The Impact of CLIL on EFL Pre-service Teachers' Methodological Competencies in a

Private Licenciatura Program

Loraine Galván Zúñiga

University of Caldas – University of San Buenaventura

Author's Note

Loraine Galván Zúñiga

Faculty of Arts and Humanities University of Caldas – University of San Buenaventura

Correspondence concerning this investigation should be addressed to Loraine Galván Zúñiga,

Department of Foreign Languages, University of Caldas Calle 65 # 26-10 Manizales, Colombia.

Contact: lorainegz07@gmail.com

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Loraine Galván Zúñiga

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Advisor

M.A Karen Julio Cárdenas

University of Caldas – University of San Buenaventura

Faculty of Arts and Humanities University of Caldas – University of San Buenaventura

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Dedication

It is in genuine gratitude and warm regard that I dedicate this work first to my dear Lord for the strength, and wisdom given from the very beginning to the end of this enriching process.

My sincerest thanks to my lovely family. My mother is a brave woman who is my engine, and greatest inspiration in life. Thank you for reminding me to work hard for the dreams I aspire to achieve. To my dear aunts, sister, and nephew, who are always supporting me. Thank you for being there all the time.

I would like to acknowledge the support of my adored husband, who is always by my side, encouraging and demonstrating his love.

With love.

Acknowledgment

From the bottom of my heart, I would like to acknowledge my deepest gratitude to my dear Lord for crossing beautiful people in my life.

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Moreover, I wish to extend my special thanks to all the professors that have always believed in me, as a professor and researcher. Ultimately, I want to show my appreciation to my learners who have played an important asset to achieve this goal. They made me reflect and polish my skills as a teacher, professor, and investigator.

Thanks.

Abstract

The present research project reports the findings of a qualitative action research study that aimed to examine the impact of the CLIL approach on English as a foreign language (EFL) pre-service teachers' methodological competency in a private Licenciatura program. The study participants were 16 pre-service teachers who involved their own teaching/internship settings to implement strategies and techniques learned throughout this dissertation directly. In the diagnostic stage, the administration of a questionnaire, semi-structured interview, and researcher's journal allowed the identification of the main problem which was a lack of knowledge of pedagogical procedures to work on content areas. During the action stage, six workshops were carried out along with teaching techniques that supported pre-service teachers' competencies such as the application of different interaction patterns, building up knowledge, strategic planning, etc. In the evaluation stage, the instruments conducted were class observations, rubrics, and a questionnaire that determined the impact of the workshops throughout CLIL.

Findings suggest methodological strength and innovative pedagogical practices resulting from an appropriate CLIL model (Language-led, and Subject-oriented course), meeting the characteristics of the group of learners who directly received instructional input. Results also reveal engagement in higher-order thinking skills (HOTS), enhancement of materials design strategies, and a high level of scaffolding content and language. The conclusions inform that these professional development sessions enriched practitioners' teaching procedures and provoked reflections to continue applying strategies to help pupils achieve curricular and language aims.

Keywords: Content and Language Integrated Learning, engagement in HOTS, language skills integration, materials design strategies, and methodological competencies.

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Introduction

Throughout history, the process of teaching and learning a language has evolved from
different panoramas that permitted access to more contextualized and innovative methods and
approaches that have emerged as a response to society's current and future needs. The challenge
of educating bilingual citizens encompasses initiatives that combine curriculum content and
target language. Thus, Content and Language Integrated Learning (CLIL) has rapidly emerged as
a language teaching approach because of its dual focus on permitting learners to gain academic
knowledge through an additional language (Coyle et al., 2010). Furthermore, the benefits that
this communicative approach brings to the EFL classroom have encouraged the professional
community of CLIL practitioners to be interested in sharing ideas and insights because of
implementing this approach across different sectors. Since this approach has been explored
worldwide, it has been necessary to land its original principles to local settings by following new
practice models that arise due to its flexibility and adaptation; even in resource-poor areas
(Hemmi & Banegas, 2021; Liu et al., 2023).

This research study conceptualizes CLIL as a fruitful mixture of subject didactics that
bases its foundation on theoretical knowledge to be translated into practical teaching
experiences. Hence, this project comprises some variables of interest: Teaching strategies under
the CLIL approach when planning lessons, the application of assessment criteria for task design,
as well as the material design process. These pillars came across in noticing the lack of
methodological competencies of pre-service teachers when teaching content areas in the
institutions where they were working and completing their internship process. I decided to
integrate several learning and teaching strategies into this project to overcome their teaching
weaknesses. Some of these strategies were: Scaffolding content and language, building up

knowledge, strategic planning, needs analysis, implementation of learning skills across the

curriculum, etc. The implementation of these strategies played a relevant role in this inquiry

process because of the double focus obtained from them. From one side, as input pre-service

teachers *learn* how to use them in their practice. Similarly, as output, thereby they can

experience first-hand the impact of those methodological competencies in their settings.

At first, a rationale that includes the purpose of the research, description of the problem,

research question, and objectives is presented. Then, the theory that underlies this study is put

forward. Afterward, the methodology and the instruments are described. Having shown the

research stages with the collected data, the workshops' results and analysis are interpreted to

narrate the findings, draw conclusions, and state challenges for future research.

A private university in the department of Bolívar, Colombia is where this study took

place. The participants were 16 pre-service teachers from a Licenciatura program, 6th semester

who showed a great interest and motivation for actively participating in this research process. In

this sense, different phases were carried out. I began with a diagnostic stage consisting of three

data collection instruments: A researcher's journal, a questionnaire, and a semi-structured

interview. The data triangulation analysis corroborated the need for a training program that could

assist pre-service teachers' performance when planning, instructing content-based lessons, and

consequently, evaluating and creating materials. The design of the instruments was meant to use

a variety of data sources to increase the validity and reliability of the results.

The purpose of this project is to examine the impact of CLIL on EFL pre-service

teachers' methodological competencies. For this reason, I formulated this research question:

How can CLIL impact EFL pre-service teacher's methodological competencies in a private

Licenciatura program?

The methodology chosen to conduct this research project was action research. In this sense, I followed the procedure it proposes: Planning, acting, observing, and reflecting. Considering the data drawn from the diagnostic phase, the next step I conducted was the action/implementational stage, in which six workshops were administered. The method that favored the filter of the main category was the execution of the three phases proposed by Glaser and Strauss (1967) that were: open coding, axial coding, and finally selective coding. This procedure helped me to gather the main categories that connected the little codes from the analysis.

After my interventions, I found that the implementation of this approach had a tremendous impact on pre-service teachers' methodological competencies. Categorically, pre-service teachers augmented the awareness of pedagogical procedures, learning tasks engaged the development of HOTS, there was an enhancement of materials design strategies, and the proposed materials included integration of language skills into content matter that in turn provided evidence of application of assessment criteria for tasks design.

Finally, I concluded that the effectiveness of the CLIL approach goes hand in hand with the level of creativity that educators must collaboratively plan lessons, design materials, and most importantly, conduct a needs analysis to get acquainted with the real needs that the institution/target group requires in terms of language, and content; thus, the choose of the CLIL curricular model fits the requirements.

Chapter I. Research Problem

Purpose of the Research

The purpose of this study is to examine the impact of CLIL on EFL pre-service teachers'

methodological competencies from the Licenciatura program at UNICOLOMBO, so they can

contribute to the development of the pedagogy and strengthening of the foreign language and

content areas through the innovation of methods. Additionally, this investigation might become a

reference point for the language and content teachers' community in Cartagena city. It is directly

associated with the principles that bilingual sectors demand: integration of receptive and

productive language skills cross-content, socio-cultural perspective, cooperative and

collaborative work, real interaction, and the constant development of higher-order thinking skills.

Thus, the significance of this project lies in the fact that it helps teachers in training to

identify the competencies they lack and need to dynamically conduct CLIL lessons that

positively impact bilingual schools/institutions where they work or do their internships. The

study also seeks to be the first step of a macro-project that intends to serve as a piece of research

that might be replicated at other Licenciatura programs that also have subject-matter classes in

English. Networked communities are rapidly growing and teachers -especially beginners- are

empowered to work collaboratively to increase the accessibility of CLIL knowledge around the

teachers' community and reduce their workload.

Regarding national policies and bilingualism proposed by the Ministry of Education

(MEN) in Colombia, this research significantly impacts the maturing of competencies and

abilities that English teachers need to reach, for instance, the use of transversal topics/ academic

contents as points of knowledge to favor an integral involvement of pupils, through the progress

of communicative competence in the target language towards a real communication in a given

context.

This study's findings will redound to the English Didactics Master's Program because it

generates a new state of the art for new apprentices to access the information that might be of

interest for further research lines or academic productions, considering the greater demand for

graduates with the integration of content and language background justifies the need for more

effective, academic, and life-changing teaching approaches.

Following this vision, I decided to conduct this study to develop a consistent and ongoing

teacher development that ensures the quality of teachers to carry out a CLIL approach by

implementing the recommended techniques that will positively direct the way educators write

their lesson plans and deliver class activities. I consider the act of self-reflection to find out what

is occurring in the teaching setting and reach a possible solution. In this manner, I will strengthen

my professional skills and continue contributing to institutional projects at my workplace.

Description of the Context and Setting

The forces of global change present challenges for educating in an additional language. In

the trend of globalization, English has become an important asset in education, and economic

and political sectors. As a result, there is a need to adapt English language programs by re-

evaluating educational approaches to improve the quality of teaching and pedagogy. This fact

requires that current and future professionals have a high level of English proficiency, not only in

a social but in an academic and professional context. To illustrate this view, Little (2006)

annotates that the Common European Framework of Reference for Languages (CEFR) has

served as a worldwide benchmark for L2 curricula, and a guide to provide orientation for the

assessment of L2 learning outcomes.

Added to that, in Colombia, there have been programs developed by the government to foster English language learning, such as the case of the project named: Colombia Bilingüe (2015-2025), accompanied by The Basic Learning Rights of English that describe skills and knowledge that pupils need to reach in the English class from transition to fifth grade (MEN, 2016). However, these programs have raised several criticisms from academics around the country who have conducted studies on the process of bilingualism. Fandiño-Parra et al. (2016) claim in their article about the need to train English teachers to innovate and transform teaching practices in EFL classrooms. In this sense, Cárdenas (2006) admits Colombian universities' responsibility to foster the strongest proficiency levels of English among future teachers accompanied by intercultural awareness that can be spread along with school curricula.

In light of strengthening the English language, private institutions, and bilingual and international schools must modify their teaching hours, methodology, and syllabi of the courses. Hence, this research project corresponds to the teaching principles suggested by Content and Language Integrated Learning (CLIL), and it is focused on EFL pre-service teachers' methodological competencies in a private Licenciatura undergraduate program. The main implication of this study would be to enhance the pedagogical component of the teacher education program where the researcher works at. Hence, positively impact the institutions where pre-service teachers work or doing internships.

The field of inquiry that is being pursued in Colombia concerning CLIL is becoming increasingly popular. Rodríguez (2011) refers to the fact that in the Colombian context, some institutions are incorporating this approach in science, math, or social studies classes as the most common subjects and other learning environments have carried out cross-curricular projects. Accordingly, the integration of language and content instruction plays a vital role in bilingual

programs, and similarly might construct a way to offer a more effective and equitable English-

language teaching in public Colombian settings by reason of the different modalities of

implementation to incorporate content through an additional language at singular levels

(Anderson et al., 2022).

Pérez (2022) declares that in the national scenario institutions have become more aware

of the implementation of this approach to teach content and language, as well as the challenges

and opportunities to create professional development for language teachers.

The institution where this study takes place is located on the Caribbean coast of

Colombia, in Cartagena. It is one of the universities that is implementing subject matter classes

in English in all its academic programs, as it was consulted in its Institutional Project. For a

closer vision of the programs, the next illustration is presented:

Table 1

Academic programs

Academic Program	Proficiency Level Expected (Based on CEFR)
Bachelor in bilingualism with an emphasis on English	**C1**
Public Accounting	B2
Business Administration	B2
Industrial Engineering	B2
Law	B2

Tourism and Hotel administration	B2
Systems Engineering	B2

Note. Programs offered at University and the English language level are expected.

These programs are part of a bilingual project that is embedded in its institutional mission: a higher education institution that is oriented to the bilingual development of professionals in the service of society, in the context of demanding ethical, conscious Caribbean cultural identity, open to universal knowledge and understanding of other cultures, research, and innovative humanistic sense (Proyecto Educativo Institucional, 2020).

The EFL curriculum that the program follows aims to prepare teachers not only to teach English for General Purposes (EGP) but to be competent in teaching disciplinary subjects in English. To support the English learning process, the students that enter their first year in the program are considered "true beginners", A1 according to the Common European Framework of Reference for Languages. Consequently, the Undergraduate English Teacher Education program offers a course in BICS "basic interpersonal communication skills" (Cummins, 1999) which focuses on an English for a General Purpose (EGP) course and a communicative approach methodology. The purpose of this course is that students learn how to communicate in different social interactions, produce simple topics of personal interest, describe experiences, and briefly explain opinions and plans (Council of Europe, 2001). This means, to take learners from an A1 to a B2 level according to the CEFR, in two academic years of study. This phase of the learning process is taught to the pre-service teachers in agreement with Centro Cultural Colombo Americano, a binational center with more than fifty years of English experience teaching. Therefore, the English courses are taught by teachers who are specialized in language teaching,

some of them are native speakers with a certificate in language teaching. Thus, teachers need to

have a C1 level based on the standards that CEFR indicates.

The main institutional policy for EFL is to teach communicatively, following the

teaching principles that Communicative Language Teaching (CLT) proposes. Another policy to

be highlighted is the constant use of ICT and the English Lab by English teachers and students'

sides to reinforce the topics studied in the classroom. Regarding the whole student population,

Centro Cultural Colombo Americano offers language services both to the external and internal

community (in the different majors). However, some students do not reach the proposed level by

the end of the two years, as evidenced in a study carried out by a Ministry of Education expert in

2014. In addition to the EGP course, the curriculum fosters the development of Cognitive

Academic Language Proficiency (CALPS) (Cummins, 1999) as they study the disciplinary

subjects throughout their studies since they are expected to analyze and reflect on readings and

also, face demanding academic tasks. At this stage, CALP differs from BICS since the latest

conceptualizes conversational fluency while the first one is a formal academic learning.

Concerning the physical conditions of the setting, learners are usually organized at a

round table. The classroom has sufficient comfortable seats, air conditioning, a large whiteboard,

a desk, and a Smart TV which is used by professors and students to develop face-to-face classes.

Depending on the purpose of the lesson, students are taken to the library or ICT room. The

reason behind this is that one of the institutional policies is to make use of the tools and resources

that the institution facilitates. For entertainment or other cultural events, the institution has an

auditorium, a soccer field, and a cafeteria.

To support the pre-service teachers' learning process, in my classes, I have implemented

some teaching strategies that support reading skills, how to decode difficult texts, and how to

make inferences. Hopefully, they will apply some of these strategies to strengthen their learners'

academic skills. I strongly believe that we are involved in a continuous change in terms of social,

cultural, technological, and economic developments where CLIL can be adapted at regional and

local levels to accompany these new challenges and opportunities that guide the future of

learning.

As an EFL professional, my responsibility is to act as a facilitator and collaborator in the

learning process. It consists of getting my learners at the center of the class by teaching them

several learning strategies for them to be aware of the process they discover and apply their

knowledge to solve daily problems. After reaching that stage, probably my learners will be more

autonomous, independent, and critical.

Description of the Problem

After having administered three data collection instruments (teacher's journal,

questionnaire, and a semi-structured interview) during the diagnostic stage, the results evidenced

that pre-service teachers' methodological competencies were one of the highest components

which indicated a lack of knowledge of pedagogical procedures; therefore, it was hard for them

to conduct logical guidelines to integrate curricular content and language in their bilingual

institutions. This problematic situation was also observed when they had to submit their lesson

plans since most of the teaching strategies revealed traditional methods that did not suit the

requirements expected from schools. Consequently, in their classes, pre-service teachers merely

focused learners' attention on the structural view of the language, highlighting grammar,

pronunciation, and vocabulary, giving little or null attention to content.

Based on the results collected and analyzed, pre-service teachers' weaknesses regarding

methodological procedures to teach content and target language are evident. The following

variables were taken from the triangulation process to identify the main constraints: lack of

knowledge of pedagogical procedures, need to teach curricular subjects, lack of knowledge of

teaching content areas, and traditional methods used by pre-service teachers.

The following excerpts illustrate the aforementioned situation:

"Well, with the direct method and the suggestopedia method, they were the ones I liked

the most and the ones that I noticed that many teachers use"; "I have knowledge of these:

constructivist, traditional, behaviorist, experimental methods"; "The method of suggestopedia

because I like to teach children and I think that if you have the necessary tools, for example, a

striking classroom with colors, objects, teaching materials for children, it will be easier to learn

since they are entertained" (Taken from teacher's journal).

"We need to increase the opportunities that students can use the English language

outside of school. To find ways for them to use the language through other content activities".

Additionally, when answering the question: "What approaches or methods are you familiar

with?" Most of them described: "I am familiar with the grammar-translation method"; "The ones

that I have put into practice the most are the traditional, constructivist"; "Look and say the

things that you see, then, explain the grammar" (Taken from questionnaire).

"....In the last part ehh, students are like making schedules but it's not too clear, so clear

for me what is the main goal in this part" (Taken from semi-structured interview).

Lastly, a high level of motivation to participate in teachers' training was reported by pre-

service teachers which facilitated the implementation of workshops and the reception of

innovative strategies that support the integration of content and language in bilingual settings.

Research Question and Objectives

Research Question

How can CLIL impact EFL pre-service teachers' methodological competencies in a

private Licenciatura program?

Objectives

General Objective

To examine the impact of CLIL on EFL pre-service teachers' methodological

competencies in a private Licenciatura program.

Specific Objectives

1. To explore the effect of CLIL on pre-service teachers' lesson planning when teaching

    content areas.

2. To identify the influence of CLIL on pre-service teachers' assessment task design.

3. To describe the consequences of CLIL on pre-service teachers' material design process.

Chapter II. Theoretical Framework

The purpose of this chapter is to review the theory that supports the impact of CLIL on

EFL pre-service teachers' methodological competencies. During this section, I intend to illustrate

the variables involved to support the research, the proposal, and the research question. In this

sense, a careful examination of the literature is presented. Firstly, I introduce the definition,

strategies, and principles of CLIL to have a broad idea of what this approach is. Secondly, the

different models are briefly described. These models help us understand how CLIL might be

applied by pre-service teachers in their teaching settings. Furthermore, some considerations for

assessing content and language as well as some elements to consider in adapting/creating CLIL

materials are characterized. Finally, an overview of the previous related studies is presented.

Defining Content and Language Integrated Learning

CLIL appears as an option for schools moving into bilingualism. Existing research

suggests that CLIL is an agent for teachers' professional development but poses challenges in the

integration of academic content and language learning since learners and educators may

experience psychological barriers such as stress, anxiety, and fear of making mistakes. Content

and Language Integrated Learning has been defined by Coyle et al. (2010) as:

> A dual-focused educational approach in which an additional language is used for the
>
> learning and teaching of both content and language. That is, in the teaching and learning
>
> process, there is a focus not only on content, and not only on language. (p.1)

The field of inquiry for CLIL in Colombia is increasingly popular because of

globalization issues, there is a need to learn both "general language" and "academic language".

Although CLIL can be implemented in different ways, it can also be adapted to a range of

curricular models to be developed in Colombia to respond to contextual variables. Rodríguez

(2011) revealed that in Colombia some institutions are incorporating this approach in science,

math, or social studies classes as the most common subjects, while others have carried out cross-

curricular projects. Therefore, the integration of language and content instruction plays a vital

role in bilingual programs.

For Wolf (2009) "experience (of CLIL) shows that both linguistic competence and

content learning can be promoted within this integrated concept more effectively than when

content and language are taught in isolation" (p. 560). Hence, students navigate throughout

lessons holistically, permitting a more comprehensible exercise while interacting through the

additional language about the studied content. Likewise, the integration of productive and

receptive skills plays a relevant asset in their performance since these work as building blocks

during the learning process for students to practice and appropriate the academic content.

McDougald (2009) points out that "schools and universities are not concerned with just learning

English anymore but are more concerned as to what students can do with the new language" (p.

44). He also suggests that it is necessary to offer bilingual teachers-preparation programs in

Colombia at the university level so that pre-and in-service teachers better understand how to

integrate both elements in a lesson: Content and Language. In the author's experience, there is

interest in training pre-service teachers on how to intersect the language and content objectives to

align the content of the lesson with the development of tasks that enable critical thinking skills

such as analyzing, justifying, and creating.

Models of CLIL: "Soft" and "Hard" CLIL

CLIL is a transformative and dynamic approach to language learning that has had a

noticeable impact on the bilingual education framework. Because of the experiences of various

CLIL practitioners all over the world, some curricular models have emerged from the reality of

various contextual variables. For this project, "Soft" and "Hard" CLIL will be defined;

highlighting the fact that the group of participants from this research work in different

educational sectors: public, private, and bilingual schools. Ball and Kelly (2016) define that

> *Soft* CLIL is used to describe the broad linguistic aims that a language teacher brings to
>
> the classroom, whereas *Hard* refers exclusively to subject-based aims and objectives,
>
> where subjects from the conventional curriculum are taught in an additional or foreign
>
> language (p. 29-30).
>
> Although different in some panoramas, *Language-led,* and *Content-led* share common

factors that indicate teachers where to stress the implementation. The emphasis provided to

language, learning processed through thematic units, and the awareness of learning skills that

pupils need to acquire are similarities that educators should consider when making a curricular

decision, planning CLIL lessons, or designing CLIL teaching materials. Bentley (2010) proposed

CLIL types or models, considering the time devoted to teaching through the target language. The

figure below concentrates only on the time of exposure, not on the age or typology of activities.

Figure 1

Models of CLIL

SOFT CLIL	MID (MODULAR)	HARD CLIL
Language-led courses 45 minutes per week. Some curricular areas taught through the L2.	Subject-led courses 15 hours per term. Parts of a subject taught through the L2.	Subjects-led courses 50% of the curriculum taught through the L2.
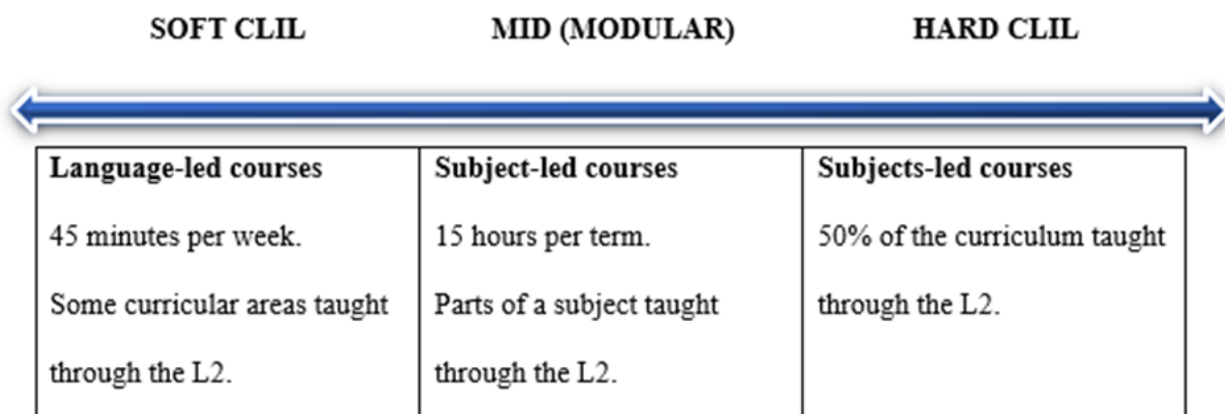
Note. Adapted from (Bentley, 2010).

Based on Figure 1, the selection of the curricular models will depend on the reality of the

schools/institutions where the CLIL approach is to be implemented. Resulting in this process

different practices might be worthwhile replicating with the possibility to polish across the

adaptation of the curriculum. Another version of these two CLIL models was proposed by Ball

(2009) in which five types of CLIL bilingual programs were identified. Starting with *total*

immersion, partial immersion, subject courses, language classes based on thematic units, and

finally, *language courses with greater use of content*. In this sequence, the first three positions

indicate a "Strong" version of CLIL, and the last two refer to a "Weak" version of this

communicative approach.

Figure 2

Types of CLIL bilingual programs
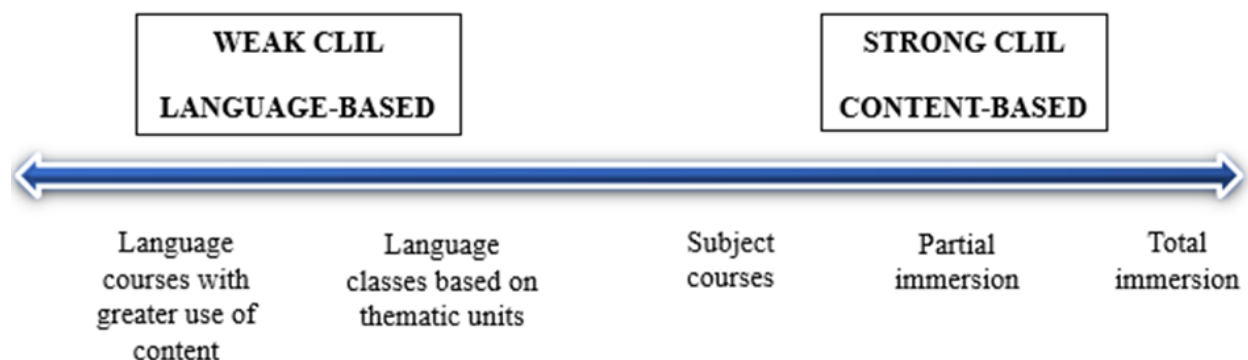
Note. Taken from *(Ball, 2009).*

As figures N° 1 and 2 illustrate, much of the attention is paid to the additional language

through which pupils are to be exposed from the early years of life so that they can develop oral

skills in a holistic and integrated way. Even though these models may share similarities, the use

of authentic materials, academic tasks, building vocabulary, and grammatical structures, among

others, need to be distinctively considered due to the central purpose to be achieved.

