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Forging Learning Journeys: Proposal and Analysis of a Model for Teacher Training in an English as a Foreign Language Context

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**FORGING LEARNING JOURNEYS: PROPOSAL
AND ANALYSIS OF A MODEL FOR TEACHER
TRAINING IN AN ENGLISH AS A FOREIGN
LANGUAGE CONTEXT**

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UNIVERSIDAD DE ZARAGOZA
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2023



PhD Thesis

FORGING LEARNING JOURNEYS:
**Proposal and Analysis of a Model for Teacher
Training in an English as a Foreign
Language Context**

Supervisor: Dr. Pilar Mur Dueñas
Departamento de Filología Inglesa y Alemana. Universidad de Zaragoza

Victoria Gil

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Tesis Doctoral

Forging Learning Journeys: Proposal and Analysis
of a Model for Teacher Training in an English as a
Foreign Language Context

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Facultad de Filosofía y Letras
2023

Autoelegía esperanzada

[...]

Mi estudiante, que yo imagino hermosa
irradiación de vida en el declive
de un indeciso día, si el ligero
vuelo de un pensamiento inapresable
suspende su atención, acaso mire
con irónica y tierna suficiencia
mi retrato en las páginas ajadas
de alguno de mis libros. Un momento
de subconsciente asombro marginado
sonará mi palabra en sus oídos,
no imaginada voz sino esta misma
con que nombro las cosas y establezco
la fundación del ser. En su ventana
se adormirán las brisas de la tarde
y en revuelo de sombras las memorias
de cuanto yo he amado y he vivido
volverán de un silencio a otro silencio.

Ildefonso Manuel Gil. *Poemaciones (Hectapoemario* p. 266)

I would like to dedicate this dissertation to my parents. My father
always dreamed that I would someday follow in his footsteps as
professor at University, Doctor and writer.

Me ha costado Papi pero aquí ando. Os añoro y os quiero.

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The research process leading to this dissertation has been a very challenging but amazing learning journey. As in any important journey, what matters more than the places you have been, the monuments that you have seen, or the meals that you have enjoyed are the people with whom you have shared it and the lessons that you take away with you. I would then like to take a moment to show my gratitude to those who have helped me along the way and from whom I have learnt so much. I am thankful to have been surrounded by so many wonderful, dedicated, and intelligent people. I consider myself very fortunate in many respects.

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Table of Contents

Abstract.....	v
Resumen.....	vii
List of Tables.....	ix
List of Figures.....	xi
List of Acronyms.....	xiii
Chapter 1. Introduction: In search of a teacher training model for effective English as a Foreign Language and Content and Language Integrated Learning	15
Chapter 2. Theoretical framework: Foundations for EFL and CLIL teacher training	24
2.1. Second Language Learning and Teaching theories.....	24
2.2. General Learning theories	40
2.3. Project and Competence Based Learning	52
Chapter 3. Methodology: The researcher’s journey.....	59
3.1. Conception, implementation, and evolution of the SPECIAL framework	60
3.1.1. Procedures for its design and implementation.....	60
3.1.2. Contexts and participants for its implementations	64
3.1.3. Tools and resources designed and used for its implementation	67
3.2. Evaluation of SPECIAL framework and training model	71
3.2.1. Procedure for evaluation	72
3.2.2. Context and participants for evaluation	74
3.2.3. Tools and resources for evaluation	77
Chapter 4. SPECIAL: A proposal for a teacher training model	99
4.1. SPECIAL components.....	101
4.1.1. Sequenced and structured	101
4.1.2. Project Enhanced.....	113

4.1.3. Competence Integrated.....	118
4.1.4. Acquisition	122
4.1.5. Learning.....	125
4.2. SPECIAL stages.....	127
4.2.1. Activation stage.....	128
4.2.2. Discovery stage	136
4.2.3. Deepening stage.....	144
4.2.4. Planning stage	153
4.2.5. Creation stage	160
4.2.6. Publishing stage.....	163
4.2.7. Assessment and Reflection stage	167
Chapter 5. The SPECIAL teacher training model in action	175
5.1. SPECIAL model in undergraduate university courses.....	176
5.2. SPECIAL in a university Master’s degree in Secondary Education course	181
5.3. SPECIAL in a postgraduate university module	185
Chapter 6. Applicability and application of the SPECIAL model and framework	189
6.1. Applicability of the SPECIAL model and framework.....	189
6.1.1. Results from the Initial Research Questionnaire.....	189
6.1.2. Results from the Follow Up Questionnaire	197
6.2. Application of the SPECIAL model and framework	210
Chapter 7. Concluding remarks: Forging journeys	235
7.1. Summary of study results	236
7.2. Research limitations and constraints	241
7.3. Avenues for further research	242
7.4. Implications and recommendations	243
7.5. Final thoughts.....	245

REFERENCES	249
APPENDICES.....	263
Appendix 1. Exemplary projects used in teacher training	263
Appendix 1.1. <i>Kindness</i> Project	263
Appendix 1.2. <i>Persuasion</i> Project	268
Appendix 2. Initial Questionnaire	273
Appendix 3. Follow Up Questionnaire.....	281
Appendix 4. Pre-observation questions as part of the Observation Protocol.....	293
Appendix 5. Transcribed teacher talk and visual representation of most frequently used words	295
Appendix 5.1. Teacher talk T1_ S and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)	295
Appendix 5.2. Teacher talk T2_PP and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)	297
Appendix 5.3. Teacher talk T3_S and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)	299
Appendix 5.4. Teacher talk T4_P and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)	301
Appendix 5.5. Teacher talk T5_P and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)	303
Appendix 6. SPECIAL Observation Template completed by researcher.....	306
Appendix 7. Post-observation survey as part of the SPECIAL Observation Protocol..	319

Abstract

The changing status and requirements of today's society increase the need for effective education, emphasizing the importance of preparing competent teachers. Multilingual classrooms pose even greater challenges for educators, necessitating coherent and well-structured frameworks for language learning and acquisition. This dissertation explores and proposes a teacher training model and framework, named Sequenced, Project Enhanced, Competence Integrated Acquisition and Learning (SPECIAL), to promote effective English as a Foreign Language (EFL) and Content and Language Integrated Learning (CLIL) in Pre-primary, Primary, and Secondary Education classrooms.

The study investigates the integration of Second Language Learning and Teaching, General Learning Theories, and Project-Based Learning to develop the SPECIAL teacher training model and framework. It aims to assist teachers in acquiring the necessary knowledge and pedagogical skills to excel in multilingual classrooms. Drawing on the researcher's bilingual learning journey and experiences as an English teacher and trainer in Spain, the study addresses the lack of effective EFL and CLIL teacher training programs.

Applying an ethnographic approach and action research methodology, the study evaluates the applicability and transferability of the SPECIAL framework in diverse educational contexts within Aragón, Spain. Data collection through questionnaires and observations with informants enables the assessment of the framework's impact and potential improvements.

This research endeavors to achieve five primary objectives. Firstly, it aims to establish how the integration of Second Language Learning and Teaching, General Learning theories, and Project-Based Learning contributes to the development of a teacher training model tailored for effective English as a Foreign Language (EFL) and Content and Language Integrated Learning (CLIL) classrooms. Secondly, it seeks to identify the fundamental components and stages of the proposed SPECIAL framework. Thirdly, the study aims to provide a detailed description of the presentation and teaching methods employed for the SPECIAL framework during teacher training courses. Fourthly, it strives to evaluate the responsiveness of the SPECIAL model and framework to practitioners' needs and its adaptability in diverse educational settings. Lastly, the research endeavors to propose essential adaptations and improvements required to ensure the SPECIAL

framework's effectiveness in promoting successful language learning outcomes in EFL and CLIL classrooms. By addressing these objectives, this study aims to contribute to the advancement of teacher training practices and enhance language learning experiences in multilingual educational environments. By fostering continuous professional development and reflective practices among educators, the research strives to bring about positive changes in English language learning outcomes. Additionally, the SPECIAL model holds potential for application in foreign language teacher training programs globally, serving both pre-service and in-service educators.

Resumen

Forjando caminos de aprendizaje: propuesta y análisis de un modelo para la formación docente en un contexto de inglés como lengua extranjera

La cambiante situación y las demandas de la sociedad actual aumentan la necesidad de una educación efectiva, lo que resalta la importancia de preparar docentes competentes. Las aulas multilingües presentan grandes desafíos para los educadores, exigiendo marcos coherentes y bien estructurados para el aprendizaje y adquisición de lenguas. Esta tesis explora y propone un modelo de formación docente denominado "Proyectos para la adquisición, el aprendizaje y el desarrollo integrado de competencias" (SPECIAL en inglés), para promover la enseñanza efectiva del Inglés como Lengua Extranjera (ILE) y Aprendizaje Integrado de Contenidos y Lenguas Extranjeras (AICLE) en aulas de Educación Preescolar, Primaria y Secundaria.

El estudio investiga la integración de la enseñanza y aprendizaje de segundas lenguas, teorías generales de aprendizaje y el enfoque basado en proyectos para desarrollar el marco SPECIAL. Su objetivo es ayudar a los docentes a adquirir el conocimiento necesario y las habilidades pedagógicas precisas para destacar en aulas multilingües. Basándose en la experiencia bilingüe de la investigadora y sus experiencias como profesora de inglés y formadora en España, el estudio aborda la falta de programas efectivos de formación docente en inglés como lengua extranjera y AICLE.

Aplicando un enfoque etnográfico y una metodología de investigación-acción, el estudio evalúa la aplicabilidad y transferibilidad del marco SPECIAL en diversos contextos educativos en Aragón, España. La recopilación de datos a través de cuestionarios, observaciones y entrevistas con los participantes permite evaluar el impacto del marco y posibles mejoras.

La investigación persigue cinco objetivos principales: Primero, establecer cómo la integración de la enseñanza y el aprendizaje de segundas lenguas, teorías generales de aprendizaje y el enfoque basado en proyectos conduce a un modelo de formación docente en competencias para aulas efectivas de inglés como lengua extranjera y Aprendizaje integrado de contenidos y lengua (AICLE). Segundo, identificar los componentes y etapas esenciales del marco SPECIAL. Tercero, describir la presentación y métodos de enseñanza del marco SPECIAL en cursos de formación docente. Cuarto, evaluar la capacidad de respuesta del modelo SPECIAL a las necesidades de los profesionales y su aplicabilidad

en diferentes contextos educativos. Y finalmente, proponer adaptaciones y mejoras necesarias para asegurar la efectividad del marco SPECIAL.

Los hallazgos del estudio contribuyen al desarrollo de un modelo de formación docente que promueve un aprendizaje efectivo de idiomas en aulas multilingües y sirve como un recurso valioso para educadores y formadores de docentes. Al establecer una comunidad de docentes comprometidos con el desarrollo profesional continuo y la reflexión, esta investigación aspira a generar cambios significativos y positivos en el aprendizaje del inglés en diversos contextos educativos. Además, el modelo SPECIAL propuesto tiene el potencial de ser aplicado en programas de desarrollo de competencias profesionales, atendiendo tanto a docentes en formación como a aquellos en servicio, a nivel local e internacional.

List of Tables

Table 1.1. Summary of hypotheses, aims, research questions and chapters in this dissertation	20
Table 2.1. Hard vs. soft CLIL approaches	39
Table 2.2. Comparison of different competence development proposals	56
Table 3.1. Context and participants in training contexts in which the SPECIAL model has been implemented	65
Table 3.2. List of Communicative Science Notebooks (Sapiens)	71
Table 3.3. Different contexts of the respondents for the Initial Questionnaire	75
Table 3.4. Teaching context of respondents to Follow Up Questionnaire	76
Table 3.5. Teachers participating in observations	76
Table 3.6. Contents and structure of Initial Questionnaire	81
Table 3.7. Questions from the Follow Up Questionnaire	84
Table 3.8. Pre-observation questions.....	86
Table 3.9. Trainees' project evaluation checklist.....	88
Table 3.10. Adaptations and additions of the SPECIAL Observation Protocol to the SLOP (Echevarría et al. 2004)	90
Table 3.11. SPECIAL Observation Template	94
Table 4.1. Comparison table for Gagne et al.'s (1992) Instructional Events, the BSCS 5E Instructional Model (Bybee et al. 2006; Bybee 2014, 2015), Clark's (2009a) LearnInQ, and SPECIAL framework stages.....	102
Table 4.2. Project elements in SPECIAL and PBL Works by BIE	114
Table 4.3. Competence Integration within projects.....	121
Table 4.4. Comparison between DI, UDL and SLA	125
Table 4.5 . Activation stage aims, bases and resources.....	136
Table 4.6. Discovery stage aims, bases and resources	143
Table 4.7. Deepening stage aims, bases and resources.....	152
Table 4.8. Planning stage aims, bases and resources	159
Table 4.9. Creation stage aims, bases and resources.....	163
Table 4.10. Publishing stage aims, bases and resources.....	167
Table 4.11. Assessment and Reflection stage aims, bases and resources	170
Table 5.1. Guiding question for SPECIAL stage design within learning projects	184
Table 5.2. League of Extraordinary Teachers' aims and gamification elements	186

Table 5.3. Levels, learning goals and badges for League of Extraordinary Teachers.....	188
Table 6.1. Answers provided to Question 7 of the initial questionnaire.....	195
Table 6.2. Answers provided to Question 5 of the Follow Up Questionnaire	198
Table 6.3. Answers provided to Question 6 of the Follow Up Questionnaire	199
Table 6.4. Answers provided to Question 7 of the Follow Up Questionnaire	201
Table 6.5. Answers provided to Question 9 of the Follow up Questionnaire.....	203
Table 6.6. Summary of the results from Questions 15-17	206
Table 6.7. Twenty most frequently used words in T1_S's teacher talk	213
Table 6.8. Twenty most frequently used words in T2_PP's teacher talk.....	215
Table 6.9. Twenty most frequently used words in T3_S's teacher talk	218
Table 6.10. Twenty most frequently used words in T4_P's teacher talk	220
Table 6.11. Twenty most frequently used words in T5_P's teacher talk	223

