Ethical Considerations in Data Gathering.

Data collection risks include privacy concerns or any psychological distress. To ensure privacy and anonymity, all the teachers were given a pseudonym or code in case. Confidentiality was maintained using pseudonyms and ongoing access to the study by the participants. Instrument triangulation guarantees the validity and reliability of the data (this will be discussed in the Data Collection Techniques section below).

Ethical Considerations in Data Processing.

Concerns at this stage involve data storage and security. Research data collected throughout the research (recordings, transcripts, copies of the survey or observation formats) was stored securely in a cloud-based institutional account (Google Drive) under password, and will be stored for approximately 5 years after the publication of the study in the repository of the university UNAD. Access was restricted to the researcher and the thesis advisor.

Ethical Considerations in Analysis & Reporting.

Objectivity was ensured through the inductive nature of the research, as it focused on searching possible patterns and relationships in data to consolidate in a series of theories or conclusions (Grey, 2021). Triangulation was also used to converge information from different sources to validate the results (Carter, 2014), and thus avoiding observer bias. There are multiple types of triangulation, and two were considered in the context of this research.

First, data triangulation was used using multiple data collection instruments used in the research study, which in this case are the questionnaire, the interview and the class observation to collect both quantitative and qualitative data. Next, data source triangulation is employed in two cases: information is collected from multiple participants, and interpretations were verified with them to avoid any significant misalignments with their intended meaning caused by the researcher's bias.

Data Collection Techniques

Description and Rationales of the Instruments

To comprehensively assess the teachers' perceptions on the adaptation, creation, and implementation of CLIL material for collaborative activities, three data collection instruments

were employed: a questionnaire (quantitative), a series of semi-structured interviews (qualitative), and class observations (mixed).

Questionnaire. Questionnaires are a primary data collection instrument, as they can systematically capture information on aspects of interest through open-ended or close-ended questions in a reliable and time-efficient format (Muñoz, 2003). In this study, a close-ended questionnaire was designed to gather the teachers' self-characterization and perceptions on their use of CLIL in class, as well as their strategies for promoting collaborative work through planned material and activities.

The questionnaire consisted of eleven positive statements, each rated on a four-point Likert rating scale of consistency and frequency: most of the time, quite often, not very often and hardly ever or never. Scaling question instruments collect ordinal data on attitudes or opinions, allowing more flexibility to gather quantitative information (Cohen et al., 2018). It was adapted from Tom Morton's questionnaire found in his chapter *Critically Evaluating Materials for CLIL: Practitioners' Practices and Perspectives* for the book *Critical Perspectives on Language Teaching Materials*, edited by John Gray, and implemented online using the tool Google Forms. A link to the questionnaire was sent to the teachers with a set time to respond.

Since this format often provides a limited set of data (Cohen et al., 2018), this primary quantitative data was then supplemented with semi-structured interviews, offering deeper insights into participants' perspectives. A transcript of the questionnaire's questions can be found in Appendix 3.

Interviews. This research adheres to a subjectivistic paradigm, where the subject constructs meaning according to their values and inner world (Gray, 2021). Consequently,

research participants are not a static set of data but a unique source of knowledge that is collected within a social context, which the researcher must then co-construct. One of the objectives of this study is to examine the challenges and strategies teachers face in their CLIL practices, particularly in creating, adapting, and using materials for collaborative work, aspects that were first introduced in the questionnaire. To explore how the participants regard this issue while considering how their own point of view constructs their reality and meaning, interviews are necessary as a data gathering tool.

Semi-structured interviews use probing questions about a predefined topic to elicit detailed, nuanced responses (Cohen et al., 2017). As Berner-Rodoreda et al. (2020) describes, qualitative interviews have a different style from the traditional or doxastic style, which is focused on understanding behavior. It rather aims at co-constructing knowledge from the complexity of participants' environment, acknowledging ambiguity, contradictions, and unexpected phenomena. The data obtained from these interviews complemented the questionnaire findings, providing a comprehensive view of the teachers' perspectives on their role as CLIL educators and the impact of the material they create and adapt. A set of guiding questions can be found in the Appendix 4.

Classroom Observations. Observations in the classroom record firsthand, systematic information about the dynamics, interactions and procedures found in the research site (Creswell, 2012). Observing in a natural setting allows the researcher to gather data on four key dimensions: physical (environment), human (the people involved), interactional (interpersonal exchanges) and programmatic (resources, pedagogical styles, and curricula) (Cohen et al., 2017). The researcher took a non-participating observer role in 10th and 11th grade English classrooms to gather information on the implementation of the CLIL materials created or adapted by the

teachers. This method helped assess material integration in the planning and structure of the class, students' engagement, and the overall effectiveness of the material within the class objectives. It is also useful to contrast results with the perspectives of the teachers from the questionnaire and interviews.

Observations were recorded using a mixed descriptive checklist format, adapted from an already-existing instrument created by the Estonian Language Immersion Center, which in itself is an adaptation of Tara Fortune's Immersion Teaching Observation Checklist from the Center for Advanced Research on Language Acquisition at the University of Minnesota. The full checklist can be found in Appendix 5.

Validation Procedures

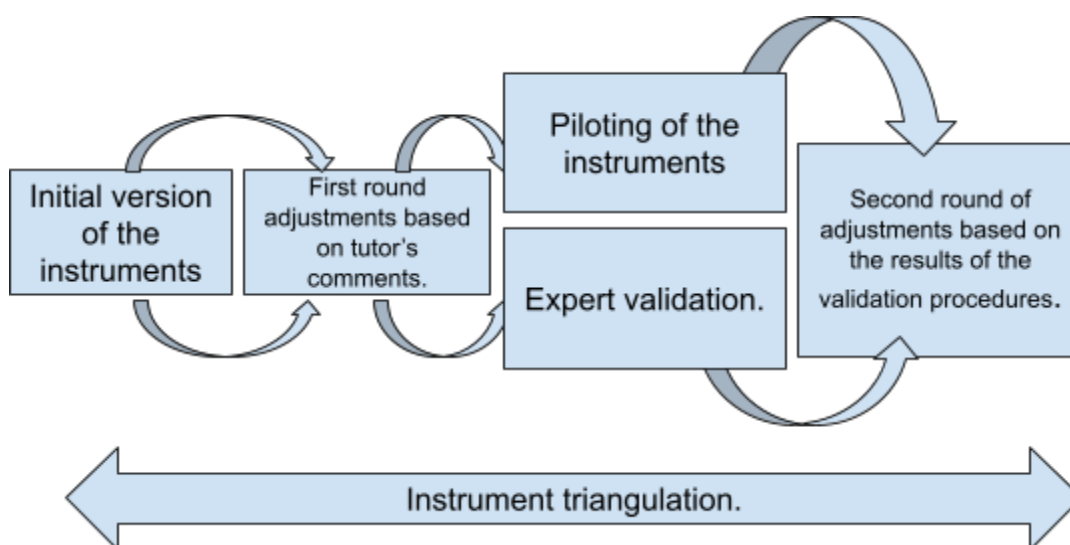
Validity in qualitative research extends beyond ensuring the appropriateness of the instruments to address the research problem. It also requires coherence across all steps of the research plan—data collection, process, analysis and evaluation— while minimizing bias (Cohen et al., 2017). Case studies, which have small samples to describe an established reality without generalizing, can be affected by challenges in representativeness and reliability, needing additional validation procedures. On a similar note, reliability must also be ensured so that instruments are proven to measure data in a consistent manner over time or over different attempts at data analysis (Hayashi Jr et al., 2019).

This study employed three validity measurement methods to ensure the rigor of its data collection instruments: content validity (the instrument's representativeness within its specific domain), construct validity (its alignment with the theoretical and conceptual framework), and

face validity (its appropriateness and relevance) (Cohen et al., 2017). The validation process followed four phases (see Figure 3).

Figure 3

Data Collection Instruments Validation Procedures



Note. Own creation.

Triangulation is the use of multiple research methods, observers, or sources of data to reduce observer bias and increase validity and reliability (Mackey & Gass, 2016). By using three instruments designed and applied in accordance with the objectives, instrument triangulation was achieved. Collecting data across different situations and by different perspectives in detail also reinforces the credibility, transferability, and confirmability of the research. This methodological approach ensures a complete picture of the research problem and allows findings to be confirmed, transferred, or rejected in future studies.

Data Analysis

This chapter examines the insights result of the analysis of the qualitative and quantitative data obtained in the research process in light of the research questions. These results are presented by performing a thematic analysis of the three instruments applied: the questionnaire, the interviews and the class observation grid, which in conjunction provide a mixed approach. Moreover, a description of the categories and subcategories that emerged during this process will be presented.

Data Management Procedures

The data analysis of this research study includes both quantitative and qualitative information collected from the three instruments, all of them applied to teachers: quantitative data obtained from the closed-ended Likert Scale questionnaire, qualitative data from the answers of the semi-structured interview, and a mix of the two from the class observation checklist. The analysis procedures of both types of data will be described.

Quantitative Data

The survey was administered by using Google Forms, which is a free online survey platform part of Google services. It allows research to create and apply questionnaires. The pre-coded data response received is automatically stored in an Excel file, which makes it easy to sort, filter and manage answers. It also provides tools for data analysis in the form of responses summaries showcased in charts, graphs and percentages. These features were used when interpreting the data after preparing and editing the data to check for completeness, consistency and accuracy in responses, following established practices in survey research (Bryman, 2016).

Additionally, the pre-coded data from the Excel file was labeled using numerical representation and uploaded into JASP, which is a free and open-source statistical software for data analysis. The information of the teachers' perceptions and attitudes then underwent descriptive analysis, described by Kaur et al. (2018) as a procedure that organises and summarizes the relationship between variables of a given sample. Descriptive analysis can be categorized in measures of frequency, central tendency, dispersion or variation, and position. For the purposes of this research measures of frequency are used, depicting the number of times a value occurs in the data and expressing it through percentages.

As for the observation checklist, its dichotomal nature allows it to collect quantitative data based on the frequency of the observed behaviours or class dynamics. This information is then complemented qualitatively by analyzing this frequency narratively in terms of commonalities and patterns.

Qualitative Data

Qualitative data analysis is a cyclical process that occurs throughout all research stages (McMillan & Schumacher, 2010). While multiple approaches exist, a typical bottom-up thematic analysis approach consists of six steps, which are a guide flexible to the researcher's preference and needs (Creswell, 2013):

1. Preparing the data: Organizing, summarizing and transcribing material (in this case, the interview answers and the notes taken during the observations). This information is organized and stored in a structured system for later management and analysis.
2. Reading and coding the data: Sorting through the organized, raw data to identify broad themes that will segment the information into codes.

3. Developing themes: Selecting the most common key concepts and relationship between them for in-depth exploration, often using qualitative data analysis (QDA) software programs.
4. Organizing and representing the findings: Presenting descriptions, themes and relationships in a comprehensive narrative through figures or graphics.
5. Interpreting the findings: Reviewing the most relevant findings in relation to the research questions and theoretical framework.
6. Validating the findings: Ensuring accuracy and credibility of the analysis process.

For the purposes of this qualitative research study, this procedure for data analysis is used. The information retrieved from the interviews and observation was collected, transcribed, and organized using a word processing program. Then, coding was performed by considering two levels of qualitative coding. The first one is open coding, where the data was codified into categories by using a coding matrix (see Appendix 6). This initial phase resulted in a preliminary code. The second level is axial or selective coding, where the emerging codes were grouped into categories and subcategories, and the relationships between categories were explored. Finally, the findings are contrasted using [Atlas.ti](#) (see Appendix 7) to reinforce the categories found.