Teaching Strategies and Principles for CLIL Lesson Planning

This research project stresses the use of scaffolding techniques such as *visuals, graphic*

organizers, diagrams, and mind maps accompanied by simple language in the EFL classroom to

guide students' understanding toward a higher level of capability in the process of grasping

content and language simultaneously. Another aid that might facilitate the instruction and

didactics of math, social science, and science is tapping into the mother tongue just when

necessary to clarify concepts or key vocabulary that students can assimilate and eventually,

appropriate as part of their experiences. Nevertheless, switching to students' native language

cannot be seen as an easy escape to avoid interaction in the target language.

In this line, institutions/bilingual programs must unify criteria in terms of planning and

equipping teachers with all necessary resources and materials required to conduct CLIL lessons

in an EFL setting. Thus, courses would have a significant impact on pupils' learning outcomes,

and teachers become more aware of the teaching principles, this approach implies a conscious

lesson procedure. Teachers' beliefs have a great impact on every single step that revolves around

lesson planning, materials design, assessment, and the type of activities that reinforce the

learning process. Therefore, the quality of instruction in both content and language accompanied

by contextualized materials and training plans is fundamental to students' learning.

In support of the aforementioned, McDougald (2015) strongly agrees that teachers require

collaboration between language and subject matter to enrich their pedagogy since most of the

time, they teach content areas in English, without receiving training. He used a web survey-based

research methodology and preliminary findings revealed that CLIL is not well known among

Colombian English teachers, but they are interested in it. Thereby adding to the literature on

CLIL implementation the need for increased collaborative work as fundamental for the

successful implementation of CLIL. This element should be encapsulated in the curriculum as a

systematic reflection to reduce teachers' workload when planning content and language to reach

all learning components. Being aware of lessons learned from the lived experiences of other

teachers opens a door to offering social-emotional support when sharing what fits or does not fit

one teaching environment. By means of different resources that promote group work, it is easier

for educators to enrich their ideas and techniques for the classroom and develop meaningful

learning, for example, apps, websites, blogs, media, worksheets, authentic material, and teacher-

created content that create a platform for teachers' community. Moreover, educational practices

require methodological adjustment, opportunities for professional development, and selection of

the best routes to conduct online classes based on the beliefs or assumptions teachers have (Ellis

et al., 2019; Hiver et al., 2020).

Scaffolding Content and Language

This term is referred as the use of temporary support during construction and

progressively remove the scaffold once the building can stand alone (Wood et al., 1976;

Vygotsky & Cole, 1978).

CLIL lesson planning poses many challenges for teachers to help learners to achieve

potential enhancement of language and subject skills. In order to overcome these challenges,

scaffolding students' learning is an opportunity to activate not only students' background but to

take them to a higher level of understanding using different support such as visuals and realia,

graphic organizers, intentional small groups, use of first language, when necessary, among

others. For the success of this communicative approach, San Isidro and Coyle (2020) state that

"teachers need to be supported in dealing with the complexities of designing their learning units

so that the underlying principles for developing CLIL approaches in everyday classrooms are

visible and clearly activated" (p. 11). Hence, teachers need to scaffold students' learning process

to comprehend materials and provide them with learning strategies to enable them to solve tasks.

Consequently, teachers need to make sure that such tasks comprise high cognitive demands that

permit pupils to face the different challenges found both language, and content-wise, guarantee

integration of receptive and productive language skills (listening, speaking, reading, and

writing), and the existence of appropriate balance in individual, and cooperative work to

experience different interaction patterns.

The application of scaffolding techniques has a dual focus: teaching content through a classroom language that favors the acquisition of new concepts and developing new skills to adequately operate in the classroom. For this research project, two main branches are to be described: Verbal scaffolding and content scaffolding.

Verbal Scaffolding

One of the biggest challenges for teachers during instruction is to convey the academic message in a way that results clear for pupils. In this sense, exploring methods to adapt their language to students' language proficiency because of the possible limitations of their linguistic competence. This assistance needs to be provided in every task until students can work autonomously (Gerakopoulou, 2016; Gondová, 2014). Verbal scaffolding helps learners to reduce the cognitive gap between their zone of actual development and their zone of proximal development. Ioannou-Georgiou & Pavlou (2011) classified verbal scaffolding techniques into input-oriented scaffolding techniques and output-oriented scaffolding techniques.

To exemplify these two classifications, the table below summarizes the scaffolding techniques.

Table 2

Typology of verbal scaffolding techniques

Types of Verbal Scaffolding Techniques	
Input-Oriented Scaffolding Techniques	**Output-Oriented Scaffolding Techniques**
Using language appropriate to the students' L2 proficiency level	Providing key vocabulary and phrases

Animating language use	Using supportive error correction
Building redundancy into the lesson	Allowing for sufficient wait time for student responses
Teacher modeling of correct language use	Code-switching
Scaffolding through careful mother tongue use	Offering verbal scaffolding to students (bridging/prompting)
	Offering alternative ways of expressing understanding (or misunderstanding)

Note. Proposed by Ioannou-Georgiou & Pavlou (2011).

Input-oriented scaffolding techniques reflect how teachers interact with their learners to make themself clear to convey meanings by using repetition, paraphrasing, and synonyms that pupils already know. Similarly, CLIL teachers need to accompany their oral explanations with pantomime tools to provide context and clarify abstract concepts.

The second category: Output-oriented corresponds to the chunks of language that pupils need to receive before instruction so that their motivation and participation in the class actively increases. Thus, learners can contribute to the lesson autonomously.

Content Scaffolding

Integrating receptive and productive language skills through real-life tasks is a way of involving students to work under academic definitions that encourage the use of specific vocabulary phrases that gradually assist the target group to reach CALP. In this regard, for scaffolding academic content it is recommended to provoke different interaction patterns by

grouping learners, incorporating group discussions through dialogues, questioning, and leading

oral presentations (Kareva & Echevarria, 2013; Monbec, 2020). Furthermore, Martín de Lama

(2011) suggests a curricular integration experience that favors CLIL scaffolding techniques, and

in turn, recommends a careful, and systematic planning for both monitoring students' learning

progress and maintaining a balance between language form and content. The next table suggests

some techniques on how to check students' understanding at a content level.

Table 3

Categories for content scaffolding techniques

Categories	Techniques
Supporting the understanding of content	Consider students' developmental and cognitive level when selecting content knowledge
	Referring to language experience approach to connect students' interests and lives
	Getting students familiar with content and language objective
Explaining content concepts	Using visualization techniques
	Active discovery of concepts
	Group work on content concepts
	Providing a review of key vocabulary and content concepts during lessons

	Providing feedback at different stages
	Clarity of instructions for assignments and activities
Explaining tasks	Facilitating a model of a task, process, or assignment

Note. Supported by (Torres-Rincón & Cuesta-Medina, 2019; Ioannou-Georgiou, & Pavlou,

2011; Lightbown & Spada, 2020; Mahan, 2022).

Content scaffolding techniques deserve special attention to refine the quality of

instruction, and therefore, obtain better results from students' learning process. In this matter,

Banegas (2022) insists on the importance of training teachers to be really equipped to incorporate

in their daily exercise strategies that foster some scaffolding methodological procedures. For this

professional development initiative *classroom observation, and peer lesson planning and*

delivery need to take place. The previous strategies are of paramount importance for the

methodology of this project since they serve as inspiration for the dynamics of the workshops to

be implemented.

CLIL Learning Skills Across the Curriculum

The learning process of a foreign language in CLIL encompasses skills that combine the

purpose of each task and how the individual piece of work is conducted by learners. These

learning skills serve as a mental procedure that permits learners to scale from lower order

thinking skills (LOTS) to higher order learning thinking skills (HOTS) while they acquire new

experiences. To this end, educators have implemented different curricular models in varied

contexts to accomplish CLIL objectives (McDougald, 2018). This fact corroborates the

flexibility of this approach to aid students to learn new understanding through an additional

language, enabling the development of critical and creative thinking skills (Granados, 2011;

Pinner, 2013). Consequently, the adjustment of contents in context leads pupils to bring

motivation and authentic language inside and outside the EFL classroom. Table 4 Learning skills

illustrates the types of learning skills aligned with CLIL curricular models proposed by Bentley

(2010) that represents the foundation for most of the methodological aspects used by pre-service

teachers from the present inquiry.

Table 4

Learning skills

Learning Skills	CLIL Examples
Carrying out investigations	Collecting, then organizing information about different forms of alternative energy.
Cooperating with others	Preparing group presentations about the research, development, and production of electronic equipment made by different companies around the world.
Data handling	Transferring information about temperatures around the world to a spreadsheet.
Drafting	Writing down first ideas about a painting, then developing them later.
Editing	Checking a report written by a response partner and suggesting changes to the text.

Scanning	Looking in an index for a formula to help with a math problem.
Skimming	Looking through new history notes to find out why the prison reformer had support from the government.
Solving problems	Deciding how to carry out a fair test in science.
Summarizing	Reporting the key points from a debate on different political systems.
Transforming information	Reading a text about the development of a new public transport system and noting the key ideas on a concept map.
Using knowledge	Separating different materials into separate recycling bins.

Note. Adapted from Bentley (2010).

This framework of learning skills supported the lesson planning of the participants whenever the purpose was to take pupils from BICS to CALP. Additionally, this model exposed pre-service teachers to find options for accompanying their classes with authentic tasks and materials which is a central aspect of the strength of the CLIL approach.

Assessment in CLIL for Tasks Design

In the field of education, assessment principles are applied for research and academic purposes. Particularly, teachers implement different tools to make inferences about the learning process of their learners which enriches the teaching exercise and brings several benefits to the classroom because of the decisions to make for supporting the stakeholders (Bachman & Damböck, 2018; Chapelle & Lee, 2021; Maa et al., 2023). For example, pupils' writing production serves as a guide to identify their weaknesses in academic proficiency and the level

of comprehension of the content studied at the moment. As a result, diverse opportunities come into the academic scenario to provide suitable remedial instructions that favor the stream of the course.

CLIL learners are asked to analyze, hypothesize, create, and justify their positions to reach higher-order thinking skills. Brookhart (2010) annotates that in higher-order thinking tasks, there are two pillars to be exploited in assessment: wisdom and judgment. Hence, students learn how to self-direct, how to communicate with each other via technology or face-to-face, how to self-assess their progress, and how to judge the accuracy, reliability, or credibility of the sources they use for completing any task.

CLIL may ensure that learners will be cognitively equipped. It involves analyzing in-depth the language that learners need for them to produce effectively. As a result, learners will find an interrelation between content objectives and language objectives which makes them use the language as a means during interactive knowledge construction (Dalton-Puffer, 2007; Short, 1993). These learning skills are addressed by having learners interact with others. In this sense, the additional language acts as a bridge or vehicle while learning academic concepts. According to Ioannou-Georgiou and Pavlou (2011), assessment in CLIL should cover other aims regardless of content areas: students' cognitive development, social and behavioral skills, civic society skills, environmental awareness, and technological literacy. Additionally, Short (1993) suggests some strategies to effectively integrate language and content instruction such as checklists, portfolios, interviews, and performance-based tasks. Thus, learners receive scaffolding techniques that support their motivation and interest in content themes and communication goals.

Considerations for Assessing Emergent Bilinguals while Learning Content and Language

To integrate content and language in a class, teachers are expected to start with clear language and content objectives that connect pupils to real task-solving and their experiences. In this regard, Hattie (2009) recommends that learners get actively engaged and conscious of their process by applying strategies that help them conduct teamwork activities that make students learn from others and support each other. Learning objectives should reveal careful assessment tasks that illustrate to students what exactly they have learned while letting them express ideas in L2. Constructs of language and content must be clearly defined, but at the same time facilitate learners' interaction in L2 or sometimes, having a mixture of L1 and L2 for students to express their content knowledge. Ioannou-Georgiou and Pavlou (2011) argue that:

> Children in CLIL programs should be allowed to choose the language in which they respond to an assessment task if the assessment task is targeting content knowledge. The information provided to the teacher by the student's choice of language can provide valuable information as to their foreign language competence. (p. 121)

> This is why the specific skills to be assessed must clearly go hand in hand with the academic content to solve a particular task while making use of integrative language skills (receptive and productive) which facilitates the communication and different interaction patterns among students.

To communicate content effectively, explanations must be accompanied by specialist vocabulary from the unit or functions (e.g., the ability to justify their positions) to guarantee useful expressions that will encourage communication. It is also important to consider the method that teachers will use during the assessment: self-and-peer assessment, or collaborative assessment, including the whole class. The choice will relate to the dynamic the teacher is eager

to implement. For example, through peer assessment, learners can negotiate ideas and reach a

more landed and finer understanding by both sides: students A and B. To illustrate, by

scaffolding each other, students can go from BICS to CALP whenever they are provided with

appropriate chucks of language. From this perspective, in Math class student "A" might say:

"count the boxes" or "three plus two equals…". After a while, student's language should

progress to CALP: "What is the sum of…", "Three squares and two more are…".

Echevarria & Graves (2007) suggest different types of assessment that permit teachers to

meet students' English level and level of complexity of content:

Level of Support

Provide pre-while, and post tasks for students to receive additional aids so that when

their performance takes place, they feel secure and prepared for task completion. This might be

by reading aloud, using body language, recasting the right use of language, finding synonyms,

providing visuals, or allowing the use of a dictionary.

Level of Difficulty

The importance of adapting the skill level, allowing a calculator, simplifying the

instruction of the task, or receiving the product of the task through an illustration, instead of a

written answer. In simple words, give the necessary tools for learners to demonstrate their

knowledge of content and their language abilities.

Product/Type of Response

Meet learners' styles and needs. In this sense, adapt the type of response the learners are

allowed to provide. For example, in an experiment session, students might be allowed to either

draw their observations or take notes.

These types of assessments build a formative bridge between students' actual knowledge and the competencies and abilities they require to complete certain tasks through learning strategies. Likewise, it is a practical exercise for language teachers since they acquire a high level of expertise in the design of various kinds of language and content assessments to verify pupils' understanding. For example, selected-response assessments, and constructed and personal-response assessments. For each type, educators should select the dynamic of the exercise and task to fit the needs of the course. For this, it is pertinent to start with controlled practice, continue with guided, and finally, toward a more demanding exercise that permits students to apply the new concept and "chunk of language" in a real task.

Since assessment defines formative procedures to track students' production, CLIL requires that teachers be creative and help learners become aware of their learning process. For instance, teachers can administer some tasks for learners to get acquainted with the assessment measures and criteria established in a rubric where both content and language are specified. This step might clarify the path and give a consolidation of the materials and topics previously studied.

Furthermore, when teachers teach content, it is vital to let students get in contact with the mandatory concepts, vocabulary, or expressions that will increase their talk in the classroom. Content knowledge should be assessed using simple language and through scaffolding techniques such as graphic organizers, diagrams, mind maps, and concept maps that make learners organize ideas and represent their understanding. To assess language skills (listening, speaking, reading, and writing), teachers should apply real-life tasks that resemble activities students achieve daily. For instance, how to calculate the total cost of products in a store, send a text message to a fast-food restaurant to get some food delivered, make a request to get one's

favorite drink (tea, juice, coffee), write invitation cards for celebrating birthday parties, and how

to give directions using Global Positioning System (GPS) to get to a top-notch restaurant etc.

Materials Design in CLIL

Given the fact that the implementation of the CLIL approach is growing fast worldwide

(Coyle, 2018; Le & Nguyen, 2022; Morton, 2018), there is a real demand for educators to access

CLIL teaching materials that can be adaptable to the challenges of the existing context to make

CLIL lesson preparation less consuming. Steirt and Masser (2011) indicate that the act of

creating teaching materials is never an easy task per se; hence, the design of CLIL materials is

especially challenging since teachers need to consider that content learning merges with the

target language. This reality should take content/material designers to animate cooperative work

to reduce teachers' workload, and subsequently, the learning/teaching experiences could be

perceived as a cornerstone that narrows the bridge between focus on language and focus on

content. Accordingly, McDonough et al. (2013) outline the importance of including language

functions and the grammatical structures for the design and organization of teaching materials as

well as the contribution of the communicative approach and its implications for covering the gap

between classroom scenarios and authentic tasks that take place in the real world. When learners

have an awareness of the role of negotiating meaning in a conversation, there is little room for

them to break down the communication, owing to the attention they pay to the intended use of

the utterance.

Moreover, CLIL teaching materials cannot put aside the integration of learners' culture

and language. Most commercial materials extend topics beyond students' real life (Brown, 2023;

Richards, 2022; Tomlinson, 2012), which makes them lose motivation towards the content and

the target language because the academic topics are presented in isolation and do not provide

personal engagement. Consequently, there is no elicitation of interaction where learners can communicate experiences based on their realities from L1. Howard and Major (2004) annotate the fact that content lessons and materials should be connected to students' prior knowledge, their culture, and elements from the target culture that allow them to spot areas of difference. What is more, by means of this integration, it is easier to provide opportunities for learners to develop their higher-order thinking skills which is key for them to discover and analyze new ways to face reality, and to interact with activities that allow problem-solving while increasing the quality of their thoughts, for instance, assign tasks that arouse curiosity, encourage critical thinking, and stimulate creativity (Ball, 2018; Banegas et al., 2020; Karabassova & Oralbayeva, 2023). The previous annotations on CLIL materials have highlighted several variables that are directly correlated to the implementation stage of this project.

Banegas & Zappa-Hollman (2023) state "cognitive processing is involved in learning and thus cognition has been identified as one of the keystones of CLIL, together with communication, context and culture" (p.17). In this regard, supplementary materials and websites present a pool of ideas for the class to meet different directions that challenge both the subject content and language competence of pupils. Thus, students encounter opportunities to interact, be in contact with problem-solving, risk-taking tasks, think deeply, and recall experiences because of meaningful learning.

A further element that plays a role within the framework of CLIL materials is the incorporation of digital tools in language classes. Gere (2009) asserts that given the importance of digital technology in the knowledge society, people have been generating a marker of culture including the use of devices that provide easier access to the internet; thus, it creates wider opportunities for institutions across regions to share high-quality learning materials using

different technologies, such as online communities, blogs, and video-linked-networks that

constitute much of their own contemporary experience on CLIL. In this regard, stimulate more

CLIL educators to share valuable teaching resources in this matter.

Steirt and Masser (2011) suggest some criteria for developing and evaluating CLIL

teaching materials, for example, that *aims/learning outcomes for content and language* need to

be clearly specified and socialized with students, to scarcely make use of the mother tongue

when creating materials for *clarification purposes*. Another feature is to consider that well-

designed CLIL materials introduce new language by *providing language frames* that facilitate

breaking the information into small chunks to guarantee that the material design suits students'

linguistic competence. *Visual support* is a cornerstone since it supports students' understanding

and motivation to gradually assimilate the new content and language or the instructions to be

followed by means of maps, graphic organizers, and lists of unfamiliar words.

Content subject teaching principles/techniques conceptualize the different elements that

should be considered before the content and language selection. Accordingly, CLIL teaching

materials need to respond to a set of core features: authenticity, active learning, cooperation,

scaffolding, safe and rich learning environment (Ball & Kelly, 2016; Mehisto et al., 2008). All in

all, the didactic activities must be embedded within a conceptual sequencing that is important to

follow an adequate order of complexity that in turn will lead to specific linguistic aspects for

supporting students' production.

Differentiation is also important for CLIL teaching materials because learners have different

levels of achieving learning. Particularly, at primary levels. This is why teachers need to be

aware of the characteristics of their course and get familiar with pupils' interests. Teaching

practice must be a collaborative effort that benefits both teachers and learners. In this sense,

teachers should act as facilitators that assist learners to identify their learning styles. The

adoption of a learner-centered orientation requires differentiated instruction for different learners

(Khan, 2020; Khanum, 2020; Nunan, 1986; Nsenga & Andala, 2022; Olugbenga, 2021). In other

words, it is necessary the collection of information about learners, serving as a basis to continue

with learning goals, content selection, and the preferred methodology that will guide the material

design.

Intercultural learning offers the opportunity to incorporate tasks that build up pre-

existing cultural knowledge for comparing one's own culture to different cultures. Porto (2023)

defines the importance of intercultural learning in CLIL materials by recognizing the role of

contextual elements that set the accurate language functions considering the who, why, and

where.

Finally, in any route that material designers decide to take in CLIL settings, it is

fundamental to base their proposal on teaching techniques, accompanied by constructive

feedback, so that learners feel more interested in working on the material and communicating

their ideas, as part of the extrinsic motivation they receive from the instructor. Reich et al. (2020)

recommend that all students could check and correct their mistakes, redo, and complete assigned

tasks. This suggests that the final goal of this design process is for learners to be hooked up with

their learning process and not to feel they are being judged.

Previous Related Studies

The goal of this section is to present research projects relevant to my study. These are

framed within three components that are purpose, data-collection instruments, and findings.

Implementing CLIL models is of interest in the field of EFL. Studies have reported the

impact of CLIL on pre-service teachers' methodological competencies. In the study *Test*

development for content and language for teaching natural science in English as a foreign language by Leal (2016), teachers were trained to identify which area of learning (content or language) was interfering with students' performance through a summative assessment. The instruments to examine were three tests that encompassed concepts and linguistic aspects. The main aim was to provide guidelines for test development to be aligned with the teaching goals. This study took place in a bilingual school located in Bogotá, Colombia. Findings reported that the assessment grid is a useful tool to discriminate between language and content achievement and to identify the strengths and deficiencies after instruction or before it. Conversely, when teachers followed formative guidelines, the results indicated that both teachers and students developed positive attitudes toward the assessment component of CLIL.

Moreover, Isik (2020) investigated students' and teachers' perceptions when applying CLIL. Data were obtained from questionnaires and follow-up interviews. Researchers found that teachers changed their perception to positively impact learning and teaching. In other words, the assessment procedure of the CLIL program was perceived as positively valid and fair when checking content and language. Hence, this study shows how the CLIL approach can be complemented with different assessment procedures that corroborate both what teachers plan in their lessons, and how pupils are assimilating the content that has been studied.

Closely, in the study by De la Barra et al. (2018), the researchers focused on *Integrating assessment in a CLIL-based approach for second-year University students*. The purpose was both to determine the effect of integrated assessment on students' language awareness and explore students' perceptions concerning this matter in a content subject through the analysis of quantitative and qualitative sources. The instruments administered were the design and pedagogical implementation of two rubrics, and a questionnaire to gather information on the

students' opinions about the use of the first rubric. The findings showed that learners became

more aware of the language aspects, meaning that the integrated assessment benefited the oral

linguistic competence and awareness of the students. Furthermore, the task results suggested that

the intervention, apart from empowering students to take responsibility for their learning process,

helped them to achieve their competencies for the course. In content courses, it is of paramount

importance to consider the target language as part of the assessments, and the administration of

rubrics, as this is a critical element of approaches based on CLIL (Barbero 2012; Carloni, 2013;

Pérez-Vidal 2015).

Furthermore, Custodio (2020) hypothesized that teachers are required to have a high

linguistic proficiency level and a tremendous ability for planning CLIL lessons. Her inquiry

emerged because, in Spain, the primary competence considered in the accreditation of CLIL

teachers is to be linguistically competent. Thus, research reported the factors that influenced the

integration of CLIL methodological principles in the lesson planning style of in-service teachers

from elementary and high school education. These factors were: educational stage, curricular

areas, academic background, status at school, experience delivering CLIL, and type of school of

the CLIL teachers. A sample of 383 in-service CLIL teachers participated in this study.

The software Ene3.0 was used to calculate the sample using a stratified and proportional

random sampling technique. The result was a sample of 74 schools, distributed proportionally in

five strata. A Likert scale of 1 to 6, where 1 indicated "never" and 6 indicated "always,"

measured the 31 variables, with which the teachers evaluated their classroom planning practices.

Results showed that there was high heterogeneity in the sample which generated unequal

content-based instruction and, therefore, a lack of mastery of basic methodological principles

that should appear in the development of all types of CLIL lesson plans. Based on the findings,

the author recommended a review of the academic programs to guarantee the inclusion of

prescriptive education and training in CLIL, since the quality of bilingual programs depends not

only on the students' academic results but also, on teachers' competencies.

Robles and Corzo (2011) addressed the problematic situation of a primary-level

mathematics teacher, teaching in English at a bilingual school in Santa Marta, Colombia. They

found that teachers faced frustrations since students presented deficiencies in understanding

English-language mathematics instruction. The focus of the study identified the types of

scaffolding techniques used by the mathematics teacher to first graders in English which were

the use of visual materials, activation and building of students' background knowledge, constant

feedback, and cautious use of the mother tongue (L1), as a mechanism to support the

development of content and linguistics competences. In this sense, researchers took an

ethnographic approach for a study with 24 first graders aged between six and seven years old. In

this dissertation, interviews, and classroom observation checklists determined what the

mathematics teacher applied in the classroom in terms of scaffolding. Data were analyzed

through triangulation to identify the types of interaction patterns (SS-SS; S-T; T-S) as well as

instructional aids (if any). Results showed that the teacher did not activate the students'

background knowledge, but there was evidence of language elicitation tasks to encourage

students to participate. From this view, using "mother tongue", ideas were made understandable,

and thus helped learners construct the overall context for the topic under discussion.

A major implication of the studies above is the real need to train teachers on how to

conduct content-based lessons and how to design alternative assessment formats to allow

learners to express their understanding in a way that language does not become an obstacle to

participating in the classroom or demonstrating understanding of concepts. The studies indicate

that traditional assessment forms such as cloze tests or oral tests out of context do not meet CLIL

criteria because they do not provide real task performance and do not stimulate the higher-order

thinking skills that students are expected to reach at the end of the lesson.