List of Figures

Figure 1.1. Illustration of the cycle of learning arising from the research	23
Figure 2.1. Combination of theories driving the SPECIAL teacher training model	24
Figure 2.2. Cross-cutting elements SLA and General Learning.....	40
Figure 3.1. Timeline for the design, application and dissemination of the framework	60
Figure 3.2. Learning path graphic	63
Figure 3.3. Learning path interactive image with links to explanations	68
Figure 3.4. Canvas template for the planning of projects	69
Figure 3.5. Badges for the different levels of the League and the <i>Genially</i> board.....	70
Figure 3.6. Investigation of application and applicability of SPECIAL model	72
Figure 3.7. Structure of Research Questionnaire on PBL and CLIL-Pro.....	78
Figure 3.8. Steps in the SPECIAL Observation Protocol.....	86
Figure 4.1. Visual representation of the SPECIAL framework foundations	100
Figure 4.2. Summary of stages and essential components presented to trainees	110
Figure 4.3. The learning path graphic used in a class mural	110
Figure 4.4. Project as macro task including several micro tasks within each stage	111
Figure 4.5. Stages of the learning path with a brief description of aims	128
Figure 4.6. Example of challenge letter and <i>Compass Points</i> routine organizer	130
Figure 4.7. Organizer for the <i>Visible Thinking</i> routine <i>Think, Puzzle, Explore</i>	134
Figure 4.8. Summary of the requirements for effective input presented in training	138
Figure 4.9. Example of input and organizer.....	139
Figure 4.10. Example of a <i>Plus One Visible Thinking</i> routine and its organizer.....	141
Figure 4.11. Cheat sheet to scaffold participation in <i>Talking Chips</i>	142
Figure 4.12. Summary of the requirements for effective interaction.....	146
Figure 4.13. Think chart for <i>Garden or Greenhouse</i> project	147
Figure 4.14. Example of T5_P's <i>GSCE</i> mind map	149
Figure 4.15. <i>Parts/Whole Thinking</i> organizer on advertisements	151
Figure 4.16. Planning organizer <i>Communicative Science 3.3</i>	154
Figure 4.17. <i>Greyhound Rescue</i> project planner.....	155
Figure 4.18. <i>Feedback Carousel</i> Cooperative Learning structure	157
Figure 4.19. <i>Communicative Science 2.6</i> prototyping within Design Thinking process...	161
Figure 4.20. Example of campaign proposal in <i>Communicative Science 3.4</i> . p. 20-21...	165

Figure 4.21. Rubric developed for assessment of the <i>Persuasion</i> Project.....	169
Figure 4.22. Summary of sequencing of learning within SPECIAL stages.....	171
Figure 5.1. <i>Voki</i> avatar and description of challenge presented in the Activation stage..	177
Figure 5.2. Cheat Sheet to scaffold interaction in <i>Talking Chips</i>	178
Figure 5.3. Project design challenge message received by trainees	181
Figure 5.4. Steps to follow in the design of SPECIAL projects	182
Figure 6.1. Professional experiences Initial Research Questionnaire.....	190
Figure 6.2. Professional teaching situation Initial Questionnaire	191
Figure 6.3. Answers provided to Question 3 of the Initial Questionnaire	192
Figure 6.4. Comparison Questions 5, 6 and 7 of the Follow Up Questionnaire.....	201
Figure 6.5. Question 8 of the Follow Up Questionnaire on further training	202
Figure 6.6. Question 10 of the Follow Up Questionnaire	204

List of Acronyms

AoA	Action oriented Approach
BICS	Basic Interpersonal Communication Skills
CA	Communicative Approach
CALP	Cognitive Academic Language Proficiency
CAE	Cultural Awareness and Expression
CEFR	Common European Framework of Reference for Languages
CFL	Communication in Foreign Language(s)
CLIL	Content and Language Integrated Learning
DC	Digital Competences
Ed Tech	Educational Technology
EFL	English as a Foreign Language
ELL	English Language Learners
FoF	Focus on Form
GSCE	Generate, Sort, Connect, Elaborate
ICT	Information Communication Technology
KWL	Know, Want to know, Learnt
L1	First Language
L2	Second Language
LLC	Learning to Learn competence
LOMLOE	Ley orgánica por la que se modifica ley orgánica de educación
OECD	Organization for Economic Cooperation and Development
PBL	Project Based Learning
PBILL	Project Based Language Learning
SCC	Social and Civic Competences
SIE	Sense of Initiative and Entrepreneurship
SIOP	Sheltered Instruction Observation Protocol
SLA	Second Language Acquisition
SPECIAL	Sequenced Project Enhanced Content Integrated Acquisition and Learning
TBL	Task Based Learning
UNESCO	United Nations Educational, Scientific and Cultural Organization
WBT	Whole Brain Teaching

Chapter 1. Introduction: In search of a teacher training model for effective English as a Foreign Language and Content and Language Integrated Learning

The changing status and requirements of today's society increase and accelerate the need for education from the earliest years, providing effective learning for all. Preparing teachers for their profession is a responsibility that must be taken very seriously. Learners in all stages of education require and deserve ample opportunities to develop knowledge, understanding and success skills that will allow them to be competent global citizens. Effective learning must be designed and implemented by education professionals who are able to link theory, research data and their own practices and skills, adapting to the specific contexts in which they are or will be immersed. Consequently, teachers and teacher trainers are pushed to take on growing responsibilities for both pre-service and in-service professional development that can ground and guide learners' progress. Teacher trainers take on the challenge of designing and implementing courses for their students as future teachers as well as for those in-service teachers who aim to improve their current teaching practices to ensure effective learning for their students.

A multilingual approach to learning makes the challenge even greater for all the agents involved, from researchers to curriculum designers, from teacher trainers to teachers, to learners. Rising to this challenge of providing effective teaching and learning in multilingual classrooms requires a coherent and well-structured combination of theoretical frameworks and research data from Second Language Learning and Teaching and General Learning theories that will allow teachers to plan, adjust and implement teaching strategies and frameworks that promote the learning and acquisition of and in a second language. In order to meet this need, it is necessary to build bridges, bridges between the different theories and research on learning and acquisition. where what works best for learners can come together, and other bridges between practitioners and their trainers in which the needs of the teachers and their learners can mark the path to develop effective instructional proposals. In essence, connections and synergies are to be established that may help to close the gaps in the teaching and learning processes that arise in this ever-changing multilingual context.

My interest in multilingual teaching and learning stems from my own journey as a bilingual learner. The journey starts as a person born into a Spanish speaking family within an English language context in the United States. This language learning journey has been a combination of acquisition and intended instruction that has allowed me to have a unique perspective on what bilingualism is and is not and the challenges that learning a second language and in two languages may entail. My initial intentions as a young university student were, in fact, to become a Spanish teacher in the United States. As circumstances would have it, I wound up as an English teacher and teacher trainer in Spain. My university studies were first in Spanish as a Foreign Language at Rutgers University in New Jersey, USA. Straight after graduating I became a Primary and Secondary school English teacher here in Spain. After several years of teaching, I enrolled in English Philology at the *Universidad de Zaragoza* where I took several classes on acquisition and teaching. This opportunity to reflect on what pure intuition had led me to implement in my classrooms was crucial. It laid the foundations for what has become a lifelong passion for teaching and researching on learning in general and learning second languages in particular.

My experiences as a learner and language teacher in different stages of education here in Spain have also allowed me to understand how important it is to receive and provide effective teacher training and how difficult it is to find the professional development opportunities that can help teachers to promote authentic learning especially once they have completed their pre-service education. This lack of programs especially in English as a Foreign Language (EFL) teaching and English as a medium for instruction does not seem to be only in place in our own local context in Zaragoza but also throughout Spain (Lova Mellado et al. 2013; Pérez Cañado 2016; Otto and San Isidro 2019) and internationally (e.g. Richards and Swan 1998; Dalton-Puffer 2018) and for teachers of all educational stages from early childhood to postgraduate studies at university. The fact that many schools and universities throughout Spain have implemented bilingual programs and subjects requiring an effective Content and Language Integrated Learning (CLIL) methodology means that there is a much greater need for properly trained and competent teachers that can promote effective learning in two or more languages and throughout a wide range of academic subjects. There is a lack of pedagogical knowledge and methodological skills among many multilingual teachers (Vázquez and Alcalá 2010; Pérez Cañado 2016; Dalton-Puffer 2018; Morton 2019; Otto and San Isidro 2019) because they have been pushed to take on something for which they have not been trained effectively as is the case of CLIL. Teachers

also on many occasions lack access to versatile models and materials and the knowledge on how to make the best of these resources that could promote language learning and ensure that the final outcomes of education are positive in many varied contexts. These needs should establish the basis for teacher training opportunities which are often in great demand but in very little supply.

It is precisely my passion for teaching and this gap in the resources and professional development opportunities open to teachers and trainees which has led me to undertake my doctoral studies and the research for this dissertation in which I aim to explore how to yield an effective teacher training model of instruction that educational professionals can use for the promotion of effective learning in EFL and CLIL in Pre-primary, Primary and Secondary Education classrooms. The model presented in the following chapters arises as a solution to the problem of how to train teachers so that they can bring about effective learning of English not only in EFL classes but also in those that are aimed at teaching different subjects through the vehicular language of English, that is CLIL. The proposal for a teacher training model that posits a framework for teaching stems from the hypothesis that very often teacher training at both pre-service and in-service levels becomes for trainees a vast compendium of descriptions of concepts and resources. These may be daunting to grasp in their successive expositions within the courses and difficult, if not impossible, to remember and transfer in the future in which they will be put into practice in classrooms.

The teacher training model proposed in this dissertation aims to provide coherence for learning at two different levels. The first of these levels refers to the learning of the trainees as they encounter, register, and reflect on different theories, strategies, and resources for their classrooms. The second level refers to the ultimate goal of the training which is the effective learning of English which should take place in trainees' classrooms either once they become teachers or in their day-to-day practice in the case of in-service professional development. The Sequenced, Project Enhanced, Competence Integrated, Acquisition, and Learning (SPECIAL) framework which articulates the teacher training model brought forward in this dissertation is used to train teachers about all the elements involved. Participants become familiar with the stages, strategies, and resources as students themselves so that they can later design and implement similar tools for their own learners. It is believed that the fact that they have participated in classes that use the framework itself will facilitate retention in trainees' long-term memory and make it more likely that they will be able to transfer these ideas into their own professional practice.

More specifically, this model should help teachers build the necessary knowledge base for their best practices combining theories and research on acquiring and learning a second language, those dealing with learning in general and how the brain works to retain and apply new data, concepts, and skills, and, thirdly, research and theory on how the design of projects can help to articulate all of these to develop competences in all learners. Thus, the SPECIAL teacher training model and its framework combine three key theoretical dimensions: 1) Second Language Learning and Teaching theories (e.g. Larsen-Freeman 2000; Lightbown and Spada 2006; Richards and Rodgers 2006; Brandl 2008; Brown 2010; Littlewood 2011; Long 2014; Ellis 2010, 2016), 2) Cognitive Science or General Learning theories (e.g. Gagne et al 1992; Bybee et al. 2006; Bybee 2014, 2015; Marzano et al. 2001; Marzano 2007; Hattie 2012; Hattie and Clarke 2018; Ritchhart and Church 2020), 3) Project Based Learning (PBL) (e.g. Thomas 2000; Mergendoller and Thomas 2005; Clark 2009a, 2009b; Larmer et al. 2015) and Competence Based Learning (e.g. Boss et al. 2013; UNESCO 2015; OECD 2019; Mercer et al. 2020; Sobe 2021; Vuorikari et al. 2022). These are discussed in this dissertation bringing together their different elements in the design of learning projects and the resources and strategies that can promote effective teaching and learning. Through the design and administration of questionnaires and onsite observations, I hope to illustrate and evaluate the implementation and effects of the proposed teacher training model on practitioners in different contexts within Aragón.

To this end, an ethnographic approach to the design and study of the applicability and application of the teacher training model has been taken (Hammersley and Atkinson 1995; Murchison 2010; Starfield 2015). This has brought about the creation of a framework and a community of practitioners where the findings of the study on the application of the model and the reflections generated will be key to improving the effectiveness of the practice of both teachers and teacher trainers. Thus, the study is also an example of action research (e.g., Riel 2010; Efron and Ravid 2013; McNiff 2013) at two different levels. First, the ethnographer has detected a need in her training practice which has led to the research and will consequently lead to changes and improvement in said practices. Secondly, the practitioners, participants in the study, will use the findings of this study as a springboard for further adjustments and as a means to enrich their own teaching practices. The results of this research will allow us to continue to readjust and improve our teacher training programs at the *Universidad de Zaragoza* leading to best practices in bilingual Pre-primary, Primary and Secondary Education classrooms that may eventually bring about significant positive

change in many learners of English in Aragón. In addition, the proposed framework and model on which this dissertation revolves may be transferred to other foreign language teacher training programs and contexts, both pre-service and in-service.

A summary of the hypotheses, specific aims, and research questions which this study will address can be found in Table 1.1 as follows,

Hypothesis	Specific aims	Research questions	Chapters
H1: Connections can be established between theories and research findings in Second Language Learning and Teaching, Cognitive Educational or General Learning Theories, Project and Competence Based Learning that will lead to proposals for more effective learning and teaching in EFL and CLIL classrooms.	SA1. To explore and integrate theoretical frameworks and research findings pertaining to Second Language Learning and Teaching, Cognitive development and Project and Competence Based Learning.	RQ1. How can a combination of theories and research data promote effective EFL and CLIL learning?	Chapter 2
H2: SPECIAL framework can respond to teachers' needs.	SA2. To propose a theoretically sound and research grounded model for teacher training with techniques and strategies that develop communicative competences in bilingual Pre-primary, Primary and Secondary classrooms. SA3. To establish the framework's design, encompassing sequenced and structured stages for successful language learning, applicable to both EFL and CLIL classrooms.	RQ2. What are the essential components of the model and framework? RQ3. How are these essential components structured into stages of learning?	Chapter 4 Section 4.1 Chapter 4 Section 4.2
H3. The SPECIAL model and framework are versatile enough to allow for application and transferability to different contexts.	SA4. To explain the presentation and instructional methodology employed in teacher training to effectively train	RQ4. How is the model presented and taught?	Chapter 5

	<p>in the proposed framework.</p> <p>SA 5. To investigate the applicability and efficacy of the proposed model and framework to assess the extent to which it addresses practitioners' needs and expectations for training in diverse educational contexts.</p>	<p>RQ5. To what extent does it respond to teachers' needs?</p> <p>RQ6. How applicable are the model and framework?</p>	Chapter 6
<p>H4. Adaptations and adjustments are likely needed to ensure the teacher training model and framework's effectiveness.</p>	<p>SA 6. To propose adjustments to the teacher training model and framework arising from the findings of this study. to foster the development of students' communicative competences across Pre-primary, Primary, and Secondary education levels in EFL and CLIL contexts.</p>	<p>RQ7. What sort of adaptations and improvements in the model and framework are required?</p>	Chapter 7

Table 1.1. Summary of hypotheses, aims, research questions and chapters in this dissertation

This dissertation hopes to posit and test the following hypotheses. First, it is assumed that connections can be established between theories and research findings in Second Language Learning and Teaching, Cognitive Educational or General Learning theories, and Project and Competence Based Learning that may yield an effective teacher training model which language teachers can use for the promotion of communicative competences and other global competences in their students. Secondly, a framework for the design of learning projects can be proposed as an effective response to the needs for pre-service and in-service training stated above. Third, the proposed SPECIAL model is believed to be versatile in that it can be applied effectively in CLIL and EFL and in different stages (Pre-primary, Primary and Secondary). My fourth and final hypothesis is that adaptations of the teacher training model and framework may be needed for example for specific educational contexts according to types of schools, types of bilingual programs, or differing teacher experience in order to ensure effectiveness and that teachers need to be equipped to make their own adjustments as they learn to design and implement their projects.