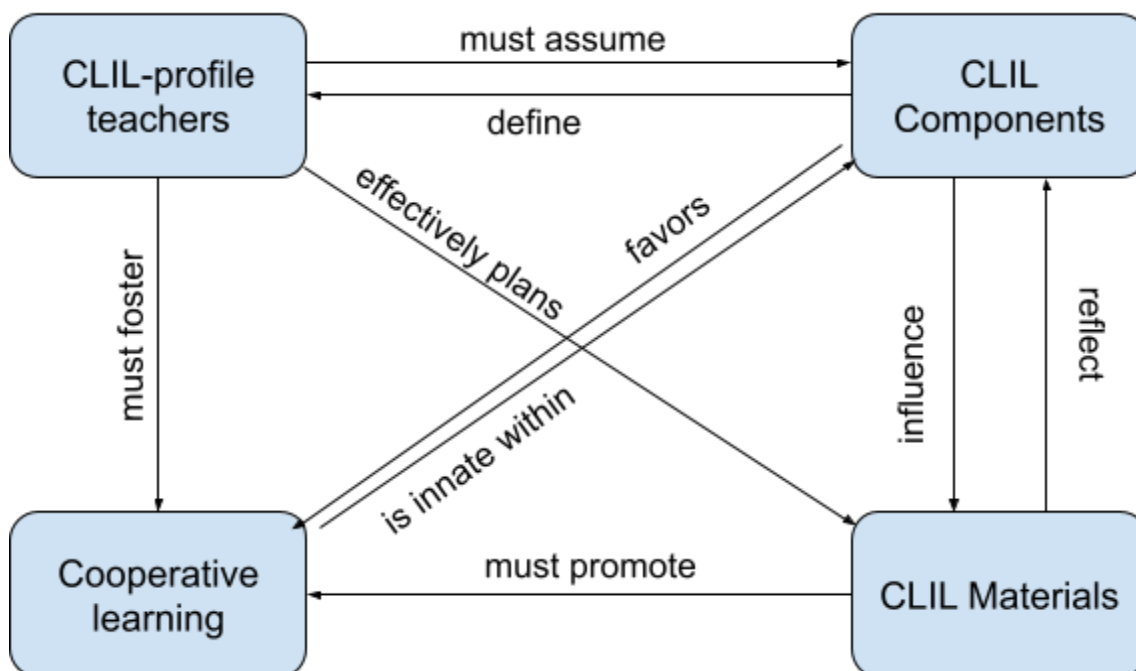
Categories

This section uses a thematic reading of the data collected and structured into a series of categories, subcategories and indicators, which were established after the analysis process described above. Said process was constantly guided by the research objectives and the different constructs explored in the theoretical framework, and resulted in the formulation of four main categories and 13 subcategories. These categories were deemed relevant to interpret the perception of teachers regarding their pedagogical processes as CLIL teachers when creating or

adapting material for collaborative work. Figure 4 below portrays the categories and subcategories, as well as the interactions with one another. Further discussion and analysis is in the following segment.

Figure 4

Relationship Between categories and Subcategories



Note: The figure depicts the connections between the categories and subcategories found in the analysis process. Source: Own creation.

CLIL Components

The first category found was *CLIL Components*, which refers to how the materials created and implemented in class by the participants engage with Coyle's (1999) "4C" components, as they establish a model for educators to plan CLIL lessons that are coherent with the theoretical and pedagogical framework of the approach. As such, the CLIL materials and the

cooperative tasks that utilize them must fulfill the standards devised by each of the components categorized. Otherwise, it could signify there is an issue between the material and the purposes stated for CLIL education. This category is itself subdivided by the four components of Coyle's framework, which are content, communication, cognition, and culture.

Content.

Coyle defines this component as the emphasis of CLIL as an integrated methodology that builds on increasingly complex knowledge and (meta)cognitive skills while also providing content that is relevant to the needs and interests of the learners. In this regard, all teachers agreed unanimously on the necessity of using content in their classes that is pertinent to their students' context and likes to create meaningful learning. They also described students' reactions, engagement with the material, and ability to recall material in the long term as a way to gauge the effectiveness of the material:

I tend to...**bring this content into context?** I think it's more easier [sic] to approach when they know in context what they are learning so- i think that context is one of the most important things. (Excerpt from interview. Participant S. Answer to question #1)

The reaction of the students, basically. I remember one time I found a video on TED that made me cry. when i watched it. I was like oh my god this is fantastic. so, I downloaded it, printed the... the script, created some questions, two activities to do with that, went to the classroom, [...] so I told them they were gonna see this video, it's about this, and play the video. I constantly when I'm showing the video I constantly make them pay attention, I print the text so they can read it and listen (double exercise), and they were like- they found it stupid. I was like so im stupid? Because I cried. I asked them and

they were like “no teacher, it is because it's superficial.” okay. **so then it didn't connect.** Another time I found an audio that was interesting. It was just right to the point where we were talking about, and I brought it in the class and they were fascinated with it. (Excerpt from interview. Participant IG. Answer to question #7)

You are able to...**make your students understand what the goal is and what the impact is** when they're- when they learnt through this, so what they make it meaningful meaningful learning they're going to know well “**I can apply this in my daily life** if i am interested in a specific subject, if i want to study a specific careerlike cooking, i wanna be a chef or i want to- build bridges or i wanna be a programmer” (Excerpt from interview. Participant D. Answer to question #3)

If the things that I did during the first trimester, **they can remember that right now.** I can be sure that it worked properly, so. basically [sic] are things that they can remember not if they didn't work just in the class but **it was something that is permanently on their minds.** (Excerpt from interview. Participant A. Answer to question #7)

Sometimes it doesn't work, I mean it just doesn't work. the students don't click with the material so they don't.. they're not really that interested. So the first thing I would do is like... **trying to see students' engagement with the activity.** That's one of the ways, okay? (Excerpt from interview. Participant M. Answer to question #7)

One of the teachers also reflected on using high-order thinking skills such as problem solving as an indicator of use of successful content in their CLIL classes:

[To the question of how to tell if material is effective in class] **When they give me a solution.** they propose. you know? So normally what I do here is that at the end of

the trimester they have to come up with a problem and they have to work out the solution, alright? and... inside that they have to talk about...ethical situations from...something that is not gonna affect the community or- alright? so the side effects and all that bad, alright? so that from the very beginning they have to start using their brains when they're gonna come up with the solution. So that's why I think they achieve that or we achieve that as a group. **From the very beginning they have to start thinking of solutions.** and giving the opinions, why no why yes, why... it is gonna work why it's not gonna work.(Excerpt from interview. Participant AR. Answer to question #7)

During the observations, it was clear that despite being all student-centered, some of the teachers implemented some elements of the component of content in their classes. The class plan was acknowledged either orally or written, and the material presented by the teacher (which were a movie and realia) were used to complement the key aspects of students' presentation of the subject-matter topics to their classmates. However, most of the characteristics were consistent, as the nature of the classes (presentation of group work) resulted in limited material presented by the teacher.

Communication.

Communication refers to the use of the target language as a vehicle to construct knowledge and experience meaningful learning opportunities, as well as a way of interacting with others, be it inside or outside the classroom. In this aspect, teachers were first asked in the questionnaire whether they incorporated group dynamics in their classes that could foment communication skills and teamwork, which they answered they did most of the time (66,7%, 4) or quite often (33,3%, 2). Additionally, they were asked if they used material that encouraged student participation and communication in informal and academic contexts, skills defined by

Cummins (1979) as *Basic Interpersonal Communication Skills* and *Cognitive Academic Language Proficiency* and necessary for collaborative work. It yielded the same positive results.

Figure 5

Participants' answers to questions #7 of the questionnaire

7. I plan and implement group activity dynamics that require teamwork and communication, such as project work, role plays, debates, presentations.

6 respuestas

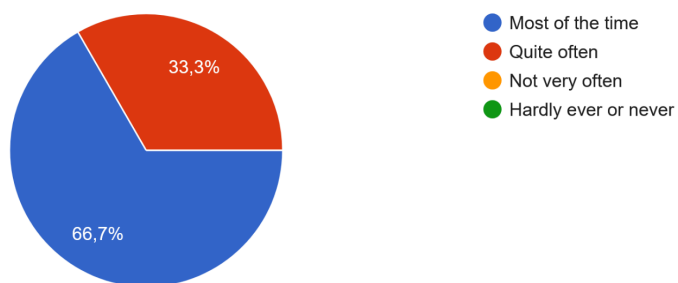
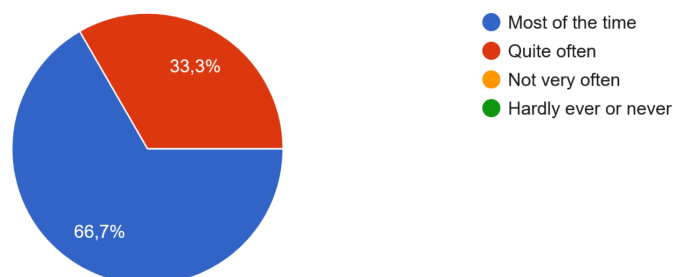


Figure 6

Participants' answers to question #10 of the questionnaire

10. I seek material that encourages student participation and communication, both informally (team discussions, conversations, social interactions) and academically (debates, presentations).

6 respuestas



In further discussion with the participant, it was evident that the teachers view the target language (English) as a tool to achieve students' self-expression and meaningful communication, in alignment with Coyle's CLIL components. They expressed that they use English for purposes other than grammar or form, focusing on building communication skills that would allow them to express feelings and opinions on the subject-matter. To achieve this, they added providing authentic content appealing to the learners is essential, as well as favoring student-centered dynamics:

I allow students to showcase basically how they feel and how they see the perspective from their side. (Excerpt from interview. Participant S. Answer to question #4)

[...] I think that maybe for most of the students [...] may not have the connection to talk about the reef in Australia if for example they are not interested about Australia or have not gone to Australia. But it's easier to talk about a scenario like for example san andres [...] I do consider that this meaningful interaction or meaning communication is given by the fact that they can or... they know or they can know about this uh- context [...]. If they know or they understand that this situation is happening next to them. So yeah-again **I think context or that they can feel relatable [sic] to that topic is very important for them to communicate** between the students with me and with the topic in general. (Excerpt from interview. Participant S. Answer to question #7)

This could be done in any language. I mean this could be done in social studies class. and this could be- done in many different ways. It could be a...i come to the class and i teach, you copy and i evaluate. That's, you know, the traditional style. But working in this school, knowing that they know how to research, and **they know how to answer**

research questions really helps into the process of- developing a class where they have to research, share, like organize what we've learned and then evaluate from what we all learned. So it's easier that way. [...] **and we did it all in english.** [...] I thought in the beginning when I started I thought “well im gonna find a lot of mistakes in their writing in their speaking, and from those mistakes I will be able to reinforce grammar or teach some grammatical things from english” but then i noticed and i realised that it isn't necessary that the corrections were minimal, and that I didn't need to- it wasn't necessary to teach grammar or to explain conditional or anything, was used to correct how they used them, and that let them do what they needed to do, because they already have all the english they need to have. (Excerpt from interview. Participant IG. Answer to question #2)

Because it was- from the perspective of communication it was an opportunity not just to- show content and help them receive information which could **help them build their communication skills** or or their languages skills in English, but also an opportunity to produce... and like trying to strengthen...output skills like writing and speaking. so that was that... and **to make it more communicative.** (Excerpt from interview. Participant D. Answer to question #2)

For the lower courses I might have to find some material that... might not be so authentic it has to be touched or modified to match students' level but for senior students most of the time I use authentic material. so **they get to...interact, listen and practice with real English,** not just level up or down to their level. (Excerpt from interview. Participant M. Answer to question #5)

Class observations showed that all CLIL executions had a strong communicative element, as they mostly consisted in student-led oral presentations in groups where they demonstrated the findings of a previous research process done collaboratively about a topic related to the subject-matter. Nevertheless, in one of the observations this group dynamic was interrupted by the teacher giving his own explanation on the topics. This shows a dissonance with the component of communication, as it disturbs the learning environment.