Chapter III. Research Methodology

This section aims at describing the research model. It encompasses the research approach

to be conducted, the participants' profile, the structure of the workshops, the coding process, and

the instruments to collect information in the diagnostic, and action stage.

Type of Study

This study was conducted under the qualitative approach (Borg, 2019; Nassaji, 2020)

and the action research method (Burns, 2019; Costello, 2003) which allowed me to reflect on

pre-service teachers' methodological competencies, and their practice when teaching content and

language in an EFL classroom. Action research is considered a recommended method for

educators to constantly reflect on the situations that occur daily in the classroom, which is

context-embedded and participatory (Burns et al., 2022; Pardede, 2019). This premise suggests

that educators create the necessary instructional tools to face obstacles or constraints as part of

the teaching and learning process to enrich professional development. A key factor of action

research is that aims for change and improvement through a critical, investigative process

(Zuber-Skerritt, 2021), promoting opportunities for teachers to develop their abilities to collect

and analyze their data to make decisions related to their settings that might be valid for

restructuring curricula.

Considering these benefits, as a researcher, I decided to apply this methodological inquiry to propose an instructional intervention to deeply examine the impact of CLIL, as the pedagogical approach to implement with pre-service teachers.

Furthermore, the qualitative approach was applied because of the subjectivity and validity that integrates into the investigation. According to Nassaji (2020), good qualitative research is robust and involves a systematic process of identifying the problem, collecting, analyzing, and interpreting results to ensure the quality of the information. In other words, validity is measured based on the credibility of the findings, and how they detail the phenomenon of the dissertation.

Regarding research stages, this project is composed of three of them: Diagnostic, implementational or action stage, and evaluation stage. The diagnostic stage served as a needs analysis to capture the real problem in my setting. In this phase, I administered three data collection instruments that were *a journal, a survey questionnaire, and a semi-structured interview* to elicit participants' responses. With the implementation of these three instruments, I search for objectivity, following Creswell and Miller (2000), when analyzing my point of view as a researcher, and my students' opinions, considering the oral elicitation task technique, and the written questionnaire to compare perspectives.

Concerning the action stage, I implemented six workshops to enrich pre-service teachers' methodological competencies in content and language. Furthermore, I analyzed the codes and their number of occurrences to turn them into categories for a better interpretation of the codification process to finally gather and study the information to write the corresponding reports.

Participants

This study was carried out with a population of 16 pre-service teachers studying in the 6th

semester at an undergraduate English teaching program in Cartagena, Colombia. Students are

aged between 20 and 25 years old and consist of eleven women and five men. They are

characterized by showing a positive attitude towards the classes, knowledge, and specialized

skills to keep learning autonomously and consciously. Besides, they are aware of the importance

of research to improve their educational practice. 70% of pre-service teachers have had job

experiences that are evidenced when participating and then, connecting the theory to the practice.

100% of them have taken teaching methodological courses in the previous semester; to be more

specific, approaches & methods to language teaching and teaching communicative skills.

Apart from taking the content subjects in the 6th semester, simultaneously, they are

studying the advanced English course that Centro Colombo Americano offers them after having

finished the regular English course. By the end of this last course, they need to take an

International English exam to certify C1, according to the CEFR. Then, they always practice

English either in the course or in their university classes. To have a clearer vision of these

subjects, the following table is shown. Notice that at this stage, all the subjects are conducted in

English.

Table 5

Academic subjects taught in 6th semester

Component	Semester: VI	Credits
	Bilingualism and Bilingual Education	3

Specific and disciplinary knowledge	Languages in Contact	3
	Phonetics and Phonology for Language Teaching	3
	Academic English Workshop IV	2
Didactics	Second Language Assessment	3
	Internship V	5
	Credits per semester	**19**

Note. This information was taken from Proyecto Educativo del Programa (2020).

As I have been a professor at the university for four years, I have had informal conversations with most of them in which they expressed to be frustrated because they struggle with the integration of content and language in a n EFL classroom, as part of their daily practice without having received any training in the schools where they work. That is why I decided to conduct this teachers' development from the elementary teaching phases. In fact, they affirmed to mostly focus pupils' attention on the structural view of the language, and paying little or non-attention to the functional or interactional view. This fact limited pre-service teachers' performance when they were expected to apply pedagogical procedures that meet the institutional policies of the schools. A key factor to be highlighted is that I carefully planned the workshops to model communicative techniques such as debates, and role-plays to enhance their performance.

Instruments

The following chart displays the different instruments that were administered during the

diagnostic and action stages to gather the data.

Table 6

Diagnostic, action, and evaluation stage data collection instruments

Diagnostic Stage			Action and Evaluation Stage		
Technique	**Instrument**	**Rationale**	**Technique**	**Instrument**	**Rationale**
Class Observations	Researcher's Journal	To record information collected through class experiences and learners' reactions.	Class Observations	Researcher's Journal	To analyze the effect of methodological competencies introduced during the six workshops.
Survey	Questionnaire	To identify pre-service teachers' needs.	Survey	Questionnaire	To elicit pre-service teachers' perceptions and comments on each workshop based on their

					experience with the integration of content and language.
Elicitation Task	Semi-Structured Interview	To elicit background methodology knowledge from pre-service teachers.	Scoring	Rubrics	To analyze pre-service teachers' assessment tasks design and lesson planning.

Chapter IV. Research Stages

Three stages occurred throughout this research project: diagnostic, action, and evaluation.
Notably, during the first phase, I identified the desires and deficiencies of the target group
through the administration of the instruments previously listed. Moreover, in the action stage, six
instructional workshops were implemented to cope with the methodological competencies of
pre-service teachers. To do so, CLIL was the approach applied to deal with the variables met in
the diagnostic process. Then, in the evaluation stage, it was crucial to analyze the results
gathered from each workshop and triangulate the information, for later, narrating the

corresponding findings and conclusions based on the general and specific objectives established

at the very beginning.

Diagnostic Stage

For a better understanding of the instruments administered during this first stage, I will

describe all of them in this section. In this sense, to determine validity in qualitative inquiry, I

considered the criteria by Creswell and Miller (2000). In their study, they suggest two main

focuses: the lens researcher chooses to validate the investigation and the researcher's paradigm

assumptions. To this end, I coded three sources of information following Saldaña (2021), in his

study "The coding manual for qualitative researchers". In accordance with this vision, I

identified the variables and established connections among the categories to demonstrate

credibility toward participants' realities and experiences.

Questionnaire

The purpose of this data-collection instrument was to elicit qualitative information

regarding pre-service teachers' perceptions, experiences, comments, and attitudes about their

teaching process. In this line, to determine their needs when instructing content-based lessons.

This survey consisted of five sections: Teaching methodology background, attitudes, and

experiences, class delivery, assessment, and reflection. The structure of these sections portrayed

closed-ended questions, ratings, likert scale questions, and open-ended questions. Particularly,

this instrument focused participants' attention on the approaches and methods they were familiar

with, the kind of formative and summative assessment tasks they apply in the lessons, and the

main challenges in their teaching setting. As stated in the instructions, this questionnaire took

about 15-20 minutes to complete. Participants' identity was anonymous which encouraged them

to answer honestly (see Appendix A).

Teacher's journal

For the purpose of the research, I constructed a template that aimed at recording all the

information collected through class experiences and participants' reactions during the lessons. To

enrich the qualitative description, I focused my attention on registering situations that supported

significant data to the inquiry during the diagnostic stage to discover conceptions in my setting.

In this sense, the template consisted of three different sections: Description of the event,

interpretation, and reflection. Therefore, this structure guided me to the actual problem to be

confronted. When writing the entries, I used different colors to contextualize the readers in terms

of the interpretation, and how I planned to deal with the described circumstances. Similarly,

while implementing each workshop, I paid close attention to the methodological behaviors and

how pre-service teachers were reacting to the direction of the learning strategies (see Appendix

B).

Semi-structured interview

Spot the difference (Baxter, 2022; Yang et al., 2022) was used as a data collection method

to elicit background methodology knowledge from pre-service teachers (see Appendix C).

Participants were asked to find the differences among three images that represented different

teaching and learning techniques. The number of differences was prespecified so that

participants had a clearer conception of what to expect from them. During the dynamic, they

were informed that they could not see their classmates' images. It is crucial to mention that this

procedure was carried out through an interview, and having pre-service teachers' consent, I

recorded their responses. The following guideline was provided to them so that they knew the
focus of attention: a) What teaching technique(s) can you perceive? b) what would be the main
goal of this class? c) what's the role of the teacher? d) what's the role of the students? e) what
language skills can you identify?

After having recorded participants' responses, the instrument used to analyze this
information was an assessment rubric, considering an evaluation scale from zero to five (see
Appendix D). The rubric comprised five dimensions aligned with the objectives established for
the purpose of the research. These were: Overall understanding, argument, evidence, structure,
and completion. These indicators were accompanied by five criteria, in total, and opportunities
for comments in order to add greater significance to qualitative data.

Results and Analysis of the Instruments

I analyzed the three instruments by applying the codification strategy in which I assigned
a descriptive phrase indicating related content across the data to ease the process of
classification. The analysis for the categorization was descriptive. Hence, I grouped similar
codes to generate categories connected to the objectives of this investigation. To reach a higher
level of understanding, the following figures illustrate the final codes per instrument.
Subsequently, I will show the triangulation graph that summarizes the common codes discovered
during the diagnostic phase.

Pre-service teachers' questionnaire

Firstly, I present the questionnaire graph since this was the first instrument I
administered. It comprises the list of codes, and their occurrences represented in percentages.
The circular graph illustrates different colors for a clearer distribution of each rate. Initially, I

will analyze the code with the greatest number of occurrences to finish with the least amount of

frequency.

Figure 3

Frequency of codes in the survey questionnaire
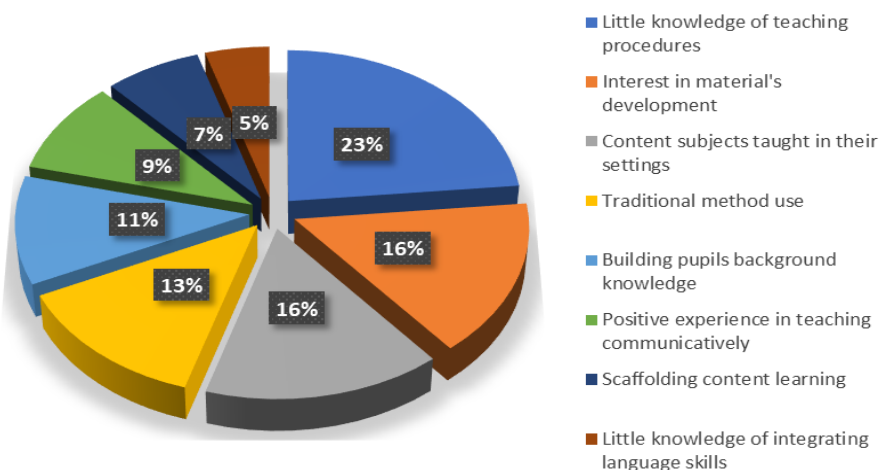
These segments are the eight representative codes that emerged from the questionnaire. A

key significant area is a category labeled *Little knowledge of teaching procedures* which was

crucial to focus the instructional workshops on a communicative approach that supports the

teaching process of pre-service teachers in bilingual settings, offering the balance of integrating

both language and content simultaneously. To provide evidence to my previous point the graph

highlights, respondents failed to associate their real background teaching experience knowledge

to some pedagogical procedures that were listed in the survey. Additionally, half of the

participants responded they know *little* about approaches and methods to English teaching.

Consequently, the next two categories, *Interest in materials' development and content subjects*

taught in pre-service teachers' settings, remained constant because of the impact the previous

code had. Both indicate the desire of developing materials resulting from the need for teaching

content subjects in their internship/teaching settings.

Figure 3 shows the traditional practices that participants implement. This data also supports the poor knowledge of approaches and methods when teaching a target language (1st code). Pre-service teachers were asked about the methods they incorporate in their practices, and some of the answers were: *"The ones that I have put into practice are traditional; I have knowledge of these traditional, grammar translation, experimental methods; I'm familiar with the grammar-translation method".*

Traditional method use is proof of why there is little evidence on how to *build pupils' background knowledge.* Likewise, in the category of s*caffolding content and learning*, only a few of the participants shared a *positive experience in teaching communicatively*. Finally, a small percentage of these respondents agreed with *the knowledge of integrating language skills.* Throughout this diagnostic stage, it was evidenced that respondents did not have a clear understanding of the importance of planning tasks for incorporating productive and receptive skills to enhance their pupils' language process. As a result, the conceptualization of contents was not in the direction of fostering interaction, real tasks, or developing learning skills.

An analysis of this data could be that the positive aspects obtained from this first part of the codification process enlightened me to reflect on an action plan for the implementation of the workshops in order to examine the impact of CLIL on pre-service teachers' methodological competencies.
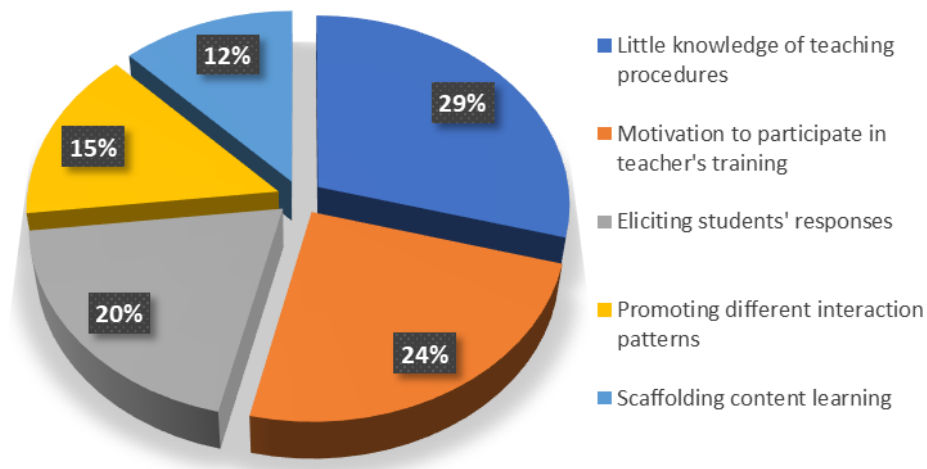
Journal

As for the journal's result in the diagnostic stage, I found five categories. Some of them have a close relation to the classification of codes identified and analyzed in the survey questionnaire. The next graph highlights the evidence of one negative aspect and four positive codes.

Figure 4

Frequency of codes in the teacher's journal

An important observation to interpret the results in this section is that there is a growing

tendency for *Little knowledge of teaching procedures* which had already been identified in the

questionnaire section. It is crucial to highlight that the tendency increased from *23%* to *29%.*

This result still ratifies the need for a change in the methodological competencies of pre-service

teachers since they need to plan classes, assess learners, teach lessons, and develop materials.

This is possibly because of the lack of CLIL strategies they were exposed to. At the same time,

this issue opens a gate for me to enrich my lessons while conducting the workshops with micro-

classes, teaching/learning strategies, exposing learners to identify the appropriate material for

their real settings, and some techniques on how to cope with the different assessment tasks.

While coding this instrument some examples were identified as evidence: *"...Pre-service*

teachers were invited to share their learning and teaching experiences about "Lesson planners".

However, I noticed that a few of them were struggling with this topic since they did not know the

main elements"; "...their speech was closely connected to theory or identification of a particular

method".

In relation to the next category: *Motivation to participate in teachers' training*, a fact that caught my attention was their level of consciousness for being part of a training process because they have the opportunity to enhance their competencies as future teachers and, in this way, to better impact learners' learning process when implementing their lessons. In fact, the number of occurrences went up in comparison with the percentage found in the previous analysis. That is, it increased from 16% to 24%.

Eliciting pupils' responses, promoting different interaction patterns, and scaffolding content learning are categories that also played a relevant role in this analysis as a result of the gradual increase of events that were observed during classes, taking into consideration a similar pattern to the earlier report. For example, I noticed pre-service teachers were more receptive and willing to participate in class discussions and debates. Also, showed a higher interest to clarify doubts while sharing their internship or teaching experiences. Nevertheless, their performance also indicated that some of them apply *scaffolding techniques* only when translating to pupils' mother tongue as a support for the learning process. That means they do not encounter other strategies such as synonyms, body language, chunks of language, or visuals to foster the right use of the target language. This set of class behaviors was noted in some class interventions and rounds of micro-teaching that took place in the module on Bilingualism and Bilingual Education.

Despite the greater number of positive codes associated with this description, there is a need for steady growth in terms of the communicative strategies and teaching procedures that are implicit in lesson plans and go hand in hand with the approach and methods that the institution expects from the teachers.

Semi-structured interview

Regarding the results of the semi-structured interview, Figure five shows that two of the

four identified codes remain in place (little knowledge of teaching procedures, and little evidence

of the integration of language skills). That is, they have been displayed in the previous analysis

(Figures three and four). Therefore, the process of triangulation has shown consistency across the

codification stage.

Figure 5

Frequency of codes in the Semi-Structured Interview
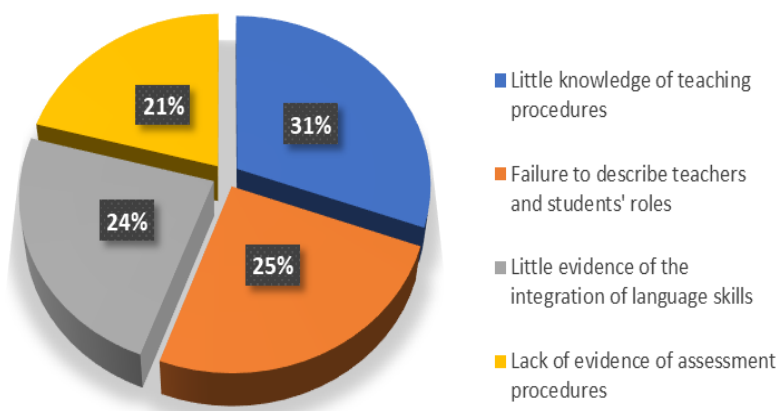
If we look at this graph, the category *Little knowledge of teaching procedures* has gone

from 23%, 29%, and reached a peak at 31% of events. In other words, it represents the highest

level of occurrences in this diagnostic stage. This reveals the relevance to carry out this research

project to provide the required company interns need. During this elicitation task, pre-service

teachers responded to some questions based on their previous background methodology

knowledge and looked at some images to support their answers.

To provide evidence to this point, the following quotations were taken from interns'

speech when trying to define what was the main goal of the class that the images were

portraying: *"...in the last part (image 3) ehhh, students are like making a schedule but it's*

not…it's not too clear, so clear what is the main goal in this part". As the evidence suggests, participants did not closely relate their oral description to the approaches; their definition was limited. It was also found that *"pre-service teachers presented some language issues while answering the questions".*

Additionally, when identifying the teaching strategies, *"they did not openly associate their teaching techniques to any of the methods that pictures illustrated".* Regarding these results, I can assert that pre-service teachers did not perform successfully in this elicitation task since they *failed to describe teachers' and students' roles*. This failure was noted when I asked them during the interview to verify the illustration and describe the roles, but they affirmed*: "...we are not sure about that".* What is interesting is the fact that the image was portraying teachers' and students' traditional behaviors and even so, they could not answer accurately. Even though, evidence from the analysis of the questionnaire confronts this part because of the use of the traditional method that was displayed in the list of categories.

A future prediction of this factor is that the activities to be proposed in the action stage will reinforce the different roles to consider in a classroom, for example, roles of materials, participants, assessment, and learning strategies.

As the graph indicates, *little evidence of the integration of language skills* had a dramatic growth between the results analyzed in the questionnaire and the ones from this instrument. In this sense, the percentage went up from 5% to 24%. What I interpret from this fact is that pre-service teachers do not focus attention on developing different interaction patterns that allow them to include receptive and productive language skills, but to work on those abilities in isolation which provokes a segregated-skill approach that might not be strong enough to successfully acquire the target language. For example, when they were asked about the

identification of the language skills in the illustrations, they confused teaching techniques with language skills; that is, their description was not connected to theory and was confusing.

Ultimately, *a lack of evidence of assessment procedures* also provided me with a standpoint and understanding of the low-performance pre-service teachers have in relation to the methodological competencies. It was found that pre-service teachers barely consider clear assessment criteria to evaluate pupils' class performance. To support this part, in the elicitation task they were asked to mention some examples of how to assess language skills, the answer was: *"...for writing and reading skills, students are supposed to talk, to participate, to speak out their minds '.* There was not a detailed structure of the evaluation methods to reinforce writing and reading abilities. From this analysis, I can infer that the activities to be modeled during the implementation stage will serve as guidelines for them to replicate with their pupils in their internship or teaching settings.

Triangulation

It was crucial to examine the triangulation of the previous three instruments with the purpose of gathering multiple perspectives on the studied situation. In this way, I can draw more specific inferences. Burns (2019) states that *triangulation* is one of the techniques for checking validity. The following graph presents the triangulation of the data, including cross-sectional categories. That is, the graph provides evidence for the highest categories in terms of frequencies, presented in the three instruments already analyzed.

Figure 6

Diagnostic data triangulation
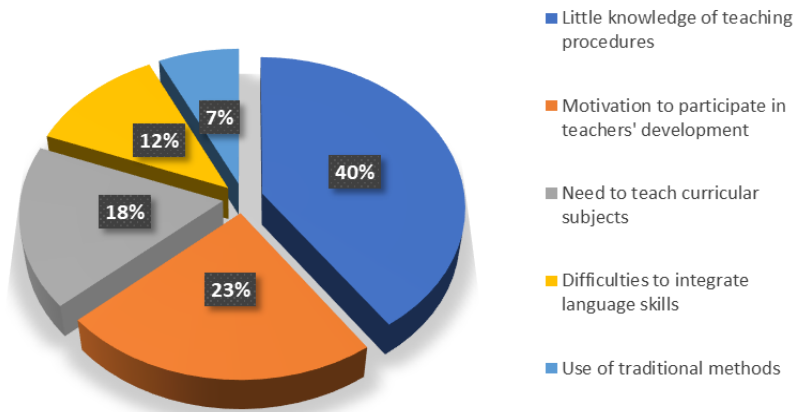
The triangulation of the diagnostic stage showed consistency and relation to this study:

The impact of CLIL on EFL pre-service teachers' methodological competencies. Therefore, the

category *Little knowledge of teaching procedures* had the highest percentage in frequencies. This

result emphasizes that this is the most visible problem participants have which means their

classes do not follow a logical sequence and the activities proposed for pupils do not positively

impact the learning process. Moreover, in the instruments, it was evident that there is a

motivation to participate in teachers' development, especially in the design of materials since

they recognize the need for developing materials aligned with the goals the institution proposes.

Consequently, as a future prediction, *teaching curricular subjects* might not provoke a feeling of

frustration. That is why the importance of providing pre-service teachers with plenty of teaching

and learning strategies is a key aspect to consider.

   Difficulties to integrate language skills and *the use of traditional methods* are two aspects

that were also present in the codification process and impeded the right implementation of

techniques to attract learners' attention and integrate the contents of the class with receptive and

productive skills so that there is a more natural development of students through real-tasks that

they can carry out not only inside, but outside the classroom.

Accordingly, the analysis above gave me the tools and sources to design and implement a professional development program to impact pre-service teachers' classes, focusing not only on methodological competencies but the design of tasks and useful materials for their classes.

Instructional Design

Considering the results found in the diagnostic stage, I designed six workshops to be implemented with sixteen pre-service teachers. Each workshop aimed to focus participants' attention on three important aspects: *Academic content* to teach curricular subjects like Math, Science, and Geometry; *language* when it comes to integrating the content matter with the language skills (listening, speaking, reading, and writing); and *learning skills* to be reinforced during the development of tasks, for example, problem-solving, sorting/classifying, experimenting. Three hours were devoted to each intervention. I also used a rubric to grade participants' production, a survey questionnaire, and a research journal to check their teaching behaviors, desires, and progress during this stage. It is essential to highlight those actions accompanied by informed decisions that took place while evaluating the results obtained from each workshop with the purpose of reflecting and tapping into pre-service teachers' needs, advancements, and deficiencies that I was noticing in the process. Thus, this critical observation allows me to make some adjustments to get closer to the main goal of this inquiry. Likewise, the positive results obtained from the strategies implemented were recycled in the workshops to consolidate the pedagogical procedures and enhance their dynamic in the EFL classroom.

Furthermore, the groundwork for the design of the pedagogical interventions was the mixture between theory and practice based on previous studies supported by authors in the field which permits a critical analysis by contrasting and adapting proposed activities depending on the requirements raised by institutions.

The workshops were planned considering the models on CLIL for class lessons by Ball

and Lindsay (2010) who focus on a training paradigm and in fact the starting point for any CLIL

program. The training model operates within specific criteria, taking into account the needs for

the implementation, which proposes a flexible approach to what constitutes CLIL practice.

Within this framework, the following phases during the class are evident:

Conceptual sequencing

This stage refers to the substantial elements of concepts that materials must contain when

teaching a given subject. It is important to highlight that one concept follows a logical order from

another. That is, the level of complexity increases what permits teachers and pupils to recycle

previous knowledge. A key factor to mention in terms of language teaching is that language is

seldom followed by such sequencing since this is seen as a tool to constantly promote interaction

and academic discussions in class. In this sense, the learning of a non-language subject and a

foreign language has a joint role where content matter leads the language instruction to be

learned/reinforced.

Conceptual fronting

The criteria for assessing the level of accuracy and comprehension of the materials must

be based on key concepts aligned with the established procedure and skills-based content which

implies not only the insertion of language skills (listening, speaking, reading, writing), but also,

language skills that guide learners to build their own understanding and be challenged.

Language as a vehicle

This factor aimed to see the language as a core element to achieve production objectives.