As such, the specific aims of my dissertation are:

1. To explore and integrate theoretical frameworks and research findings pertaining to Second Language Learning and Teaching, General Learning theories and Project and Competence Based Learning.
2. To propose a theoretically sound and research grounded model for teacher training with techniques and strategies that develop communicative competences in bilingual Pre-primary, Primary and Secondary learners.
3. To establish the framework's design, encompassing sequenced and structured stages for successful language learning, applicable to both EFL and CLIL classrooms.
4. To explain the presentation and instructional methodology employed in teacher training to effectively train in the proposed framework.
5. To investigate the applicability and efficacy of the proposed model and framework to assess the extent to which it addresses practitioners' needs and expectations for training in diverse educational contexts.
6. To identify necessary adaptations and enhancements in teacher training to foster the development of students' communicative competences across Pre-primary, Primary, and Secondary education levels in EFL and CLIL contexts.

Based on the theories researched and the connections established among them, my own professional experience and practitioner skills, and a study designed to obtain data from questionnaires and observations I seek to provide answers to the following research questions:

1. How can the combination of what we know about Second Language Learning and Teaching, General Learning theories, Project and Competence based learning bring about a teacher training model for more effective teaching and learning experiences in EFL /CLIL multilingual classrooms?
2. What are the essential components of the SPECIAL model and framework?
3. How are the components organized into different sequenced and structured stages for successful language learning?
4. How is this framework presented and taught within the teacher training model?
5. To what extent do the model and framework respond to practitioners' needs and expectations for training so that it serves to promote effective learning?

6. How applicable and effective are the SPECIAL model and framework in different educational contexts?
7. What sort of adaptations and improvements are required in the model and framework to promote the development of all students' communicative competences for Pre-primary, Primary and Secondary students in diverse EFL/CLIL contexts?

In order to test my hypotheses, reach my specific aims and address these research questions I have carried out the study which is presented and discussed in the following chapters. Chapter 2, addressing Research Question 1, looks at the main principles of Second Language Learning and Teaching and General Learning theories with a focus on Project Based Learning and the development of competences. The methodology which was carried out in this study is explained in Chapter 3 with specific information on the procedures followed as well as details on the context, participants and tools employed both for the implementation of the training model and for the evaluation of its applicability and actual application, such as the questionnaires, observations, and analysis of teacher talk. Chapter 4 addresses Research Questions 2 and 3 by presenting and justifying the SPECIAL teacher training model and framework which arise from this study applying the principles discussed in Chapter 2. A description of the training model, its framework and the tools proposed for its design and implementation hope to allow the reader to become familiar with the teacher training proposal by understanding its essential components and stages. Chapter 5 addresses Research Question 4 by explaining how the framework is presented and taught in three different courses at undergraduate, graduate and postgraduate levels. Chapter 6 seeks to respond to Research Questions 5 and 6 by analyzing and evaluating the applicability and actual application of the framework based on the data obtained from the questionnaires and observations carried out with the community of practitioners. Finally, Chapter 7 presents the conclusions of my research pointing to the adjustments and improvements that can be made to the teacher training model and framework and which may serve to respond to Research Question 7.

The intention of my doctoral research then is not to test the impact of the teacher training proposal but rather to present the model and the framework and justify them looking at how they stem from the three-dimensional theoretical framework. Furthermore, I aim to study the applicability and application of this framework in different classrooms by looking at how teachers have interpreted it and implemented it. A revised proposal for teacher

training based on these findings and arising from this research should serve as the basis for its future adjustments.

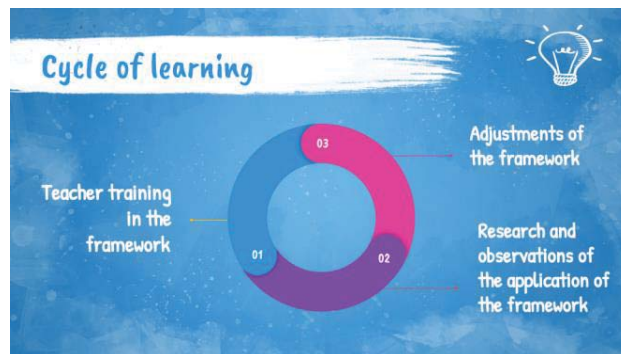


Figure 1.1. Illustration of the cycle of learning arising from the research

As can be seen in Figure 1.1., I seek to take on a cycle of learning where all of the research will continually feed into the teacher training model reaching as many trainees and in-service teachers as possible. This will continue to create a strong community of practitioners involved in sustained professional development and learning resource design who apply their knowledge base to their practice and reflect on the results of these. Ultimately and most importantly, this will lead to improvements in the effectiveness of teaching and consequently of learning in EFL and CLIL classrooms.

Chapter 2. Theoretical framework: Foundations for EFL and CLIL teacher training

For the design, implementation and evaluation of the proposed SPECIAL teacher training model varied theoretical tenets have been used and combined so that it “makes sense in terms of current pedagogical and theoretical knowledge” (Kumaravadivelu 1992: 41). In my own professional development and research, I have perceived clear connections between Second Language Learning and Teaching theories and General Learning (GL) theories, in particular, those incorporating Project and Competence Based Learning principles as key elements setting students, their learning and their competence development at the center, as illustrated in Figure 2.1.

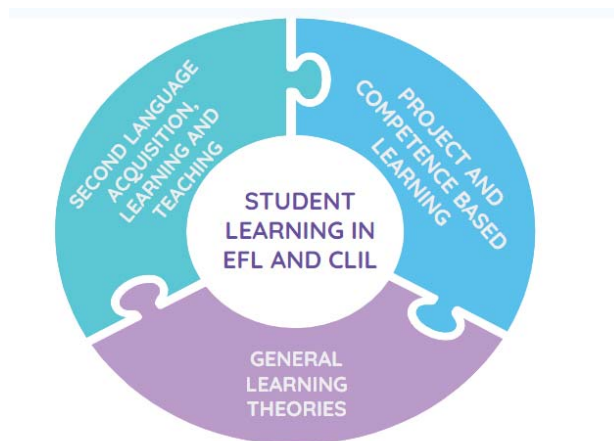


Figure 2.1. Combination of theories driving the SPECIAL teacher training model

These theories have, thus, become the foundation of the model for SPECIAL teacher training and its framework, to which this dissertation hopes to make a significant contribution. In this chapter each of these will be developed in detail and connections established among these three pillars.

2.1. Second Language Learning and Teaching theories

The first pillar that will be discussed is that of Second Language Learning and Teaching since the model has been designed for the teaching of EFL or subjects taught in English

with a CLIL focus. The effective promotion of language acquisition and learning is the overriding concern and the bases upon which all the other theories will rest.

For a foreign language to be learnt and acquired, **students'** needs, abilities, and learning profiles may need to be considered (e.g. Skehan 1991; Lightbown and Spada 2006). In addition, opportunities are to be offered in the classroom to use the language to communicate meaningfully, which requires the use of authentic materials and the establishment of a context, including a clear purpose for the use of the second language (e.g. Celce-Murcia et al. 1995, 2013; Brandl 2008; Brown 2010; Littlewood 2011). A **Communicative Approach** (CA), driving the LOMLOE curriculum (2020), together with an **Action-oriented Approach** (AoA), which permeates the CEFR (2018: 26), entail:

a shift away from syllabuses based on a linear progression through language structures, or a predetermined set of notions and functions, towards syllabuses based on needs analysis, oriented towards real-life tasks and constructed around purposefully selected notions and functions.

A proficiency perspective is taken, focusing on what students can do, rather than what they still do not know and learning is guided towards allowing students to convey meaning and express their ideas in real-life situations. Students are considered social agents who need to be involved in the learning process (CEFR 2018; Picardo and North 2019).

The CA stresses the need to learn by doing, students need to take an active role in the learning process. Teachers take the role of facilitators, and guides, rather than transmitters of knowledge, controllers or directors (e.g. Richards and Rodgers 2006). Communicative principles have for long been followed in the design of materials for second language learning and acquisition and in EFL classrooms. Besides making a meaningful use of the language in the classroom, some such principles comprise fostering pair and group work, promoting exchange of information and ideas, or negotiation of meaning among peers (e.g. Gass and Varonis 1994; Larsen-Freeman 2000; Richards and Rodgers 2006; Brown 2010). Allowing students to interact in the classroom is essential for language to be learnt and acquired (Long 1981, 2014). Through interpersonal exchanges students can work on their interlanguage (Selinker 1972, 1992; Tarone 2018), notice knowledge gaps, and develop strategies to get their message across despite these.

The key element of CA is that meaning and fluency are prioritized over form and accuracy so that students' communicative competence (Hymes 1972) is developed.

Activities and tasks need to revolve around the need to communicate their own ideas and engage in meaningful interactions with their partners. The ability to transmit messages with meaning is primary but attention to form should, nevertheless, be present in the communicative language classroom to allow learners to focus their attention on specific aspects of the language system (vocabulary, grammar, or pronunciation) in context. Thus, a Focus on Form in context rather than a decontextualized focus on grammar or forms (Long 1991; Doughty and Williams 1998; Long and Robinson 1998; Ellis 2010, 2016) needs to be taken when following a CA.

Communicative competence, as the ability to use language appropriately, understanding the social and cultural aspects of usage, in different contexts and with different users should be the driving force in EFL and CLIL learning environments. Coined by Hymes (1972), communicative competence encompasses different constituents at the linguistic, pragmatic and discursive levels and entails considering the following:

1. Whether (and to what degree) something is formally possible.
2. Whether (and to what degree) something is feasible in virtue of the means of implementation available.
3. Whether (and to what degree) something is appropriate (adequate, happy, successful) in relation to a context in which it is used and evaluated.
4. Whether (and to what degree) something is in fact done, actually performed, and what its doing entails.

In fact, a parallelism can be drawn between this four-fold distinction and Canale and Swain's (1980) sub-competences: grammatic, sociolinguistic, discursive, and strategic, which refer to the language system, the actual use of language in context, the development of coherent and cohesive texts and resorting to any kind of verbal and non-verbal resources to get one's message across, respectively.

Not just a CA underlies the LOMLOE curriculum but also **Task Based Learning** (TBL) tenets. TBL can be considered a step forward from the CA in as much as learners complete tasks which lead to the development of their communicative competence. Several definitions of a task in the language learning classroom have been provided throughout time:

an activity which required learners to arrive at an outcome from given information through some process of thought, and which allows teachers to control and regulate that process (Prabhu 1987: 24).

a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form (Nunan 1995: 10).

an activity where the target language is used by the learner for a communicative purpose (goal) in order to achieve an outcome (Willis 1996: 23).

a piece of classroom work that involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is focused on mobilizing their grammatical knowledge in order to express meaning and in which the intention is to convey meaning rather than to manipulate form. (Nunan 2004: 4).

the real-life task, where social agents are engaged, is the core of the Action-oriented Approach, since it provides the unifying frame within which all actions make sense and serve a purpose (Picardo and North 2019: 21).

There are common aspects these definitions point out, mostly, the need of an outcome or output that students produce and hence their focus on conveying meaning. Indeed, for Skehan (1998: 95) a task is an activity in which meaning is primary, there is some communication problem to solve, some sort of relationship to comparable real-world activities, its completion is prioritized and is assessed in terms of outcome. Similarly, following Ellis (2003), a task needs to present four characteristics to be considered as such: it involves a primary focus on meaning, it requires an information gap, it requires the participants to choose the linguistic resources to complete the task and it has a clearly defined, non-linguistic outcome. This outcome is best to be connected with real-world activities, as language learning should be directed towards enabling learners to act in real-life situations, expressing themselves through their completion of tasks of a different nature.

As Picardo and North (2019) stress, in an AoA approach, tasks take on a stronger role, since they drive the process of planning, teaching/learning and assessing, and mobilizing the use of communicative language competences and general competences as well as learning and communication strategies (Picardo and North 2019). This strong task-based nature of foreign language teaching is also stressed in the CEFR (2018: 27) as it:

implies purposeful, collaborative tasks in the classroom, whose primary focus is not language. If the primary focus of a task is not language, then there must be some other

product or outcome (e.g. planning an outing, making a poster, creating a blog, designing a festival, choosing a candidate, etc.).

The TBL approach taken in the curriculum (LOMLOE 2020) and the CEFR (2018) is built on the notion that students learn a second language just as easily with a non-linguistic problem as when they concentrate on explicit linguistic questions (Prabhu 1987; Willis 1996; Willis and Willis 2001). Therefore, by concentrating on the completion of a task, that is, the achievement of its goal in the production of its outcome, learners can build their competences applying what they have learnt about the language to use it to do things in motivated, purposeful, authentic communication. The focus of the task is then on completion, not on accuracy, and the success of the outcome is measurable, meaningful, within a real-life context and prime importance is put on the performance and process of the transmission of a message and its meaning. Willis (1996) describes the task cycle as consisting of three parts, the pre-task, the task, and the language focus or post-task. In the pre-task stage learners prepare and plan for the completion of the task and in the post-task stage there is often more of a Focus on Form going back to how the task has been accomplished and what language was used to do so.

Tasks can be classified by what learners need to complete in terms of gaps (Prabhu 1987). These can be information gaps where data is transferred from one person to another, reasoning gaps where patterns or connections are shared by interlocutors, or opinion gaps in which participants respond to situations by expressing feelings, attitudes or preferences. Tasks should be complete and stand alone as a communicative act and they should be similar to real-life performances that meet authentic needs (Nunan 1995). Within TBL we may find several different types of tasks, such as listing (e.g. brainstorming, or fact-finding); ordering and sorting (e.g. sequencing, ranking, categorizing, classifying); comparing (e.g. matching, finding similarities, finding differences); problem-solving (e.g. analyzing real situations, hypothetical situations, reasoning, decision-making); sharing personal experiences (e.g. narrating, describing, exploring and explaining attitudes, opinions, preferences and reactions); or more creative projects, which bring together many of the aforementioned (Willis 1996).

It is the contention of this dissertation that projects can be understood as elaborate and extended tasks or macro tasks. Project work can be taken to be a more sustained and extended version of TBL as a multiskill and multimodal collaborative project work that

involves many subtasks or micro tasks over an extended period. Project work within language classes can be understood as a way to frame a series of tasks within a longer theme-based cycle that builds the learning of one task upon the previous one. All of the micro tasks lead to the successful completion of the macro task which is considered the project.