Cognition.

A successful CLIL lesson must consider cognition, first described in the 4C framework and proposed by Mehisto (2012) as the ability to intentionally foster not only subject-matter and linguistic proficiency, but also higher cognitive and communicative skills. CLIL teachers must ensure their class connects target language development, subject-matter understanding and construction of lower- and higher order processing skills such as critical thinking, problem solving, inference making, and analysing, among others. All material and activities used in class must be planned so learners can achieve gradual and integral progress.

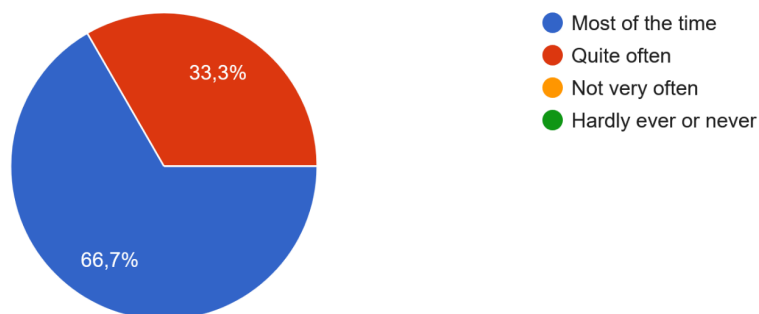
Four of the six teachers (66,7%) replied in the questionnaire that they use activities that encourage critical thinking, problem-solving skills and collaboration most of the time in their classes, with the other two saying they did so quite often (33,3%). The interviews confirmed that the educators include elements in their lessons that promote autonomy, creativity, problem solving, and research:

Figure 7

Participants' answers to question #11 of the questionnaire

11. I use activities that encourage critical thinking and problem-solving skills such as analysing, summarizing, creating and evaluation (debates, roleplays, projects, etc.).

6 respuestas



I think that the perspective and again, the contextualized information that I give allow students to showcase basically how they feel and how they see the perspective from their side. For example i do have one student that went to buenaventura and saw first hand the bleach in this situation so if for example in a group one person has this point of view directly from the place that it happened- [it] can give a perspective of autonomy because he is gonna be talking about his perspective but also thinking in the group because he will say [...] his experience and try to see what the others the other students have something to say. [...] So i would think that- perspectives within the context that i give-allow this... **autonomy and also critical thinking** within the topic. (Excerpt from interview. Participant S. Answer to question #6c)

[Talking about a short documentary project] So they created- they talked about...students drinking alcohol in the parties,or... there was another one that was very intimate, about... some family who lost their son because he he wanted the army he loved

the army he joined the army and he was killed- and... yeah, these kind of topics. the people obsessed with cellphones. So I mean- those were matters that they identified as important in their lives and then they talked about that- but in teasers [...] **but... I thought it involved a lot of components: critical thinking, creativity, collaboration, research.** That's a good thing. (Excerpt from interview. Participant D. Answer to question #6c)

The limited teacher-provided material noted in the observations showed that cognition is the component less utilized. Said material, in two out of the three observations, did not engage higher order thinking skills nor implemented strategies to make it more digestible. However, this can be explained by the dynamics of the class observed, which were focused on material created and presented by the students.

Culture.

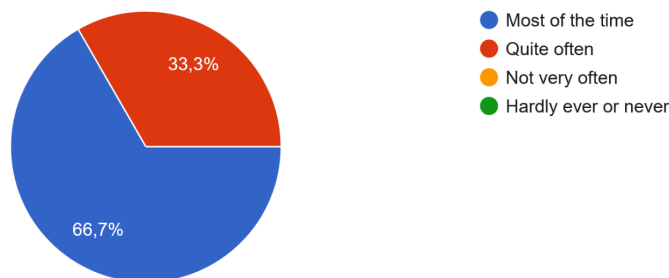
The component of culture suggests that CLIL lessons must expose learners to diverse cultural experiences, be it their own and those of others, to develop intercultural competence. This is done by providing experiences that allow students to explore their own language and cultural identity and the relationship between both. In the questionnaire, the participants stated that they consciously searched for culturally engaging material while planning for the classes most of the time (4) or quite often (2):

Figure 8

Participants' answers to question #8 of the questionnaire

8. I consciously seek material that exposes the student to their own culture as well as others.

6 respuestas



This was later confirmed by the semi-structured interviews, where the teachers explained in more detail the role of culture in their CLIL classes. According to them, it is important to purposely present their students with material set in both the Colombian context and in international ones for them to understand the subject-matter and form their own opinion on real life situations and problems after understanding different perspectives or points of view:

Well in the documentary that we saw what- they talked a lot about the barrier reef in Australia and also the... Hawaiian coast and how bleaching is affecting it, so it was easy to find information from- these big reefs but also there was a possibility to showcase the problems that we have in San Andres and Buenaventura coast so [...] that's what i try to do **i try to contextualize in a Colombian scenario**, a caleño scenario [...] for the topic to be clear. (Excerpt from interview. Participant S. Answer to question #3)

I try to do it on purpose. So I do my search in in different backgrounds and different cultures because I teach humanities and I don't want to have just one perspective. That makes it- that easy to say but it's very hard to do. So when we were working we worked with feelings and emotions. and... we have to work with the ways

people express affection. I see I found a video [...] from a French teacher. She's a psychologist and she's a teacher. and she made a video in which she showed the way people say i love you in different- parts of the world. She did it and it was funny, but when you see it from the humanities side, it was really hard. Because it showed them I mean it struck them in the way that having 20 students in the classroom, not all of them said I love you the same way. There were 20 different ways to say I love you. and when i showed them how other cultures do it they were like "oh my god i am arabic to say-" **it was really interesting the connections they make, but it was also interesting on what we built from that, on on the differences on the diversity that comes from expressing feelings**, so i try to bring- documents from different cultures on purpose for them to see different opinions.(Excerpt from interview. Participant IG. Answer to question #6e)

Yes, yes in fact that was something we worked during the second trimester because we worked with something related to botanic and those things, so **it was pretty important to gather information from every like kinda different culture** because there were many plants that they chose to work based on those that were from many different parts of the world. (Excerpt from interview. Participant A. Answer to question #6e)

It's wide. but then in engineering is easy because i can...normally, 'cuz technology- is not exactly Colombia who is ahead of that. So all the examples are from abroad. [...] By doing so, students... may understand that things in other countries are completely different and things are doable. That's how I include that cultural part, you know? Because sometimes they say "Ah but, but teacher, how is it possible they did that?" Well they have the money, they have the mentality to do that, and the culture for

example the chinese or koreans or even the british, they know that whatever they're going to do they're going to achieve it. [...]. It's not just the money, it's also the mentality.

(Excerpt from interview. Participant AR. Answer to question #6e)

During the observations, it could be noted that the teachers provided a safe learning environment for their varied group of students, as it seems they students were encouraged to make decisions on their involvement in the class (exemplified by them being allowed to choose between the topics to do their research on in the group activities observed) and to participate in the class discussion. However, no explicit elements from other cultures were introduced in any of the classes observed.

CLIL Teacher's Profiles

The next category involves the teachers' experiences and perception of CLIL, and how they influence their practices. These were subcategorised using the competences that compose the Council of Europe's (2007) profile of CLIL teachers as well as the characteristics explored in Pavón and Ellison's (2013), both mentioned in the theoretical framework segment of this research. This is with the purpose of exploring whether the teachers' perceptions of their role and capabilities as CLIL educators influenced their relationship with the materials they create and use in their classes.

The first subcategory found is *experience*, as previous experience working with CLIL can be pivotal for a better understanding and appropriation of the elementary features of the methodology, including types of materials and their implementation. Three out of the six teachers confirmed that they lacked any previous experiences or in-depth education of CLIL, despite having learned about it during their pre-service education. Two of the teachers that mentioned having used CLIL before having different degrees taught English for Specific

Purposes courses with topics related to them. However, all teachers agreed that it was their first exposure to CLIL in the context of a school and that despite this, this inexperience did not prove to be a difficulty for them when first implementing CLIL lessons:

Basically, because you just have to gather information, just-[I] need another coworker so no, it hasn't been difficult or something like that and it's my first experience in this case. (Excerpt from interview. Participant A. Answer to question #1)

The second subcategory found is *content language awareness*. It integrates several of the characteristics described by the European Council that relate to the teachers' examination of language, learning, and their own pedagogical practices in light of the role of subject-matter and target language awareness in CLIL. One of these CLIL teacher attributes that is mirrored in Pavón and Ellison's text is the realization of the importance of high linguistics and content competencies to successfully integrate both into a CLIL lesson. In the interviews with the participants, many manifested reflecting on the relationship between content and language and the importance for teachers of balancing both, particularly when teaching topics they are not familiar with. When this happened, some explained they do research on the subject-matter beforehand:

[Discussing the subject-matter assigned to the teacher] Well, how am I gonna bring this into the class? So **I had to read**. Thank God I had time [sic] previous beginning of the year. I had a lot of time and I did some readings, some research. I had to start like, **defining and organizing the way before the conflict, solidifying what is a conflict, types of conflict**, [...] what is geographical, what is personal, what is psychological, because when you throw the word conflict to a person it's not always going to be apolitical or a religious one. A conflict could be an internal one, so... that...

defining what I was gonna do was hard in the fact that- in the way that I had **to read too much to prepare for the classes**. (Excerpt from interview. Participant IG. Answer to question #1)

Yes I consider that it's [content and language awareness] important because **both of them complement** each other. It's like- you cannot teach one without the other one- both of them are important because the students are also- are always going to be like seeking for things that we should answer for them like... **we should like be able to respond on those cases**. (Excerpt from interview. Participant S. Answer to question #3)

The last subcategory is *Appropriation of the methodology, assessment and classroom management*, which discusses how well do teachers incorporate the CLIL methodology in the practice when using didactic strategies, selecting and applying material, and managing the different classroom dynamics to reach meaningful learning. Among the attitudes discussed by the participants, it was established that the teachers are consciously aware of the dynamics of a CLIL classroom and how it helps learners achieve meaningful learning:

You are able to...make your students understand what the goal is, and what the impact is when they're- **when they learnt through this, so what they make it meaningful**.

Meaningful learning, they're going to know, well "i can apply this in my daily life if i am interested in a specific subject, if i want to study a specific career like cooking, i wanna be a chef or i want to- build bridges or i wanna be a programmer" (Excerpt from interview. Participant D. Answer to question #3)

[it is important that the material] is recent. that it is **easy to relate**- like for example the ones about bleaching, there has been some bleaching in the... andres san andres coast and also buenaventura coast that is problematic so they can relate to that and what else can we

say?... if it is like- if it has a lot of jargon i try not to use it i try to use **as simple as possible** for them **not to get like confused about jargon or- technical words** that is also problematic in those. (Excerpt from interview. Participant S. Answer to question #5)

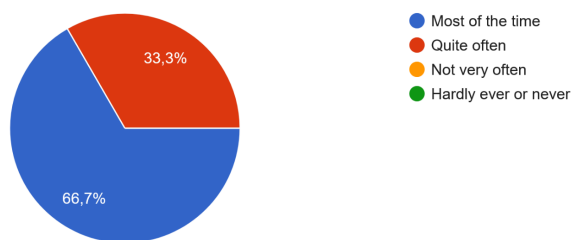
Additionally, teachers responded in the survey that they used strategies when providing input on a regular basis. Personal interviews later revealed they often adjusted vocabulary or expressions to students' level and introduced them to key vocabulary previous to any material.