Language occurs naturally in the academic discourse as part of the conceptual content that is

taking place at the moment of instruction. Communication aids facilitate real-task interaction, for

example, the language *for* learning that the teacher needs to provide pupils to successfully

operate in the language classroom.

Specific task design

The nature of task design or what is intended to achieve structures the format of didactic

material since the content undergoes a procedural "breakdown" (Ball & Lindsay, 2010). In

accordance with this vision, the content has greater changes or adjustments than one might

associate with L1 materials. What is also important is that the language support must be

embedded into the text, instructions, highlighted words, or word bank so that it serves as a

support for the task completion.

Three constituents

Outcomes based on CLIL tasks are defined as a *trinity*. Starting with a *conceptual* aim,

concocted by a *procedural* decision, scaffolded by the *language* resulting from the specific

interaction discourse to achieve throughout the lesson. As a means of clarification, the

procedural decision mentioned previously is expected to be flexible depending on teachers'

dynamics but also integrates the 4Cs to consolidate the CLIL model (content, cognition,

communication, and culture).

Activity types

Coyle (2006) highlights some notions for task types in which pupils are the most

benefited due to the active involvement of cognition and linguistic progression that this

integrated model suggests. Alternatively, teachers are presented with some options to base the

type of activity in CLIL they want pupils to achieve, these are: Activities to improve *peer

communication,* activities to help develop *reading strategies,* activities to guide *students'

production,* and activities to engage higher *cognitive skills.*

In light of the above, pre-service teachers experience varieties of task development that enrich their pedagogical procedures and give tools to enlighten the academic and language focus in the EFL classroom.

Action Stage

The purpose of this section is to describe my research implementation considering core elements such as methodology, content matter, language, integration of language skills, material design, and assessment. Similarly, how I conducted the six workshops that were planned and designed based on the analysis and results from the diagnostic stage to examine the impact of CLIL on EFL pre-service teachers' methodological competencies in a private Licenciatura program.

The implementation of the six workshops carried out a similar structure to emphasize strategies that emerged from the study applied to the codification process workshop per workshop that accompanied the action stage. The design of the workshops was developed based on Ball and Lindsay (2010) who focused their work on a CLIL model that might be executed depending on the features of the school/institution. It means a flexible non-prescriptive model which encourages context-driven changes and increases motivation in both learners and teachers to face challenges and issues in the EFL class (see Appendix M).

As it was previously stated, the action stage was organized in a way in which pre-service teachers can replicate the methodological strategies in their EFL settings, then, create cross-curricular opportunities to eliminate barriers among academic subjects with other educators by engaging dialogues on pedagogical practice to start a CLIL community. To this end, the sequence of the workshops included clear objectives to address content and language since the language to express the subject matter goes hand in hand with communicative activities, and in

turn, with the expansion of higher-order thinking skills for learners to operate and process the

new understanding. To create pre-service teachers' awareness of the relationship between the use

of language and the cognitive dimension to work on tasks, it was necessary to focus their

attention on the study by Cummins (2000) where the distinction given to Basic Interpersonal

Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP) is

defined. Hence, in the CLIL approach, the subject content requires the same attention to the

linguistic basis characterized by specific and academic vocabulary. That is why pupils need to be

equipped with sufficient linguistic features. Once I identified that pre-service teachers had

accomplished this section of the workshop, they were provided with some strategies such as

scaffolding content and language, building up knowledge, starter question and answer, follow-up

activities, reflection, discovery activities, etc. Gradually, the actions during this implementational

stage were made to continue enhancing the practice of lesson planning to meet their context and

introducing more strategies throughout the rest of the workshops depending on how pre-service

teachers reacted. This section implied strategic planning to incorporate interactive tools such as

different interaction patterns, the inclusion of the 4Cs (content, culture, communication, content);

adaptation and design of materials to integrate receptive and productive skills that reinforced the

content to be dealt with. Alternatively, how to design activities that boost reading, and listening

comprehension through multiple choice questions, and true, and false statements where the

quality of criteria for assessment is considered.

Concerning the assessment process, I provided informative feedback to pre-service

teachers after each workshop by using some techniques such as class observations, micro-

classes, eliciting responses, and language and content experience. The following chart illustrates

the names of the workshops, strategies, and functions.

Table 7

Methodological competencies during the action stage

N.	Workshops	Strategies	Functions
1.	Bloom's taxonomy	Scaffolding teaching/learning process	Classifying educational learning objectives into different levels of complexity
2.	Demo lesson N.1 (Living and non-living things)	Modeling/Building up knowledge/Role-play	Applying theory to practice in terms of CLIL unit planning (4Cs)
3.	CLIL lesson planning	Language experience approach Strategic planning	Designing a CLIL lesson plan for a specific teaching context
4.	Adapting/designing CLIL materials	-Recycling sources of information from needs analysis -Building redundancy into the lesson	Adapting/designing materials in terms of content and language
5.	Assessment principles	-Quality criteria for assessment -Assessment FOR learning -Assessment OF learning -Assessment AS learning	Applying assessment principles
6.	A pilot study of the materials design (small-scale)	-Application of different interaction patterns in the class -Integration of receptive and productive language skills	Integrating language skills into content lessons

Evaluation Stage

This section aims to present the analysis of the study resulting from the implementation

of the six workshops accompanied by the final triangulation of the data. It is worth clarifying that

the interpretation of the workshops will be presented as follows: First, the results and analysis of

workshop N°1, then, workshops N° 2, and 3; Finally, workshops N° 4, 5, and 6. This classification of workshops easily permitted the researcher to establish three stages during the interpretation and subsequently measure how much progress pre-service teachers reached from one stage to another. Additionally, this structure naturally allows the reader to identify issues that had to be solved while I was conducting this investigation which in turn fulfills the main aim of action research: Do research and take action at the same time.

Particularly, workshop N°1 was more focused on theory. It was planned this way so that pre-service teachers received input and were scaffolded in classifying learning objectives into different levels of complexity. As a result, it facilitated the research methodology since it helped me capture their perspective on learning and language. In simple words, the specific dynamic applied in this first workshop motivated pre-service teachers to encourage their language learners' needs for learning the content by generating strategic decisions about classroom activities. For example, to what extent pupils can maintain a conversation in a foreign language or the experience they might have in writing an academic essay.

Whereas workshops N° 2 and 3 had a common factor which was lesson planning for their context. Within this dynamic, workshops N°4, 5, and 6 were centered on designing materials accompanied by assessment principles, and the integration of language skills (receptive, and productive).

Results and analysis of the Workshops

Analysis of Workshop N.1. During workshop number 1 whose main goals were to plan learning tasks for teaching language and subject content and to classify educational learning tasks into levels of complexity (see Appendix M), I noticed several factors regarding pedagogical procedures as part of participants' outcomes.

This first workshop was composed of five steps in which I made learners conscious of their teaching setting for the composition of the tasks they were expected to complete. Hence, they wrote a brief description of the needs analysis their course had. This was made based on the constant observations and interventions they have been implementing with their groups. In accordance with his vision, they started to design some tasks in line with the academic content their pupils were studying at the moment, for example, the water cycle, states of matter, and addition, among others. Another feature of the tasks is the use of Bloom's taxonomy to set different levels of complexity that permit pre-service teachers to identify the kinds of scaffolding techniques to apply to support pupils' learning process. The next point to highlight is the relevance of power relations for understanding the roles that BICS and CALP play in practice when learners need to have an academic repertoire to operate in class and work on definitions, and key concepts; but also, useful skills for social, conversational situations. Based on the data gathered during and after the workshop, in general terms, I found that participants applied scaffolding tools to emphasize content and language in the classroom. However, they still need more practice to adjust activities to meet their target group. To go deeper into these claims, the next figure illustrates details.

Figure 7

First workshop triangulation
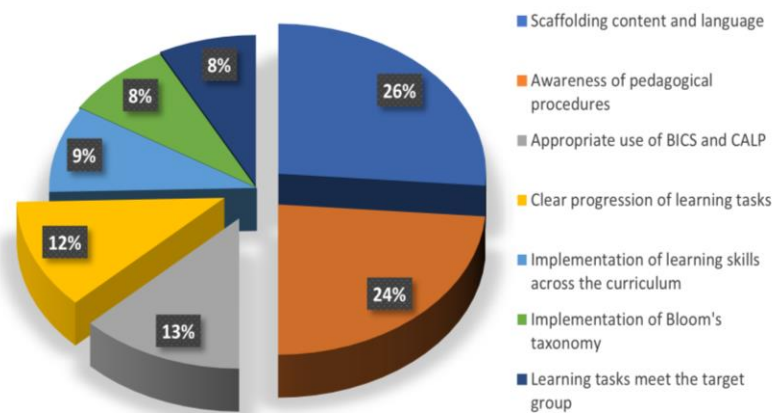
As noticed, the figure shows different factors as part of pre-service teachers' experience

during this first workshop. *Scaffolding content and language* was the highest category which

indicates from the very beginning enhancement for *teaching procedures* which had obtained the

most elevated, but negative percentage during the diagnostic stage (40%) because of the lack of

expertise in this field. This evidence shows that pre-service teachers also increased their

motivation when it comes to teaching curricular subjects in their settings which simultaneously

adds benefits to their professional development and is a key factor that contributes to this

dissertation. For the duration of these sessions, I realized they integrated into the tasks ways to

support the process, for instance: Drawing on previous knowledge, academic language

development, use of discourse, and some supportive materials such as manipulatives, images,

and shapes which are intended to allow pupils to explore an idea, using a hands-on approach.

This can be supported in the questionnaire with the following affirmation: "*A very important part*

of the teaching process is the use of keywords so that students can understand and identify them,

and at the same time, relate them to the subject of the class in the same way as with English

language learning. By listening to these keywords accompanied by short phrases, students can

better relate the knowledge of the class topic to their knowledge of English, and thus, learn to

communicate in a better way".

Another quotation from my journal reflects the level of consciousness of this technique:

"Professor, I did not know that for planning some tasks, we had to consider a lot of things",

"Yes, teacher….for example, pair group, or small groups are not only for arranging students in

the classroom but as a purposeful dynamic called: scaffolding that permits students to support

the learning process of each other. I like it".

This first category brings another positive result that reflects an *awareness of*

pedagogical procedures with a significant number of occurrences as part of the right sequence

that the learning tasks involved. For example, in the rubric as one of the instruments

implemented and stated in the instructional design section, I observed a clear structure in terms

of high and strong thinking skills to reinforce the assimilation of new concepts (e.g.,

hypothesizing, reporting, comparing). Another feature that evidences this category is the

example of subject-specific vocabulary, and grammatical forms to aid the balance between

content and language. Having mentioned this part, one more positive connotation that resulted

from this analysis is the *appropriate use of BICS and CALP* displayed in the three instruments. I

consider that this outcome was achieved because of the plenty of practice conducted from end to

end. Additionally, this element serves as a solid basis to strengthen a CLIL program since pupils

are expected to develop these skills before they progress toward CALP. According to Cummins

(2008), instruction within a strong bilingual program must foster activities with a focus on the

message, language, and use. Thus, pupils not only generate knowledge, or appropriate literature

but also reveal social realities that touch their lives.

In this workshop, for developing BICS, I perceived the reinforcement of vocabulary, pronunciation, and grammar which I consider facilitated the *clear progression of learning tasks* and *implementation of learning skills across the curriculum*. These two categories remained constant because of the influence that one has over the other when planning learning tasks. To exemplify this part, pre-service teachers designed a quadrant model to better arrange the different levels of difficulty, considering the range of contextual support and degree of cognitive involvement in communicative activities. Section "A" portrayed the following characteristics for the tasks: Context embedded and cognitively undemanding; section "B", context embedded and cognitively demanding. Moreover, section "C" illustrated: Cognitively undemanding, but context reduced, and finally, section "D" contained cognitively demanding tasks, and context reduced. Bearing this in mind, this strategy played a relevant asset that permitted apprentices not only to write learning tasks but to prepare them for the planning based on the CLIL approach. Likewise, they felt the need to think of activities in which pupils passed from less language-dependent to more language-dependent.

Implementation of learning skills across the curriculum was another important category that positively contributed to the dynamic of this workshop, but at the same time requires attention and more practice because of the reduced number of occurrences.

It was noticeable that a single task might have two or three possible learning skills that contribute to the application of communication skills, and at the same time develop learners' autonomy to face workshop, pre-service teachers encouraged: Cooperation, data handling, note-taking, organizing information, recording results, and processing knowledge. This evidence took place each time they had to understand a new concept by watching certain objects, reading instructions, or writing down key facts from a video clip. Even though there were some

participants that struggled with the composition of learning tasks due to their lack of experience in this field, I observed effort and commitment to finish the activities and collaborative work to clarify possible doubts or provide suggestions.

Regarding the last two categories *Implementation of Bloom's taxonomy, and learning tasks that meet the target group* were consistent and they supported the level of complexity in relation to the characteristics of the target group declared by participants, in terms of grade, age, content matter, and English level considering the Common European Framework of Reference (CEFR). A fact that facilitated this part was the preparation they received from the very beginning of the workshop in which they made use of a small table composed of action words that describe the cognitive processes into categories, for instance: Knowledge, comprehension, application, analysis, synthesis, and evaluation. Apart from this source, I supplied them with *The Global Scale of English (GSE)* which allowed teachers to measure learners' progress more accurately and easily as it presents critical learning objectives by providing context for teachers and learners. These objectives describe what learners can do at a certain level of proficiency.

Given the above, it could be concluded that the performance that pre-service teachers demonstrated during this first workshop was meaningful and enriching for the further implementation of strategies, and techniques to scaffold content and language. Likewise, the improvement they showed regarding the knowledge of teaching procedures was representative since they took advantage of this teachers' development each time they asked questions, actively participated, and felt more motivated and eager to learn, in comparison with the results from the diagnostic stage. This first encounter yields interest in reinforcing their abilities for lesson planning, precisely proposing activities to meet the target group, and working on Bloom's taxonomy action verbs due to the low percentage obtained in this analysis.

Analysis of Workshops N.2 and N.3. These two workshops were meant to achieve three

main goals: To identify the principles and characteristics of CLIL, to apply theory into practice

in terms of CLIL unit planning to integrate the 4Cs into a lesson (Content, Communication,

Culture, and Cognition), and to design a CLIL lesson plan for a specific teaching context. From

this exercise, I realized that the participants' outcomes were directly connected to the knowledge

they had gained during the previous workshop, especially when it came to elaborating on some

tasks within academic contexts. Indeed, this experience positively impacted the learning product

materialized through the design of unit planning.

The structure of these workshops was composed of four instructional steps in which

firstly, I required pre-service teachers to analyze the objectives for this session and draft a brief

description mentioning how the prior seminar might contribute to the unit planning. From this

written reflection, pre-service teachers had the opportunity to progressively select the learning

outcomes that resulted from the first workshop and enhance them following the feedback

provided before. Secondly, I contextualized the presentation and explained how each procedure

would proceed during the demo lesson I had planned. For that, they pretended to be first graders

and to be studying "Living and non-living things" as subject matter. To follow the track, all

participants were provided with a paper-based worksheet in which they had to reflect on what

they *knew* about the topic, what they *wanted* to know, and what they *learned* (KWL). This

strategy is an opportunity for students to recall previous knowledge and connect their own lived

experiences to new content. I wanted to share this technique as a model for participants to

implement it in their contexts later. A sample of this strategy is presented below for further

understanding:

Figure 8

Teaching strategy: demo lesson

Thirdly, participants were invited to watch a video so that they could experience both

language and content and simultaneously, they reflected on the number of vocabulary

words/expressions that pupils are exposed to daily in a real context. Additionally, this was also

an excuse to polish their pedagogical procedures in terms of analyzing how beneficial the role of

accompanying pupils' learning process is when exploring new content through audio-visual

material, authentic language, and the like. This audio-visual material was accompanied by some

steps: pre-while-and post-listening. Before watching, they brainstormed some examples of

living, and non-living things. Next, they presented a worksheet to complete during the video. The

format of the worksheet is displayed below:

Figure 9

Teaching strategy: demo lesson
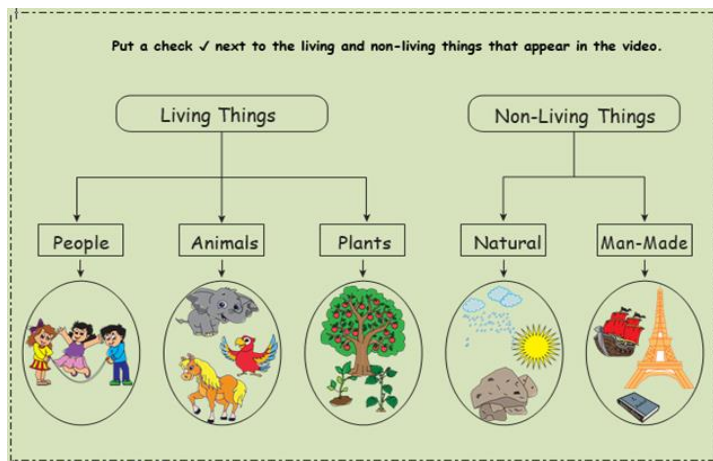
This manipulative material played a relevant role in the teaching and learning process for multiple reasons: It is an illustrative worksheet that helped participants create a better understanding while associating images with keywords/phrases; another advantage is the use of a graphic organizer to better visualize, organize, and break the information into small pieces for a deeper interpretation. Then, learners can increase their reading comprehension as they compare and contrast ideas. Following the teaching techniques implemented in this phase of the classroom, the post-listening task consisted of conducting a peer-feedback to provide different interaction patterns through the construction of meanings, and definitions. Besides, the responses for the worksheet were socialized, and corrected. Hence, while performing this demo lesson, I encouraged pre-service teachers to constantly think of their own teaching practice to check how much progress they were making to design lessons into a more communicative and student-centered approach. For example, to balance students' interests and needs, with the learning outcomes that are needed for the learning of content and language. Eventually, the fourth instructional step as part of these workshops involved a language experience approach because this step integrated the four language skills (receptive and productive): listening, speaking, reading, and writing. Therefore, this task was based on first-hand experiences. This step

comprised a real task to check for students' comprehension. Participants were expected to go

outside the classroom for a few minutes and classify the first five things or objects they found

outdoors. For the development of this activity, participants had to observe and write the name of

that object, person, plant, etc. For the socialization of the activity, they had to exchange their

worksheets and read classmates' work. Next, learners had to go around the classroom, and orally

communicate their findings with the rest of the class.

Figure 10

Language experience approach

Considering the data collected during and after these workshops, it was revealed that the

implementation of scaffolding techniques remains strong, and the pedagogical procedures for

meeting the target group increased. For a deeper explanation of the previous assertions, the next

figure illustrates the categories and percentages that arose from this analysis.

Figure 11

Second and third workshops triangulation
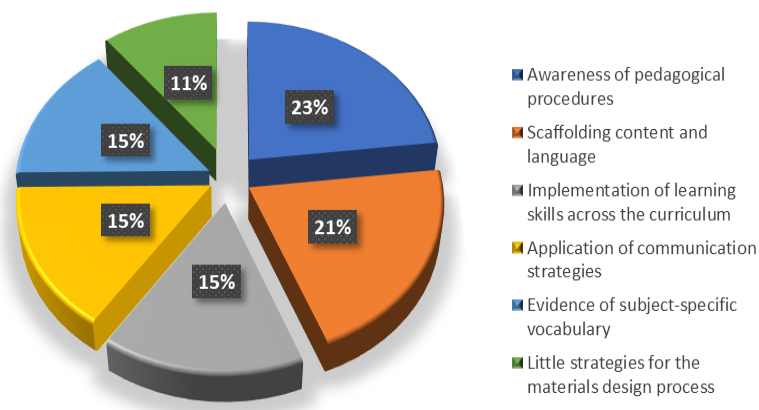
This graph depicts the positive appropriation of techniques and methods that respond to

the demands of a particular target group where pre-service teachers work or do their internships.

Awareness of pedagogical procedures has progressively climbed from the second position to the

first one compared to the first workshop. This fact evidenced a more complete and functional

teaching dynamic in lesson planning that simultaneously integrates content and language.

At the end of the second workshop, it was the time to reflect on the new insights gathered

from the experience, one student commented the following: *"Professor, I noticed that when you*

asked us to complete the KWL chart (while playing the role of little kids) was for us to get

familiar with the topic"- "Yes, professor. That was part of the level of support that teachers must

give to little kids". Thus, they were much more concerned about providing the right support to

have a balance between content and language, considering the use of flashcards, and visual aids

to teach academic vocabulary, concepts, etc. Simultaneously, they established the step by step of

planning, considering interesting ways to present the content, to connect one step of the class to

another, and to sound more academic. In other words, they were steadily progressing to a more

communicative approach. In fact, some of them reflected on the types of tools they were

implementing this time in contrast with the traditional instructions some of them used to provide.

As the workshop proceeded, some pre-service teachers were interested in how to focus

students' attention on their cultural background. Then, I explained with examples the purpose of

this element. After my explanation, I gave them time to write the cultural awareness for the

topic: Living and non-living things. As an outcome, the following data was extracted from my

journal in which we can see how the pre-service perspective has changed to favor a close

connection between academic content and pupils' real-life experience: *"Work together in pairs*

and groups to share how living and nonliving things interact with the environment, support the

importance of living and nonliving things in your life, explore the yard of your house and

evaluate how well you care of the living things (plants, animals)".

Another piece of evidence from the survey that pre-service teachers responded at the end

of the second workshop also refers to the connections between course contents and real-world

examples which motivates learners towards a deeper understanding and exploration of the theme.

"The main strategy that we used so that the students could appropriate the topic and

understand better than with a single theoretical explanation in class was to try that each one

could associate the topic states of matter with their real-life. In this way, each student could

create their own concepts of what they had related from their life with the topic to later want to

express their experiences in class".

Regarding building up knowledge as the strategy implemented in the demo lesson, pre-

service teachers considered it an excellent opportunity to enrich their performance in their

institutions, as it was stated in the survey questionnaire: *"I wanted to do something different at*

school, then, I got my students to go out into the schoolyard, working in groups to use the colors

taught in the classroom and find them in the environment. They also had the chance to interact in

the classroom by mentioning the colors that might be in classmates' clothes".

The result of this first category visually represents a dependent variable *Scaffolding*

content and language that has remained constant as a tendency within the top-ranking positions.

According to the analysis presented in figure seven which reveals the description of the first

workshop, scaffolding had the highest influence on pre-service teachers' production. Since

workshops started, participants have made great efforts to maintain a constant dynamic and

reflect on more communicative approaches and methods that eventually helped them diminish

the traditional teaching practices they used to have in their settings and were identified in the

diagnostic data triangulation (figure six) with a 40% of occurrences evidencing little knowledge

of teaching procedures.

The strategies implemented in workshops two and three such as modeling, building up

knowledge, role-play, language experience, and strategic planning have supported participants'

knowledge to write steps when preparing a lesson, and to carefully conduct each step aligned

with the requirements of the context which presents a real advance in their practice because this

was something that could not be noticed in the diagnostic stage. Thus, this is proof that they have

been enhancing their professional performance.

The following comments made by participants gave testimony of their level of creativity

gained during and after the implementation of workshops 2, and 3. These reactions were taken

from the survey when responding to the question: *"How did you provide scaffolding content*

learning?"

"Scaffolding was provided step by step. For example, the first thing would be explaining

vocabulary, and phrases needed to develop the topic to be learned".

"A very important part of the teaching process is using keywords so that students can understand and identify them. At the same time, I relate keywords to the subject of the class. By listening to these keywords accompanied with short phrases into context, students can better relate the knowledge of the class topic to their knowledge of English and thus, learn to communicate in a better way".

"Through the use of this strategy, I learned how to plan an activity considering higher-order thinking skills".

These excerpts reaffirm the positive impact that the demo lesson had on pre-service teachers' planning since pre-teaching was one of the techniques displayed in the modeling lesson as a tool to generate pleasure for reading tests or for listening comprehension. Similarly, the number of occurrences in this category also supports one of the findings grouped in the first workshop in which there is evidence of the implementation of Bloom's taxonomy with 8% of events. With this in mind, the outcome that resulted after workshop Nº3 was the lesson plan on CLIL in which pre-service teachers provided evidence of contextualized tasks to develop cognition, academic content, culture, and communication. Output-oriented scaffolding techniques were clearly portrayed to guarantee how pupils could be assisted in their learning process when expressing comprehension of the topic of study despite their little fluency in their second language. Some of these examples are defined: Building redundancy into the lesson; animating language use; chunks of language for learners to orally operate in the EFL classroom.

The following excerpts recorded from participants' artifacts illustrate the benefits of these workshops: *"In my lesson planning, this time I implemented more active methodologies that promote students' participation with meaningful content activities that foster critical and*

collaborative thinking. I had my students grouped so that they could feel more confident and

supported when orally participating in class".

> *"I understand that the use of this tool (scaffolding) is very helpful for students to be able*
> *to express themselves comfortably in an additional language about the subject they are*
> *learning".*

In the previous excerpts, participants accompanied the techniques with a more

communicative approach that is aligned with critical thinking and group work. One of the

implications of scaffolding techniques is the recurrence of the *Implementation of learning skills*

across the curriculum. Figure 11 second and third workshops triangulation illustrates a trend in

the latter and displays that there has been a sharp rise in pre-service teachers' methodological

competencies since the completion of workshop Nº1. Although participants had started to work

on the inclusion of learning skills in their planning, it was until the end of workshop Nº 3 that

this category began to grow more dramatically, reaching a peak at 15% of frequencies. This fact

indicates that the first workshop was meaningful for learners because it served as a starting point

from which they could recycle some techniques that helped them progressively take their pupils

from studying the structural view of the language to understanding and using communicative

functions. One clear example is to pass from directly teaching from the textbook and translating

the content to encouraging learners to collaborate and construct meaning as part of their own

language experience.