Motivation is often named as one of the benefits of CLT and project work and it has been identified as a crucial element to be considered in Second Language Learning and Teaching (e.g. Gardner 1985, 2010; Dörnyei 1994, 2014; Dörnyei and Skehan 2003). Gardner (1985: 10) defines motivation as “the extent to which an individual works or strives to learn the language because of the desire to do so and the satisfaction experienced in this activity”. It includes goal orientation, the desire to learn the language, attitudes toward the language-learning situation and the activity, and the effort involved in achieving these goals. Learners become engaged and persist in their efforts when they feel motivated, participating actively and seeking out opportunities for more practice in developing their language skills. These increased efforts lead to more and better acquisition and more meaningful learning experiences (Ausubel 1977). Goal setting, perseverance, commitment, and positive attitudes towards the second language are promoted when learners are motivated leading to improved communicative competence. Motivation also helps to sustain interest in the target language in time making it much more likely that learners will continue to progress despite setbacks or challenges along their learning journey. Motivation may be extrinsic, arising from external factors or rewards or intrinsic stemming from learners' interests, beliefs, and self concepts. Several different strategies have been proposed by Dörnyei (2014) to promote motivation in an EFL context, such as creating a safe classroom environment that supports learners in their progress, setting goals that can be potentially reached, providing specific and formative feedback, integrating culture into learning, and helping learners to become more autonomous. He also describes motivation as a dynamic and complex process that changes according to different factors, such as individual characteristics, social contexts, and the learning experiences provided in the classroom.

For foreign language acquisition to take place and for students to be able to attempt to communicate and complete their tasks, a **classroom climate** in which students feel comfortable, without fearing to make mistakes, taking risks, or trying out their (new) hypotheses becomes essential (Krashen 1989, 2002). In fact, what Krashen named “the affective filter” blocks learning and acquisition when negative emotions are present. It is

essential in the language classroom to make learners feel part of a safe environment where errors and mistakes are not only allowed but also valued as sources for continued progress. This emotionally safe climate created by the teacher with positive feedback and formative assessment will let learners produce freely at times without excessive correction or accuracy required much as first language learners do, testing their hypotheses and adjusting to improve. This can also be connected to a more meaning-focused production with some moments of explicit but low-pressure Focus on Form in order to facilitate intake and possibilities for production of output (Ellis 1993).

Engagement is another complex component of language learning. It refers to “the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught which extends to the level of motivation they have to learn and progress” (<https://www.edglossary.org/student-engagement/>), which in foreign language learning entails interest in using the language to communicate with others, paying attention to their progress and effective use of strategies and their belief that they can use the language to express their ideas, among others. Engagement and motivation are interconnected and mutually reinforce each other. Experiential learning, a supportive social environment, intrinsic motivation, and goal-oriented mindsets can all contribute to increased student engagement in the EFL/CLIL classroom, fostering and sustaining motivation throughout the learning process. It is important to note that the degrees of both engagement and motivation vary depending on individual learners, their contexts, and the specific learning tasks and activities proposed in the classroom.

Input, interaction and output are crucial elements to be considered for second language learning and acquisition. They are the means by which learners are exposed to language and can use it to participate and communicate with the world. **Input** refers to the language that learners are exposed to, allowing them to imitate models, notice patterns and turn it into intake leading to knowledge (Ellis 1993; Gass and Selinker 1994). Krashen's (1989, 2002) monitor hypothesis argued that access and exposure to comprehensible input are in fact the main features of second language acquisition. The more comprehensible input received and understood, the better the L2 would be acquired, and a lack of this input would lead to little or no acquisition at all. This claim has been questioned greatly, requiring supporting evidence from research. What has been common ground for second language learning and acquisition theoreticians and researchers is the importance and role of input. The concept of comprehensible input has been refined to what Gass and Selinker (1994)

call “apperceived” and “comprehended input” signaling the need to first perceive the input through the senses and then to apply understanding to it. The information gathered from the input, its frequency and the process by which learners make sense of it determine to what extent it will become intake. Ellis (1993, 2009) proposes a computational or information processing model for second language acquisition which points out that the input that is comprehended becomes intake, some of which may go to long term memory as knowledge, resulting in production or output.

Due to the importance of input within the second language acquisition process, it is vital to consider what that input should entail. In terms of difficulty and support, input should be comprehensible (Krashen 2002; Ellis 2009), that is, according to Krashen (2002), mostly at learners’ level with an added component of challenge ($i + 1$) it should be comprehended (Ellis 1993; Gass and Selinker 1994) and fine-tuned to the needs of learners. It should also be made salient thanks to input enhancement (Sharwood Smith 1993; Sharwood Smith and Truscott 2014) or input flood (Krashen 2002; Long 1991) so that learners can notice certain features or patterns of said input. Input enhancement (Sharwood Smith 1993) refers to the ways in which linguistic features in the input are manipulated and made more noticeable or salient in order to draw learners’ attention to them. Input flood (Long 1991) refers to large quantities of target structures that learners are exposed to. Explicit instruction of the structure of the L2 (Ellis 1993), input enhancement and input flood can help make learners more aware of language and its use (Schmidt 1990, 1992, 2010) by making it more prominent or salient, helping learners to notice them so that input can become intake and later lead to output, facilitating acquisition (Ellis 1993; Gass and Selinker 1994).

There are still many controversial issues on the quality, type, quantity, or frequency of input required for better and more acquisition to take place (Gass and Selinker 1994; Skehan 1998). However, when learners are exposed to meaningful and contextualized information through spoken language, written or multimedia texts, for example, they are more likely to acquire communication skills. This exposure to language helps learners build their communicative competences by becoming familiar with the patterns and structures of the target language and allowing them to internalize linguistic features through repeated exposure. Opportunities for noticing these regularities or patterns should be provided so that the cognitive processes that lead to long term learning take place. Input also serves as a model of how the L2 is used in real communicative situations. Learners can observe and imitate the language provided by varied multimodal means to better understand

pronunciation, intonation, vocabulary and structures in use and cultural norms to improve their own skills.

As foreign language teachers and curriculum designers we must consider what kinds of input are needed for acquisition to take place and what type of tasks should be proposed to ensure that input becomes knowledge and the means to interaction and production. As will be shown in subsequent chapters, in the SPECIAL framework emphasis is placed not just on the type of input provided but also on the different resources and tools to facilitate the processing of said input.

Albeit the admitted importance of the role of input in the language acquisition and learning processes (Long 1991, 2014; Ellis 1993, 2009; Gass and Selinker 1994), it is of course not something that can stand alone. **Interaction** and output are also essential elements to be considered to foster students' learning and acquisition of a second language. Through interaction learners are afforded opportunities to negotiate meaning with interlocutors when they encounter communication breakdowns or misunderstandings (e.g. Pica 1994; Pica et al. 1991; Swain 1993, 1995, 2005). To repair communication learners may employ different strategies, such as comprehension checks with each other, asking for clarification, and self-repetition or paraphrasing. They can also test their hypotheses about the language refining them as they receive feedback from the teacher and their peers. Practice in authentic contexts and real-life situations by engaging in meaningful tasks, such as conversations, role plays, or Cooperative Learning activities will allow learners to apply their linguistic knowledge, experiment with different forms and develop their fluency and accuracy. The feedback provided by others helps them to identify their errors and to refine their communication strategies. This meaningful engagement in interaction is also a source for more frequent and fine-tuned input.

The production of language by learners happens not only in interaction but also in **output** which involves them actively using the L2 to express their thoughts and feelings and communicate messages to a broader audience applying their linguistic and pragmatic knowledge and skills. Swain (2005) speaks of "pushed output" and the importance of engaging learners in real communication where they need to convey their thoughts and ideas effectively encouraging and motivating them to produce meaningful messages.

Swain (1995, 2005) underlines three functions of output to promote second language learning: the noticing/triggering function, the hypothesis testing function and the metalinguistic (reflective) function. As happens with interaction, output can help learners

become aware of gaps or limitations in their linguistic knowledge as they struggle to find the right words, construct comprehensible messages or convey exactly what they mean. If met with an adequate learning environment and formative feedback, these struggles can lead to further learning and improvement. Again the goal is to engage learners in meaning-focused, purposeful communicative situations with some Focus on Form to promote noticing. Tasks need to have a communicative purpose for their production, that is, the task explicitly provides a reason and justification for using the target language in an authentic social, professional or academic context shifting the focus away from language as a system of decontextualized rules. Language use becomes a tool to get things done and learners encounter a wide range of forms, patterns, and lexis that are relevant to their purposes.

Opportunities for student interaction and output are best offered within CA, TBL and AoA approaches through student pair work, group work and collaboration. Within collaborative situations, individuals seek outcomes that are beneficial to themselves and beneficial to all other group members. Within the EFL and/or CLIL classroom, working in pairs and in groups can provide many of the conditions that promote the development of the communicative competence in our learners, such as a clear and authentic communicative purpose, better and more fine-tuned input, more opportunities for interaction, negotiation of meaning, pushed output while lowering the affective filter (Krashen 2002; Brandl 2008; Brown 2010; Littlewood 2011). Tasks can be adapted depending on the objectives or the student's needs, among other factors. Since the aim of learning a foreign language is to be able to communicate using it, and this ability to communicate is better developed through interaction, all the groupings and tasks should aim to promote collaboration and meaningful interaction in the classroom (Ellis and Shintani 2013; Long 2014).

In meaning-focused activities and for task completion, **feedback** plays a fundamental role (Thornbury 1999; Larsen-Freeman 2000; Brandl 2008; Brown 2010; Ellis 2010, 2016). Students need to be provided with information about their communicative successes and also importantly about the errors they make in their language production or comprehension. They need to be praised for their correct uses, reinforcing these uses, and they also need to be duly guided towards accurate and appropriate language usages, leading to adjustments in their expressions of meaning. Indeed, feedback plays a crucial role in second language acquisition as it helps learners reaffirm themselves in language skills and choices, and become aware of their mistakes, learning from them, and improving their proficiency and performance. There are different types of error correction feedback that

can be used in language learning (e.g. Thornbury 1999; Brown 2010). In explicit correction the teacher or language partners directly point out the errors and provide the correct form. Another type of correction, recasting, involves reformulating a learner's incorrect utterance without explicitly indicating that it was wrong. Through elicitation, the teacher prompts learners to correct their own errors by asking questions or providing hints. Metalinguistic feedback involves talking about the language used, providing explanations or rules to help learners understand and correct their errors. Teachers need to select those feedback strategies and tools that they consider more pertinent considering the activity or task aims aligned with the learners' needs, preferences, and profiles.

Nowadays, however, becoming communicatively competent goes beyond being able to read and to write printed texts. Learners need to access and comprehend multimodal texts and produce digital outcomes, thus developing their **multiliteracies** (Cazden et al. 1996; New London Group 1996; Cope and Kalantzis 2000, 2010, 2022). Not only in the L1 classroom, but also very significantly in the communicative foreign language one, students should be offered opportunities to function and act as social agents fulfilling tasks that enhance not only linguistic, but also academic, subject-specific, visual, media, digital, and multimodal literacies.

There is still much debate about what instruction works best for acquisition to take place (Lightbown and Spada 2006; Long 2014) and in fact this will vary depending on the **learning profiles** of students. Some will learn more from an explicit Focus on Form while others will need more meaning-focused opportunities and exposure to develop their implicit linguistic knowledge. Therefore, teachers need to intervene in many varied ways in order to facilitate acquisition and not simply expect learning to “happen” as a consequence of exposure. Also, instruction will very much depend on teachers' beliefs, which will inform their practice. In fact, foreign language teachers are likely to be led by a postmethod pedagogy, which “has to be constructed by teachers themselves by taking into consideration linguistic, social, cultural, and political particularities” (Kumaravadivelu 2016: 69).

An essential element to consider in order to facilitate learning and acquisition of languages is **scaffolding** which Gibbons (2015: 16) describes as

a special kind of help that assists learners in moving towards new skills, concepts, or levels of understanding. Scaffolding is thus the temporary assistance by which a teacher helps a learner know how to do something so that the learner will later be able to complete a similar task alone.

In Second Language Acquisition (SLA), scaffolding refers to the support provided to learners as they develop their language skills. It involves the gradual reduction of support as learners become more competent in using the target language independently. Scaffolding techniques in SLA may include providing clear instructions, offering visual aids, modeling language use, breaking down complex tasks into smaller steps, and providing feedback and guidance to facilitate learners' language development. The outcomes proposed by tasks should not be simplified for the second language classroom. Instead, as in any other learning context, tasks should be cognitively and linguistically challenging with the condition that enough tailored help is offered so that everyone has the potential to succeed (Marzano 2007; Hall et al. 2012; Hattie 2012; Tomlinson 2014, 2017; Gibbons 2015; Hattie and Clarke 2018). This tailored help or scaffolding may take the form of input floods where there is an overabundance of examples provided, repetition and paraphrasing, placing exaggerated stress on certain key aspects of language or explicitly explaining how certain words may or may not be used. In the visual mode colors and bold print may be used to afford saliency to certain aspects of language (Nassaji and Fotos 2011), and in multimodal means, such as video, a combination of the spoken word with gestures, images and text can help support learners' understanding and performances (Gibbons 2015).

Another example of scaffolding is the **selective use of L1**. Against beliefs that L1 should be banned from EFL and CLIL classrooms, so that students are exposed to greater amounts of L2, L1 is now considered an effective way to provide backing for comprehension as well. Larsen-Freeman (2018: 56) when envisioning the future of Second Language Learning and Teaching highlighted the importance of combining languages that are part of the learners' and teachers' repertoires,

Translanguaging—an emic version of code-switching—is now recognized to be a widespread social practice of language use. This observation has led to calls for translanguaging in the classroom (García and Wei, 2014), where students use rather than exile their existing language resources in their learning of a new language. Whereas in earlier times the native language of students was often banned in the classroom, its limited and intentional use are increasingly welcomed these days (e.g., Al Masaeed, 2016), and I predict that such practices will become more common as we come to understand the way in which one language provides the scaffold for another.

The mother tongue then has begun to be accepted as an excellent means to support learners in their comprehension and acquisition of a second language (Larsen-Freeman

2018; Cenoz and Gorter 2021; Sahan and Rose 2021). It should no longer be prohibited in the language classroom but instead its purposeful and deliberate use should be incorporated within a plurilinguistic perspective (CEFR 2018; LOMLOE 2020). This needs to be carefully done since the danger of its use taking over exists and different techniques should be employed, such as “sandwiching” the L1 term between repetitions of the L2 words or selective use of L1 for behavior management or emotional quickly required instances. Teachers need to be reminded that L1 can and should be used but, as with all instructional decisions, its employment should be justified by the benefits for learning that it entails.