Figure 9

Distribution of frequency of CLIL scaffolding strategies

5. I use strategies to scaffold the students' input like using visuals, giving students glossaries with keywords and expressions, using synonyms or antonyms, and relying on gestures and body language.

6 respuestas



As explained by Pavón and Ellison (2013), the intricacy of the cognitive processes required for the teacher to implement CLIL requires the use of didactic strategies and materials as well as classroom management techniques for critical thinking, problem-solving and co-construction of learning. Many of the participants commented on the importance of context, for example, and to make sure the class appealed to their interests and could be applied to their regular life. They all also coincided in using groupwork to assign research projects, which are later socialized:

[...] I usually divide it into small tasks. so i have them all together. I give them the instructions, usually the task has an input, starting from that input they would have to do

something, either write a text or look for some information, propose lets say an awareness campaign,i mean those are the little tasks.so basically i think that i would say i would divide the task and then i would give specific instructions for them to work on their own.sometimes within the class the time of the class sometimes outside,and then they have to report everything they found or to submit what they have to for the task and then would check after that. like we socialize what we did. (Excerpt from interview.

Participant M. Answer to question #4)

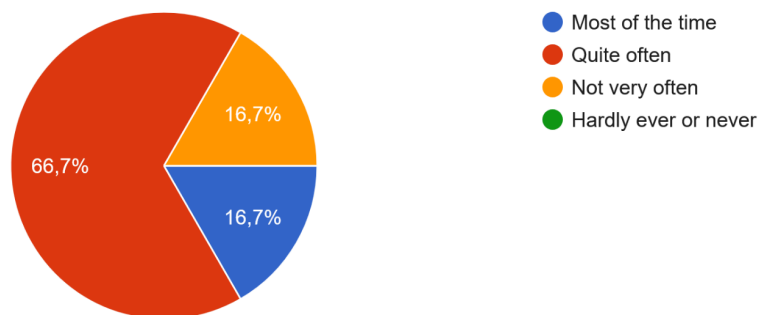
Finally, the European Council emphasizes constant reflection on meaningful CLIL practices for professional development. In the interviews, all educators agreed that ensuring students could reach a significant learning outcome was a priority in their classroom. The majority also agreed on quite often reflecting on how the material used in class performed as part of the classroom dynamics with aims of improving said material if needed, with only one teacher answering they did not do this as often.

Figure 10

Participants' answers to question #9 of the questionnaire

9. I reflect on the classroom dynamics with the material used in class to improve said material.

6 respuestas



It can be concluded that, despite the fact that the teachers that participated in the study all manifested not having previous CLIL training and therefore lack of awareness of the CLIL teacher profile characteristics proposed by the European Council, they fulfill most of them in their practices. This translates into the participants adapting to their environment as CLIL teachers by naturally adopting strategies that correspond to meaningful implementation of the methodology.

CLIL Materials

The quality of the teacher-prepared CLIL materials in context of this research follows a specific standard to ensure their appropriateness as pedagogical tools that are intentional, meaningful, and consistent in meeting the needs in linguistic, communicative, and cognitive needs of the students. For this category, Mehisto's (2012) criteria and the strategies used by the teachers for material adaptation by Moore & Lorenzo (2007) are taken into consideration to identify the strategies found in the research used by the teachers.

The results of the questionnaire applied to the participants demonstrates that most of the teachers are conscious of their process of planning, preparation and implementation of learning resources, which Karabassova & Orabayeva (2024) define as an important feature of a successful CLIL class. This reflection includes understanding the **problems** that appear during the process of creating or adapting materials, which is also one of the objectives of this research, which is the same subcategory. The issue identified the most, being mentioned by all teachers in the interviews, is the difficulty finding authentic material that fits their classes' cognitive and linguistic level, especially the appropriate English level. This problem can translate into needing to spend more time looking for acceptable material or using a strategy to compensate for the

demanding cognitive or language level to that of the students (Grandinetti et al., 2013), which will be explained below:

It is very problematic because some studies or some materials are not meant as an educational tool so- for example [...] **Some of the studies or- relevant information are... completely for study purposes, not for being studied so.** I don't know how I could explain it beyond the idea of technical words [...] (Excerpt from interview. Participant S. Answer to question #6b)

The English level, because topics... topics can bring C2 material, or... master degree material that even though it is in English **it's gonna be hard for them to understand,so the difficult part is finding the articles, the documents, the lecturers that speak B2 C1 language.** So that's the main difficulty. It takes a lot of time on reading [...] I spend a lot of time reading, searching, looking for videos, looking in youtube, looking in web pages to find material that is level appropriate. It's not different than [sic] that because I can- i dont wanna bring them **documents that are gonna be confusing because of the language the English uses is of a higher level than theirs.** (Excerpt from interview. Participant IG. Answer to question #5)

Sometimes when it's very technical, you know I need to adapt the vocabulary to something that makes them understand. [...] For example, terminology of temperature, alright, **so it's a little bit difficult so it's just translating to something more colloquial.** (Excerpt from interview. Participant AR. Answer to question #6a)

I would usually go for authentic material. The problem is that, especially talking about senior students,because they have level [sic] to understand authentic material or

most of them I would say. for the lower courses i might have to find some material that... might not be so authentic it has to be touched or modified to match students' level but for senior students most of the time i use authentic material. so they get to...interact, listen and practice with real English, not just level up or down to their level (Excerpt from interview. Participant M. Answer to question #5)

Another issue mentioned as part of the issues subcategory is the **lack of knowledge on the subject matter**, which comes from the teachers' not having previous experience teaching CLIL and not getting proper training.

I think yes and one of the challenges that have been is **I am not an expert** per se speaking in earth nature and science and... there has been some time and some context some content that i have to give that is not completely... that i didnt feel completely... like.. how do you say... stable or [looking for the word] **I don't feel that comfortable because I don't know that topic that much** so I do think that a CLIL teacher that has like the content has to know about it as well as the grammar part as we are teaching English. (Excerpt from interview. Participant S. Answer to question #3)

Difficulty conveying the instruction to guide students through the use of the material was also referred to by some of the participants. They reported that when first working with a CLIL methodology, there was a disconnect between the desired outcome of the material and the how the students ultimately reacted to it, particularly when the material presented a challenging element like a higher-level vocabulary:

Yeah,after the first trimester I sort of like develop the way of...getting in touch with them. and... because **it was the first time, the instructions that i gave the**

students were not as clear as i had them in my head, which is the problem with- with teaching. if you don't send the right message, they won't do what you had in your head but the problem is not that they didn't understand what- the problem is that you didn't say exactly what you wanted them to do or say, they did what they understood and normally teachers don't verify that the students understand what you have in your head.(Excerpt from interview. Participant IG. Answer to question #1)

Something specific and important or relevant for me when I chose the material is that is something that they **can like be able to understand**- even if it's something that it could be...with a lot of like **academic things** or something like that because even on those cases they are able to understand and to organize the notes that they're gonna take or something like that in the case of articles or in the case of **documentaries** or things that I've said. Even in the **worksheets** I try to be pretty specific in those things so... take in count [sic] that even if they have been working in these things uh-sometimes where **it could be difficult too so to have clear reaction** and specific instructions for them. (Excerpt from interview. Participant A. Answer to question #6a)

Finally, some of the educators described **not having enough time** to either use strategies to adapt potentially suitable authentic material or to implement said material in classes due to students from higher grades missing classes to attend field trips, vocational conferences and pre-ICFES training:

It would be great, I tried it like the second- during the second trimester of the first year, **but it took too much time**. and, and its like rewriting something that its not gonna have the same impact of the original,and when i did it it took like two weeks to modify a

text that i love, that i thought it was perfect for them because we- it was working on the anxiety of decision making and i was like “uh this is it” but it was a psychological text of two psychologist in germany that did a research with some students and it was fantastic, **but I couldn't adapt it to their level, i still did it i presented it but it was super confusing and it didn't work as i... it didn't work well.** So I would rather spend more time looking for documents that I don't have to adapt than to adapt them. (Excerpt from interview. Participant IG. Answer to question #6a)

For planning I do but no [sic] for achieving everything I want to achieve with these children, because you know the situation here. For example today, [sic] not gonna have them and we haven't had them for a long time. So that's the only problem so i- that's what i need to adapt every year. That's my second year so this year was better than before. but even so i have to improve that for next year. So in terms of time, we have problems. I still have issues with that. (Excerpt from interview. Participant AR. Answer to question #6f)

When it comes to the creation process and the strategies employed to face these issues., the majority of the teachers created their own material most of the time (33,%) or quite often (50%). This type of teacher-prepared material seemed to be mostly developed as a way to accompany authentic materials and transform their discourse type into a pedagogical text, which is described by Moore and Lorenzo as a re-discursification strategy. The participants answered they mostly collect material from authentic sources most of the time (50%) or quite often (50%), as expressed in these interview excerpts:

I would usually go for **authentic material**. The problem is that, especially talking about senior students, because they have [sic] level to understand authentic material or most of them I would say. for the lower courses i might have to find some material that... might not be so authentic it has to be touched or modified to match students' level but for senior students most of the time i use authentic material. so they get to...interact, listen and practice with real English, not just level up or down to their level. (Excerpt from interview. Participant M. Answer to question #5)

[...] The first thing that I did was showing them **iconic photographs throughout history**- because that way not only through a reading or listening but through images they could express, they could also understand how different opinions could be [...] Making them interact that way requires a material that... can have an impact on them. Then of course since we're talking about photography, the history and evolution of photography, the different types of photography and- some material where they can understand the theory part, like a theory [...] so **that material was chosen specifically for these kids** and and... then we had some other material- videos where they could understand the movements and the angles and the shots of cameras, so that was more into video, [...] so it becomes then like a mix of material that I chose but also materials that i am going to... to identify as.. as appropriate for the class [...] (Excerpt from interview. Participant D. Answer to question #5)

I: have you ever used any content that is created like for pedagogical purposes? IG: No. I: No. **only authentic material. IG: Yes.** (Excerpt from interview. Participant IG. Answer to question #6d)

The second category is the **strategies** the teachers used when dealing with the material for their classes. Re-discoursification seemed to be the most common strategy used by the participants. This can be explained by lack of time to use more complex strategies that require the text to be transformed or modified to fit the learners' needs and abilities instead of using the original text and adding activities to use it in a pedagogical setting. Examples of materials used with this strategy are documentaries, texts and photographs that were later paired with didactic activities such as presentations, class discussions and worksheets:

It would be great [modifying material]. I tried it like the second- during the second trimester of the first year, but it took too much time. and, and it's like rewriting something that it's not gonna have the same impact of the original [...] So **I would rather spend more time looking for documents that I don't have to adapt than [sic] into adapt them.** (Excerpt from interview. Participant IG. Answer to question #6a)

What I do is I choose the photographs that already exists- famous photographs, famous photographers but then- I try to adapt them, yes? [...] **I would say what makes it pedagogical is the moment of the class.** the moment where I interact with students. I simply show the photograph, but of course I need to know what photograph it is, who took it, where was it [sic], what moment in history it is, what cultures it represents. So then I say "okay, what do you see? give me a description of what you see, then tell me what you think it is, when- where do you think this photograph was taken. (Excerpt from interview. Participant D. Answer to question #6d)

Well, trying to align the specific like materials to the activities that we do because we for example based on some topic that we see they have to work in many different things

individual and groups too. [...] checking if the information for them was easy and specific and they can build their own ideas to be able to participate in discussions, debates or be able to for example- create kinda worksheets between them to show the information that they've got, to be able to present their ideas, not just by speaking but also through their own activities and presentation. (Excerpt from interview. Participant A. Answer to question #6b)

Not that I modify the level in which the text is presented, but I would actually try to find a text with the level suitable for the students. and then I would modify or I would create an activity based on the level of my students. so that's basically it. because it's really hard to modify the input. Either texts, especially when it's multimedia material, then you have to edit the video or the audio and no. the way you have it is... i sometimes use materials used to teach english which is i think okay but i would rather use especially with senior students, text for example taken from newspapers, magazines or science articles especially since i'm teaching science. (Excerpt from interview. Participant M. Answer to question #6a)

Despite this, two of the six teachers declared that they did not use re-discoursification very often (33,3%), with the four others replying they did so most of the time (2 teachers, 33%) or quite often (2 teachers, 33%). This contradiction could be explained by the participants' unawareness and/or lack of reflection upon their practices.