The analysis of these last two workshops pretends to illustrate some examples of

participants' artifacts when writing the lesson planner. For instance, in a lesson on science,

specifically studying the topic "food and health" to second graders, *kids were asked to invent a*

new drink and get prepared to sell it to others. This is an activity that really caught my attention

since it escapes from traditional dynamics such as simply *asking pupils to talk about their*

favorite drinks, where there would be little substantive content, and students might not be fully

engaged. A future prediction of this innovative task is that learners would definitely feel more

challenged since this proposed activity was more demanding, interesting, and richer in language

use. This example also indicates that there is evidence of an initial CLIL transition to stimulate

creativity, thinking skills, group work, and problem-solving.

By means of strategic planning that refers to a process in which pre-service teachers

defined their map of class intervention once they identified the goals and objectives to be

reached throughout an established teaching sequence that integrated techniques, and other

learning skills that were noticed in the written lessons for comparison and contrast,

hypothesizing, giving examples, defining, and describing a process. In this sense, some of the

questions posed to encourage reflective analysis were: Can you find out how to…? What

happens when/if we…? What do you think will happen if we change…? What can we do to

make this more effective/quicker…? Correspondingly, these questions emerged in the lesson

planning initially to challenge pupils and leave them to solve some problems for themselves.

From the evidence gathered throughout these workshops, I noticed that pre-service teachers

struggled to devise learning skills across the curriculum. As a result, I provided them with some

strategies that in the end were used to enrich their production.

The following participants' artifacts illustrate how pre-service teachers devoted part of

the lesson planning to data handling, organizing information, and reporting results, considering a

variety of topics:

Example 1: "*In a group of three students record the data about the weather on the graph*

and decide which data goes on the X-axis and which on the Y-axis".

Example 2: *"Watching the video clip about states of matter and then, <u>writing down</u> the key facts"*.

Example 3: *"Look at the three pie charts and then, in the table opposite, <u>write down</u> the percentages of different groups of people who have healthy habits"*.

Example 4: *"Look at the table and then decide which states of matter go in each column"*

Based on the previous extracts, learning skills across the curriculum were key factors to reinforce creativity, critical thinking, collaboration, and conveyance of ideas which permitted learners to progress a bit toward 21st-century skills.

Interacting with others is one of the basic learning skills that teachers should consider when writing their lesson plans. Hence, I identified in these workshops that even though pre-service teachers incorporated some communicative tasks, still there were a few limitations in how to apply strategies to build up communicative functions while teaching subject-specific vocabulary. The following data was taken from my journal in which we can see how pre-service teachers initially presented some deficiencies when trying to add communicative functions in their lesson planning: *"...The planning sequence that students were developing had limited communicative tasks since there was little evidence of different interaction patterns. Most of the time, there was a simulated speaking exercise between teacher-student and vice-versa."* Hence, they justified their position, saying that this is the model they mostly evidence in their settings. I took advantage of this to clarify the theory under CLIL and remind the importance of applying different types of interaction to resemble real language use.

It is my firm belief that pupils need to receive an ample amount of examples so that they gradually produce what is expected. After examining the way participants were developing their lessons, I suggested to all of them to match the corresponding communicative function with the

given contents so that they analyze the convergence that exists between content-obligatory

language, and functional language for specific subjects. To exemplify this exercise, Bentley

(2010) suggests the following structure:

Table 8

Model artifact to illustrate communicative functions

Giving examples		
Freshwater ecosystems		*rivers and lakes…*
Marine ecosystems	such as	*the sea…*
Some human activities		*agriculture…*

Table 9

Model artifact to illustrate communicative functions

Describing a process	
First,	*food is chewed in the mouth…*
Then	*This food moves down then…*
Next	*it mixes with gastric juices…*
Finally,	*It leaves the stomach and…*

Both charts include underlined keywords and specific communicative functions

(italicized phrases) that go hand in hand with academic language which presents the structure

through a functional view of language (functions in bold), instead of highlighting grammatical

rules that might not be in accordance with pupils' age.

Another essential point discovered throughout workshops two, and three in terms of

communication strategies was the consciousness of pre-service teachers' behalf to gradually

create a safe and nurturing environment that supported the language experience approach as one

of the strategies used for these workshops. The connection of this positive finding is aligned with

the right interpretation and assimilation of the role of language in CLIL. That is, to know the

content-obligatory language, which is the vocabulary, grammatical structures, and functional

language for specific subjects. Hence, the evidence in Figure 11second and third workshops

triangulation suggests that both categories: *Application of communication strategies and*

Evidence of subject-specific vocabulary hold constant in the same direction which evokes a close

relationship between the expected content and how it is going to be taught. In other words, these

two labels predict a gradual interaction in the EFL classroom that might initially start with

keywords, key phrases, useful games, and numerous techniques to create a supportive learning

community.

Considering the results obtained in the survey at the end of workshop Nº3, pre-service

teachers informed how they implemented these two codes in strategic planning.

Excerpt 1: *"The main strategy that I used in the lesson planning was the association of*

the topic: States of matter with their daily life through the language experience approach for

them to express their opinions".

Excerpt 2: *"To direct pupils to meaningful learning through an experiment in which*

students could observe the stages of the water cycle. In this sense, they can identify the

obligatory content to share opinions and ideas".

Excerpt 3: *"In my lesson planning, I created some guided questions to elicit students'*

answers. I also incorporated chunks of language".

Excerpt 4: *"Using community language learning methods a lot in the classroom is a good way to make students active in the classroom. Also, focusing on demanding activities that can be supported with Bloom's Taxonomy"*.

Excerpt 5: *"Making use of active methodologies throughout the lesson planner which promotes students' participation with meaningful content activities that foster critical thinking, and collaborative work"*.

The evidence suggests that participants continued using the teaching strategies they studied during workshop N°1, for instance, scaffolding content and language, awareness of pedagogical procedures, and appropriate use of BICS and CALP, which occupied the highest percentages. These factors reaffirmed a positive washback in relation to how they received the training, and the way they are developing their planning. Furthermore, with the progress they have shown, it can be argued that the lessons they have currently planned are aligned with a communicative approach, they care for the content in which the activities will be landed, and how the tasks might touch pupils' real life.

Finally, the descriptor with the lowest percentage is *Little strategies for the materials design process.* This assessment indicates that pre-service teachers' skills in terms of developing materials were low when writing their lesson planners and that they struggled to reinforce the language component in the worksheets they created. This fact really caught my attention because as it was stated previously, one of the codes identified with a high percentage reaffirmed that participants were scaffolding content and language in these workshops. However, these techniques were not clearly declared in the material design. Arguably, existing CLIL learning materials are usually written for other countries or contexts, then adaptation and evaluation of materials for supporting learners' process in their setting might have become a real challenge for

pre-service teachers. The evidence collected during workshops Nº 2, and 3 also demonstrated

that pre-service teachers felt motivated and showed a good attitude that interacted with the

findings revealed in the diagnostic stage in which there was a category with a 16%, illustrating

an *interest in materials' development.* Undoubtedly, this encouragement has facilitated the

process of becoming reflective teachers.

On the other hand, the analysis of students' artifacts, reported advances on some

considerations or adaptations of materials to meet learners' needs which indicate a further

progress and positive result obtained through this training. A clear example of this is the target

skill of the lesson which in most cases was connected to the subject matter, age, and the language

level of learners. Regarding vocabulary, the appropriateness was measured by the number of

words, and sentence lengths.
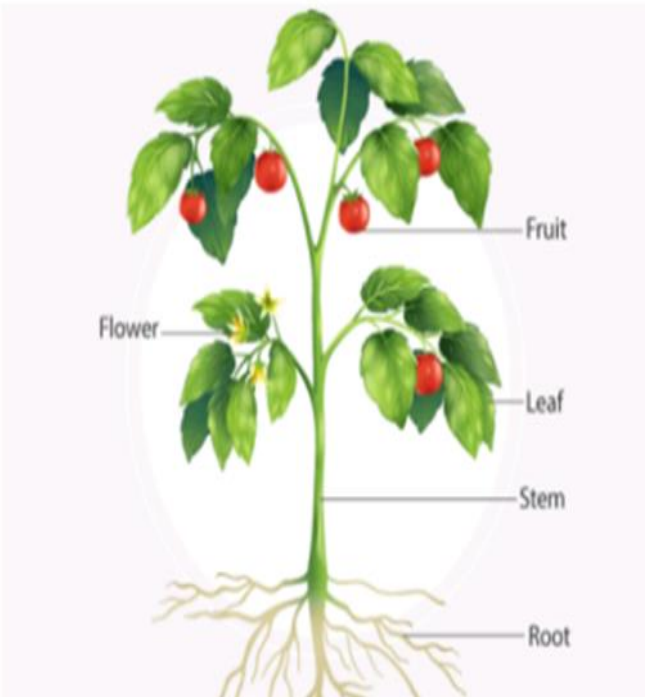
Again, the grammatical components also played a relevant role in this analysis since they

battled to adapt the structures that pupils were already familiar with or to identify the new

grammar to be taught in the lesson. Specifically, the next handout, Figure 12 pre-service

teachers' material adaptation illustrates some of the positive features at this stage.

Figure 12

Pre-service teachers' material adaptation

Parts of a plant

First, we need to understand that plants are living things and that they need water, sunlight, and nutrients to grow. The parts of a plant that we are going to learn about are:

Flowers: Colored and attractive parts of the plant attract insects and other animals to pollinate them.

Fruit: Contains the seeds and is produced from the flower after it is pollinated.

Leaf: They are the green parts of the plant that grow from the stem.

Stem: This is the part of the plant that is above the earth and supports the leaves, flowers and fruits.

Fruit

Flower

Leaf

Stem

Root

Note. Pre-service teachers' artifacts for 2nd grade.

The example above, a handout from a science lesson plan developed by pre-service teachers shows relevant content on the parts of the plant. Pupils are assisted by having the text broken into small chunks. Illustrations are added to ensure students' understanding and to ease the process. As stated before, the vocabulary was adapted to the learners' age and English level. However, is students' prior knowledge activated? does the material rely on students' experiences? does the material encourage the development of HOTS? are there keywords to support *language learning*? To interpret pre-service teachers' production at the end of these workshops, I consider that even though they are exposed to intervening and observing classes in

their internship, still, there's a gap in terms of the design of materials for pupils to develop tasks. A technique that has been useful for them is to organize the learning objectives from the very beginning and try to sequence the lesson in an engaging manner. I consider that for the next three workshops, it is important that pre-service teachers experience how to adapt or design CLIL materials that go hand in hand with their topic and own context. In this line, how to recycle sources of information and materialize the content are factors that need attention.

The end of these workshops in general terms outlined challenges, and achievements that pre-service teachers expressed by means of the following reactions.

Excerpt 1: *"From my point of view, writing a lesson planner allowed me to have a better organization among the activities".*

Excerpt 2: *"These workshops taught me how to create an excellent lesson plan, the different sections it has, and how it should be organized".*

Excerpt 3: *"Definitely, CLIL approach makes a contribution to students' professional development because it is not only based on content, but it balances content and language so that the students have a significant impact when learning a language".*

Excerpt 4: *"The most difficult thing for me was to integrate the 4Cs into the lesson planning, especially Culture"*

Excerpt 5: *"For me, the most difficult part was Culture because you have to think a little bit more about what you have to say or if the topic is related to what is around you".*

Workshops N.4 to N.6. After the implementation of workshops 4, 5, and 6, the data collected from the instruments were analyzed about the qualitative method that was structured for that purpose. In this sense, these interventions aimed to achieve the following goals: Adapting/designing learning materials in terms of content and language, applying assessment

principles, and integrating language skills into content lessons. At this stage of the inquiry, pre-service teachers had gained a lot of experience in the realization of learning tasks, how to structure a CLIL lesson planner, and how to measure the complexity of the activities through the online tool: *Global Scale of English.* In fact, it was noticed that participants' teaching production at the end was aligned with the results they collected from the needs analysis that they briefly conducted in their teaching settings to find out the types of exercises/activities that pupils were interested in. This argumentation will be further described along the analysis.

The structure of these workshops was composed of some steps in which pre-service teachers had to complete two examinations in their English book pupils were using at their school/institutions: one internal, and the other external. Based on these findings, the next step was to adapt/design materials to meet learners' needs, considering the integration of both content and language. These factors highly enlightened this dissertation by revealing the future action plan in which assessment principles were applied. This essential part took place in workshop Nº 5 where participants aroused their curiosity and realized that the activities, they had previously completed were not fulfilling the quality criteria for assessment.

Eventually, the final workshop focused on enhancing the learning material designed by participants in the prior stage. Hence, it was possible for them to teach in their real settings by using the booklet (material design) they created for this purpose. The ones who were not working at the moment applied the lesson to their internship settings. Participants showed substantial progress when integrating the four language skills (productive/receptive) from beginning to end. The following graph, Figure 13 displays the categories and corresponding percentages as part of this analysis:

Figure 13

Categories of analysis in workshops 4, 5, and 6
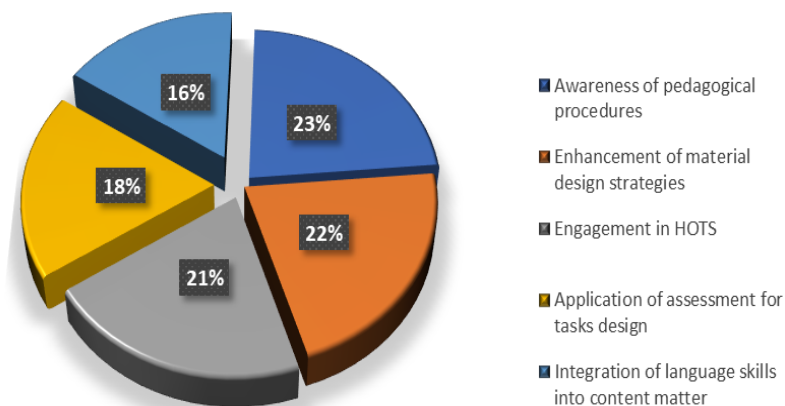
According to the analysis presented in Figure 13, the categories with the highest average

in workshops 4, 5, and 6 were *Awareness of pedagogical procedures* and *Enhancement of*

material design strategies. The convergence examined from these main codes and the ones

obtained in previous workshops (1, 2, and 3) resides in the methodology and reflective process of

how participants approached various techniques and strategies with a goal in mind, for instance,

the design of tasks, lesson plans, application of different interaction patterns in the class, and by

means of a language experience approach which led them to understand how to integrate

receptive, and productive skills when working on language and content.

Thus, if we look at Figure 6, the diagnostic data triangulation exhibited little

appropriation of strategies in practice and theory to determine the expected flow of a class

focused on both content and language. Pre-service teachers used to possess very low skills to

determine the language needed to learn as part of the subject matter taking place, and difficulties

in integrating receptive, and productive language skills. What stands out in this part of the

analysis is the contrast between the characteristics of the target population before they became

members of this research and the gradual growth, they have reached during the action stage.

Therefore, the data indicate suitability as a starting point regarding the strategies implemented

along workshop Nº 4 which were recycling sources of information from needs analysis and

building redundancy into the lesson to adapt and design materials in terms of content and

language.

A key significant area that favored these strategies was the conceptualization of

participants' teaching settings accompanied by the challenges of creating material that satisfies

the whole course or teaching a course with material that is appealing and motivating. Firstly, I

provided them with some examples that indicated the principles to follow when designing. These

elements were: Materials should achieve impact, materials should help learners to feel at ease,

what is being taught should be perceived as relevant, and valuable; finally, materials should

expose the learners to language in authentic use. All these factors aligned with the integration of

content and language. The following excerpts from the researcher's journal report on some of the

questions that emerged when contrasting the reality of their pupils' needs with the types of

activities and exercises presented in the classroom.

Excerpt 1: *"Teacher, what type of questions can I design for checking reading*

comprehension, and developing HOTS?"

Excerpt 2: "*Teacher, what criteria should I consider to write multiple choice questions?*"

Excerpt 3: "*What elements should I consider to write true/false statements?*"

Of interest here is their increased curiosity for enhancing the materials they were revising

as they could identify a lack of critical thinking and creativity in the constructs. Consequently,

the theory in this part of the investigation required pre-service teachers to apply some materials

design principles outlined by McDonough et al. (2013) which permitted them to understand

some teaching situations where "open market" materials are selected by teachers who may have

a large choice in the materials they select. However, there are other realities where teachers do

not have a choice and they are handed materials by the Ministry of Education which makes the

teacher cope with those contents within a particular context that might keep the same textbook

for years, and years to come (McDonough et al., 2013).

This part of the workshop made participants feel identified with at least one of those

situations. It helped them reflect on the importance of creating their learning materials that might

easily fit the context of a particular group. Subsequently, the strategies worked on this workshop

were assessed by considering two pillars: External evaluation, and Internal evaluation.

McDonough, Shaw, and Masuhara, in their book "Evaluating ELT Materials" recommended

applying these two types of examinations to the book pupils were using at the moment in order

to clearly determine the necessities, desires, and deficiencies of the course. The criteria under

this approach followed the next sequence:

Table 10

Materials evaluation

N°	External Evaluation	Internal Evaluation
1.	Intended audience	Presentation of the skills in the materials
2.	Proficiency level	Grading and sequencing of the materials
3.	The context in which the material is to be used	Reading/"discourse" skills

4.	How the language has been presented and organized into teachable units/lessons	Listening skills: Authentic/artificial
5.	Author's views on language and methodology	Evidence of different learning styles
6.	Vocabulary lists/index included	
7.	Visual materials that the book contains and the integration of these materials into the text.	
8.	Layout and presentation of the contents	
9.	Cultural elements of the book	

As the chart above displays, "External evaluation" represents what the book says about itself. Thus, this served as the beginning to justify or disprove what the authors claimed about the foundation of the books that pupils were using. On the other hand, "Internal evaluation" reflects the material's internal consistency and actual organization. Hence, by the end of these two examinations, pre-service teachers could find the extent to which the first analysis was aligned with the second study. Apart from the criteria analyzed in the internal evaluation, pre-service teachers administered a "Textbook evaluation checklist" (see Appendix E) to support the findings gathered in the aspects listed in the chart. This checklist is divided into five (5) steps: Content, vocabulary and grammar, exercises and activities, the attractiveness of the text, and skills development. After administering this checklist, it was easier for pre-service teachers to elaborate a more solid needs analysis to start adapting/designing materials in terms of content

and language which is the methodology identified in the diagnostic data triangulation with the category: Need to teach curricular subjects (18%).

Building redundancy into the lesson was used as another strategy in workshop Nº 4 which permitted participants to use repetition, paraphrasing, synonyms, and recycling techniques to offer opportunities for comprehension of the target language and content to be studied throughout the unit design.

Enhancement of material design strategies was the response to the development of teaching materials created by a small group of pre-service teachers interested in making CLIL lesson preparation less time-consuming. While creating these resources, they found it challenging since content learning merges with foreign language learning. Moreover, these two agents (content-language) are correlated with the selection of readings, audio-visuals, and methodological design within a variety of tasks to integrate receptive, and productive language skills.

In a unit on the topic: "Habitats and adaptation" (8th grade) developed by pre-service teachers, they applied some material design strategies for pupils to get familiar with both: content, and language objectives. In the next artifacts, there is evidence of questions that make learners interact with the images presented and elicit learners' responses by exposing them to opportunities for real interaction.

Figure 14

Design of a unit (8th grade), pre-service teachers' artifacts

As images illustrate, chunks of language were provided as a tool for pupils to orally operate in the classroom. Written instructions were clearer and more direct in comparison to earlier productions. The results of this material development show principles/techniques that might diminish the use of the mother tongue because of the scaffolding range that kids would face throughout these lessons which is beneficial, especially for beginners whose English level competence might be low. This part of the analysis corroborates the positive results obtained from the second, and third workshops triangulation where pre-service teachers studied how to scaffold content and language, as well as how to implement learning skills across the curriculum.

Complementary to this, pre-service teachers showed progress in highlighting the functional view of the language. Example: "Use the simple present to express thoughts and

feelings; give facts, talk about daily habits or repeated actions". The next artifact provides

evidence of a careful selection of a text which included repetition, recycling of keywords, and a

balance between familiar, and unfamiliar items. It is important to bear in mind that this finding is

contrary to the analysis obtained during the diagnostic stage which suggested that pre-service

teachers most of the time used traditional methods and possessed little knowledge of teaching

procedures.

Figure 15

Design of a unit (8th grade), pre-service teachers' artifacts

Another essential point to remark is that the category *Little strategies for the material*

design process which was ranked in the last position in the previous workshops and represented

weaknesses in the performance of pre-service teachers when trying to develop materials

disappeared and significant improvement was identified and systematized with the category:

Enhancement of material design strategies.

Throughout these workshops, I realized a higher motivation in pre-service teachers when

participating and sharing ideas in classes. I consider that this was possible because of their

attitude, the constant support they received from each other, and the samples of materials I

socialized with them from the very beginning. Likewise, the implementation of strategies was

not easy, but challenging for students such as providing key vocabulary and/or phrases, offering

alternative ways of expressing understanding, and selecting and adapting content knowledge to students' developmental and cognitive levels. The following excerpts illustrate pre-service teachers' reactions when adapting and designing CLIL materials.

Excerpt 1: *"I enjoyed being able to start from scratch and design our own activities"*.

Excerpt 2: *"The easiest part of designing the content was knowing the context beforehand and the English level of the children"*.

Excerpt 3: *"The easiest part was where some activities were designed for the students in terms of cognitive and communicative aspects"*.

Excerpt 4: *"Classifying the activities according to the learning objective of each course was the most challenging task I experienced"*.

Excerpt 5: *"From my experience, the elaboration and analysis of questions according to the grade in which the topic is going to be worked were not easy to handle. That is to say, classify the activities according to the learning objective of each course"*.

Excerpt 6: *"An advantage of the booklet is that it is not grammar-based and makes use of authentic language material which will enable the student to learn other things while practicing the language. By reading texts to complete sentences and selecting the correct words to fill in the blanks, students will improve their reading comprehension skills. They learn to identify context and make decisions based on the meaning and structure of sentences"*.

Excerpt 7: *"By using this English book, students are exposed to a variety of terms and concepts related to different habitats, animal and plant species, and ecological processes"*.

Excerpt 8: *"Environmental Awareness is one advantage of our material design. Our English booklet awakens students' awareness and appreciation for the importance of conservation and protection of natural habitats. Through reading stories, facts, and examples of*

habitats and their biodiversity, students can better understand the interdependence of living

things and the human impact on the environment".

It has been shown that participants had really good impressions of the materials they

designed since they wanted to generate cultural awareness in their pupils while working on some

academic contents listed after familiarizing themselves with the context. This positive reaction

was also because of the lack of contextualized resources in their settings. Thus, once they

experienced real-life tasks, a strong functional view of language provoked meaningful learning.

Likewise, this enhancement was accompanied by some challenges aligned with the

learning objectives to classify the complexity of the tasks to be included in the unit.

Engagement in HOTS was another category that emerged from this analysis. As Figure

11 displays, the percentage was high and positive which supported the work completed for

example in workshop No. 1 where the *Implementation of Bloom's Taxonomy* occupied a lower

percentage (8%) in comparison to this updated result taken from workshops 4, 5, and 6. A key

feature that was meaningful for them was the use of the Global Scale of English (GSE) as a tool

that they were taught during the activities carried out in previous work which demonstrated a

correlation among workshops. In fact, engagement in HOTS was related to the aforementioned

category: enhancement of materials design strategies. I could notice that my learners were

integrating more challenging tasks while they were deciding on a better format, clearer

instructions, etc. As part of this exercise, participants could differentiate whether they were

applying either low, or high levels of thinking through the act of designing tasks for

understanding, analyzing, or creating something new, as part of the dynamic of writing activities

for the design of the unit.

Based on the reflection, administration of instruments, and observations conducted

throughout the workshops, it could be noticed the multifocal material design where HOTS

became an integral part of content and language. This relationship can be explained by the

insertion of certain topics that offer the possibility to encourage and/or extend awareness of

generating authentic learning in and out of the classroom.

Figure 16

Design of a unit (8th grade), pre-service teachers' artifacts

The above example was taken from a unit on "Habitats and adaptation" in a CLIL science

lesson developed by a group of pre-service teachers who elaborated interesting activities that go

hand in hand with the elicitation of critical, logical, and creative ideas which promoted continued

growth towards intellectual skills. In the example of writing, the image indicates that pupils were

expected to come up with a proposal on *how to take effective actions to maintain the health and*

cleanliness of the oceans. This type of exercise permits kids to recall their prior knowledge of the

subject matter content and maximize their thinking to be critical in providing solid ideas to solve

the problem. Additionally, the task set out with the aim of implementing the 4Cs that CLIL

entails. For instance, students had the opportunity to refer to the *Content* learned through an

additional language; *Cognition* was vital to organize and sequencing their thoughts, making use

of CALP where the use of language must be cognitively demanding, explaining, validating,

arguing, defending, collaborating, and solving. Thus, learners were required to use academic

terms. *Communication* played a relevant role since it served as the instrument to deliver the

respective message to the rest of the kids; and *Culture* gave them the chance to represent their

concepts, considering beliefs, and behavior.

Another finding that stands out from the category reported earlier is that throughout the

design of these learning materials, participants gained some positive insights not only on how to

integrate the principles under CLIL to generate learners' thinking skills but also as a matter of

reflection upon their own practice. Some of the implications emerging from the data were

expressed in the questionnaire that pre-service teachers took throughout these workshops:

Excerpt 1: *"Our material design brings several benefits when applied in the context in*

which we teach. It includes scaffolding strategies that help students build their learning step by

step. It also incorporates active English activities that build students' interest in what they are

doing."

Excerpt 2: *"The booklet we designed includes topics focused on day-to-day activities and*

interests; relevant to the target population, making it interesting, and didactic at the same time."

Excerpt 3: *"The book will benefit students who do not have the material to learn*

English.".