What is essential for the elements discussed thus far, such as input provided, structuring of interaction, production outcomes, types of tasks and instruction, motivation, engagement, and scaffolding is that **individual variables of learners** are respected. Learners may differ in their needs, preferences, interests, readiness levels, learning profiles, linguistic abilities, home environments and a long series of others. Therefore, any kind of teaching in the language classroom that tries to apply a “one shoe fits all approach” will necessarily fail. Once again, the key lies in providing variety so that at different points in the learning process everyone will be able to find their suitable way to access content, engage in the process and express their ideas (Hall et al. 2012; Tomlinson 2014, 2017).

All these components of effective second language teaching apply to the EFL classroom and also to Content Based Instruction and **Content and Language Integrated Learning (CLIL)**, which are terms for the educational approach that involves the learning of different subject areas, such as Science, Arts and Crafts, Music or Physical Education, for example, in a second or foreign language. The aim of CLIL is to simultaneously develop students' second language proficiency and their understanding of subject-specific concepts so the language of instruction becomes a tool for learning the content, rather than being taught as a separate subject. Thus, content and language are integrated in a meaningful way to allow learners to develop knowledge, understanding and skills of the subject area as they develop their communicative competences in the second language (e.g. Coyle et al. 2010; Dalton-Puffer 2011; Ball et al. 2015; Coyle and Meyer 2021).

There are four key components that according to Coyle et al. (2010) are associated with effective CLIL programs. These components help guide the design and implementation of CLIL lessons and courses and are as follows: Content, Communication, Cognition, and Culture. The Content component refers to the subject matter that is being taught or learned in the CLIL context. It involves the specific knowledge, concepts, and skills related to a

particular discipline or subject area. In CLIL, Content should be presented in a way that is accessible to all learners, and language should be used as a tool to facilitate understanding and engagement with said content. The Communication component emphasizes the importance of the development of communicative competence within the context of the subject area. This includes the ability to use appropriate academic language and discourse functions (Dalton-Puffer 2011) specific to the discipline of the subject being learned. The Cognition component focuses on higher order thinking skills (Anderson and Krathwohl 2001) and cognitive processes involved in learning and understanding the content. CLIL encourages high order thinking skills, such as analysis, application, synthesis and evaluation. It promotes critical thinking and deeper understanding. These allow students to be able to apply and transfer their newly acquired knowledge to different contexts. Cognition in CLIL emphasizes metacognition and reflection, therefore contributing to the development of learning to learn competences in line with 21st century skills and global competences (Bender 2012; Boss et al. 2013; OECD 2019; Sobe 2021). The Culture component of CLIL acknowledges the role of cultural awareness and the development of intercultural competence, providing opportunities for students to engage with different perspectives and develop an understanding of the cultural contexts associated with the target language and the content being taught (Byram 1997; Byram et al. 2002; CEFR 2018). It promotes respect for diversity, encourages cross-cultural communication, and prepares learners to interact effectively in multicultural and global settings. This culture component has also been connected to a sense of community which CLIL develops (Coyle and Meyer 2021). Students are enabled through their learning of subjects in a second language to gain access to the global community and to share their learning and ideas with an intercultural and diverse audience. They can also contribute to making significant positive changes to the world around them far outside of the classroom walls, becoming social agents in line with an AoA approach (CEFR 2018). The integration of these components, the content of the subjects taught and the language, which is developed as a consequence of this, allow for the engagement of students in meaningful, rich, and holistic learning experiences that promote deep understanding and language proficiency.

Another important consideration in CLIL classrooms is the kinds of language that are needed for communication and learning to occur. We can refer to Cummins' (2000, 2008) terms BICS and CALP to do so. BICS (Basic Interpersonal Communication Skills) refers to the language skills needed for day-to-day, face-to-face communication in social contexts

involving the language that we need for everyday casual conversations and interaction with others. It allows learners to engage with others in their environment and to navigate common social situations, building interpersonal relationships. On the other hand, CALP (Cognitive Academic Language Proficiency) refers to those language skills needed to perform academic and cognitive tasks. These may include reading and understanding texts, writing essays, or engaging in academic discussions. Very often they will involve more formal, abstract, and context-reduced language, the use of specialized vocabulary and complex sentence structures that require critical thinking skills and more learning strategies. CALP proficiency is needed for success and full participation in educational settings, enabling learners to comprehend and produce academic content across different subject areas.

Ball et al. (2015) problematize the notion of Content as defined in the 4 Cs model (Coyle et al. 2010). Ball (2016: 16) argues that it should be understood as:

as a three-dimensional phenomenon where it is viewed as conceptual, procedural and linguistic, it is becoming possible to view CLIL as the perfect means for developing subject competences. Instead of viewing CLIL as a dual-focused approach, it is developing into a single-focused methodology which uses conceptual and linguistic content as vehicles for procedural skills – aka subject competences.

These three dimensions also provide a very useful image and concept of the mixing table in which teachers can adjust the conceptual, procedural, and linguistic demands of CLIL tasks recommending that if the linguistic challenges posed by the task are high, then the procedural and conceptual demands should be adjusted, lowered or scaffolded so that the overall cognitive load of the task is realistic and attainable (Ball et al. 2015).

Instead of referring to the difficult and balanced integration of content and language as suggested by the acronym of CLIL, Ball et al. (2015) propose Content Enhanced Language Teaching (CELT)¹ in which content is considered instrumental in the development of the communicative competence in the second language and specific subject competences and Language Enhanced Subject Teaching (LEST) where language is purely the means through which content is addressed and taught. The focus and importance then can vary from lying in content to language in harder or softer interpretations of their integration (see Figure 2.2).

¹ This CELT view is taken in the Degree in Primary Education (Delgado et al. 2020) and in the Degree in Infant Education (Delgado 2023) at *Universidad de Zaragoza*.

Hard CLIL	EFL as soft CLIL
<ul style="list-style-type: none"> ● Language enhanced subject teaching/EMI ● Subject specific competences developed ● Subject area curriculum based design and assessment ● Learning outcomes develop subject knowledge, understanding and skills ● Highly contextualized learning ● Language is the vehicle for learning ● More focus on CALP (Cummins 2008) ● Meaning based learning with very little Focus on Form ● Incidental learning of form ● More academic lexis, structures and discourse functions ● Little or no assessment of language 	<ul style="list-style-type: none"> ● Content Enhanced Language Teaching ● Communicative competences developed ● EFL curriculum based design and assessment ● Learning outcomes develop linguistic knowledge, understanding and skills ● Context is background for learning ● Content is instrumental for L2 learning ● More focus on BICS (Cummins 2008) ● Meaning based learning with opportunities for noticing and focus on Form ● Intentional and planned instruction on form ● More interpersonal communication and focus on culture ● Little or no assessment of content learning

Table 2.1. Hard vs. soft CLIL approaches

It is the contention of this dissertation that the SPECIAL framework can be used to design learning that can be applied to hard versions of CLIL for subject teaching as well as for the development of competences in the EFL classroom. This can be done by adjusting the focus of assessment above all but integrating dimensions and components suggested by CLIL (Coyle et al. 2010; Otto 2018; Otto and López-Medina 2021) and CELT (Ball et al. 2015) in all of the stages. The borders between EFL and CLIL are fuzzy. CLIL teachers can benefit from training in EFL on matters, such as Focus on Form, noticing, saliency, error correction feedback, negotiation of meaning, and translanguaging, for example. EFL teachers must, of course, also consider how to integrate context, competence development, creative critical thinking, collaboration and intercultural awareness into their language lessons.

Thus far, the theoretical framework connected to Second Language Learning, Teaching, and Acquisition has been discussed focusing on what SLA research and theory propose for effective learning to take place. The next section will look at the requirements and considerations necessary for the learning of any subject, that is, General Learning theories or those coming from the Educational or Cognitive Sciences and intended primarily for learning in L1. Many of the points discussed until now are cross-cutting since references to

issues, such as meaningfulness, motivation, engagement, competence development, input, interaction, output, scaffolding, cognition, collaboration, and individual differences, appear throughout both Second Language Learning and Acquisition and General Learning sources (see Figure 2.2).

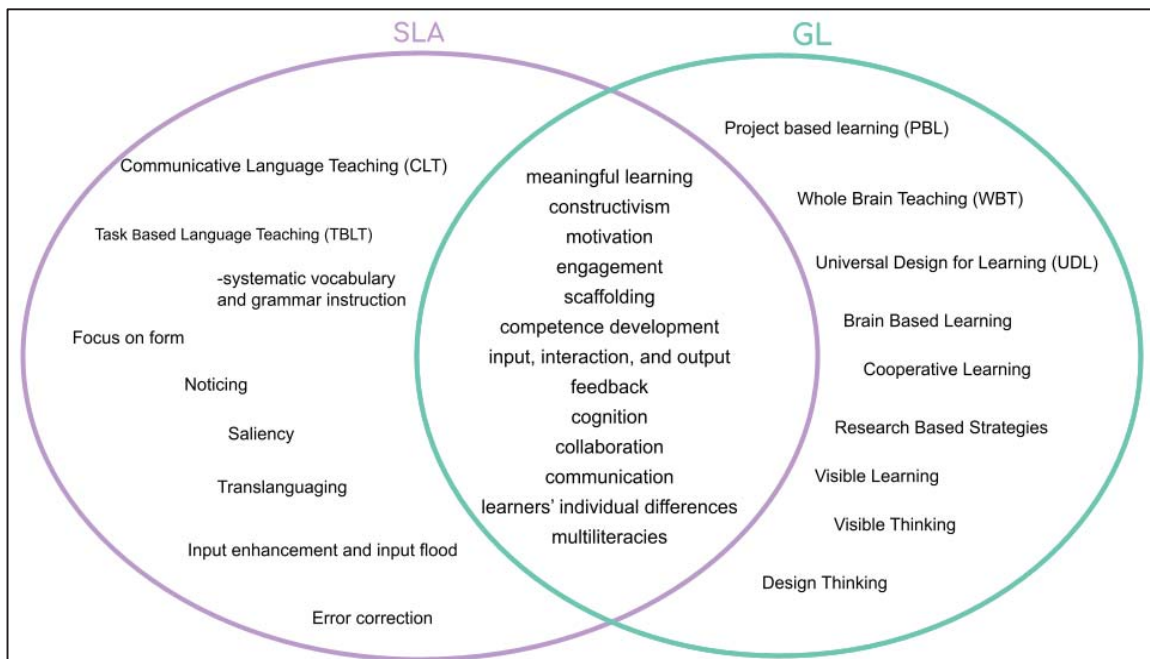


Figure 2.2. Cross-cutting elements between Second Language Learning, Teaching and Acquisition, and General Learning theories

As General Learning is discussed, many of these cross-cutting issues will be revisited from an L1 context and perspective and in Chapter 4 we will examine how the different strategies and tenets proposed can be adapted and transferred to the L2 learning context to bring about the effective development of competences through the SPECIAL framework and model in the EFL and CLIL context.

2.2. General Learning theories

A **constructivist** perspective of learning emphasizes that learners actively construct knowledge and meaning through their interactions with the environment (Piaget 1964; Vygotsky 1978, 1986). It suggests that learners build new understandings based on their

prior knowledge, experiences, and social interactions with experts. Learners are actively involved in the construction of knowledge, engaging in meaning making activities, such as exploring, questioning, and reflecting, to construct their own knowledge and understanding. The importance of learners' prior knowledge and experiences is highlighted, as new information is assimilated or accommodated into existing mental frameworks called schemata (Piaget 1964; Vygotsky 1978, 1986). Learners actively connect new information to their prior knowledge, integrating and revising their existing understanding. Learning is a social and collaborative process (Vygotsky 1986) in which students benefit from engaging in discussions, sharing perspectives, and negotiating meaning with others. The exchange of ideas, peer feedback, and co-construction of understandings help build knowledge in authentic and contextualized learning experiences. These should involve real-world contexts and authentic tasks or problems where knowledge and skills can be applied in practical situations, enabling learners to transfer their learning to new contexts.

A constructivist view of learning implies that there should be a logical and coherent **sequence of learning** for the different micro tasks that make up a unit or project leading to the achievement of the learning outcomes. In the design of effective learning the events, stages and tasks need to be organized. Instructional events, as Gagne et al. (1992) call them, define the different actions that need to take place so that learning occurs. Another proposal, the 5E Instructional Model (Bybee et al. 2006; Bybee 2014, 2015) also marks 5 phases in terms of aims to be followed in designing learning. Finally, Clark (2009a) speaks of 8 stages as she describes the aims for students in order to develop real learning and thinking. A comparative summary of these events, phases and stages can be found as Table 4.1 in Chapter 4 as they are compared to the stages of the proposed SPECIAL framework. All three proposals start by gaining learners' attention (Gagne et al. 1992) and engaging them (Bybee et al. 2006; Bybee 2014, 2015) or immersing them (Clark 2009a) in the new topic. Mentions of informing learners of the expected learning outcomes and connecting with previous knowledge on the new topic are made in all three, although Gagne et al.'s (1992) model separates these aims into three events while Bybee (2015) speaks of accessing prior knowledge, engaging and organizing thinking in one phase. Clark points to emotional and cognitive engagement, the setting up of a challenge that she calls the "what if" and the "so what" to pursue learning referring to establishing the purpose and the relevance of the new knowledge and skills that will be acquired throughout the project in her first stage called Immersion. Bybee et al. (2006) dedicate their second steps to countering any

misconceptions and Clark (2009a) proposes the second and third stages for brainstorming what they know about the topic and what they will need to know as well as the tools that they will need in their personal inquiries. The next step for each of the models involves presenting the stimulus material (Gagne et al. 1992), introducing the new concepts (Bybee et al. 2006) and providing learners with a planner outlining “the entire learning journey”, success criteria within a rubric and the different tools that will be used throughout. This is followed by guiding learners’ thinking, involving learners in experiences that extend, expand and enrich concepts and abilities, and inviting learners to select their own tools and strategies to continue progressing. Gagne et al. (1992) then speak of eliciting performance so learners can show what they can do while providing feedback on the correctness of their performances and Clark (2009a) talks about the Ideate stage where learners reconsider how they “might use their new learning to make a difference in their lives or the lives of others” and decide on a communication medium to get their ideas across to an audience. The final events for Gagne et al. (1992) are two involving assessment of performances that demonstrate learning with systematic reviews at different spaced intervals and new tasks where learners can apply and transfer learning. Bybee et al. (2006) also speak of evaluation to determine and obtain evidence of learning and Clark (2009a) divides the end of the journey into two stages, one for testing and celebration of their results and the other for self reflection on strengths and weaknesses as well as the most useful tools for further learning. All three of these proposals share similarities in the basic steps required to move from 1) activating learners’ previous knowledge and schemata, to 2) providing new information or knowledge, to 3) allowing learners to refine and deepen these understandings and skills, to 4) planning and creating demonstrations of learning that they will share with an audience, ending in 5) assessment, metacognition and reflection on the processes and products of said learning. I will argue that all these steps need to be organized and integrated into sequenced, coherent micro tasks leading to a final production or macro task so that the smaller task cycles represented in the different lessons build towards the achievement of the learning outcomes and development of competences within the projects.