Another strategy explained by Moore and Lorenzo is simplification, in which the resource's linguistic complexity is reduced to match the learner's cognitive and linguistic level by making sentences shorter, replacing complex vocabulary with more common one, etc. 83,3% (5) of the

participants said they use this method quite often, and further information gathered in the interviews confirmed this was used as a solution to the problem of finding cognitively- or linguistically-challenging authentic material that can otherwise be useful for the class:

It is very problematic because some studies or some **materials are not- meant as ah- educational tool** [...]. Some of the studies or- relevant information are... **completely for study purposes, not for being studied so**. I don't know how I could explain it beyond the idea of **technical words** but [...] how can we solve it more than how can we study it, how can we know about it so that is problematic sometimes. (Excerpt from interview. Participant S. Answer to question #6b)

And then, if I had to- the only thing is it's very technical, so I just **translate the jargon into something that they can understand**. That's what I do when planning. and then I give them the technical terminology once they have understood, when they know more. (Excerpt from interview. Participant AR. Answer to question #6a)

The last strategy, elaboration, requires the educator to add information to the original text to explain its key concepts. While this approach is mentioned less, there were some instances in this research where it was noted, particularly in occasions where teachers complemented the material with an explanation in a more digestible vocabulary like in observation #2, where the participant AR supplemented student-led presentation on electricity concepts with explanations on the board. Examples of elaboration were also present in the interviews:

I haven't. I got the chance for example that I'm working with teacher A and with teacher A we kinda get together to find out these kind [sic] of things so I haven't had the chance to adapt particularly some things. I would consider that if i have these in specific

this example of the jargon that is very complicated what i would try to do is **try to... not to show it but to explain it- in my own words-** and try for them to explain it as well in their own words try to avoid in this kind of- problem or situation. (Excerpt from interview. Participant S. Answer to question #6a)

Table 1

English Teachers' Perceptions Regarding Material Creation And Adaptation

English Teachers' Perceptions Regarding Material Creation And Adaptation			
		N	%
1. I use textbooks specially written for teaching my subject in English.	Quite often	2	33,3%
	Not very often	1	16,7%
	Hardly ever or never	3	50%
2. I collect materials from different authentic sources (apart from textbooks), such as the Internet, newspapers, magazines, and adapt them for my classes.	Most of the time	3	50%
	Quite often	3	50%
3. I make my own materials (worksheets, exercises, tasks, etc.).	Most of the time	2	33,3%
	Quite often	3	50%
	Not very often	1	16,7%
4. I adapt the complexity of the original material to make it shorter and/or more digestible (make shorter sentences, use more common vocabulary, search for L1 cognates, etc.)	Quite often	5	83,3%
	Not very often	1	16,7%
6. I transform the original material into a pedagogical one by designing activities around it such as summarizing, reading/listening comprehension, questions prompts, problem-solving skills, etc.	Most of the time	2	33,3%
	Quite often	2	33,3%
	Not very often	2	33,3%
8. I consciously seek material that exposes the student to their own culture as well as others.	Most of the time	4	66,7%
	Quite often	2	33,3%

10. I seek material that encourages student participation and communication, both informally (team discussions, conversations, social interactions) and academically (debates, presentations).	Most of the time	4	66,7%
	Quite often	2	33,3%
11. I use activities that encourage critical thinking and problem-solving skills such as analysing, summarizing, greetings and evaluation (debates, roleplays, projects,etc.)	Most of the time	4	66,7%
	Quite often	2	33,3%

Note. The table portrays teachers' responses in regard to statements on the frequency of practices related to CLIL material.

The teacher-proposed material identified during observations, as mentioned previously, was minimal, as all classes within the time range observations were being done coincided with student-led sessions. During those spaces, students were either preparing for oral presentations or presenting them to their classmates and teacher. All material introduced by the teachers were meant to supplement said discussions, such as realia to explain concepts further in one class and a movie that illustrated the encompassing theme of the presentation in another.

CLIL And Cooperative Learning

The last category that emerged indicates the class procedures and elements that must be integrated in cooperative lesson planning as stated by Johnson and Johnson (2008; 2013) and Jacobs (2004). They include the differentiation between formal and informal cooperative learning, the five pillars of cooperative learning, and other considerations necessary for adapting the classroom into a student-centered cooperative space (such as classroom management strategies and assessment that evaluates language, content, and interpersonal skills). The CLIL materials should then function as tools that allow for these class dynamics and could also be a challenging aspect if they do not reflect these characteristics.

Class observations showed that teachers favor teamwork and group activities in the classroom dynamics, combined with the research-based methodology the school reinforces. This is in concordance with the teachers' questionnaire responses, as all said they plan and implement group activity dynamics that require teamwork and communication most of the time (4 answers) or quite often (2). They also stated that they seek and utilise material for student participation and communication within the different English interactions in class informally and academically, which Cummins (1979) described as Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP). Both abilities are considered important in the Communication component of a CLIL classroom.

Johnson et al. (2008; 2013) identify five features of effective cooperative work and group activities. Some of these emerged as subcategories as they were identified in the data collected from the participants. The first subcategory is *positive interdependence*, which entails all group members having a collective responsibility for their work outcome. This is subverted in the case of one of the teachers, as she recognized that she grades students individually:

Okay, usually what I do is presentations. I **grade them like individually** in the groups because of the teamwork they have to do and to check if they are working properly.” (Excerpt from interview. Participant A. Answer to question #4)

The second element is the *individual and group accountability* of each member's role. When proposing group work, teachers give students the freedom to select roles, the tasks each of them will accomplish, and the plan to execute the work. The teacher's duty is then to monitor:

“Yes,I usually don't ask each student what to do, I assign the task or give them instructions as groups and they will decide what each person do [sic] in each group.” (Excerpt from interview. Participant M. Answer to question #4)

“Okay, usually what I do is presentations. I grade them like individually in the groups because of the teamwork they have to do and to **check if they are working properly.**” (Excerpt from interview. Participant A. Answer to question #4)

Another CL element is *promotive interaction*, where all members within a group can act as each others’ academic and personal support system. Whether by choosing the members of the groups or by allowing them to choose who they work with, the majority of the teachers described how the groups created in CL activities in class include students with complementary skills that enable a balanced and more complete teamwork:

“[...] they want to work always with the same people. Part of the things we evaluate here in the school is teamwork. [...] In order to evaluate teamwork you need to force them to work outside their comfort zone, and their comfort zone is the two best friends that are always in the same classroom and they want to do everything together. so when i organize the groups, i always divide them i always have...**students from different opinions** and different size of the classroom because every classroom has size, so separate them and i force them to work together normally in the first trimester it goes okay, in the second trimester it goes better i also change the groups, but in the third trimester i **already know who works well with who, so i make better groups**, and i also know who is not a- group person so i let that student work alone [...]” (Excerpt from interview. Participant IG. Answer to question #4)

“The first stage was individually. All of them had to do a pitch. So they stood there, they could speak for about two minutes- to make their idea attractive to the other ones.and then we voted [...] but... they voted for the best ideas, the best i think four ideas... [...] so for example if your pitch won, then i would say “**hey catalina, can i work**

on your documentary with you and you could be the director and i could be the camera manor i could help you writing the script or we do all together [...]” (Excerpt from interview. Participant D. Answer to question #6c)

“In groups, I find it easier. Especially because **some of them- have some knowledge**, for example systems or programming. **whereas there's others that don't have any idea of anything like that- so they help each other.** It makes it easier.” (Excerpt from interview. Participant AR. Answer to question #4)

The elements of *Social skills development* (the development of interpersonal skills for a positive learning environment) was discussed in the context of the use of the target language during class and particularly during group interactions. This is referred to by Jacobs (2004) as an issue commonly found when using CL in a CLIL classroom. Most of the teachers have identified the use of Spanish for interpersonal communication is a problem, despite continuous monitoring and strategies to control this:

“Well the presentation, they prepare everything in English- and when we have the discussion they know it has to be in English, and they're able to do it in English. some [...] they face more difficulties,yeah? and of course i try to correct them, grammar or... vocabulary. so they hesitate sometimes. But they- you can tell that they're doing the effort to make it in english. and- but of course i mean these are colombian kids, so sometimes i have to go around when when they are working on their own, “hey guys please do it in english, do it in english” **while they are... in the group discussion sometimes they they feel more comfortable doing it doing it in spanish.** but...i have to be aware and i have to tell them and then they switch, so thats... that works somehow it works.” (Excerpt from interview. Participant D. Answer to question #4)

“Anyway, **they're gonna use the L1 when they don't understand what's going on.** and when they're working on their own it's gonna be even worse, cuz they can find anything in spanish on the internet and then translate it. so i make sure that they work here- and at least when i explain i explain in the L2, alright? and **when I'm in the presence of them, they have to speak in the L2, which is English in this case, so. they have to use it.** [...]” (Excerpt from interview. Participant AR. Answer to question #4)

“[...] So I don't do anything extra for controlling the english or the use of english within small groups, but as a general rule **i have some rules set in not to speak in spanish** and they have [...] a chart. where they would be labelled with a tick if they spoke English all the time in class but if they didn't I wouldn't give them the check [...]. I can not just grade the use of english in class by subjective lets say “okay i think you speak spanish you didnt speak english so you get a 1 or you get a 2 but the other student spoke english all the time” no i have to show them they spoke or not in english. so if i show them the chart, they can see “okay, this week i have all the checks” great, you did a good job. but look you spoke spanish the next week every day so that would give me something to show them their speaking grade. So that's what I do so when they are working on the teams I usually don't let them go too far so I keep them around so I can be checking on what they're working on and of course they're using English.” (Excerpt from interview. Participant M. Answer to question #4)

Finally, it was observed that there was no evidence of the teachers' testimony or in the class observations of CL dynamics that illustrate *Group processing* or the conscious reflection of students to achieve their goals that may require changes in the groups dynamics.

Class observations showed that most classroom dynamics proposed by the participants consisted in group work combined with a research-centered approach. Students were at the stage where they shared the findings of their research progress with their teacher and classmates through oral presentation with visual aids such as slides.

Discussion and Conclusions

This chapter addresses the results framed around the research questions, objectives and key categories that emerged from the data analysis explained in the last section. It also broaches the research implication for the field of study, the research limitations, and recommendations for future studies. Finally, this section of the research study describes the conclusions derived from the data analysis and interpretation to answer the research question (What strategies are used by a group of Colombian EFL school teachers in a private school in Cali to overcome the challenges in planning and implementing CLIL material for collaborative work?) and subsequent research objective (To establish the profile of a group of Colombian EFL teachers in Cali based on challenges faced when using CLIL material to foster collaborative work and the strategies implemented to overcome these challenges).

Discussions

The findings of this research illustrate that there is a clear set of characteristics that the teachers that participated in the study share related to their pedagogical experiences as CLIL educators, as shown in the data analysis category **CLIL teacher's profiles**. Three of the six teachers described practical experience in bilingual education but lack of previous experience or training in the methodology. However, this did not seem to hinder their engagement with the approach. There was a consistency between their perception of the role of CLIL in their pedagogical practices and key competences described by the Council of Europe (2007), as well as Pavón and Ellison (2013), particularly regarding content-language awareness, methodological appropriation, and CLIL classroom dynamics. Teachers consciously reflected on the interplay between subject matter and linguistic needs, aligning with the European Council's emphasis on a dual competence where educators must balance language scaffolding and knowledge of the area.