The previous evidence of work reveals strengths that were applied to the concrete

material as a result of the preceding workshops that focused on highlighting certain strategies

such as scaffolding teaching/learning process; modeling/building up knowledge, language

experience approach, strategic planning, etc.

Figure 17

Learning through video games (Teenagers), pre-service teachers' artifacts
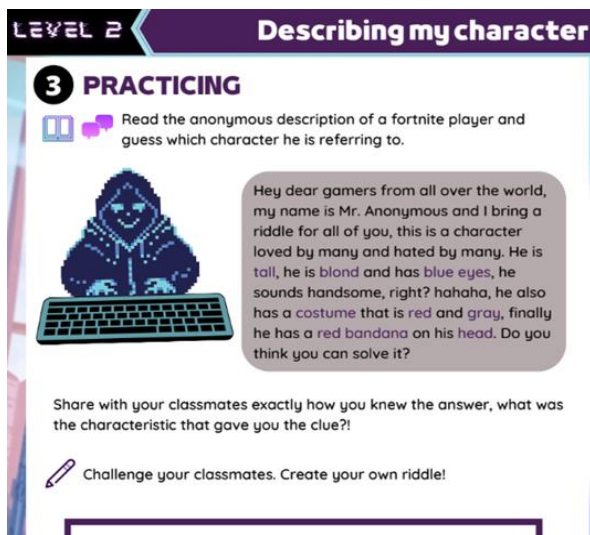
This image is part of the design of a booklet named: *"Learning through video games",*

lesson 2 *"Describing my character".* It represented an exercise to practice reading

comprehension at the inferential level. Purposely, some keywords/expressions were provided for

pupils to challenge their classmates once they created their own riddle. This factor also

contributes to the way pre-service teachers improved their pedagogical procedures when creating

interesting materials to meet the characteristics of their target group (age, interests, topics).

Equally important, the *Application of assessment procedures for tasks design,* and the

Integration of language skills into the content matter are the final categories that emerged from

the analysis. Workshops Nº 5, and 6 played a crucial role in shaping participants' teaching

performance. Workshop Nº 5 focused on applying assessment principles by considering some

techniques to implement: Quality criteria for assessment, assessment for learning, assessment of

learning, and assessment as learning.

I decided to structure this workshop with the aforementioned strategies because of a

challenge I identified in prior workshops had to do with limited qualities of language assessment

when it came to the integration of receptive and productive language skills. For example, some

questions they wrote missed validity since some of them did not clearly measure what they were

supposed to. Thus, the starting point of workshops 5, and 6 was to enrich the process of

integrating language skills following the communicative constructs.

All this process began when I realized that despite the fact that the design of the material

was enhanced as well as the engagement in HOTS, as previously declared, pre-service teachers

still needed to consider some assumptions to polish the purpose of the tasks. As long as the

workshops were conducted and participants got familiar with the strategies they did not know, I

observed that the tasks' purpose had better organization since they defined whether these were

for diagnosis, progress, or achievement. Another aspect that I checked as part of their outcomes

was a more precise method or instrument to structure each question/exercise. For example, some

of them added a variety of formats to measure students' performance such as checklists,

numbering events, and filling the gaps. This means that participants learned some criteria for

qualities of language assessment. Nevertheless, when I continued checking, some exercises did

not tell pupils where to go over the task, and others were assessing common sense or knowledge

that made pupils answer the questions without reading. Thus, in such cases, there was no

evidence of real "reading comprehension".

With practice, they were improving step by step but still required guidance.

This section of the workshop focused on classifying the activities according to the

purpose of each (diagnostic, progress, or achievement). To enrich this description, the next

comment was taken from the teacher's journal during workshop Nº 5:

"Professor, I understood that the learning standards I selected when designing my unit

aim to achieve a goal at the end of each lesson, and language learning and assessment is an

ongoing process that requires some steps according to the procedures to be followed".

The comment above makes reference to the importance of checking the standards or

goals pre-service teachers had written so that they could turn them into assessable sub-skills.

Revising their work, participants had to apply some adjustments to the activities developed

already. These changes were made in terms of restating the instructions, inserting examples as a

model, clarifying the construct to be assessed, etc. To illustrate instructions for multiple choice

questions (MCQs):

Example Nº1:

Original instruction: *"Read and answer"*

New version: *"You will read a text about "The ocean layers" For each question 1 to 5 below,*

choose the correct option: A, B, or C".

Example Nº2:

Original instruction: *"Circle the letter that represents a conclusion".*

New version: *"Which of these is a logical conclusion based on the information in paragraph*

2?".

Example Nº1 suggested that instructions must be clearly written so that pupils can

understand the gist of the task, and get familiar with the method to use for responding. In this

case, the method was multiple choice questions. In fact, the instruction contained the topic of the

reading, as well as the number of questions to complete. Notice that the original version was somehow abstract and a little bit confusing since it did not express how pupils were expected to answer.

Example Nº 2 was confusing, and a little bit ambiguous which might have generated more than one interpretation by pupils. However, after pre-service teachers listened to my explanation of the *Criteria for assessment*, the new version gave evidence of greater comprehension of the tasks/instructions, etc. Additionally, this type of question provided the opportunity for inferring the answer and took the learner to the specific section of the text where the response is located. A positive side of these workshops was the advance that learners had when revising the types of activities they had planned before. Progressively, they applied some criteria for assessing language and content. In general terms, I consider that the strategies and techniques studied played a relevant role in their progress.

Proof for the previous analysis was the various methods/ procedures pre-service teachers used in their material design: Numbering events, filling the gaps, ordering, multiple-choice questions, matching, true/false, short answer, performance assessment, etc.

Qualities of language assessment were implemented throughout the process to check for validity, authenticity, and interactiveness. These characteristics were accompanied by different types of assessment such as assessment for learning (AfL), assessment of learning (AoL), and assessment as learning (AaL). The idea with these strategies was to ratify the actual state of the activities within the proposed material. At this stage of learning, pre-service teachers directed their attention not only to language but the content matter. In terms of validity, most of the activities had a high level of this feature since they measured what they were expected to measure and nothing else. An example of this is the following task to encourage the writing skill:

"Write a paragraph describing your imaginary adventure in the jungle. Use the <u>simple</u>

<u>present tense</u> to talk about what you see, hear, and experience during your journey. Feel

free to include various jungle animals and their actions".

The previous example indicated that there were two pillars in the task: 1. To write an

imaginary adventure in the jungle, 2. To use the simple present tense. These two variables clearly

portray the topic of study and the structural view they just introduced to pupils. This kind of

exercise commonly exemplifies AoL as it is presented after instruction (at the end of the lesson)

to verify how much students learned in content and language. It served as a basis for pre-service

teachers to evidence pupils' learning to assess achievement against outcomes and standards.

Authenticity was observed in a task that opened learners the opportunity to be in touch

with authentic material/language as it is used in real-life. This resource suggested a functional

and practical methodology for the EFL classroom because it is one video about telling jokes

which portrays an interactive situation from outside the classroom. In this sense, participants

asked pupils to scan a QR code to listen to a man telling a joke. The interesting part of this

activity was the gist for listening/watching that learners were completing while the video was

playing. It consisted of filling the gaps to complete the joke.

Then, learners had to quickly tell the joke to their classmates. It provided learners the

chance to gain vocabulary and experience new language structures. Regarding the type of

assessment, this connects AaL and AfL since the task was designed to be implemented before the

instruction to tap into students' previous knowledge and introduce new expressions or chunks of

language that illustrated the topic to cover. Likewise, students became their own monitors of

learning. Moreover, the second type of assessment (AfL) involved pre-service teachers using

evidence about students' understanding and skills to inform how far they have achieved the level

of instruction.

Interactiveness merits our attention because of the level of involvement that pupils had

with certain topics/activities that made them produce language knowledge based on their

previous experience and skills. An example of this quality of assessment is reflected in the task

below in which learners were expected to scan a QR code to visit an interactive platform where

students had to draw what they had listened to, save the drawing, and share their product with the

rest of the class.

Figure 18

Learning through video games (Teenagers), pre-service teachers' artifacts

In other words, it supported students to activate their language skills, considering the

constructs of interest (previously identified). Thus, the assessment progressively activated the

topics of study to perform. This type of exercise encouraged AoL as it dealt with "reinforcing"

the theme studied before, in turn, teenagers were expected to apply strategies to complete the

exercise. Furthermore, during the realization of these workshops, pre-service teachers also

learned the importance of the *Integration of language skills into the content matter* that exhibits

the last category displayed in figure 13. Hence, I found a close correlation between assessment

criteria, and how much these patterns supported the integration of language skills. For the final

workshop, I considered it necessary to work on the integration of receptive and productive tasks

that reinforced the learning skills as well as the techniques studied during this training.

Specifically, workshop N°6 was focused on a pilot study of the materials design (at a small scale)

for pre-service teachers to apply to their real context different interaction patterns which were

fundamental factors to succeed.

Turning now to the experimental evidence on the integration of language skills, I divided

this explanation of analysis into two sections: 1. Indicating how this last category can be found in

the materials, 2. The implementation of the materials design in pre-service teachers' context.

Regarding the first issue, I realized that pre-service teachers were moving towards a more real

integration of these skills in the EFL classroom. This act continuously reinforced and improved

communicative competence using fluent language. Interestingly, there was a significant inclusion

of activities that happen in real life, that is, these tasks could be done by pupils out of the

language classroom. The following examples extracted from different materials designs,

illustrate real-life or authentic tasks.

Example 1: *"Plan a sleepover with your friends. Write an itinerary."*

Example 2: *"Read the review of the film: Wall-e. Read the comments that other people*
wrote and add your own reaction as a post"

Example 3: *"Create a podcast and talk about the things existing in the ocean".*

Example 4: *"Tell your friends details about your birthday party".*

Example 5: *"Listen to your friends talking about their anecdotes. React with a*
comment".

Example 6: *"Write an invitation card for a costume party."*

It is important to mention that the previous examples are a small view of the activities that were developed to connect pupils to their real life. In this sense, these examples were taken from different booklets that pre-service teachers created. In the end, one step was taking pupils to the other in-class times since participants sequentially encouraged kids to identify the daily use of the language. Consequently, the second issue involved the active participation of pre-service teachers and their kids when implementing a lesson from the booklet they already designed. For conducting this last plan of the action stage, I had participants experience the different ways pupils and teachers might interact in the class. For example, I explained that for the elicitation of ideas, the interaction pattern could be Ss-T, or if the aim was group writing, then the Ss-Ss group was a good choice. With this in mind, I wanted to promote collaborative work from the very beginning. Afterward, I presented the rubric that was designed for evaluating their class. This instrument was divided into seven sections: Teaching aims and learning outcomes; content, language, and communication; cognition, culture, material, activity delivery, and assessment. In light of this, I noticed that most of the pre-service teachers considered the rubric to structure their exit performance. Some of them were a little nervous, and anxious before teaching.

When their class started, they let their pupils know what the content and language objectives were. Another strategy that they had taken into account was to stick on the wall some phrases that learners were going to use to operate in the classroom. Something that facilitated the process of teaching was the clear understanding pre-service teachers had of the topic since they were the ones who designed each material. However, a common factor they had in their performance was not providing a clear gist for completing certain tasks. Therefore, I noticed

some pupils asking for clarification which was also beneficial because it opened the door for pre-

service teachers to exploit their strategies and teaching procedures.

When communicating ideas, there were two phases indicating similar intentions. Let's

analyze excerpts 1, and 2 below which come from a grade 8th CLIL Science class on Exploring

the Jungle. It is easy to note how the teacher implemented interactional strategies that resulted in

different opportunities for learning.

Excerpt 1:

T: What sounds can you hear in the jungle?

S: We can hear animal sounds, and…

T: Well done! We hear animal sounds and…what else? Can you expand your idea?

S: Yes, teacher. We can hear animals sounds and sounds that come from nature (mispronouncing

nature)

T: That's true! We also identify sounds that come from NATURE (rising intonation), for example

the air, water. What else, guys?

S2: Teacher, rain…

Excerpt 2:

T: What do you know about the habitats and behaviors of animals living in the jungle?

S: Monkeys swing from branch to branch…

T: And what else do monkeys do? Juán, can you expand on what your classmate said?

S2: Yes, teacher. These animals love to eat bananas and make fun sounds…

T: Ah, yes they MAKE FUNNY sounds (wrote the answer on the board)…

It can be noted that the teacher explicitly worked on pupils' contributions which

motivated them to orally participate in the lesson. Additionally, in the first example, the teacher

recast what the student said, and immediately encouraged him to expand the idea. Likewise, the

teacher noticed the mispronounced word "nature", and gently mentioned it louder.

Similarly, excerpt Nº2 shows that the teacher included another interaction pattern by

asking a different classmate to comment on what someone else previously expressed. At the end

of the exercise, the teacher corrected the student by accurately recasting the utterance and writing

the words to guarantee a better understanding.

Teachers' interventions were accompanied by appealing materials to support the lesson.

Realia was also part of the strategies that they used such as videos, music, maps, magazines,

advertisements, etc. Accordingly, it was possible to verify some skills involved in collaborative

learning such as active listening, problem-solving, decision-making, leadership, conflict

management, and critical thinking. Likewise, some principles were evidenced through the

application of these skills: Positive interdependence, simultaneous interaction, and equal

participation. I noticed that most of the tasks followed some of the principles for assessment that

were introduced in the previous workshop which made their work more interactive, the 4Cs were

evidenced, and the material revealed more precise instructions.

I consider that the success of this workshop was due to each step performed from the start

of this implementation. When checking their class development, I noticed that the teaching

techniques and pedagogical procedures were meaningful for most of them. I also noticed a more

accurate integration of receptive and productive language skills (listening, speaking, reading, and

writing). A key factor to highlight is that the tasks developed aimed to encourage higher-order

thinking skills.

After having implemented and analyzed the impact of CLIL throughout the six

workshops on EFL pre-service teachers' methodological competencies in a private Licenciatura

undergraduate program, it is enriching to see how the strategies applied positively impacted

lesson planning, the design of learning materials, assessment principles, etc. The following

section discusses the general data triangulation of this project.

General Data Triangulation

Triangulating data is evidence from experimental studies to collect robust and meaningful

findings for the researcher, and society (Burns, 2019; Freeman et al., 2022). The following figure

will display the data triangulation percentage of the six workshops throughout the action stage.

There is a table in *Appendix F,* providing detailed information.

Figure 19

General data triangulation
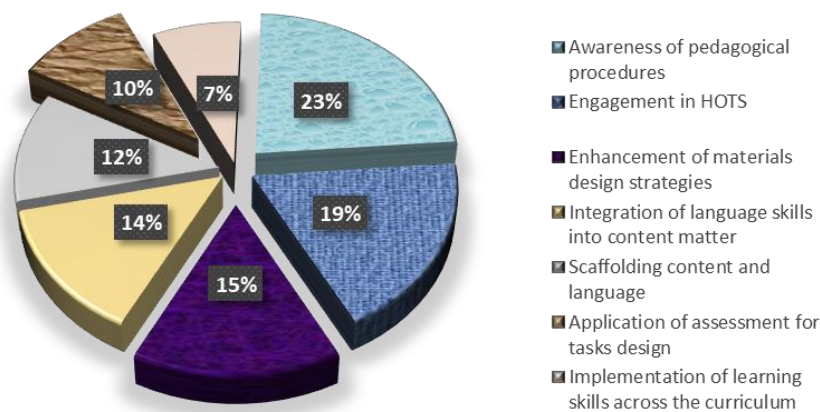
In figure 19 is noticeable how four categories aligned with the specific objectives of this

project behaved. The graph displayed these categories in different textures for better

identification. *Awareness of pedagogical procedures* and *Engagement in HOTS* explored the

effect of CLIL on pre-service teachers' lesson planning when teaching content areas (Science,

Geometry). They were the most frequent categories when triangulating the six workshops. What

can be clearly seen is the third category *Enhancement of materials design strategies* which

connected the purpose of the third objective that aimed at describing the consequences of CLIL

on pre-service teachers' material design process. Equally important, the *Application of*

assessment for tasks design provided evidence for the identification of the influence of CLIL on

pre-service teachers' assessment task design.

The graph also showed a group of codes with a medium overall frequency, such as

Scaffolding content and language with a concurrence of 12%, and *implementation of learning*

skills across the curriculum which indicated the lowest frequency with 7%. In general terms, it is

meaningful to see how these codes increased visibility in the application of the last workshops,

especially workshops four, five, and six, even though some of the strategies were applied in the

first three workshops (see Appendix F). Nevertheless, the last-mentioned category

(implementation of learning skills across the curriculum) had a high tendency during the

development of workshops three and four which differed a bit from the two other categories. The

reason for this had to do with the applicability of the strategies that reinforced the work and life

skills that pre-service teachers wanted their pupils to achieve in the process: critical thinking,

creativity, collaboration, and communication.

Chapter V. Findings

Considering that the main purpose of this research project was to examine the impact of CLIL on EFL pre-service teachers' methodological competencies in a private Licenciatura program, it is the intention of this chapter to discuss the achievements after having implemented six workshops during the action stage. Therefore, the present studies' findings are aligned with the objectives proposed from the beginning of this study because of the diagnostic phase. Specifically, I will present the categories directly connected to the objectives such as pedagogical procedures, materials design strategies, integration of language skills, and application of assessment for task design.

Raising awareness of pedagogical procedures through CLIL

Regarding achievements in methodological competencies, this project intended to promote all the pedagogical procedures that pre-service teachers required to teach not only language arts (English), but content subjects in bilingual institutions, or even private and public schools. In light of this, this group of teachers thoroughly became aware of their teaching abilities, techniques, and strategies as evidenced after triangulating data. In that way, the development of lesson planners was a source of evidence of a coherent instructional method to decide how to sequence and organize the lesson as well as the appropriate selection of the support material. In addition, there were some plenaries during the delivery of workshops that corroborated a remarkable understanding and assimilation of contemporary approaches to deliver content lessons, particularly Sheltered Instruction Observation Protocol (SIOP) (Echevarria et al., 2008) and CLIL; Being the last one the focal point of this action research- project.

Similarly, these results obtained from the evaluation stage also reflected how this communicative approach (CLIL) had a significant and positive impact in relation to the

motivation that pre-service teachers had declared to participate in teachers' development because

of the need to teach curricular subjects. Hence, they gained self-confidence that was invoked as

an important construct when using their own designed materials to instruct the content class.

Those are the main reasons why *Awareness of pedagogical procedures* occupied the top

positions since the implementation of the first workshop. It attested that the cross-curricular

strategies modeled throughout the workshops encouraged pre-service teachers to appropriate not

only technical vocabulary, but to actually apply theory to practice in terms of CLIL unit planning

(4Cs), and to accompany these strategies with a language experience approach that moved pupils

from a passive role to active agents who considered their past experiences, ideas to innovate in

the EFL classroom.

Weaving the principles of CLIL and HOTS

Another positive result from this study was that by means of CLIL, *Engagement in HOTS*

increased significantly (see Appendix F) not only on the pre-service teachers' side but also on

the skills that their pupils reached all over the action stage. It is worth mentioning that during the

diagnostic stage, some participants tended to limit the teaching strategies to traditional

methodologies such as the grammar-translation method, and audio-lingual method, and just a

small number of them implemented a more functional approach focused on interaction.

Workshops Nº 1, and 2 showed a constant number of frequencies which indicated that from the

very beginning, the art of weaving the principles of CLIL and HOTS provoked not only

innovative thinking among pupils but encouraged educators to manage more appropriate

teaching approaches/methods to connect students to authentic learning as a tool to study content

and language. The number of frequencies continued to grow, especially in workshop Nº4 where

they consolidated the different questions and tasks to start designing their product. It ended up

with 64 frequencies in workshop six.

Furthermore, having familiarized pre-service teachers with a CLIL lesson plan when

teaching content areas gave them insights of the benefits of implementing SOFT CLIL even in a

language lesson. This was possible because of the integration of language skills along with the

corresponding tools and strategies that were being applied in that moment of the implementation

stage; for instance, recognition of communicative intention, visual aids, the use of graphic

organizers, show and tell, role-playing, etc. At this point, it is crucial to clarify that the progress

that pupils at school maintained, depended on the intensity of English hours that they had been

exposed to in their classes.

Accordingly, pre-service teachers were witnesses of varied grades of progress in terms of

text interpretations, and application of learning strategies. This turned into a positive challenge

for them as they had to include more dynamics, games, and other methodologies to convey their

instructions and explanation in class. In this sense, CLIL became a learning platform not only to

connect the dots of HOTS but also to transcend to other reflective teaching fields such as

revisiting how much the teachers had familiarized with their pupils to equip the class with more

accurate class materials to capture students' attention as well as checking the actual

understanding of the given subject up to generate authentic learning via CLIL and HOTS.

As a matter of fact, the value of teaching HOTS should be the responsibility of all

educators in the teaching community. The perception that this group of pre-service teachers had,

and as a researcher, I also share this idea of learning, is that in the EFL classroom, the language

and sources of materials that educators use would definitely determine how much input is

received or declined by learners as the quality of instruction. By means of this approach, pre-

service teachers continuously helped their students to experience learning activities that were

taken from understanding, classifying, justifying, and creating. It was rewarding to realize that in

the materials designed by pre-service teachers, learners were exposed to group work, authentic

tasks, and some problem-solving situations to fulfill this purpose.

Positive influence of CLIL on assessment task design

In relation to the second specific objective established for this project, the findings

showed positive assessment practices, particularly during the last workshops (see Appendix F).

The reason for this was the application of varied formative assessment principles such as

collaborative culture, teamwork, higher quality feedback, different interaction patterns, and

chunks of language provided to pupils to support their oral participation in class time. In like

manner, results showed that during the implementation of AfL principles, pre-service teachers

manifested an increased frequency of motivational strategies in terms of promoting learners'

autonomy, creating a friendly EFL classroom atmosphere, bringing interesting materials into the

class, and encouraging positive self-evaluation. In fact, this teaching process guided pre-service

teachers to incorporate authenticity in classroom tasks which ultimately supported learners'

linguistic self-confidence.

Additionally, one of the intentions of the analysis conducted in this dissertation was to

raise pre-service teachers' awareness regarding specific techniques to assure a better quality of

the tasks to be incorporated in the booklet. In light of this, pre-service teachers faced challenges

when attempting to simultaneously assess content and language. One of the difficulties that

influenced the most was the specialized discourse and lexis that they had to plan beforehand, and

because of the complexity of these thematic, it was not always easy to master. This main

constraint took them to enrich their research skills to find support in other sources of

information, for example, webpages, books, videos, lived experiences, etc. Nevertheless, some

evidence showed that they also focused their attention on developing BICS, and not only CALP

which in turn, allowed them to acquire a more functional view of language than they previously

had. In other words, these content and language challenges represented a solid base for pre-

service teachers to find tools to sustain motivation in their pupils. To generally illustrate, they

gradually introduced and assessed content knowledge/definitions by using the easiest structural

view of the target language which was meaningful to this end.

The CLIL approach played a significant role during the design of the learning tasks as it

served a dual purpose. On one hand, it informed pre-service teachers about the pupils' learning

outcomes, and also, the different assessment techniques helped them reduce the summative

assessment tools that they used to implement before being part of this training process. They

significantly diminished those activities (carried out at the end of the lesson unit) that

quantitatively measured whether students had met goals, and to what extent. Most of those

traditional practices were progressively replaced with more practical and appropriate approaches,

for instance, monitoring students' learning, to provide pupils with strategies that helped them

evaluate their own learning, as well as to understand that grading is not the final target, but the

ability to identify gaps and improve learning.

Similarly, throughout the implementation of this communicative approach, we realized

that for conducting assessment principles there is no unique way to follow, but all in all, the

application of these principles will always depend on the enormous range of possible differences

between contexts. This is why this finding reported the relevance of first selecting clear learning

objectives and after that, reflecting on the assessment criteria to carry out and fundamentally

consider the 4Cs that CLIL entails. From this, it was essential that pre-service teachers checked

the development of intercultural awareness; positive attitude towards language and content, and

also the development of strategic competence as the ability to pragmatically organize and convey

their message.

This approach was a good match for reflecting on the learning constructs to be assessed,

cultivating positive planning habits in teachers when writing tasks, instructing lessons, and

crucially, promoting innovative lessons.

Innovations and challenges during the material design process

Enhancement of materials design strategies had a tremendous impact on pre-service

teachers' methodological competencies from the very beginning of instruction. Appendix F

revealed an increase in this category. As evidenced in the diagnostic stage, participants of this

research study were not able to write or develop their own interactive materials because of a lack

of experience and instruction on a model to follow, mainly. As a matter of fact, their motivation

to participate in teachers' development was high from the diagnostic stage; and the reason for

this was the limited teaching techniques they identified in their performance during that phase of

the study. Progressively, the strategies incorporated in the first workshops served as guidelines to

help pre-service teachers expand their knowledge and skills that were applied later to the rest of

the interventions. As evidence of this, workshops five and six comprised the highest number of

recurrences (Appendix F) which was translated to the ability that pre-service teachers gained to

create appealing materials that interested pupils, and possible collaborators that might apply the

product in the future.

One great achievement obtained from this research project involved the writing and

creation of materials to meet immediate learning needs within a particular context. The success

of this process resulted from the needs analysis that pre-service teachers conducted to shape the

learning goals, the purpose of tasks, and design according to the desires, needs, and probably

deficiencies of the pupils.

Consequently, findings reported the importance of following a CLIL curricular model

that could fit the characteristics of the context. In this research, the choice of the CLIL model in

practice depended on different variables: Institutional policies, students' age, English level,

school timetable, the context of instruction, etc. It is relevant to restate that the sample population

that belonged to this project was doing their internship practice in bilingual settings, private

schools, and public institutions. Thus, their teaching experience totally differed. Because of this

reality, the initial steps during the implementation of CLIL were possible thanks to the wide

range of methods and procedures it offered. *Language showering* was explored for those who

worked with early childhood education to simply establish a good atmosphere and equip pupils

with meaningful input. Moreover, *Soft CLIL and Hard CLIL* were methodologies that also

permitted innovations and a lot of creativity in the materials design. Soft CLIL (language-

led/oriented) was seen as the appropriate teaching tool for those practitioners whose main classes

were mainly focused on EFL; representing a smooth transition between English lessons, and

learning curricular topics.