Neuroscience has been a recurrent basis upon which to build theories on General Learning known as **Brain Based Learning** or Brain Compatible Learning (e.g. Nuthall and Alton-Lee 1994; NRC 1999; Bransford et al. 2000; Jensen 2005, Hattie and Yates 2014; Agarwal and Bain 2019). Research on how the brain works, learns, and retains information leads to better classroom practices which provide more effective learning conditions,

curriculum designs and instructional strategies (Marzano et al. 2001; Marzano 2007; Silver et al. 2007; Hattie and Yates 2014; Hattie and Clarke 2018; Agarwal and Bain 2019). Some of the most important considerations include engaging learners and placing them at the center of learning processes with tasks that involve critical thinking, problem-solving, collaboration, and hands-on experiences; incorporating multiple sensory modalities, such as visual, auditory, and kinesthetic, to enhance learning and promote better retention and retrieval of information. It is also important to recognize the influence of emotions on learning, creating a positive and supportive learning environment to enhance motivation, attention, and memory. These safe and supportive learning environments should promote varied opportunities for expression and participation to optimize learning. Finally, Brain Based Learning underlines the relevance of metacognition and reflections on the learning process which should be present throughout, setting and sharing attainable goals, monitoring growth, and promoting self-efficacy and autonomy.

The brain's natural learning processes can be incorporated into different learning and teaching strategies using neuroscience to inform instructional design and practice. Brain Based Learning takes on a computational view of cognitive processes which holds strong correlations with the elements discussed in SLA of input and output. Input refers to the information or stimuli that learners receive and perceive through their senses from the environment. These may be auditory, such as in lectures, oral explanations, audio recordings, for example. They can be visual as in texts, graphs, icons, or images and they can be kinesthetic in which learners experience the stimuli hands on or through movement. Most effective input can come from a combination of these modes (Marzano et al. 2001; Silver et al. 2007; Hattie and Yates 2014; Agarwal and Bain 2019). This input is perceived, encoded into short term, or working memory, and then some of it is stored or retained in long term memory. When we talk about processing input, we refer to the different resources and techniques that are used to help learners encode new learning and retain it in long term memory. The building of knowledge requires the construction and organization of knowledge in the mind of the learner, connecting new information with existing schemata to favor comprehension and retention through active engagement, asking questions, verbalization of understanding or application in real-world situations. Output refers to the ways in which learners demonstrate their understanding and learning applying and transferring this knowledge. Output also serves to consolidate learning and reinforce retention in long term

memory. The more connections we establish between concepts and notions, the more effective learning will be (Marzano 2007; Clark 2009a, 2009b; Agarwal and Bain 2019).

Retrieval practice (Agarwal et al. 2013; Agarwal and Bain 2019) is a learning strategy that stems from Brain Based Learning and involves actively recalling information to enhance retention, strengthen memory and improve learning outcomes. Retrieval practice consists of several steps, a retrieval cue is provided in the form of a prompt to trigger the process, learners then try to recall information from memory without using any external sources and they either orally discuss it with someone or register what they remember in writing or digitally. They then receive feedback on their response to help them identify any gaps in their understanding. They may even check the correct response in an answer key or cheat sheet to compare it with their own. This same process is repeated often to reinforce memory and strengthen the pathways for retrieval (Agarwal et al. 2013). Techniques, such as the use of routines, organizers and mind maps are used throughout the SPECIAL framework to encourage students' retrieval, reinforcing retention in long term memory, stronger connections in mental schemata, promoting deeper understanding, critical thinking and identifying any gaps in knowledge so that more review and further learning can take place.

Another important concept to consider stemming from brain based research is that of **cognitive load**, a concept in Educational Psychology that refers to the situation when an individual's cognitive processing capacity is overwhelmed by the amount or complexity of information they are trying to process or learn (Sweller et al. 1988). When learners are exposed to an excessive amount of information or encounter complex tasks that exceed their cognitive capacity, it can lead to reduced comprehension, learning difficulties, and decreased performance. Cognitive overload can hinder the process of acquiring and retaining new knowledge and skills, ultimately impacting the overall learning experience. Task designers and teachers should aim to minimize cognitive overload by designing instructional materials and tasks that match learners' cognitive abilities, provide clear and relevant information, and promote active learning strategies in order to optimize the learning process and enhance knowledge acquisition.

Not only Brain Based Learning research but also extensive **research on classroom practices** has led to the work of Robert Marzano, whose suggested strategies for design and implementation are put into action within the SPECIAL framework. Marzano (Marzano et al. 2001; Marzano 2007; Marzano and Pickering 2011) points to important tenets, such

as 1) instructional strategies that adapt to individual needs and reinforce effort providing recognition; 2) the setting of clear, specific and measurable goals as a roadmap for teachers and learners and providing feedback on the achievement of these with actionable steps to take to improve; 3) learning strategies, such as summarizing, note-taking, identifying similarities and differences, structured practice and homework, non-linguistic representations of understanding and hypotheses generation and testing; 4) prompts, questions and advance organizers to activate students' previous knowledge and guide their thinking and 5) active engagement of students through participation, choice, autonomy and meaningful learning experiences. Teachers take on active roles in what Marzano (2007) calls "critical input experiences" in which they preview and present new information to students in small chunks through varied multimodal means, facilitating the processing of this input to promote comprehension. Learners then elaborate on the content in engaging activities that require different skills, such as summarizing, note-taking or visual representations followed by reflection on the learning process followed. Marzano (2007:184) proposes some questions to help teachers design effective learning in the lesson segments that involve these critical input experiences such as,

Am I being sensitive to the need for a variety of mediums for critical input experiences? Will I augment the critical input experience by using anecdotes and narrative? What specific techniques will I use to ensure that students actively process the new information, and what will my rule be in those activities? How will grouping be used in those activities?

These research and evidence based instructional design principles and practices which maximize engagement, learning and achievement have been applied to the SPECIAL framework.

Another groundbreaking meta-analysis of educational interventions and factors that influence learning and achievement carried out by John Hattie throughout several years has also provided keys to the development of the SPECIAL framework. Hattie's (2012) most important findings are embodied in his renowned concept of **Visible Learning** which refers to the idea that teachers and learners should have clear ideas of what success in the classroom looks like and how to reach it. Hattie (2012) analyzes over 800 studies to measure the impact of different interventions on student achievement in learning in general, allowing teachers to compare and contrast the effectiveness of different strategies and techniques. One of the most influential factors identified by Hattie for learning is the concept of self-

efficacy, that is, the belief that one can progress and improve thanks to effort and perseverance and learning from mistakes. This is applicable both to teachers and students who will perform more effectively if they believe in their capacities and potential to succeed. Thus, the creation of a safe learning environment with clear, achievable learning goals and a well designed plan to help students attain them will help facilitate success. This can be connected to the idea of lowering the affective filter (Krashen 2002), previously seen when discussing Second Language Learning and Teaching theories as well as with engagement and motivation in general (Philip and Duchesne 2016) and in the foreign language classroom in particular (Dörnyei 1994, 2014). It is commonly believed that there are strong correlations between high levels of engagement and improved learning thanks to their focused attention, inquisitiveness and interest. Cognitive, social, behavioral, and emotional dimensions (Philip and Duchesne 2016) come into play in the language learning process. In other words, learners need to feel connected with the thinking and learning requirements of the tasks at hand. Interaction in the classroom needs to be structured and organized so that learners feel like active and essential participants within the social group of the class and their teams. Furthermore, there should be reasons for them to be on-task and the climate should be respectful of their feelings.

Feedback, with the condition that it is well given and well received, and that it informs on performance in tasks about where the students are at present, where they are meant to be or to go and suggestions for how to move forward from current to desired achievement, is among the most common features of effective teaching and learning (Hattie 2012; Hattie and Clarke 2018). It can reduce the gap between where the student is and where he or she is meant to be by focusing the learner's attention on success and the processes needed to attain it, providing motivation and important information about ideas that have been misunderstood or can be better comprehended with different alternative strategies. Error is not considered exclusive of lower-level students but instead something that all humans share and can lead to progress by considering them natural and necessary steps towards growth and improvement in any learning process. This concept of feedback occurs not only from the teacher to students, but the most powerful feedback according to Hattie (2012) comes when students inform teachers about what they already know and understand, where they are making errors and their misconceptions lie, and when they are not engaged. This information helps to make learning visible to teachers allowing them to synchronize their

instructional strategies with the real needs of their students to facilitate learner autonomy and the capacity to apply and transfer knowledge and skills to varied contexts.

Feedback constitutes one example of **formative assessment** which can also take on other forms (Hattie and Clarke 2018) based on the principles of teachers' beliefs in the possibilities of student growth and improvement, such as 1) classroom discussions in varied groupings about learning and how to move forward, 2) prior knowledge as the start of all new learning, 3) effective questioning to determine cognitive standing, 4) shared construction of success criteria, 4) analysis of examples of excellent or good products related to success criteria, 5) learning stops with analysis of work in progress, and 6) feedback on progress with specific strategic suggestions on how to improve.

In Educational and Cognitive Science, **scaffolding** refers to the instructional support provided to learners to help them acquire new knowledge or skills (Vygotsky 1978, 1986; Silver et al. 2007). It involves structuring tasks, providing prompts or cues, offering feedback, and gradually transferring responsibility to the learner. The goal of scaffolding in this context is to facilitate learners' cognitive development, problem-solving abilities, and metacognitive skills. Some practical examples of these include advance organizers (Marzano et al 2001; Silver et. al 2007) which present an outline of learning at the onset of the projects, models or WAGOLs where students are given examples of good products (Clark 2009a), cheat sheets with answer keys or sentence frames to aid production and task cards (Clark 2009a) with visual step by step instructions for the completion of tasks.

Educators should allow all learners, regardless of their diverse abilities and learning profiles, equal access to instruction and opportunities for meaningful learning, as proposed by **Universal Design for Learning (UDL)** (Hall et al. 2012; CAST 2018). UDL is an educational framework whose principles consider that individuals engage in learning, process information, and demonstrate their achievements in different ways. Therefore, flexible and inclusive learning environments should be created and adapted to meet the needs of all students. This entails allowing for 1) multiple means of engaging learners in the process so that they can find resources and ideas that are relevant, meaningful and motivating. This may be done by offering choice and varied levels of challenge supported by scaffolding, formative feedback, and opportunities for collaboration. There should also be 2) multiple ways for learners to access new knowledge and skills through means of varied representation of information and content in different modes and formats, accommodating different learning preferences and abilities via the provision of visual aids, multimedia

resources, and using different modalities to present input. Finally, 3) multiple and varied opportunities for learners to express and act upon their learning should be offered. This would involve different ways for learners to demonstrate their understanding of content and varied modes of expression, such as written, verbal, multimedia formats using various tools, resources and technologies to facilitate interaction and participation. UDL draws upon research in Neuroscience, Cognitive Psychology, and Educational Theory to guide instructional design and promote inclusive practices, maximizing accessibility, engagement, and achievement for all learners regardless of their different interests, needs, preferences, abilities or levels. In UDL teachers try to foresee the possible barriers that learners may encounter and to provide ways in which they can break these barriers down and support learning.

Closely aligned with UDL is **Differentiated Instruction (DI)** (Tomlinson and McTighe 2006; Tomlinson 2017) which is an instructional approach that recognizes and addresses the diverse learning needs, interests, and abilities of students in the classroom. It involves tailoring instruction and learning experiences to match individual students' readiness levels, learning profiles, and interests by adapting content, procedures, products and environments. This can be done by providing different sources of input with more or less built in scaffolding, different processing tasks for the same input, allowing for choice in what learners produce as output or using Cooperative Learning to support differences, for example.

Both UDL and DI can provide very valuable insights into the kinds of differences that may be encountered in the classroom as well as effective strategies for addressing them so that all learners have the potential to succeed. Additional approaches and strategies which can be embraced in the classroom to foster effective learning include Whole Brain Teaching, Visible Thinking, Cooperative Learning and Design Thinking.

Whole Brain Teaching (WBT) is an instructional approach that is based on how all the different parts of the brain work together in learning processes, providing structured, interactive and brain-friendly strategies to address the varied needs of students (Biffle 2014). It has been designed and proposed for learning in general in any subject area and originally targeted for those doing so in their mother tongue. It aims to engage all learners by using a variety of strategies and techniques which emphasize active participation, gestures, repetition, collaboration and emotional involvement in the process.

Several of these WBT strategies are applied within the SPECIAL model and framework. These are *Classroom Rules*, *Class-Yes*, *Mirror*, *Teach-okay*, *Blow the Answer*

and Scoreboard. *Class-Yes* is an attention getting strategy used to create a focused learning environment. When the teacher needs the learners' attention, she or he calls out "Class" and students respond in a synchronized manner with "Yes", helping to establish a positive climate in class and transition into states of attention and focus. *Mirror* is used to present input accompanied by gestures that will aid comprehension and retention, asking students to repeat the exact words and gestures of the teacher. *Teach-Okay* involves students teaching each other by sharing their understanding with partners in pairs or small groups. It encourages students to process input and reinforces their learning through repetition and interaction. *Blow the answer into your hand* is a strategy that is used to synchronize student responses as a whole group and to control the wait time afforded for thinking. The teacher asks a question to the class and waits for them to blow the answer into their closed palms. When the command "Release" is given, all of the students call out their responses in unison. This allows students to answer together, drawing attention and pressure away from individual responses in front of the class and letting the teacher wait more or less for replies depending on the nature or complexity of the question. Finally, the *Scoreboard* is used to manage the class and to create a positive climate reinforcing behavior that is conducive to learning on a shared visual of a scoreboard and providing positive reinforcement with happy emojis and negative stimuli with sad emojis to mark behaviors that need to be avoided or modified. The number of happy and sad emojis are counted at the end of the class or the week to determine whether or not they will obtain a reward. This is a way to gamify classroom behavior. All the WBT strategies aim to provide the most effective and adequate conditions for learning to take place based on the notion that all of the members of the learning community are involved in learning and invested in recreating the best conditions for it to happen (Biffle 2014).