Furthermore, teachers exhibited an appropriation of CLIL methodology by their description of the use of certain didactic strategies such as material selection appropriate to students' level and interests and group and project-based learning for promoting collaborative work. These practices reflect an intuitive understanding of CLIL principles even in the absence of official CLIL development training. These findings fulfill the study's general objective by establishing a profile of the Colombian EFL teachers that participated in the study as they navigate CLIL implementation.

The category **CLIL components** made it possible to describe the teachers' process of usage of CLIL material by relating it to the Coyle's (1999) 4C framework, and thus finding both pedagogical strengths and areas for improvement. All participants emphasized the importance of relevant content for meaningful learning and learner engagement, despite classroom observations indicating limited teacher-provided material due to the student-led nature of the classes. Communication emerged as the most consistently embedded component, as the teachers reported constant use of group dynamics to promote interpersonal and academic language skills, in line with Cummins' (1979) BICS and CALP. Observational data mostly supports this with student-led presentations that facilitate language use and collaborative learning. Most teachers claimed in the interviews to incorporate material and activities that foster cognition, autonomy, critical thinking, and creativity. Yet, higher-order cognitive tasks or scaffolding strategies within materials were not found during the observations. Lastly, culture was acknowledged as essential in material creation and implementation, as teachers mentioned including Colombian and international perspectives in their materials to aid students form opinion on real-world issues.

As for **collaborative work** particularly, several of Johnson et al. (2008; 2013)'s pillars of cooperative learning emerged as subcategories in the data collected, with some exceptions. For

example, positive interdependence and individual accountability was evident, although one teacher expressed she evaluates students individually within group work. This can possibly undermine collective responsibility. Promotive interaction was more consistently mentioned, with the teachers creating groups based on complementary skills for peer support. Observations and questionnaire responses also confirmed that the teachers regularly implement group work and collaborative tasks supported by materials to develop informal and academic language use (Cummins, 1979). Finally, the challenge of using the target language in class to communicate effectively mentioned by Casal (2016) was discussed. Strategies like monitoring and assigning a grade to the use of English were used, but group processing by students' reflecting on the importance of English use in their learning process was absent. Overall, most principles were conceptually understood by the participants, but a more structured integration of all five pillars is needed to fully realize its potential when using cooperative work in CLIL classes.

The category **CLIL materials** explored the challenges and strategies the teachers encountered when dealing with CLIL material adaptation, creation and implementation. Finding syndicate that most teachers are aware of the needs to fulfill CLIL pedagogical demands with intentional and reflective material design (Karabassova & Oralbayeva, 2024). This was identified by the teacher as a challenge, as sourcing authentic material that matches the students' cognitive and linguistic levels was difficult for them and led to increased planning time and need for adaptation strategies. Additional issues related to CLIL material were insufficient subject-matter expertise, difficulty providing clear instructions about the use of the material, time constraints that disrupted the implementation of the material.

When contrasting the strategies described by the participants with Moore and Lorenzo's (2007) categories, re-discoursification was the most widely used, with the teachers reporting

transforming authentic texts into pedagogical ones with structured activities due to the lack of time required to modify the texts themselves. Simplification was also employed, with 83.3% of teachers declaring they had reduced the linguistic complexity of a material to make it more accessible. Elaboration was less frequent but also observed when teachers supplemented student presentations. In sum, while the limitations of the observations resulted in lack of examples of teacher-prepared materials in situ, teachers clearly have a pragmatic approach to CLIL material adaptation that could be improved with training and institutional support to solve the issues.

Research implications for the field of study

The present research study has provided a new perspective into how some CLIL teachers approach said methodology and embrace their role as CLIL educators, particularly how they approach the different problems that result from the creating, adaptation and implementation of CLIL materials for collaborative work. This understanding adds to the growing literature on teachers' point of view regarding the conceptual and practical elements of this methodology, and has important pedagogical implications for any actor with interests in implementing CLIL in their own institutions, such as course designers, administrators, and other educators. Particularly, it contributes to the discourse of CLIL implementation in the Colombian context.

The participants' lived experiences and opinions mostly illustrate that, despite lack of formal training on CLIL, the participants clearly express their decisions regarding planning, classroom dynamics, and materials mostly align with established theoretical CLIL competencies (Council of Europe, 2007; Pavón & Ellison, 2013). This indicates that CLIL can be meaningfully applied in contexts with limited previous experience or knowledge on the part of the educators. The use of strategies like re-discoursification and simplification (Moore & Lorenzo, 2007) also reflects the teachers' adaptive responses to constraints. Nevertheless, issues in material design

such as implementation of higher-order cognitive tasks, the difficulty acquiring subject-language balance and the preference of some material adaptation over others (discoursification and simplification overelaboration) can point to a need for investment in CLIL-specific training and interdisciplinary support.

The teachers' profiles also showed the participants' unconscious incorporation of Coyle's (1999) 4C framework, notably in the aspects of communication and content, with cognition and culture less discussed. This may inform of a possible necessity for emphasizing the conjoint work of all four components beyond theoretical acknowledgment. Furthermore, the partial integration of Johnson et al.'s (2008; 2013) cooperative learning model indicates the promise of using collaborative work strategies in CLIL settings, as was the case with promotive interaction and positive interdependence. However, the absence of structured group processing and accountability in the data make future research on how to embed all five cooperative learning elements in CLIL lesson planning and executing necessary.

Research limitations on the present study

It is pertinent to recognize the constraints and limitations that were met during the development of this study. Firstly, its nature being that of a case study signified that the participants selected from the sample matched a particular set of criteria that rendered it small, as there were only seven teachers who were part of the CLIL proposal of the school and six willing to participate. Moreover, the data collected was mostly based on the participants' opinions and perceptions in a specific context. Despite the measures taken to ensure their validity and reliability, the interpretation of said data and discussion of the results must not be generalized given the limited sample and localized essence. The extent to which the findings may be transferable or applicable to other contexts is then left to the reader's discretion.

A second constraint encountered during the process was logistical. The study spanned two school years, each with distinct limitations. During the first year, five teachers from the I3D program were surveyed and interviewed, but class observations could not be conducted because of the timing of the data collection coinciding with the final days of the last school period. In this time, students were either culminating activities or at other activities such as university visits, vocation conferences, and end-of-the-year recreational outings. The second year, the program was limited to 11th grade as the school initiated its candidacy for the International Baccalaureate (IB) program. Consequently, only one of the teachers continued teaching I3D classes, with others either left the institution or were reassigned to other courses. In addition, frequent scheduling conflicts during English class hours resulted in a lack of opportunities for class observation, notably those that included teacher-prepared material. Observations that were possible often coincided with student presentations, limiting the scope of analysis.

Recommendations for Further Research

This mixed-methods case study attempted to characterize the profiles and strategies in relation to their adaptation and use of CLIL material for collaborative work in a small-scale and highly contextualized reach. As such, it is envisioned that it can function as a springboard for further, larger exploration on related topics and contexts.

In the first place, future studies should prioritize and expand on classroom observation opportunities. This would allow for a more comprehensive view of the pedagogical practices of CLIL teachers, especially of teacher-led instruction and material use. Preferably, this research should not be affected by changes in the sample population or scheduling misalignments and could even be longitudinal to trace the evolution of the CLIL proposal during the classes, teacher retention of strategies, and student outcomes.

Secondly, to assess the transferability of the findings, future research should compare CLIL implementation and material creation, adaptation and use for cooperative work in different school settings in the Colombian context. This includes public and private academic institutions or schools with different bilingual program proposals. Such comparison could help identify context-specific strengths and disadvantages for a successful CLIL integration, and evaluate how different frameworks support or disbenefit CLIL's institutional viability to fulfill the national bilingual education policies.

Finally, complementary research on student perceptions and learning outcomes in the CLIL classroom and interacting with the material in cooperative work dynamics is essential. Understanding the perceived relevance, engagements, and language and subject-matter content skills development of the learners within a mixed-method approach could provide a more holistic examination of the impact of CLIL, CLIL materials, and the rapport between cooperative learning and CLIL.

Conclusions

This study set out to identify, describe and analyse the strategies employed by a group of Colombian EFL teachers in a private school in Cali as they navigated their identity as CLIL educators and the different challenges in adapting, creating and implementing CLIL materials, emphasizing those that were used for cooperative work. By using a mixed-methods case study methodology, the findings were able to illustrate a clear CLIL teacher profile shaped by institutional expectations, student needs, and pedagogical practices that included constant reflections on the use of language and content, contextualized class planning and conscious classroom management strategies that mirror the CLIL lesson criteria established by multiple authors and institutions, absence of formal CLIL training notwithstanding.

However, the data also revealed that teachers face challenges in aligning CLIL principles with their classroom implementations, including limited access to contextually appropriate materials, insufficient training and time, and lack of expertise in the subject-matter. These findings resound with previous research that has highlighted the gap between CLIL theory and practice in Colombian schools (Rincón & Cuesta, 2019; McDougald, 2015). Participants also demonstrated adaptive strategies to include material in their lessons, mostly by repurposing existing resources into pedagogic texts by creating activities around them. Other strategies like simplifying the text or adding clarifying information were less used. Overall, CLIL material development seems to be multidimensional, as it accounts for linguistic scaffolding, content relevance, socio-cultural context, and specific learner individual and collective needs. As suggested by Alcaraz-Mármol (2018) and Lazarevic (2019), a formal training could significantly enhance the teachers' capacity to create and apply materials that reflect all those.

This research also reinforces the importance of cooperative learning as a useful complement to CLIL. As noted in the previous literature by Pistorio (2010), the integration of constructivist principles within CLIL fosters a learning environment that enhances student autonomy and engagement. The teachers in this study claimed to use cooperative work to facilitate language production and content comprehension in a way that corresponds with the communicative and cognitive dimensions of CLIL (Coyle, 1999; Marsh, 2002). This is evidenced by the findings that highlight Johnson and Johnson's (2008;2013) and Jacobs' (2004) principles as partially integrated into the classroom practices of the participants. Evidence of positive interdependence, individual and group accountability, promotive interaction, and social skills development emerged, though challenges remain like the frequent use of Spanish in group interactions and the absence of structured group processing. It could also be observed that the

teachers' teamwork and group activities support both BICS and CALP development (Cummins, 1979).

While this study is focused on a specific institutional context, its implication can be extended to broader future research in similar Colombian multilingual educational settings. This research may benefit from longitudinal designs that can trace the evolution and efficacy of the teacher strategies, comparative studies across institutions, and in-depth analysis of student perceptions of CLIL and CLIL materialism as well as cooperative learning.

In conclusion, this research study sought to highlight the critical role of teachers in navigating the complexities of CLIL material development and adaptation in a Colombian classroom that uses cooperative learning. By documenting the strategies the participants employed to overcome challenges, it offers an account for educators, institutions, policymakers and other actors to consider when seeking to implement CLIL in a meaningful way. As Colombia continues to advance its bilingual education agenda and institutions look for innovative teaching and learning approaches, it can be concluded that empowering teachers can be an essential first step to improve what is already a positive method.

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Appendix 1

Permission Letter to Conduct Research

Mi nombre es Catalina Flórez Riascos, y me desempeño como docente de inglés en el Colegio Freinet. Me encuentro realizando mi estudio de Maestría en Mediación Pedagógica en la Enseñanza del Inglés de la Universidad Nacional Abierta y a Distancia (UNAD). Esta carta tiene el propósito de solicitar permiso para realizar un estudio de investigación en el colegio como parte de mi tesis de Maestría.