In parallel, *Hard CLIL* was barely applied in those institutions that were declared to be

bilingual. The innovation and simultaneous challenge in this part of the analysis is that even

though it was a bilingual setting in a Math class, the ones who delivered the session of the unit

were language teachers, and not subject teachers as theory states. Therefore, these teachers were

also responsible for teaching not only the content but reinforcing language.

Chapter VI. Conclusions, Pedagogical Implications, Limitations, and Challenges for

Further Research

Conclusions

This chapter draws conclusions reached by this research along with the future research scope that can be derived from this study that can enrich academic literature. Especially contributing to English, content teachers and administrators. Throughout this dissertation, and based on the findings described in the previous section, it was possible to respond to the question: How can CLIL impact EFL pre-service teachers' methodological competencies in a private Licenciatura program?

The effectiveness of English teachers' training

To ensure continuous growth in professional development programs, it is of paramount importance to be attentive to the educational needs that surround us, considering the available resources that currently exist as a starting point to innovate and thus, generate meaningful experiences. In this sense, becoming a reflective teacher is an essential part of the process of understanding the reasons behind the approach and methods teachers apply in the classroom. In light of this, the implementation of an appropriate model of CLIL has a great impact on every single step that revolves around lesson planning, materials design, assessment, and the type of activities that reinforce the learning process. Additionally, the flexibility that this communicative approach has in the EFL setting made pre-service teachers remove their pedagogical barriers to innovate in the classroom, promoting leadership, and creativity which guarantees a better quality of education.

Furthermore, the application of strategies under the CLIL approach intentionally makes this reflective practice intentional, and evidence-based since teachers are expected to collect data or evidence to make informed decisions about their planning. Considering the first steps for the implementation of this approach, particularly in non-bilingual contexts, it is expected to pave a bridge that serves as a transition. *Language showering* demonstrated effectiveness, especially with little kids to reach an awareness of the role of negotiating meaning during the lesson. Consequently, there is little room for pupils to break down the communication, owing to the attention they pay to the intended use of the utterance.

The many faces of CLIL reached positive implementation of learning strategies

This approach deals with a range of possibilities, situations, and dynamics each of which endeavors for different aims. The success of this approach depends on how classes are prepared, organized, and presented to the people involved. Thus, teachers need to examine the minimum content to teach in the given subject and decide on how much emphasis to devote to the language component, depending on the model to apply. It can not be denied that this approach deserves hours for good planning as for helping pupils to construct their new understanding and be challenged. The learning strategies incorporated into any curricular CLIL model must follow the 4C's pedagogical framework, involving real-life activities that comprise meaningful content, communication, cognition, and culture. These models have some common factors that evolve the emphasis given to language, and the development of HOTS through units that reveal contextualized topics.

It is enriching to implement this methodological approach as long as teachers receive the necessary training, being aware of the scaffolding of content and language, integration of

language skills into content matter, adaptation of content materials to students' developmental

level, and how to apply assessment principles for tasks design.

That is why, providing pre-service teachers with the new strategies, techniques, and

methods to be used in a bilingual setting undoubtedly enriches not only their professional

development but also helps them to explore new ideas of teaching that can be shared in different

scenarios and within the teaching community to reduce workload. Contextualization and a

collaborative work process strongly contribute to the practice because of the cooperation from

other teachers when planning lessons to articulate thoughts about settings, and simultaneously,

design tasks that integrate learners' culture and language skills.

Integration of language skills into the content matter is a pillar that corroborates the

advance and improvement that these teachers progressively experienced, particularly in

workshops four, five, and six since these workshops displayed the highest number of

frequencies. A remark worth mentioning is how participants set clear and more appropriate

language objectives for each lesson that connects the content matter. Most importantly, they

understand the applicability of not teaching language skills in isolation, but in an integrative way

to be close to real-life communication as it is a well-known fact that people integrate two or

more of these skills on a daily basis.

The impact of CLIL on pre-service teachers' teaching context

Throughout the implementation of this approach in different target groups, pre-service

teachers impact not only their professional and personal development but generate opportunities

for reflection on the actual curricular model, evaluation system, method, or strategies that the

institution where they work declares in the study plan. Thus, this training serves as an excellent

opportunity to clarify the institutional focus schools intend to achieve. In this sense, this study

provides some insights and evidence of how CLIL models can work in such institutions,

considering the positive effects obtained on the sample groups during the implementation stage.

Likewise, results from this research suggest that this approach encourages opportunities for rich

experiences where the needs and characteristics of the learners are catered to.

The methodology to carry out the workshops becomes one of the most significant

benefits because it improves the effectiveness of classroom methods through the research steps

followed: planning, acting, observing, and reflecting. This procedure supports the decision-

making skills to reduce gaps between theory and practice. Within these great improvements

explored during this inquiry process, there is evidence of a considerable reduction of the

traditional methods that pre-service teachers used to apply in the EFL classroom during the

diagnostic stage.

Pedagogical Implications

The use of CLIL depends on the ways in which teachers embrace it in their pedagogical

procedures. Teachers must have specific language competencies and be aware of learning

processes to be able to provide guidance and make decisions on the CLIL model that best fit the

current institutional requirements. Moreover, this way of teaching encourages a learner-centered

orientation that undoubtedly requires differentiated instruction for different learners. Thus, pupils

encounter opportunities to interact, be in contact with problem-solving, and risk-taking tasks,

think deeply, and recall experiences as a result of meaningful learning. In other words, the first

step to conducting this curriculum model is the collection of information about learners, serving

as a basis to continue with learning goals, content selection, and the preferred methodology that

will guide the course.

It is a fact that teachers bring beliefs from their workplace, learning, and teaching

environment or personal experiences that have greatly impacted their lives. Then, delving into

teachers' beliefs could serve as a big door to gaining knowledge and learning from different

perspectives.

Limitations

The overall limitation that took place during this research project was time constraints.

Given the fact that not all pre-service teachers were officially working in the schools, but some

of them were doing their internship process, it was difficult for this last group particularly to

schedule the class interventions with the homeroom teacher so that they could implement the

strategies we worked throughout the workshops and the application of the material design

created for the purpose of the last workshops. In this way, it is necessary to consider the

importance of arranging class interventions beforehand, and in collaborative work, to plan some

sessions with the English teacher in charge of the class, so that pre-service teachers can retake

the class material that pupils are studying at the moment and adapt through the approach to be

implemented in class.

Challenges for future research

As a final consideration, it is hoped that this action research study serves as a point of

reference that inspires the language and content teaching community to revise the

methodological components that are being used in the EFL classroom as well as realize the value

of CLIL approach to assist teachers in effectively selecting and adapting the suitable model to

fulfill the demands of the context. In light of this, the replication of this inquiry process would

surely offer qualified pedagogical and research knowledge to deeply exploit more principles on

designing authentic materials to teach content and language as a matter of having a wider

understanding of Colombia's context.

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Appendices

Appendix A. Example of the Survey Questionnaire

Survey Questionnaire

The Impact of CLIL on EFL Pre-service Teachers' Methodological Competencies in a

Private Licenciatura Undergraduate Program

This survey questionnaire is an essential part in exploring pre-service teachers' attitudes and perceptions about their teaching practices. The survey is conducted by a master's student of Caldas University. It will take about 10 minutes to complete. The information gathered at this diagnostic stage will be used to identify pre-service teachers' needs.

All of the information collected will be confidential and will only be used for research purposes. This means that your identity will be anonymous. Whenever data from this study are published, your name will not be used.

SECTION I. **Teaching Methodology Background**

Instruction for completion: Please, mark all that apply with an "X"

1. How much do I know about Approaches and Methods to English teaching?

____A lot   ____A little   ____Not much   ____ Nothing at all

2. I have already taught the content area(s) through English.

Totally true____ : ____ : ____ : ____ : ____ : ____ : ____Totally false

3. I have helped subject teachers teach subject content through English.

 Totally true____ : ____ : ____ : ____ : ____ : ____ : ____Totally false

Subject (s) taught in a foreign language in your school: **Mark all that apply**

	Mathematics-Physics		Science-Biology
	Geography-Social studies		English-Language Arts
	Chemistry		Philosophy
	ICT		Religion
	Art-Music		Other:

Instruction for completion: Please, write a complete answer

4. What approaches or methods are you familiar with?

   _____

   _____

5. Which ones do you incorporate in your practice?

   _____

   _____

SECTION II. Attitudes & Experiences

Instruction for completion: Please, Circle one (1) of the responses

1. My experience in teaching communicatively has been positive.

Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree

2. In my lessons, I teach strategies to promote Higher-Order Thinking Skills

Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree

3. I integrate into my lessons activities to develop the four (4) language skills:
    Listening/Speaking/Reading/Writing

Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree

4. CLIL is an approach that can be implemented in non-bilingual school settings.

Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree

5. I design my teaching materials to meet learners' needs

Strongly agree   Agree   Neither agree nor disagree   Disagree   Strongly disagree

SECTION III. Class Delivery

Instruction for completion: On a scale from 1 to 10, being 1 the lowest level and 10 the

highest level, how do you rate your performance in the following steps of your lessons:

1. Scaffolding content learning

    1___ 2___ 3___ 4___ 5___ 6___ 7___ 8___ 9___ 10___

2. . Providing adequate opportunities for learners to practice the new language structures
    1___ 2___ 3___ 4___ 5___ 6___ 7___ 8___ 9___ 10___

3. Planning the language **of** learning
    1___ 2___ 3___ 4___ 5___ 6___ 7___ 8___ 9___ 10___

4. Planning language **for** learning
    1___ 2___ 3___ 4___ 5___ 6___ 7___ 8___ 9___ 10___

5. Recycling new language from previous lessons to support learner progression
    1___ 2___ 3___ 4___ 5___ 6___ 7___ 8___ 9___ 10___

SECTION IV. Assessment

Instruction for completion: Please, place an "X" on one of the seven (7) positions to indicate your perceptions about the assessment

1. I consider how I will know what my pupils have learned

Frequently ____ : ____ : ____ : ____ : ____ : ____ : ____ Rarely

2. To decide what to assess during the lessons to ensure that feedback informs further learning is:

Difficult ____ : ____ : ____ : ____ : ____ : ____ : ____ Easy

3. I care about the kind of formative and summative assessment tasks I will need in my lessons

Totally true____ : ____ : ____ : ____ : ____ : ____ : ____Totally false

SECTION V. Reflection

Instruction for completion: Please, write a complete answer

1. What kind of support do you feel you should get from the school, in your teaching practice?
   _____
   _____

2. What would be the main challenges in your setting?
   _____
   _____

3. One thing I like about my teaching methodology is that…_____

Appendix B. Example of the Journal

1 **UNIC☉LOMBO**

FUNDACIÓN UNIVERSITARIA COLOMBO INTERNACIONAL
CARTAGENA

Formamos Profesionales Bilingües con Responsabilidad Social

Exploring Pre-service Teachers' Attitudes and Perceptions

About their Teaching Practices in a Private Licenciatura

Undergraduate Program

2

3

4 **Fundación Universitaria Colombo Internacional-Unicolombo**

5 **Class experiences (Diagnostic stage)**

6

7 **Teacher-Researcher's Journal**

8   **Rationale:** This journal template aims to record all the

information collected through class experiences and learners'

reactions toward the development of this research project. The

teacher-researcher will write about situations that support significant

data to the inquiry during the diagnostic stage to discover

conceptions in my setting. Through this observational data collection

ate: March 25th — D

Description:

Pre-service teachers recalled information from the pr[...] ng the strategy studied: scaffolding teaching/learning process, and the outcome in which [...] l learning objectives into levels of complexity.

Comments: Scaffolding conte..., Engagement in H..., Scaffolding conte...

Following the agenda for this class, I established the goal of applying theory to practice in CLIL unit planning (4Cs).

The first thing pre-service teachers did was fill in the [...] y could indicate what they know, what they want to know, and what they learned on th[...] n-living things". Since they were playing the role of 2nd graders, they participated a lot and simultaneously, took notes on the relevant steps of the micro class.

Comment: Development of c...

To model the 2nd step of the micro class, they receive[...] lete *while* watching a video. Then, they were asked to put a check next to the living and non-living things that appear on the video.

Comment: Scaffolding conte...

I was walking around to see how they were completing the task. In fact, they were doing well.

Afterward, I explained relevant information on the to[...] ses

Comments: Scaffolding conte..., Awareness of ped...

The last part of the micro class consisted in taking th[...] roo[...] which they had to draw or write what they found. To do so, [...] for the task. Example: Does it need air?, does it need food?, do[...] w?, is it living?

Comments: Evidence of subje..., Evidence of subje..., Scaffolding conte..., Relating contents/...

To finish the micro-class, I provided feedback on the [...] enting theory-

Comment: Scaffolding conte...

I found this modeling task exciting and motivating for pre-service teachers since all of them were paying a lot of attention.

Now, pre-service teachers and I came back to our original role to start discussing all the pedagogical procedures they had identified while the micro-teaching took place.

"Professor, I noticed that when you asked us to comp[...] s for us to get familiar with the topic"- "Yes, professor. That was part of the level of [...] st of them actively participated and showed great interest.

Comments: Awareness of ped..., Awareness of ped..., Scaffolding conte...

In this sense, I was clarifying the main components o[...] ntent, cognition, communication, and culture". Next, I displayed written examples for [...] ption with the corresponding C. For example: "To describe and classify food items into [...] hem related this description with cognition, others with definition. What I did was to [...] on "cognition" so that they knew why this was the right answer.

Comments: Scaffolding conte..., Scaffolding conte...

Pre-service teachers got in small groups and were in charge of formulating examples to illustrate each "C". One group was interested in teaching "Fractions" to [...] hey referred to: 1. Explaining the parts of a fraction. 2. Types of fractions. 3. Comparin[...] nd different denominators.

Comments: Awareness of ped..., Evidence of subje...

With this revision of classwork, I noticed pre-service teachers had understood the main components of CLIL. In terms of "cognition" they encouraged the developi[...] le [...] we practiced in the previous workshop. Some of the [...] reporting, evaluating, etc.

Comments: Awareness of ped..., Awareness of ped..., Engagement in H..., Engagement in H..., Engageme[...]

While pre-service teachers were completing the mind-map to illustrate the 4Cs, they were using academic lexicon worked in the course. They were much more concerned about providing the right support to have a balance between content and language. So, they had in mind to use flashcards, and visual aids to teach academic vocabulary, concepts, etc. Simultaneously, they established the step by step of planning, considering interesting ways to present the content, to connect one step of the class to another, and to sound more academic. In other words, they were steadily progressing to a more communicative approach. In fact, some of them reflected on the types of tools they were implementing this time in contrast with the traditional instructions some of them used to provide.

As the workshop proceeded, some pre-service teachers were interested in how to focus students' attention on their cultural background. Then, I explained with examples the purpose of this element. After my explanation, I gave them some time for them to write the cultural awareness.

Indeed, students related the content to pupils' daily life, for example: To develop cultural awareness of the topic Living and non-living things, pre-service teachers wrote: Work together in pairs and groups to share living and non-living things interact with the environment, support the importa... living things in your life, explore the yard of your house and ... (plants, animals).

Interpretation:
To interpret pre-service production throughout this 2... that they have constantly been applying the strategies studied before such as scaffol... ing process, and building up knowledge, to conduct logical pedagogical procedure... tics of their target group. A technique that has been useful for them is the modeling that I presented throughout the 1st and 2nd workshops; that's why they present a clear progressio... sks... uce the structural view of the language as the main compone... ey ... importance of maintaining a balance between content and language in the classroo...

Reflection:
Throughout the tasks, pre-service teachers stated that... m was to identify the subject-specific vocabulary as part of the topic, and provide s... rt both the content and language with visuals, worksheets, etc.

Probably, they need more practice to reinforce the implementation of learning skills and how to relate content to learners' daily life.

Appendix C. Example of the Semi-Structured Interview

The Impact of CLIL on EFL Pre-service Teachers' Methodological Competencies in a

Private Licenciatura Undergraduate Program

UNIC⬤LOMBO
FUNDACIÓN UNIVERSITARIA COLOMBO INTERNACIONAL
CARTAGENA
Formamos Profesionales Bilingües con Responsabilidad Social

Elicitation task on Background methodology knowledge

"Spot the difference" will be used as a data collection method to elicit background
methodology knowledge from pre-service teachers. Participants will be asked to find the
differences among three (3) pictures that illustrate different teaching and learning
techniques.

The number of differences would be prespecified so that participants have a clearer
conception about what to work on. They will be informed that while participating, they
cannot see their partners' picture. The following guideline would be given to them so that
they know what they are expected to describe:

1. What teaching technique(s) can you perceive?

2. What would be the main goal in this class??

3. What's the role of the teacher?

4. What's the role of the students?

5. What language skills can you identify?

It is important to mention that this procedure will be carried out through an interview and
having students' consent, the researcher would record their responses. The next pictures
would be provided to the participants:

Appendix D. Example of the Assessment Rubric

UNIC●LOMBO	B&BE	
FUNDACION UNIVERSITARIA COLOMBO INTERNACIONAL		
LICENCIATURA EN BILINGÜISMO CON ÉNFASIS EN INGLÉS	VI SEMESTER	CARTAGENA DE INDIAS

Assessment Rubric

Participant's name: _____

Your background knowledge will be evaluated using the following scale:

0 = Not evident
1 = Limited
2 = Needs improvement
3 = Developing
4 = Good
5 = Excellent

Dimensions	Criteria	0	1	2	3	4	5
Overall understanding	Shows a deep understanding of the teaching approaches with a fully developed argument.						
Argument	Clearly articulates a position about the different teaching approaches depicted in the pictures.						
Evidence	Presents evidence of the teaching approaches based on their experience that is relevant and accurate to support each response.						
Structure	There is logic in the progression of ideas with coherent, cohesive, and fluent discourse.						
Completion	The participant fully provided answer to each question.						

Additional comments about learners' performance _____

_____

Appendix E. Example of a Textbook Evaluation Checklist

Textbook Evaluation Checklist	Book's name:	Excellent	Good	Adequate	Poor
I. Textbook					
A. Content					
i. Is the subject matter presented either topically or functionally in a logical, organized manner?		4	3	2	1
ii. Does the content serve as a window into learning about the target language culture (American, British, etc.)?		4	3	2	1
iii. Are the reading selections authentic pieces of language?		4	3	2	1
iv. Compared to texts for native speakers, does the content contain real-life issues that challenge the reader to think critically about his/her worldview?		4	3	2	1
Subtotal:					
B. Vocabulary and Grammar					
i. Are the grammar rules presented in a logical manner and in increasing order of difficulty?		4	3	2	1
ii. Does the textbook present a set of keywords **before** being focused on grammar?		4	3	2	1
iii. Are the new vocabulary words presented at an appropriate rate so that the text is understandable and so that students can retain new vocabulary?		4	3	2	1
iv. Are the new vocabulary words repeated in subsequent lessons to reinforce their meaning and use?		4	3	2	1
v. Is the grammar presented through pictures?		4	3	2	1
Subtotal:					

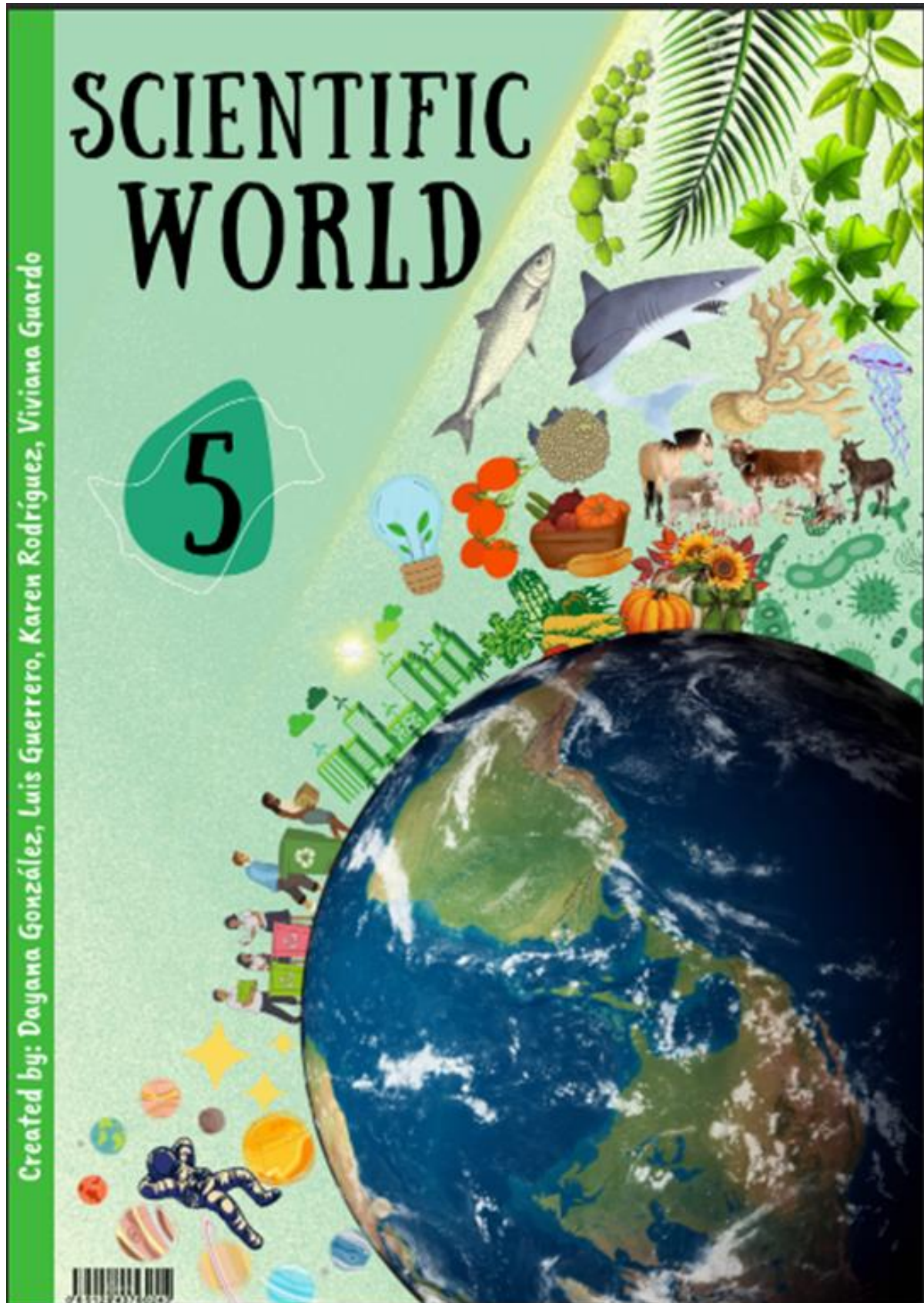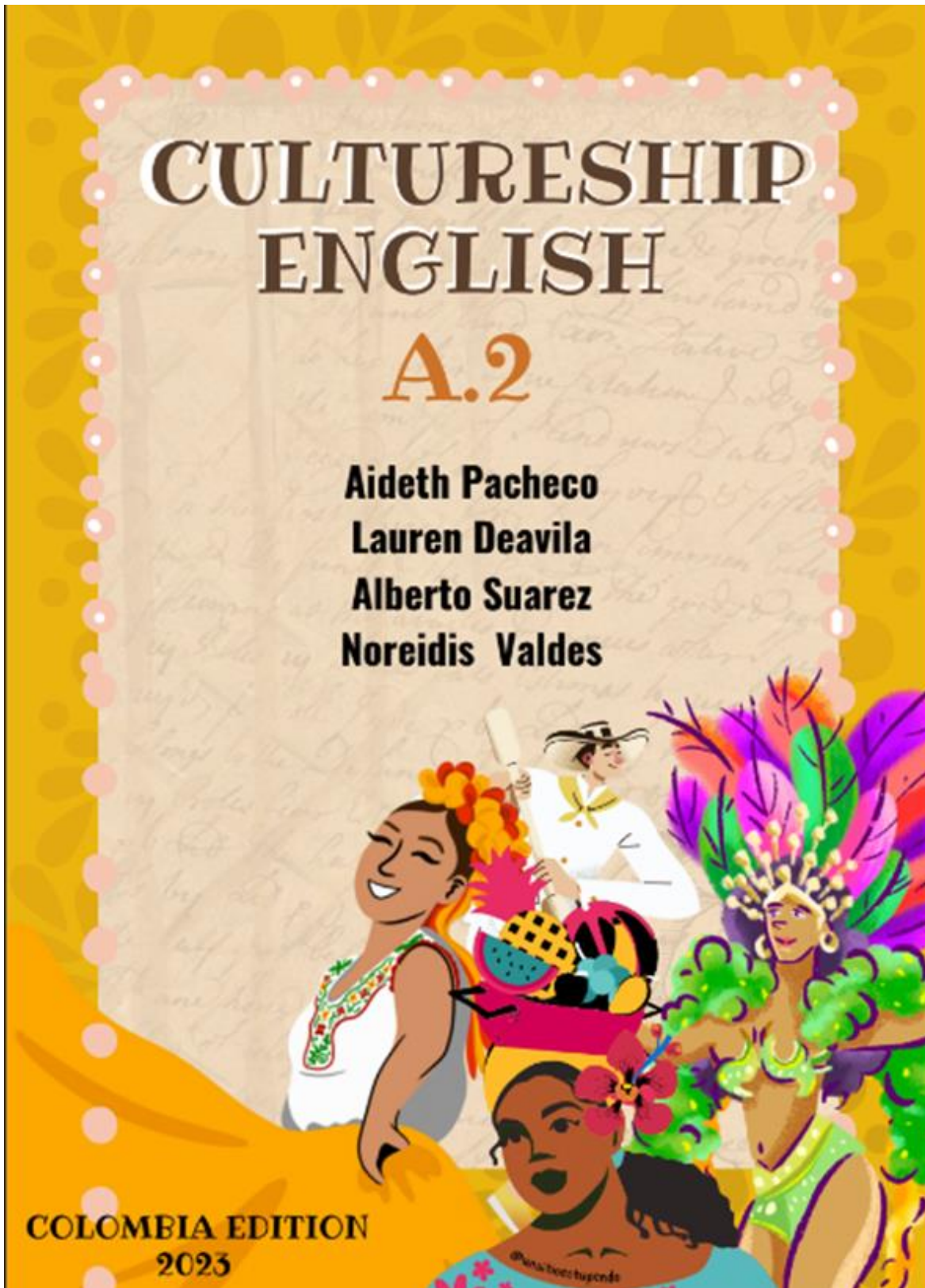|		Excellent	Good	Adequate	Poor
C. Exercises and Activities					
i. Are there interactive and task-based activities that require students to use new vocabulary to communicate?		4	3	2	1
ii. Do instructions in the textbook tell students to *read for comprehension*?		4	3	2	1
iii. Can students identify *the purpose (goal)* of each activity?		4	3	2	1
iv. Does the textbook deal with a variety of activities and exercises?		4	3	2	1
v. Do the activities facilitate students' use of grammar rules by creating situations in which these rules are needed?		4	3	2	1
vi. Do the exercises promote critical thinking of the text?		4	3	2	1
Subtotal:					
D. Attractiveness of the Text and Physical Make-up					
i. Is the cover of the book appealing?		4	3	2	1
ii. Is the visual imagery of high aesthetic quality?		4	3	2	1
iii. Are the illustrations simple enough and *close enough* to the text that they add to its meaning rather than detract from it?		4	3	2	1
iv. Are the texts interesting enough that students will enjoy reading them?		4	3	2	1
Subtotal:					
E. Skills development					
i. Does the textbook have appropriate listening according to students' level?		4	3	2	1
ii. Are the listening activities meaningful for students?		4	3	2	1
iii. Do the speaking activities motivate students to participate in class?		4	3	2	1
iv. Are there exercises in which the use of pictures is essential so that students **retell** stories? (in their words)		4	3	2	1
v. Do the readings contain interesting topics for the students?		4	3	2	1
vi. Does the textbook provide reading activities in connection with the topics *studied* in class?		4	3	2	1
vii. Do the activities contain exercises with open questions that aim to develop writing skill?		4	3	2	1
viii. Do the activities engage students to write their own descriptions applying their real life?		4	3	2	1
		4	3	2	1
Subtotal:					