Visible Thinking was developed by Project Zero (<https://pz.harvard.edu/>), a research center that is a part of the Harvard Graduate School of Education, led by Howard Gardner in its origin. Project Zero has been responsible for studying and disseminating Gardner's renowned *Theory of Multiple Intelligences* (1993) as well as other very important research on *Teaching for Understanding*, all aiming to explore and enhance learning in varied educational settings. Visible Thinking (Ritchhart and Church 2020) proposes a series of routines that help to make cognitive processes understandable and salient in order to promote metacognition in reflective independent learners and critical thinking. These routines are short, three or four step sequences with specific purposes for developing

different types of thinking which can be adapted to different subjects and educational contexts. The SPECIAL framework and model integrate several of these routines, such as *See Think Wonder*, *Think Puzzle Explore*, *Compass Points* and *Generate Sort Connect Elaborate (GSCE)*.

See Think Wonder helps learners explore images, objects, or topics by following the three steps of 1) description saying what they see; 2) inferring or connecting what they see with what they know about the world and 3) wondering or asking themselves questions about what they see. This routine can be used to initiate a new topic or project, activate existing mental schemata, present new information or input, or to encourage students to move beyond superficial observations to deeper analysis and evaluation. *Think Puzzle Explore* helps learners reflect on a topic or idea by asking them to put into words what they think they know about it, what questions they have that puzzle them and how they can explore the issue further. Students can use this routine to create their own research questions and decide a plan for investigating, promoting their learning to learn competences. *Compass Points* encourages learners to examine and evaluate an idea or proposition, providing teachers with information about learners' interests, concerns and preferences. It explores the pros and cons of the issue at hand. With the image of a compass, it asks learners what (W) worries them, what (E) excites them, what they think they (N) need to know or find out and if they have (S) suggestions for moving forward with their learning on the topic. *Generate Sort Connect Elaborate (GSCE)* helps learners create mind maps or concept maps, organizing and representing their understanding of a topic. The four steps involve generating ideas, organizing these by selecting the most relevant ones and using lines and arrows to group and connect them. The final and fourth step encourages students to go beyond their initial ideas and to elaborate on them.

In all these *Visible Thinking* routines, students identify and verbalize their thinking processes, evaluate their understanding and propose improvements so that they can eventually regulate their own cognitive processes and abilities. They provide the means so that teachers can model and explain thinking, provide guidance and feedback, and foster the sharing of ideas and strategies. They are intended to be modeled first and then repeated often so that they become habits of thinking. They are usually accompanied by some sort of organizer where learners can register their ideas for future use.

Cooperative Learning is a powerful instructional approach for all learning that is defined as working together to accomplish shared goals. It entails the instructional use of

small groups so that students work together to maximize their own and each other's learning and it may be contrasted with competitive and individualistic learning (Johnson and Johnson 2009). Working as a learning community where the progress of all members of the community is a shared goal can enable group and individual processes. Helping other students to understand not only aids the student being helped but also the giver of help. Effective learning in any subject takes place when students are effectively trained in cooperative interaction (Nuthall and Alton Lee 1994; Johnson and Johnson 2009; Hattie and Clarke 2018). This interaction can be structured in varied ways: interaction with the whole group, teacher interaction with individuals, student interaction in pairs, groups or intentionally created cooperative teams. Whatever the characteristics of our students and the requirements of a concrete task are, we should bear in mind that there are four basic principles to make Cooperative Learning effective: 1) positive interdependence where a gain for one individual should also mean a gain for the team; 2) individual responsibility where each member is accountable for his or her own learning and contributions as well as the team's; 3) equal participation where every student has an equal role in sharing information; and 4) simultaneous interaction since there is more than one active participant at a time in the classroom throughout the lessons (Johnson and Johnson 1999; Kagan and Kagan 2009). Kagan's Cooperative Learning (2009) proposes a series of steps or routines called "structures" that organize interaction by defining the different roles that learners take on in each of them and describing how they should perform. Several structures are proposed throughout the tasks in the SPECIAL framework in order to promote equal participation and develop speaking and listening skills, for example *Talking Chips* (Kagan and Kagan 2009) where each of the members of the cooperative teams will have 4 chips of the same color. Teammates will contribute their ideas to the team discussion and as they do so they can place one of their chips in the center of the team table. This is repeated each time one of the team members participates with a new idea. If members are out of chips because they have used all of their turns to contribute ideas, then they can listen to their teammates and help them with suggestions. This allows students to practice respectful turn-taking and listening. In addition, shy students, low achievers, and less-fluent students are encouraged by the social norms of the Cooperative Learning structures proposed to fully participate and develop their language skills, too. Many Cooperative Learning structures have been adapted and associated to different stages of the SPECIAL framework, for example, besides *Talking*

Chips, Think, Pair, Share; Rally Coach, and Fan and Pick which are all used to promote meaningful interaction and communication.

Another very useful approach is **Design Thinking** which is based on problem-solving and focuses on understanding users' needs and creating innovative solutions to these. It involves five stages in the process of coming up with innovative solutions and ideas (McIntosh 2014) starting with trying to understand the target audience's needs, motivations and challenges through observation and engagement with them to gain insights into their experiences. The second stage requires defining the problem clearly from the target audience's perspective in order to properly identify the underlying needs and goals. The third stage, that of ideation, involves generating a wide range of ideas without judgment, using a variety of brainstorming techniques to encourage creativity and explore multiple options. Design Thinking in its fourth stage promotes rapid prototyping to visualize and test ideas. In its fifth stage, information and feedback are gathered through testing so that improvements and adjustments can be made to the final product. All of these stages are collaborative and promote active participation in the solution of the problems or challenges selected.

These General or Cognitive Learning theories constitute the second pillar for effective teacher training upon which the SPECIAL model will be based. Connections have so far been drawn between approaches used for L1 effective teaching and learning and Second Language Teaching and Learning. The third and last section of this chapter looks at the third pillar, namely, Project and Competence Based Learning (see Figure 2.1).

2.3. Project and Competence Based Learning

Project Based Learning (PBL) together with Competence Based Learning are considered the third fundamental pillar of the theoretical framework sustaining the teacher training model proposal. PBL is understood as an instructional approach that engages learners in real-world macro tasks or projects. These projects require active participation and engagement, critical thinking and problem solving, collaboration, communication, and creativity along with assessment and reflection. They work towards the development of knowledge, 21st century skills and competences (Thomas 2000; Stoller 2002; Mergendoller and Thomas 2005; Boss et al. 2013; Larmer et al. 2015; Stoller and Myers 2019).

In PBL, students work on a project over an extended period of time trying to respond to an open-ended question, problem or challenge that serves as the driving force behind their sustained learning. In hard versions of PBL learners look for their own sources of information and research topics of their own interest through sustained inquiry. Such inquiry entails a rigorous extended process of posing questions, finding resources and applying information. Collaboratively, students design and create an authentic product or outcome that addresses the challenge or question posed in real-world contexts and is aligned with their personal concerns, interests and issues in their lives. This product is considered a demonstration of learning and should be the object of performance assessment. Student voice and opportunities for choice are an important element (Mergendoller and Thomas 2005; BIE; Bender 2012), allowing students with different learning profiles to understand and express their ideas in the most suitable way. Through a process of reflection and critique, feedback is provided and received from teachers and peers in order to promote revision and improvement of the final results. At the end of the project learners reflect on the products and processes and share their work with an authentic audience which could be the school community, experts in the field or the global community.

The SPECIAL framework and model entail not a project based view but rather a project enhanced one which entails many of the elements of PBL with much more guided instruction and planning in its application to teaching L2 or in a second language. A further discussion of this Project Enhanced nature of the framework within the model is provided in Chapter 4 (section 4.1.2).

Competence Based Learning (CBL), or Competency Based Education, is an educational approach that focuses on the mastery of specific competences or skills rather than the completion of a predetermined curriculum or time-based progression (e.g., UNESCO 2015; OECD 2019; Mercer et al. 2020; Sobe 2021; Vuorikari et al. 2022). It focuses not on “covering” content in the curriculum but rather on allowing students to learn to do things and demonstrate their acquired knowledge, skills, and abilities. The CEFR (2018) and the LOMLOE curriculum (2022) are both considered to be competence based so the emphasis lies on processes and performances of real-life tasks organized around clearly defined, measurable and realistic learning outcomes or competences that students are expected to achieve. Authentic assessments of learning are designed to evaluate students' mastery of

specific competences in real-world tasks and situations. These may include projects, presentations, simulations, portfolios, or performance-based assessments.

Competence Based Learning aims to ensure that students develop the necessary knowledge, skills, and abilities to succeed in their futures. It places a strong emphasis on mastery and the application of learning in practical contexts, preparing students for the demands of the 21st century. Competences may be specific to different fields, disciplines or subject areas or they may be what are considered Key Competences for Lifelong Learning which aim to equip students with the necessary skills and attitudes to navigate and succeed in a rapidly changing world, serving as guidelines for educators to design learning.

Our current national legislation on education (LOMLOE 2022), European Union policies such as the CEFR (2018), and global policies such as those established by the United Nations (UNESCO 2015, 2017) that can be seen compiled in Table 2.2 require teachers to plan instruction that develops more than just the specific competences of the subject areas they are teaching.

LOMLOE (2020) establishes that all subjects will develop the following:	Recommendations of the European Parliament and of the Council on Key Competences for Lifelong Learning (2018):	UNESCO 21st century challenges described in Key Drivers of Curricula Change (2015):	Sustainable Development Goals for 2030 adopted by United Nations in 2015:
Reading comprehension, oral and written expression Audiovisual communication	Literacy Multiliteracies Multilingualism	Developing lifelong abilities, trusting knowledge as the motor of growth with a critical understanding of risks and benefits	No poverty Zero hunger
Critical and scientific thinking	Numerical, scientific and engineering skills	Critical thinking, empathy and proactivity to detect situations of inequity and exclusion	Climate action Affordable and clean energy
Responsible consumer behavior Peace and non-violence	Active citizenship Gender equality	Responsible attitude regarding the environment and animal welfare both locally and globally Responsible consumer attitudes. Peace, justice and strong institutions	Responsible consumption and production Sustainable cities and communities. Affordable and clean energy

			Reduced inequalities
Health including emotional-sexual	Interpersonal skills, and the ability to adopt new competences	Healthy living styles and caring for others	Good health and well being
Gender equality as a pillar of democracy	Gender equality		Gender equality
Artistic creations Aesthetic development	Cultural awareness and expression Creativity	Ethical and responsible use of culture in the digital age. Understanding uncertainty as an opportunity for creativity and not a source of anxiety Cooperating and living together in diversity as enriching experiences and an opportunity to know other languages and cultures	
Digital competence	Digital and technology-based competences	Ethical and responsible use of culture in the digital age	
Sustainable development Entrepreneurship	Entrepreneurship	Feeling part of a collective endeavor, locally and globally Developing empathy and generosity	Industry, innovation and infrastructure Clean water and sanitation Decent work and economic growth Responsible consumption and production Life on land, life below water
Emotions and values	Interpersonal skills, and the ability to adopt new competences	Healthy living styles and caring for others Critical thinking, empathy and proactivity to detect situations of inequity and exclusion Cooperating and living together in diversity as enriching experiences and an opportunity to know other languages and cultures	Quality education Decent work Reduced inequalities

		Peace, justice and strong institutions	
Mutual respect and cooperation among peers		Cooperating and living together in diversity as enriching experiences and an opportunity to know other languages and cultures	

Table 2.2. Comparison of different competence development proposals

Along with these competences suggested by the Spanish curriculum (LOMLOE 2020), the CEFR (2018), UNESCO (2015) and the United Nations (2015), the design of learning should also address the development of the Global Competence and its four domains (OECD 2019): examining local, global and intercultural issues; understanding and appreciating the perspectives and world views of others; taking action for collective well-being and sustainable development; and engaging in open, appropriate and effective interactions across cultures. Furthermore, what are called 21st century skills (Binkley et al. 2012), global skills (Mercer et al. 2020) or real-world success skills (PBL Works 2022) should be integrated so that learners can be successful in their futures including 1) critical thinking and problem solving; 2) collaboration and teamwork; 3) communication skills; 4) creativity and innovation; 5) digital literacy; 6) emotional intelligence; 7) adaptability and resilience and 8) global and intercultural awareness. In order to prepare learners for their futures, allowing them to effectively navigate and communicate in an interconnected world in diverse contexts and media, teaching needs to go beyond traditional skills like those of reading and writing. Instructional design and classrooms must address the development of multiliteracies (Cazden et al. 1996; New London Group 1996; Cope and Kalantzis 2000, 2009, 2022) and multiple and varied competences.

This Chapter has laid the theoretical foundations for the proposal of an effective teacher training model. Hypothesis 1 has been confirmed as connections have been established between theories and research findings in Second Language Learning and Teaching, Cognitive Educational or General Learning theories, and Project and Competence Based Learning. These will lead to the proposal of the SPECIAL teacher training model and framework for more effective learning and teaching in EFL and CLIL classrooms, which will be presented and discussed in Chapter 4. In the next chapter, the Methodology of the study

will be outlined, referring to the procedures, participants and contexts, and tools and resources for the design and implementation of the model and framework (Section 3.1) and for the exploration of their applicability and application (Section 3.2.).

Chapter 3. Methodology: The researcher's journey

The researcher has taken on an ethnographic approach to the design, implementation, and evaluation of the proposed teacher training model (Hammersley and Atkinson 1995; Murchison 2010; Starfield 2015), that is, its aim is to engage in firsthand research and participate in the community as both trainer and researcher. The trainees and their perspectives are the objects of this study, and they will also serve to teach me about how to further improve training in the future. By looking at the contexts within and processes through which these projects are created and then implemented, I hope to be able to readjust my own practice. In this way this can also be considered action research since the results of the study will allow me to create an action plan that may lead to professional growth for all the participants including myself. This study has been carried out through sustained involvement with a community of practitioners, with whom I have been working over the last six years, made up of teachers who had at some point, whether pre-service or in-service, participated in teacher training courses and events which I taught. In these sessions I presented, and teachers engaged in, the framework of Sequenced Project Enhanced Competence Integrated Acquisition and Learning which is defined and discussed in Chapter 4.

The methodology chapter of this dissertation is divided into two main sections, the first of these devoted to the description of the conception, implementation and evolution of the SPECIAL teacher training model and framework, and the second describing the procedures taken on for the evaluation of their applicability and actual application. Section 3.1 begins with the process through which the framework for learning was first conceived and developed, then it describes the contexts in which it has been implemented or presented, as part of pre-service and in-service teacher training, as both a learning facilitator and as a potential resource for teachers' own applications of the framework in classrooms. It continues with a detailed list of the tools which were designed and used to help instruct student teachers and teachers on the concept and use of the framework for the learning and acquisition of English in EFL and CLIL contexts. Section 3.2 focuses on the evaluation of both the framework and of the training received on its use. It looks at the procedures, contexts and tools specifically designed for their evaluation and which have allowed for the analysis of the effectiveness of the framework to determine to what extent it was memorable

and useful for those trained in it and the ways in which it has been applied in different classrooms and contexts.