Mi tesis se titula *Colombian EFL Teachers' Strategies Found in the Process of Adapting, Creating, and Implementing CLIL Materials for Cooperative Work Activities*. Es un estudio de casos mixto que tiene como propósito describir las perspectivas y experiencias de profesores del colegio de inglés vinculados al programa International 3D en relación a sus procesos de creación, adaptación y ejecución de materiales de metodología de Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE; en inglés Content and Language Integrated Learning, CLIL) para el trabajo colaborativo. Esta exploración busca identificar y describir las estrategias utilizadas por los docentes para resolver problemas en algunas de esas etapas.

Los participantes de la investigación son los docentes de inglés de 10° y 11° de la institución, los cuales utilizan la metodología de aprendizaje integrado de contenidos. Para realizar esta investigación, los instrumentos de recolección de datos son una encuesta y una entrevista semi-estructurada a los docentes, además de una serie de observaciones de clase. La información recogida será después codificada y analizada.

Le aseguro que el proceso de investigación se adherirá a los estándares éticos necesarios. Se mantendrá confidencialidad y protección de información a lo largo del proceso, y toda información se utilizará sólo con fines académicos. La participación será plenamente voluntaria y en cualquier momento el participante puede retirarse sin ninguna consecuencia. Una vez que haya finalizado la investigación, compartiré con usted los resultados y conclusiones.

Gracias por considerar mi petición. Estoy dispuesta a cumplir con cualquier otro protocolo o requisito específico que pueda tener. Si tiene alguna pregunta con respecto a la investigación, puede ponerse en contacto conmigo a través de mi número: 3217706626 o mi correo electrónico: cflorezri@unadvirtual.edu.co

Sinceramente,

Catalina Flórez

Mayo 22, 20205



Señores

Colegio Freinet.

Mi nombre es Catalina Flórez Riascos, y me desempeño como docente de inglés en el Colegio Freinet. Me encuentro realizando mi estudio de Maestría en Mediación Pedagógica en la Enseñanza del Inglés de la Universidad Nacional Abierta y a Distancia (UNAD). Esta carta tiene el propósito de solicitar permiso para realizar un estudio de investigación en el colegio como parte de mi tesis de Maestría.

Mi tesis se titula Colombian EFL Teachers' Strategies Found in the Process of Adapting, Creating, and Implementing CLIL Materials for Cooperative Work Activities. Es un estudio de casos mixto que tiene como propósito describir las perspectivas y experiencias de profesores del colegio de inglés vinculados al programa Internacional 3D en relación a sus procesos de creación, adaptación y ejecución de materiales de metodología de Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE; en inglés Content and Language Integrated Learning, CLIL) para el trabajo colaborativo. Esta exploración busca identificar y describir las estrategias utilizadas por los docentes para resolver problemas en algunas de esas etapas.

Los participantes de la investigación son los docentes de inglés de 10° y 11° de la institución, los cuales utilizan la metodología de aprendizaje integrado de contenidos. Para realizar esta investigación, los instrumentos de recolección de datos son una encuesta y una entrevista semi-estructurada a los docentes, además de una serie de observaciones de clase. La información recogida será después codificada y analizada.

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Sinceramente,

Catalina Flórez

Aprobado por:

Alejandro Tobón
 Rec-tor
 Nombre y cargo

[Firma]
 Firma

27 / 05 / 2020
 Fecha

Appendix 2

Informed Consent Form

Yo, Catalina Flórez Riascos, investigadora principal del estudio titulado Colombian EFL Teachers' Strategies Found in the Process of Adapting, Creating and Implementing CLIL Materials for Cooperative Work Activities desarrollado a través del programa de Maestría en Mediación Pedagógica en el Aprendizaje del Inglés de la Universidad Nacional Abierta y a Distancia (UNAD) en el marco de mi proyecto de tesis, pongo en su conocimiento el presente documento. Este tiene como finalidad hacerle conocer los detalles del estudio y solicitarle su consentimiento informado para participar en él

1. Objetivo de la investigación

El objetivo de la investigación es analizar las diferentes estrategias implementadas por un grupo de docentes de inglés como lengua extranjera en un colegio privado de Cali, relacionadas a la planeación e implementación de materiales CLIL enfocados al trabajo colaborativo.

2. Metodología

Este proyecto de investigación utiliza un estudio de caso mixto. Este consta de dos etapas. La primera es una entrevista semiestructurada individual y una encuesta individual. Ambas tendrán preguntas mayoritariamente de opinión y percepción respecto a sus prácticas docentes, enfocadas en la creación, planeación y uso de materiales CLIL para trabajo colaborativo. La entrevista será grabada para transcribir y analizar la información posteriormente. La segunda parte es una serie de observaciones de clase en dónde se analizará la implementación de los materiales en contexto aplicado.

3. Participación

Su participación en este estudio es totalmente voluntaria. Tiene derecho a retirarse de este mismo en cualquier momento sin expresión de causa y sin tener penalización alguna. No se generan ningún incentivo económico. Sin embargo, se considera que esta investigación puede producir efectos beneficios indirectos debido a que tendrá la posibilidad de utilizar los resultados para reflexionar de forma crítica en sus prácticas docentes.

4. Confidencialidad

La Ley Estatutaria 1581 de 2012, la cual dicta las disposiciones generales para la protección de datos personales, todas las personas responsables del tratamiento de información y datos personales están obligadas a garantizar la protección de dicha información. En conformidad con esta ley, su participación será anónima y confidencial. Se asumirá un seudónimo o código por participante en el momento de recolectar y analizar la información. La información será almacenada en la nube de OneDrive de la cuenta institucional de la investigadora por un tiempo

aproximado de 5 años. Los resultados serán publicados en el repositorio de la universidad UNAD.

5. Riesgos o molestias

Esta investigación puede presentar riesgos en dos aspectos. Primero que todo, puede ocurrir una posible incomodar al responder preguntas durante la entrevista o la encuesta. En estos casos, tiene derecho a manifestarse y no responder. En una segunda instancia, hay un posible riesgo de pérdida de confidencialidad de la información. Se garantiza que la investigadora será la única persona que almacena y resguarda la información que contiene datos personales (grabaciones, observaciones, etc.).

6. Compromiso

Yo me comprometo a proveer cualquier información requerida con respecto al desarrollo de este proyecto de investigación. Además, me comprometo a enviar una copia del informe de investigación una vez terminada. Si tiene alguna duda acerca de su rol como participante o de algún aspecto de la investigación, por favor contácteme a través de los siguientes medios:

Correo electrónico: cflorezri@unadvirtual.edu.co

Teléfono: 3217706626

7. Consentimiento

Yo _____ acepto participar voluntaria y anónimamente en el proyecto de investigación Colombian EFL Teachers' Strategies Found in the Process of Adapting, Creating and Implementing CLIL Materials for Cooperative Work Activities dirigido por Catalina Florez Riascos y el tutor Edwin Andres Londono.

Declaro haber sido informado/a de los objetivos y procedimientos del estudio y del tipo de participación. Con relación a ello, acepto responder a una entrevista individual, una encuesta, y a varias observaciones de clase.

Declaro haber sido informado/a que mi participación no involucra ningún daño o peligro para mi salud física o mental, que es voluntaria y que puedo negarme a participar o dejar de participar en cualquier momento sin dar explicaciones o recibir sanción alguna.

Declaro saber que la información entregada será confidencial y anónima. Entiendo que la información será analizada por el investigador en forma individual o con participación de su tutor y que no se podrán identificar las respuestas y opiniones de modo personal. La información que se obtenga será guardada por el investigador responsable en dependencias de la UNAD y será utilizada sólo para fines de difusión científica.

Firma _____

Example of an Informed Consent Letter Signed by Participant

5. Riesgos o molestias

Esta investigación puede presentar riesgos en dos aspectos. Primero que todo, puede ocurrir una posible incomodar al responder preguntas durante la entrevista o la encuesta. En estos casos, tiene derecho a manifestarse y no responder. En una segunda instancia, hay un posible riesgo de pérdida de confidencialidad de la información. Se garantiza que la investigadora será la única persona que almacena y resguarda la información que contiene datos personales (grabaciones, observaciones, etc.).

6. Compromiso

Yo me comprometo a proveer cualquier información requerida con respecto al desarrollo de este proyecto de investigación. Además, me comprometo a enviar una copia del informe de investigación una vez terminada. Si tiene alguna duda acerca de su rol como participante o de algún aspecto de la investigación, por favor contácteme a través de los siguientes medios:

Correo electrónico: cflorezri@unadvirtual.edu.co

Teléfono: 3217706626

7. Consentimiento

Yo Hiye Bokvar acepto participar voluntaria y anónimamente en el proyecto de investigación Colombian EFL Teachers' Strategies Found in the Process of Adapting, Creating and Implementing CLIL Materials for Cooperative Work Activities dirigido por Catalina Florez Riascos y el tutor Edwin Andres Londono.

Declaro haber sido informado/a de los objetivos y procedimientos del estudio y del tipo de participación. Con relación a ello, acepto responder a una entrevista individual, una encuesta, y a varias observaciones de clase.

Declaro haber sido informado/a que mi participación no involucra ningún daño o peligro para mi salud física o mental, que es voluntaria y que puedo negarme a participar o dejar de participar en cualquier momento sin dar explicaciones o recibir sanción alguna.

Declaro saber que la información entregada será confidencial y anónima. Entiendo que la información será analizada por el investigador en forma individual o con participación de su tutor y que no se podrán identificar las respuestas y opiniones de modo personal. La información que se obtenga será guardada por el investigador responsable en dependencias de la UNAD y será utilizada sólo para fines de difusión científica.

Firma _____


Appendix 3

Questionnaire Questions

Note: This questionnaire was adapted from Tom Morton's questionnaire found in his chapter *Critically Evaluating Materials for CLIL: Practitioners' Practices and Perspectives* for the book *Critical Perspectives on Language Teaching Materials*, edited by John Gray. Here is the link:

<https://docs.google.com/forms/d/e/1FAIpQLSfD8YqU633wW0iDCS8l5X5Jxd-qpwTc7PzVbWl3osgtEra14Q/viewform?usp=header>

1. I use textbooks specially written for teaching my subject in English.

- Most of the time
- Quite often
- Not very often
- Hardly ever or never

2. I collect materials from different authentic sources (apart from textbooks), such as the Internet, newspapers, magazines, and adapt them for my classes.

- Most of the time
- Quite often
- Not very often
- Hardly ever or never

3. I make my own materials (worksheets, exercises, tasks, etc.)

- Most of the time
- Quite often
- Not very often
- Hardly ever or never

4. I adapt the complexity of the original material to make it shorter and/or more digestible (make shorter sentences, use more common vocabulary, search for L1 cognates, etc).

- Most of the time
- Quite often
- Not very often
- Hardly ever or never

5. I use strategies to scaffold the students' input like using visuals, giving students glossaries with keywords and expressions, using synonyms or antonyms when explaining unknown vocabulary, and relying on gestures and body language.

- Most of the time
- Quite often
- Not very often
- Hardly ever or never

6. I transform the original material into a pedagogical one by designing activities around it such as summarizing, reading/listening comprehension, questions prompts, problem-solving skills, etc.

- Most of the time
- Quite often
- Not very often
- Hardly ever or never

7. I plan and implement group activity dynamics that require teamwork and communication, such as project work, role plays, debates, presentations.

- Most of the time
- Quite often
- Not very often
- Hardly ever or never

8. I consciously seek material that exposes the student to their own culture as well as others.

- Most of the time

- Quite often

- Not very often

- Hardly ever or never

9. I reflect on the classroom dynamics with the material used in class to improve said material.

- Most of the time

- Quite often

- Not very often

- Hardly ever or never

10. I seek material that encourages student participation and communication, both informally (team discussions, conversations, social interactions) and academically (debates, presentations).