Appendix F. Example of the General Data Triangulation Chart

	The Impact of CLIL on EFL Pre-service Teachers' Methodological Competencies in a Private Licenciatura Undergraduate Program								
	General Triangulation Table								
Nº	Code/Category	W.1	W. 2	W.3	W. 4	W.5	W.6	Total	Percentage
1	Awareness of pedagogical procedures	56	96	97	64	75	82	470	23%
2	Engagement in HOTS	50	50	79	98	36	64	377	19%
3	Enhancement of materials design strategies	18	28	60	30	74	100	310	15%
4	Integration of language skills into content matter	7	16	48	52	79	80	282	14%
5	Scaffolding content and language	30	20	32	50	50	53	235	12%
6	Application of assessment for tasks design	10	18	11	18	63	90	210	10%
7	Implementation of learning skills across the curriculum	22	20	40	40	14	16	152	7%
	Totals	193	248	367	352	391	485	2036	100%

Appendix G. Examples of the Materials Designed (Front Covers)

CULTURESHIP ENGLISH A.2

Aideth Pacheco
Lauren Deavila
Alberto Suarez
Noreidis Valdes

COLOMBIA EDITION
2023
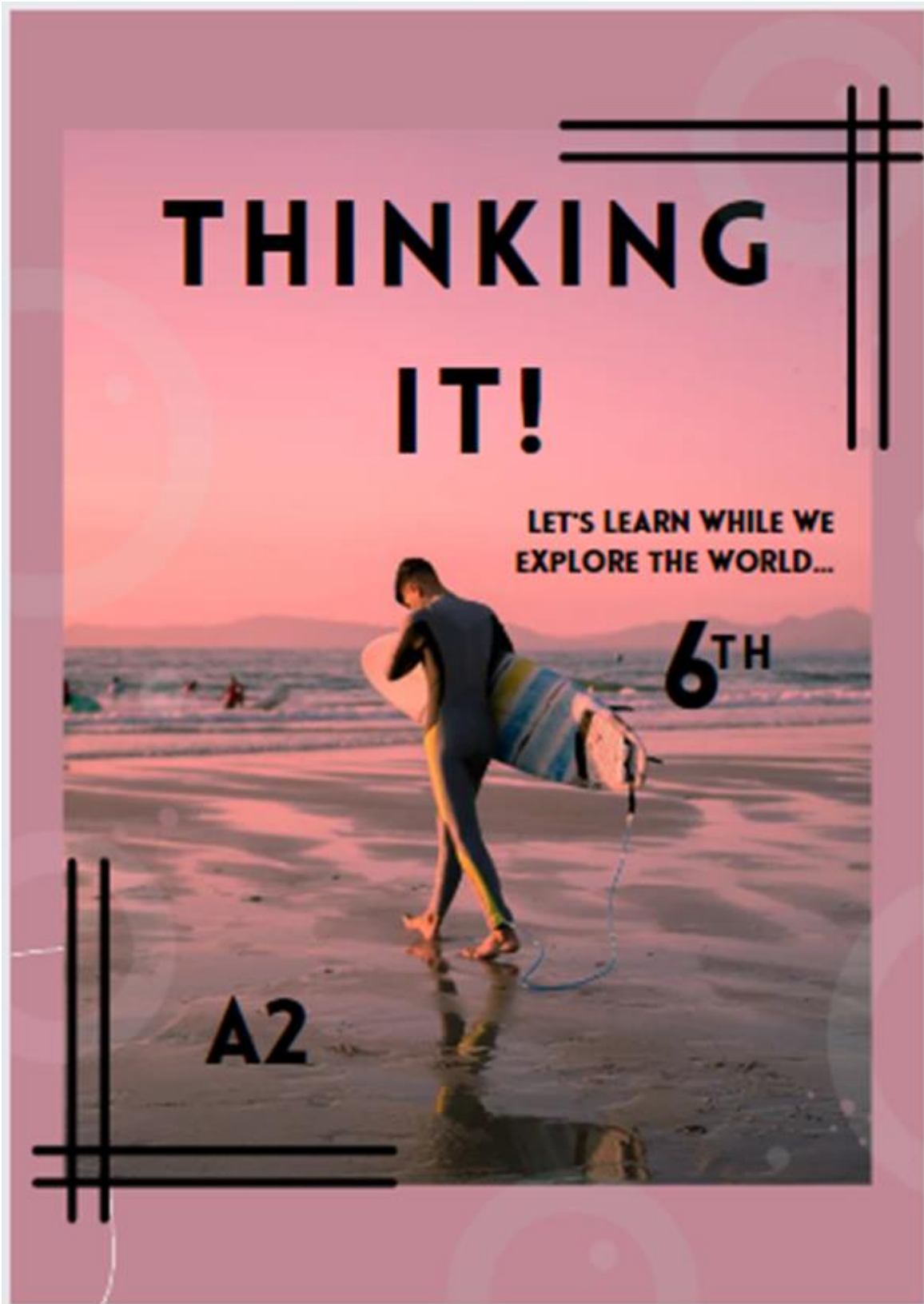
Our nature 8°

Millerlys Vergara
Linis Quintero
Javier Arcia
Dilan Yanes
Pedro Doria

By Lereng Monterrosa & Jose Diaz

COCULTURE

A journey through Colombian culture

For 7th graders.

you'll learn useful knowledge
to share with others!
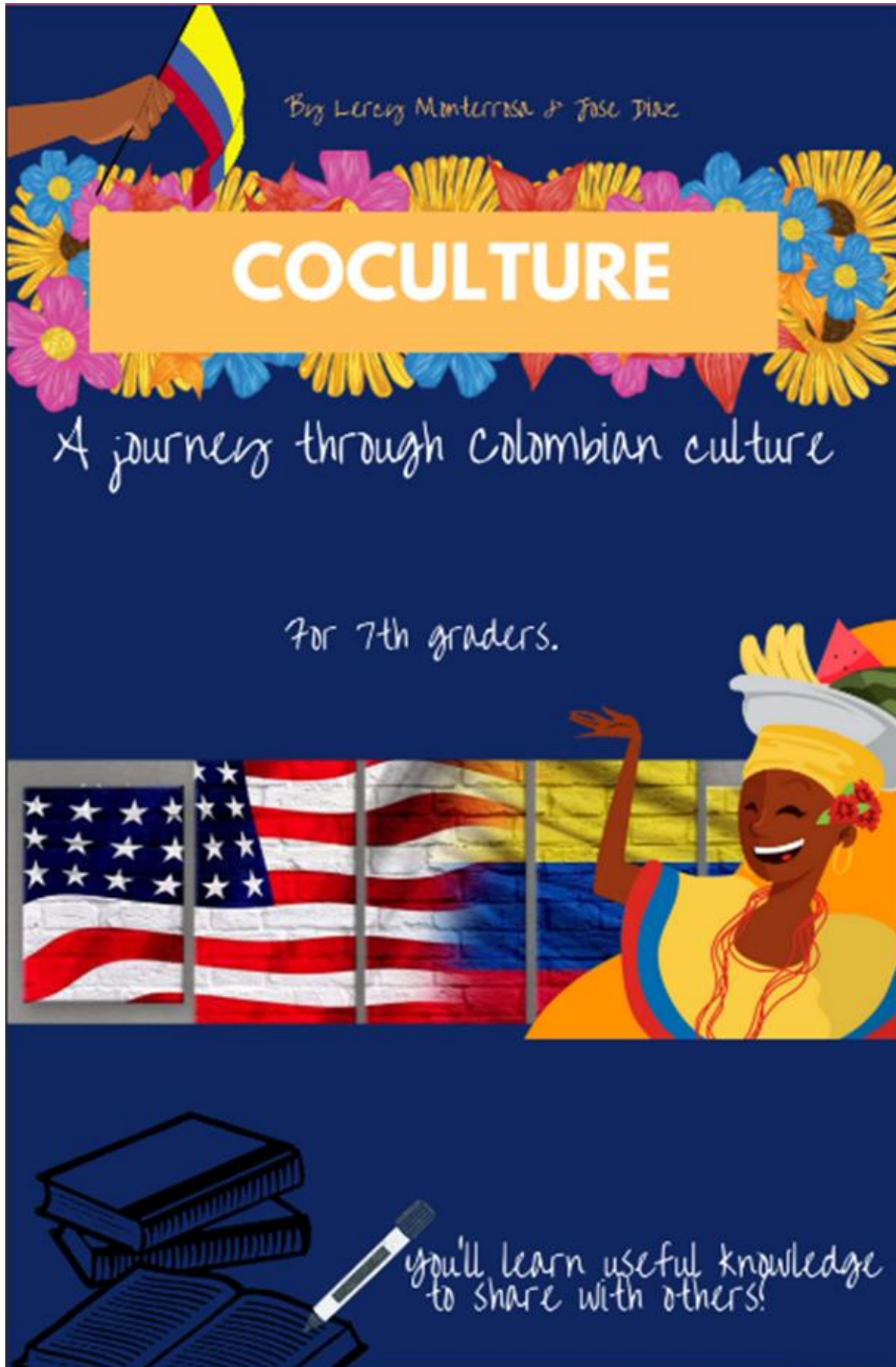
Appendix H. Example of the Assessment Rubric for Workshop Nº1

UNIC●LOMBO		B4BI	
	VI SEMESTER	CARTAGENA DE INDIAS	
LICENCIATURA EN BILINGÜISMO CON ÉNFASIS EN INGLÉS			

Assessment Rubric

Objectives:

-To plan learning tasks for teaching language and subject content.

-To classify educational learning tasks into levels of complexity.

Your task will be evaluated using the following scale:

0 = Not evident
1 = Limited
2 = Needs improvement
3 = Developing
4 = Good
5 = Excellent

Dimensions	Criteria	0	1	2	3	4	5
Context	There is a definition of the context where the learning activities will be introduced.			X			
	The proposed learning tasks meet the defined target group.			X			
Overall understanding	The learning tasks follow an appropriate level of complexity considering *BICS* (Basic Interpersonal Communicative Skills).					X	
	The learning tasks follow an appropriate level of complexity considering *CALP* (Cognitive Academic Language Proficiency).					X	
	The learning tasks give evidence of Bloom's taxonomy action verbs.					X	
Evidence	Examples of subject-specific vocabulary are evidenced in the tasks.				X		
	Examples of academic vocabulary are evidenced in the tasks.				X		
	Examples of grammatical forms produced are evidenced in the tasks.				X		
Structure	There is logic in the progression of tasks with coherent, cohesive, and fluent discourse.					X	
Completion	The participant completed three (3) tasks per quadrant.						X

Additional comments about learner's outcomes:

Appendix I. Example of the Assessment Rubric for Workshop Nº2

Appendix J. Example of the Assessment Rubric for Workshop Nº3

UNIC◉LOMBO		BABE	
		VI SEMESTER	CARTAGENA DE INDIAS
LICENCIATURA EN BILINGÜISMO CON ÉNFASIS EN INGLÉS			

Assessment Rubric (CLIL Lesson planning)

Participants' names: __Salazar, Correa_____

Objectives:

-*Designing a CLIL lesson planning for a specific teaching context.*

Your task will be evaluated using the following scale:

0 = Not evident
1 = Limited
2 = Needs improvement
3 = Developing
4 = Good
5 = Excellent

Dimensions	Criteria	0	1	2	3	4	5
Context	The lesson planning corresponds to the characteristics of the selected target group.						X
Teaching aims	Learning outcomes clearly defined in the CLIL planning.						X
	Content concepts appropriate for age and educational background level of young learners.						X
Content	Content explicitly linked to students' background experiences and context.						X
	Scaffolding techniques to support content learning.						X
	Presentation of new content clear.						X
Communication/ Language	Definition *of* content-obligatory language, such as key words, phrases, and grammatical demands of the unit.						X
	Language *for* learning is involved (chunks of language, the language needed to operate in the classroom).					X	
	Emerging language is presented (using feedback, and dictionary skills).						X
Culture	Opportunities are provided for learners to express their opinions.						X
	Relating content/facts to daily life.						X
	Awareness of self and other, identity, citizenship, and pluricultural understanding.					X	
Cognition	HOTS are evidenced in the planning.					X	
	Assistance to ensure learners progress cognitively.						X
	Questions/problems are solved at the appropriate cognitive level.						X

Appendix K. Example of the Assessment Rubric for Workshop Nº4

UNIC⊕LOMBO		B&BE	
	VI SEMESTER	CARTAGENA DE INDIAS	
LICENCIATURA EN BILINGÜISMO CON ÉNFASIS EN INGLÉS			

Assessment Rubric (CLIL Material Design)

Objective:

-Adapting materials in terms of content and language.

Your task will be evaluated using the following scale:

0 = Not evident
1 = Limited
2 = Needs improvement
3 = Developing
4 = Good
5 = Excellent

Dimensions	Criteria	0	1	2	3	4	5
OUTCOMES	Learning intentions (language, content, learning skills) are visible to pupils.					X	
ACADEMIC LANGUAGE	Systematically foster academic language proficiency.						X
	Foster learning skills development and learner autonomy.						X
	Clear integration of language skills (productive and receptive)	X					
AUTHENTICITY	Include self, peer, and other types of formative assessment.				X		
	Foster cooperative learning.					X	
	Incorporating authentic language and authentic language use.					X	
COGNITION	Foster critical thinking.					X	

Adapted from: Mehisto (2012)

Appendix K. Example of the Assessment Rubric for Workshop Nº5

<u>Objective:</u>

-Applying assessment principles when integrating language skills.

Your task will be evaluated using the following scale:

0 = Not evident
1 = Limited
2 = Needs improvement
3 = Developing
4 = Good
5 = Excellent

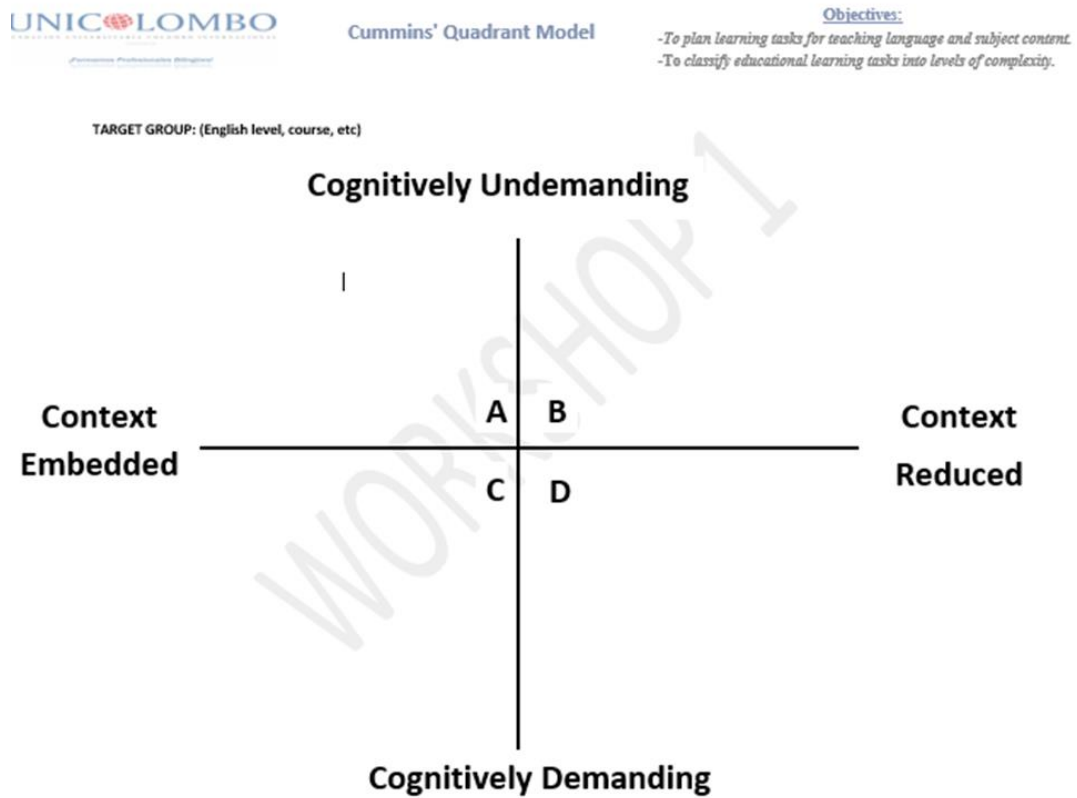| Dimensions	Criteria	0	1	2	3	4	5
Purpose	The constructs, or specific skills, the assessment is targeting are clear and underlie the entire assessment.					X	
	The assessment seeks to tap into language and content constructs rather than other irrelevant constructs.					X	
Design	The assessment items and tasks reflect language use and interaction in the real world.						X
	The items (multiple-choice questions with options or true-false statements) help to achieve the purpose of the assessment.					X	
	Avoid negatives in stems (not, will not) as they make the item difficult to interpret.					X	
Clarity	The items are written at the level of the student's proficiency.					X	
	All options need to be plausible.					X	
	The instructions for students are clear. They include an example of the expected response.						X

Adapted from: Giraldo (2019)

Appendix L. Example of the Assessment Rubric for Workshop Nº6

LICENCIATURA EN BILINGUISMO CON ÉNFASIS EN INGLÉS	EVALUATION OF A CLIL SESSION TEACHING ENGLISH TO YOUNG LEARNERS						
EVALUATION CRITERIA							
NAME OF STUDENTS	Salazar, Correa						
DATE OF CLASS				**GRADE**		3rd	
QUALITATIVE EVALUATION CRITERIA	5(Proficient), 4(Competent), 3(Developing), 2(Emergent), 1(Not observed)						
SUBJECT MATTER	Habitats						

I. TEACHING AIMS / LEARNING OUTCOMES	5	4	3	2	1	0
1. Learning outcomes clearly defined, displayed and reviewed with students.		X				
2. Content concepts appropriate for age and educational background level of young learners		X				

II. CONTENT	5	4	3	2	1	0
1. Content explicitly linked to students' background experiences and context			X			
2. Presentation of new content clear				X		
3. Scaffolding techniques to support content learning		X				

III. LANGUAGE / COMMUNICATION	5	4	3	2	1	0
1. Students involved in using language		X				
2. Language of learning is evidenced		X				
3. Language for learning is evidenced			X			

IV. COGNITION / THINKING	5	4	3	2	1	0
1. Questions / problems are solved at the appropriate cognitive level			X			
2. HOTS are evidenced in lesson delivery			X			
3. Assistance to ensure learners progress cognitively		X				

V. CULTURE	5	4	3	2	1	0
1. Awareness of self and other, identity, citizenship, and pluricultural understanding			X			
2. Opportunities provided for learners to express their opinions		X				
3. Relating content / facts to daily life		X				

VI. ACTIVITY DELIVERY & ASSESSMENT	5	4	3	2	1	0
1. The task is related to the main aim in terms of 4Cs		X				
2. Developmental stages of young learners were considered in the activity delivery			X			
3. Formative and summative assessment is evidenced			X			
4. Feedback at every stage was evidenced			X			

VII. MATERIAL	5	4	3	2	1	0
1. The learning material encompasses clear instructions	X					
2. The material support both content and language	X					
3. The material is appealing	X					

Please, check the description of the context. Based on CEFR, 3rd graders are in A1 level.
Glad to know that teachers showed a lot of visuals (posters, flashcards)
-In terms of the oral explanation, some definitions were unclear.
-In a real setting, its important that you explore the worksheet along with SS. Otherwise, they might find the instruction confusing since they're 3rd graders.

Appendix M. Samples of Workshops at Action Stage

Quadrant Model.

UNIC●LOMBO
Formación Profesionales Bilingüe

Cummins' Quadrant Model

Objectives:
-To plan learning tasks for teaching language and subject content.
-To classify educational learning tasks into levels of complexity.

TARGET GROUP: (English level, course, etc)

Cognitively Undemanding

Context Embedded   A | B   **Context Reduced**
                       C | D

Cognitively Demanding

WORKSHOP 1

Lesson Planning

Bilingualism & Bilingual Education
VI Semester

CLIL LESSON PLANNER
LESSON NAME: Living and non-living things.
LESSON TIMING: 90 mins.
LEVEL INFO: 03; A1; Private school; Socio-economic status: 3; Ages: 9-10.

AIMS
(What are the main aims of your lesson (content, language skills and language items)? What do you want your learners to have learnt by the end of this lesson?)
MAIN AIM: Towards the end of the lesson, learners will extend their knowledge about living and non-living things by watching an informative video and categorising what they have watched and listened, using note taking and transforming information techniques, and remembering skills.
SUBSIDIARY AIM: Learners will be able to: • Acquire vocabulary relevant for their daily lives. • Learn how to state facts, and give and ask for opinions.

CRITERIA FOR ASSESSMENT
(What kind of assessment will be used in class? (Teacher, peer, self?) What are you assessing, how?)
• Peer assessment will be used after students work in pairs, allowing them to evaluate each other's learning. • Teacher will use formative assessment techniques to evaluate students' ongoing learning: observation and monitoring, feedback, reflection).

TEACHING OBJECTIVES	
Content	Cognition
(New knowledge, skills and understanding)	(High-order thinking skills, problem-solving, challenges and reflection)
• What living and non-living things are. • Which types of living and non-living	• Examining the relationship between living and non-living things.

Bilingualism & Bilingual Education
VI Semester

Language of Learning (Key vocabulary – content-obligatory)		
Language		**How you support learners with this language**
Man-made (adjective) /mæn-meɪd/ Life cycle (noun) /laɪf ˈsaɪkəl/ Natural (adjective) /ˈnæʧərəl/ Artificial (adjective) /ˌɑrtəˈfɪʃəl/		Words will be written and highlighted on the board. Students will be given a vocabulary worksheet that allows them to deduce the meaning from the reading context.

Language for learning (Functional language e.g. language while learners participate in the lesson – thinking skills)		
Language	**Meaning**	**How you support learners with this language**
I consider that… In my experience…	Giving opinions	
In fact, … Certainly, …	Expressing facts	Students will check the vocabulary and expressions used to form different types of statements. It will help them learn how to give their opinions in their daily lives and justify them, as well as express abilities and

Living Things	Non-Living Things

5. *In pairs, discuss the following questions*

PAIR WORK
1. What living and non-living things do you see at home and school?
2. What are your favorite living and non-living things?
3. Which non-living things, both natural and man-made, do you use most?
4. State the differences between living and non-living things.

Bilingualism & Bilingual Education
VI Semester

Activity: Read the text about "States of matter" and answer the questions about it:

MATTER

Everything around you is filled with **matter**. Think about the food you eat, the water you drink, or the air you breathe. You can **see**, **touch**, **taste**, and **smell** matter. Matter is anything that takes up space and has mass. Matter comes in different forms: **solids**, **liquids**, and **gases**. They all have one thing in common. They are all filled with **atoms**. Atoms combine to make a **molecule**. These tiny molecules are **inside the object**. Matter can **move** from one state to another, such as a liquid freezing into a solid or a solid melting into a liquid.

States of Matter

Solid → Liquid → Gas → Plasma

Melting   Vaporization   Ionization
Freezing   Condensation   Deionization

1. Where can you find matter? _____

2. What is matter? _____

3. What are molecules? Where can they be found? _____

4. The three states of matter are _____

5. Two states of matter you can see are _____

Appendix N. Material Design Fair