- Most of the time

- Quite often

- Not very often

- Hardly ever or never

11. I use activities that encourage critical thinking and problem-solving skills such as analysing, summarizing, creating and evaluation (debates, roleplays, projects, etc.).

- Most of the time

- Quite often

- Not very often

- Hardly ever or never

Appendix 4

Interview Guide Questions

This instrument is a set of nine guide questions for a semi-structured interview aimed at the participants of the study, which are a group of six teachers teaching 10^o and 11^o grade English under a content-based methodology in a private school in Cali, Colombia. The purpose of this instrument is to identify the challenges and strategies of the group of teachers in their practices involving CLIL, particularly in creating, adapting, and using CLIL materials for collaborative work, aspects that were first introduced in the questionnaire. It also means to explore how the participants regard this issue while considering how their own point of view constructs their reality and meaning on what a CLIL teacher and CLIL lesson are. The information collected here is confidential and will only be used in the academic setting of the research study. As a participant, you are within your right not to answer any of the questions presented or to withdraw completely.

1. Have you had previous experience teaching content-based language teaching? How would you describe your approach to teaching content-based language teaching?
2. Can foreign language education be useful to teach both subject-matter and language skills? If your answer is yes, how so?
3. Is it necessary for the educator to possess a particular content and language awareness to be able to implement content-based language learning?
4. How can the material used in a content-based language class achieve meaningful communication between students? How do you incorporate collaborative work in your material?
5. What are the most important factors for you in choosing materials for teaching your subject in English?
6. What do you find most difficult/problematic about finding or adapting materials for teaching your subject in English?
 - a. How do you change or adapt your material to better fit the needs of your class (students' level, target grammar/vocabulary, interests)?
 - b. What difficulties do you encounter when ensuring that the materials align with both subject-area objectives and language learning outcomes?
 - c. Are there specific problems when trying to foster student autonomy and critical thinking through your materials?
 - d. Are there obstacles to incorporating authentic or real-world content into materials? For example, does the complexity of authentic texts create challenges for language learners?
 - e. What challenges have you faced in finding or making material culturally inclusive and reflective of different points of view?
 - f. How do you organize your time for material creation or adaptation within the time constraints of your work? How do you prioritize tasks?
7. How do you evaluate the effectiveness of the materials you develop or adapt? What criteria do you use?

Appendix 5

CLIL Class Observation Checklist

The purpose of this instrument is to assess the teachers' inclusion of the materials in the planning and structure of the class, the students' engagement, and the overall effectiveness of the material within the objectives of the class. It also seeks to contrast the results with the perspectives of the teachers as described in the questionnaire and interviews. It will be applied to the participants of the study, a group of six teachers teaching 10^o and 11^o grade English under a content-based methodology in a private school in Cali, Colombia, during a teaching hour (45 minutes) of their classes. The researcher will take the role of a non-participating observer.

This checklist is adapted from an instrument by the Estonian Language Immersion Center, which in itself is an adaptation of Tara Fortune's Immersion Teaching Observation Checklist from the Center for Advanced Research on Language Acquisition at the University of Minnesota. It can be found here:

<https://www.calameo.com/read/006963722107516ca6aea>

Date:

Grade / dimension:

Component	Characteristics	Indicator	Observed (+) Not Observed (-)	Notes
Content	1. There is a planned outcome recognizable to the student that makes the content of the activities intentional	Planned outcomes are shown to the students on the board or on the material.		
	2. The material is authentic, and it is used to teach both content and language.	If not authentic, it is adapted to the learners' skill level.		
	3. The material is appropriate.	The students follow the instructions without difficulty. There are little to no questions about the material presented to them.		
	4. The content supports students' potential shortcomings when facing the material.	The teacher provides adaptations, pre-reading/writing activities, or audiovisual material to support the content.		
	5. The content supports students' potential shortcomings when facing the material.	The material includes engaging activities for the learners (guiding questions, pre-, while- and post- reading/listening activities, multimedia aid) and connect to the other activities in the course and the topic of the term's project.		

	6.The content supports students' potential shortcomings when facing the material.	Key concepts or ideas are highlighted, repeated or paraphrased.		
Communication	7.There are many opportunities for students to express themselves	A considerable part of the class is used so students can speak or write.		
	8.Cooperative learning is encouraged.	The teacher uses group activity dynamics (project work, role plays, debates, presentations, etc.) to foster a positive learning environment and a joint achievement of an objective.		
Cognition	9.The material is cognitively engaging and provides effective input.	The content is challenging and requires students to use higher order thinking (analyzing, comparing, summarizing, etc.)		
	10.The material is made digestible for the learner.	The material provided for the class shows simplification techniques such as reduced length of text, simplification of vocabulary, syntactic or semantic relations.		
	11.The lesson is broken into parts to ensure complete understanding.	The main component of the class is divided into sub-themes. The teacher scaffolds by dividing information into manageable pieces and constantly checks on the students' understanding.		
	12.The class permits activities that activate creativity critical thinking.	Students can express and discuss their opinions. There are activities that encourage problem solving and creative outcomes.		
Culture	13.There is a safe learning environment.	There is a clear routine. Students participate voluntarily and respect the rules and moments of the class.		
	14.The content expresses different perspectives.	The material used for the class comes from authors of different cultures or points of view.		
	15.The class considers the learner's interests, opinions and needs	The teacher uses different methods of learning strategies (audiovisual, kinesthetic, tactile). They reward different points of view and approaches to completing activities. Students can		

		make decisions into the lesson's elements (topics, type of activity, etc.)		
--	--	--	--	--

Appendix 6

Coding Matrix Example

CODING MATRIX- FIRST ROUND

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	A	B	C	D	E
1	Transcript (key words and phrases bolded)	Construct (Category)	Subcodes	Notes	
2	I tend to...bring this content into context ? I think it's more easier [sic] to approach when they know in context within context what they are learning so- I think that context is one of the most important things.	CLIL Components	Content	reflection on the subject-matter themes as relevant to students	
3	No, this is my first time as the previous teaching experiences that ive had were uh... like structured english and to learn grammar eh... stuff like that so this is my first experience .	CLIL Teachers' Profiles	Experience	Lack of previous experience and/or education on CLIL.	
4	I tend to...bring this content into context ? I think it's more easier [sic] to approach when they know in context within context what they are learning so- i think that context is one of the most important things.	CLIL Teachers' Profiles	Content and Language Awareness	reflection on the subject-matter themes needing to be relevant to students to be meaningful	
5	I think yes and one of the challenges that have been is I am not an expert per se speaking in earth nature and science and... there has been some time and some context some content that i have to give that is not completely... that i didnt feel completely... like.. how do you say... stable or [looking for the word] how can I describe it? I don't feel that comfortable because I don't know that topic that much so i do think that a CLIL teacher that has like the content has to know about it as well as the grammar part as we are teaching English	CLIL Teachers' Profiles	Personal reflection of their own cognitive, social, and affective development;	reflection on weaknesses caused by lack of professional experience	
6	I think yes and one of the challenges that have been is I am not an expert per se speaking in earth nature and science and... there has been some time and some context some content that i have to give that is not completely... that i didnt feel completely... like.. how do you say... stable or [looking for the word] how can I describe it? I don't feel that comfortable because I don't know that topic that much so i do think that a CLIL teacher that has like the content has to know about it as well as the grammar part as we are teaching English	CLIL Materials	Issues	Possible issue caused by lack of experiences and/or knowledge on the subject matter	

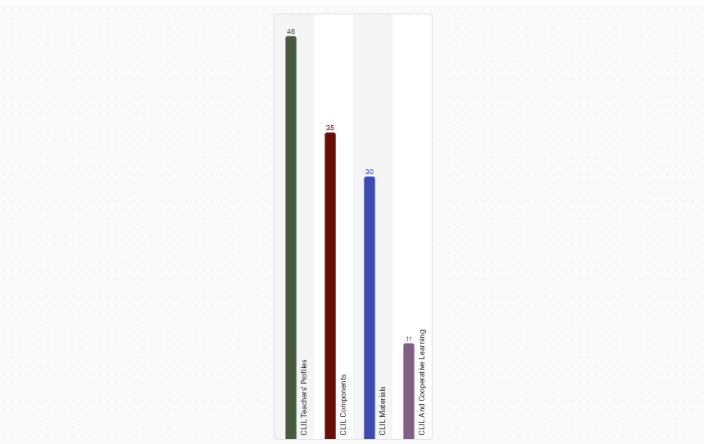
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Appendix 7*Atlas.ti Categories Found*

Quotation Manager

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- Name ... Docu +yt N [CODING] T INTERVIEW
- basically because you just have to gather information, just need another coworker so no it hasn't been difficult or something like that and it's my first experience in this case.
- Yes I consider that it's important because both of them complement each other. It's like+ you cannot teach one without the other one uh- both of them are important because the students are also+ are always going to be like seeking for things that we should answer for them like... we should like be able to respond on those cases.
- definite+ the benefit are that they can develop critical thinking than um the usual or academic education that other eh... schools can have. and uh- as I have been teaching in both of these um... stages I consider that- they can work in a better way. It's like it's easier to follow some other instructions or specific steps that they need and- they develop more skills. in an easier way.
- Eh well...something... specific and important or relevant for me when I chose the material is that is something that they can like...be able to understand eh- even if it's something that it could be...with a lot of like academic things or something like that because even on those cases they are able to understand and to organize the notes that they're gonna take or something like that in the case of articles or in the case of documentaries or things that I've said. Even in the worksheets I try to be pretty specific uh in those things so... take in count [sic] that even if they have been working in these things uh-sometimes where it could be difficult too so to have clear reaction and specific instructions for them.



Code Manager

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Name	Groups	Quotations	Comment
<input type="checkbox"/> A (Short past) Okay, most of them uh... for example when we're making reading like... activities or- things like those for them it's kinda difficult when they find an academic word that is difficult but uh I try to... guide them through the context of the whole like-paragraph or specific sentence they are reading so... given that context or situating them in that context help them a lot to get that it's not just like a word and that's it instead of like understanding that if they read the whole paragraph or sentence they can get context and understand better that so they reach that- that meaning at the end	Context	0	
<input type="checkbox"/> basically because you just have to gather information, just need another coworker so no it hasn't been difficult or something like that and it's my first experience in this case.	Experience	0	
<input type="checkbox"/> CLIL And Cooperative Learning		11	
<input type="checkbox"/> CLIL Components		35	
<input type="checkbox"/> CLIL Materials		30	
<input type="checkbox"/> CLIL Teachers' Profiles		46	
<input type="checkbox"/> definite+ the benefit are that they can develop critical thinking than um the usual or academic education that other eh... schools can have. and uh- as I have been teaching in both of these um... stages I consider that- they	Personal reflection	0	

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- Name ... Docu +yt N [CODING] T INTERVIEW
- basically because you just have to gather information, just need another coworker so no it hasn't been difficult or something like that and it's my first experience in this case.
- Yes I consider that it's important because both of them complement each other. It's like+ you cannot teach one without the other one uh- both of them are important because the students are also+ are always going to be like seeking for things that we should answer for them like... we should like be able to respond on those cases.
- definite+ the benefit are that they can develop critical thinking than um the usual or academic education that other eh... schools can have. and uh- as I have been teaching in both of these um... stages I consider that- they can work in a better way. It's like it's easier to follow some other instructions or specific steps that they need and- they develop more skills. in an easier way.
- Eh well...something... specific and important or relevant for me when I chose the material is that is something that they can like...be able to understand eh- even if it's something that it could be...with a lot of like academic things or something like that because even on those cases they are able to understand and to organize the notes that they're gonna take or something like that in the case of articles or in the case of documentaries or things that I've said. Even in the worksheets I try to be pretty specific uh in those things so... take in count [sic] that even if they have been working in these things uh-sometimes where it could be difficult too so to have clear reaction and specific instructions for them.