3.1. Conception, implementation, and evolution of the SPECIAL framework

The readings and research described and discussed in Chapter 2 led to the conclusion that proposing an effective framework for language learning within a bilingual context would require connections between theories and research on learning languages, those on learning in general and those pertaining to Project Based Learning and the development of different competences. Thus, different ideas from Second Language Learning and Teaching, and General Learning theories became the basis upon which to build the SPECIAL framework. It became clear that many of the necessary components for effective learning to take place would have to come together within a sequenced structure for the progression of acquisition and learning. From then on, several steps were taken towards its conception, and ultimate implementation within teacher training, as explained below.

3.1.1. Procedures for its design and implementation

Different steps can be traced in the design and application of the SPECIAL framework, beginning with its conception, followed by the various scenarios in which it was implemented and leading to subsequent adaptations and improvements which it has undergone. This evolution has been illustrated as a timeline in Figure 3.1.

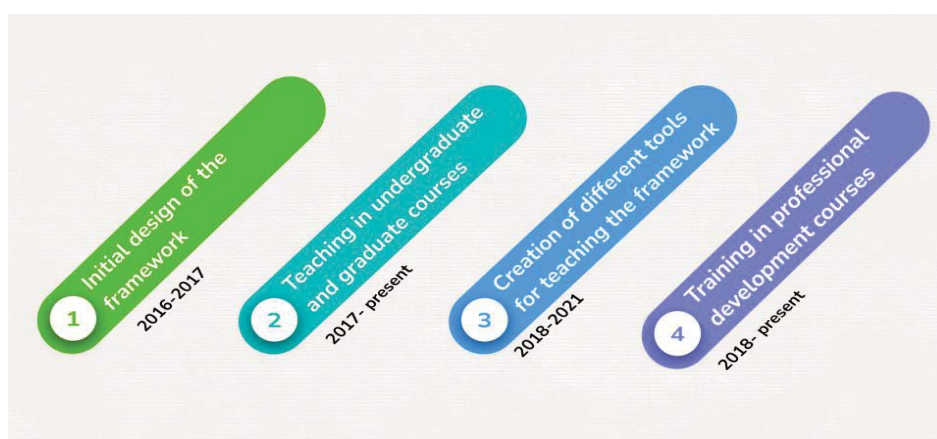


Figure 3.1. Timeline for the design, application and dissemination of the SPECIAL framework

After extensive research and training on the most effective ways to promote acquisition, learning, and the development of competences in EFL and CLIL classes and many years spent as a teacher at all different levels of education, two main ideas surfaced again and again. First of all, it became clear that there were many approaches tools and strategies for general learning, such as Project Based Learning (Clark 2009a; Bender 2012; Boss et al. 2013; Larmer et al. 2015), Cooperative Learning (Kagan and Kagan 2009; Johnson and Johnson 1999), research on classroom practices (Marzano et al. 2001; Marzano 2007; Marzano and Pickering 2011; Hattie 2012; Hattie and Yates 2014), *Whole Brain Teaching* (Biffle 2014) and *Visible Thinking* (Ritchart and Church 2020), that could work well in classes designed for teaching of and in a foreign language. However, these would have to be adapted to the needs of learners in our own context. Another pillar leading to the conception of the framework was that Second Language Learning and Teaching also needed to be adapted to learners who were beginning their exposure to English as early as the age of three and who would be using this second language as a vehicle for learning other subjects in their schooling.

These different training opportunities and research carried out as a practitioner led me to see the importance of this integration of different competences with the communicative competence at its core while facilitating the assimilation of 21st century (Binkley et al. 2012) or global skills (Mercer et al. 2020) like creative and critical thinking and collaboration. In 2006, I had the privilege of participating in a course on Differentiation and Visible Thinking taught online by Project Zero researchers at Harvard University (<https://www.gse.harvard.edu>) which radically changed the way I conceived my lesson planning. I began to see how teaching critical and creative thinking through the use of *Visible Thinking* routines while adapting to the differences in my students was essential for effective learning to take place in general and in EFL and CLIL classrooms in particular.

In 2009, I participated in two different levels of training on Kagan's Cooperative Learning with Spencer Kagan as trainer. I was able to see how structuring students' interaction in the classroom could greatly improve their learning and communicative competences and how this could be adapted to the L2 classroom context for such learning and competences to be developed in a foreign language. Finally, as of 2017 I began to participate in several courses taught by Lane Clark on how thinking and learning meet. Clark introduced me among many other ideas to the notion of sequencing learning steps, the need for a real-life purpose to drive students' motivation and a concept of integrating deep learning

through the use of varied tools that learners would come to use on their own. The three training opportunities explained above yielded many of the notions that would shape the SPECIAL framework.

As I incorporated these elements of General Learning into the framework, the importance of applying these to the acquisition of a second language and the specific context of teaching EFL and CLIL was foremost in my concerns. Many of the activities proposed in the literature intended for learning in general in an English as L1 context had necessarily to be adapted to learners who had English as a Foreign Language and not as a native one. However, there were many points in which the research spoke of very similar elements albeit with different terminology. Marzano's critical input (Marzano et al. 2001, Marzano 2007, Marzano and Pickering 2011) had many things in common with Krashen's (1989, 2002) comprehensible input and terms like scaffolding (Vygotsky 1978, 1986; Gibbons 2015) or feedback (Hattie and Clarke 2018; Ellis 2010) were used throughout literature on General Learning as well as Second Language Learning and Teaching. These components were adapted and adjusted for the EFL and CLIL context and were incorporated into the design of the SPECIAL framework.

As has been mentioned above, it became clear that it was necessary to establish a pattern or sequence for the organization of learning. The need to redefine and sequence the components of effective learning in EFL and CLIL as part of an itinerary designed to lead students through different stages led to the proposal of a learning path (Figure 3.2) that learners would follow and use in order to identify where they were at present and where they would be going in the future. Students would progress throughout the proposed seven stages carrying out various learning activities that were intended to help them achieve their learning goals and successfully complete their projects. These stages were sequenced and labeled as Activation, Discovery, Deepening, Planning, Creation, Publishing, and Assessment and Reflection. These stages, which came to be illustrated by the Learning Path graphic shown below are discussed in detail in Section 4.1.



Figure 3.2. The Learning Path graphic as published in *Communicative Science Notebooks* (Sapiens)

Once I had clearly defined each of the stages of the sequence along with the learning outcomes and type of activities required for each of them, I designed a prototype of a project which would illustrate the different components required for the design of future projects. The *Kindness Project* and the *Persuasion Project* (Appendix 1) were the ways in which I involved trainees in the SPECIAL framework. They were asked to participate in the project as learners going through each of the stages. At various points during the lessons, they were asked to reflect upon their experiences as learners and to connect these experiences with the objectives set out by their teacher. This dual thinking where they were expected to reflect both as learners and teachers was called *Visible Teaching* playing on Hattie's (2009) term *Visible Learning*. Once they had experienced the project as learners and together with their reflections along the way, they were able to start designing their own projects with the help of the different tools presented in training.

The framework was first presented, explained and exemplified in different training sessions at the *Universidad de Zaragoza* as part of different pre-service and in-service courses as will be illustrated in the next subsection (3.2.1) on context and participants. Varied tools were designed to facilitate students' preliminary designs of projects. According to the timeline illustrated in Figure 3.1, the next step in the procedure was to make the framework part of the professional development courses which I began to also teach at different schools and training centers. In these sessions planned for schools, two-hour long workshops consisted of an explanation of the essential components of the framework and the presentation of the stages of the learning journey with examples of representative activities for each. Once the trainees had received from 10 to 20 hours of training in the form

of workshops, they were asked to design their own projects according to the framework. As part of these training courses, subsequently the teachers implemented their project plans in their classrooms. In a session a few months later they presented their projects to their peers within the course.

3.1.2. Contexts and participants for its implementations

The SPECIAL framework, which is discussed and justified in greater detail in Chapter 4, was designed, and then proposed and presented in several different scenarios within our Aragonese educational context (see Table 3.1). First of all, in pre-service training, it was incorporated in several different subjects for teachers of Pre-primary, Primary and Secondary Education taught at the School of Education at *Universidad de Zaragoza*. As part of the fourth and last year of undergraduate training for future teachers of Pre-primary it was used as the basis for the development of the subject *Learning and Teaching*. Students were asked to design a project as their final demonstration of learning that would incorporate all of the progress made throughout the semester-long subject. This final project was to design their own proposal to teach EFL to very young learners. The students were immersed in their own learning journeys as they explored how to design projects for their future pupils. This is a six ECTS subject that is part of the “Mención Bilingüe en Grado en Magisterio en Educación Infantil”.

Context	Educational Center	Years	Participants
<i>Grado en Magisterio en Educación Infantil: Mención Bilingüe</i>	<i>Facultad de Educación de la Universidad de Zaragoza, Planning Effective Teaching</i>	2017- 2021	Students in their 4th year specializing in EFL
<i>Grado en Magisterio en Educación Primaria: Mención Lengua Inglesa</i>	<i>Facultad de Educación de Universidad de Zaragoza, Learning and Teaching</i>	2017- 2021	Students in their 4th year specializing in Bilingual Education
<i>Máster Universitario en Profesorado de Educación Secundaria Obligatoria, Bachillerato, Formación Profesional y Enseñanzas de Idiomas, Artísticas y Deportivas</i>	<i>Facultad de Educación de Universidad de Zaragoza, Diseño y organización de actividades para el aprendizaje de lenguas extranjeras</i>	2017- 2019	Postgraduate students enrolled in the master's degree specializing in English teaching

<i>Experto Universitario en CLIL e Innovación en el aula de Inglés de Educación Primaria</i>	<i>Facultad de Educación de Universidad de Zaragoza, Innovación y excelencia en el aula bilingüe</i>	2017- 2018; 2018-2019	Postgraduate students, pre-service and in-service Pre-primary and Primary teachers
<i>Máster Universitario en Profesorado de Educación Secundaria Obligatoria, Bachillerato, Formación Profesional y Enseñanzas de Idiomas, Artísticas y Deportivas</i>	<i>Facultad de Educación de Universidad de Zaragoza, Design of learning activities</i>	2019-2021	Postgraduate students enrolled in the Master's specializing in English teaching
Professional development	CEIP Dr. Azúa (Zaragoza)	2018-2021	In-service Pre-primary, Primary EFL and CLIL teachers
Professional development	Home School (Valencia)	2020	In-service Pre-primary, Primary EFL and CLIL teachers
Professional development	<i>CARLEE (Centro Aragonés para Lenguas Extranjeras para la Educación) (Zaragoza) CLIL for Vocational Training (FP)</i>	2021	In-service vocational CLIL teachers
Professional development	Colegio Compañía de María (Zaragoza)	2020-present	In-service Pre-primary, Primary and Secondary EFL and CLIL teachers
Professional development	Colegio Marianistas del Pilar (Zaragoza)	2019-present	In-service pre-primary, primary and secondary EFL and CLIL teachers

Table 3.1.Context and participants in training contexts in which the SPECIAL model has been implemented

At this same university and within the undergraduate program for future Primary teachers, this framework was presented within the subject *Planning for Effective Teaching* as workshops on PBL, and students were given the chance to design a project as their final demonstration of learning which is a unit plan teaching proposal. This is a six ECTS subject that is part of the “Mención en lengua inglesa en Grado en magisterio en Educación Primaria”.

Finally, as part of the graduate program but still pre-service training, the framework was presented and used as a demonstration of learning for the subject *Designing Learning Activities* which is an eight ECTS subject conducive to the Master's degree called “Máster

en Profesorado ESO, Bachillerato, FP y Enseñanzas de Idiomas, Artísticas y Deportivas” specializing in the teaching of EFL.

Both undergraduate and graduate students were immersed within the learning path taking them along the different stages proposed and were given examples of learning activities to illustrate each of these stages. These examples can be found in the different sections of Chapter 4 corresponding to the description of each of the stages. After having looked at the components of effective teaching and learning, students were engaged in a meta-project whose final outcome would be the design and defense of their own proposal for teaching EFL by means of a project.

Secondly, training in the framework was offered to in-service teachers as part of a postgraduate program on CLIL offered by the *Universidad de Zaragoza* called *Experto Universitario en CLIL e Innovación en el aula de inglés de primaria* during the 2017-2018 and 2018-2019 school years. The framework was presented and used as the basis for a gamification of learning within what was called the *League of Extraordinary Teachers* (Gil 2018). Participants could complete activities at different levels in order to earn points and badges. The SPECIAL framework was an integral part of the evaluation process for the certification since the final demonstration of learning was the design of a learning project of their own. Participants ranged from newly graduated students who were not yet teaching, some of whom were preparing their State Exams to become public school teachers, and others who had several years of experience teaching in schools in Aragón.

Another set of in-service practitioners have been trained in the framework as part of their school’s professional development program for CLIL and EFL teachers. The different courses have been offered through public teacher training centers in our autonomous region of Aragón, such as *Centro de Profesores (CP) María de Ávila*, *CP Juan de Lanuza* or *Centro Aragonés de Lenguas Extranjeras para la Educación (CARLEE)*, where teachers from different public schools meet to participate in professional development workshops, and also directly within state-funded schools as part of their own training programs, such as in *CEIP Dr. Azúa*, *Marianistas del Pilar* or *Compañía de María*. In these schools, teachers from different educational levels ranging from Pre-primary to Secondary, learn about the design of learning projects and then implement them in their classrooms.

3.1.3. Tools and resources designed and used for its implementation

Specific tools and resources have been developed for, or as a result of, the different trainings based on the SPECIAL framework for learning of and in English, which are presented and described in this subsection.

Learning Path Graphic

First, as mentioned previously, for the sequencing of the stages to be properly understood and followed, a graphic illustration was designed of the different stages in their correct order. For this purpose, several different graphics were created until the final one was chosen as the definite representation. The order, going from Activation to Assessment and Reflection is marked, and each stage is of a particular color with an icon representing the objectives of the stage. The Activation stage, for example, is yellow, and includes an icon of a starting flag, used to represent the beginning of the journey. These same colors incorporated as marking devices for the materials and resources developed for each stage. These visual cues or icons appear in different resources, such as at the start of the project in presentations, in *HyperDocs* (Highfill et al. 2016), worksheets, or quizzes. The colors and icons signal the different stages so that teachers and especially students are aware of where they are and how they are progressing along their learning.

The learning path itself was inspired by Gagne et al.'s (1992) instructional events, Bybee et al.'s (2006) 5E model and Clark's (2009a) stages in *LearnInQ* as delved into in Chapter 2, and shown in Chapter 4, Section 4.1. The initial graphic was designed together with my colleague Irene Puente and used in different classes in the form of a *Google Slide* and an interactive board created with *Genially* that marked the stages in different colors and showed the progression from one to the other. Different names and labels were used for the stages as can be seen in Figure 3.3.

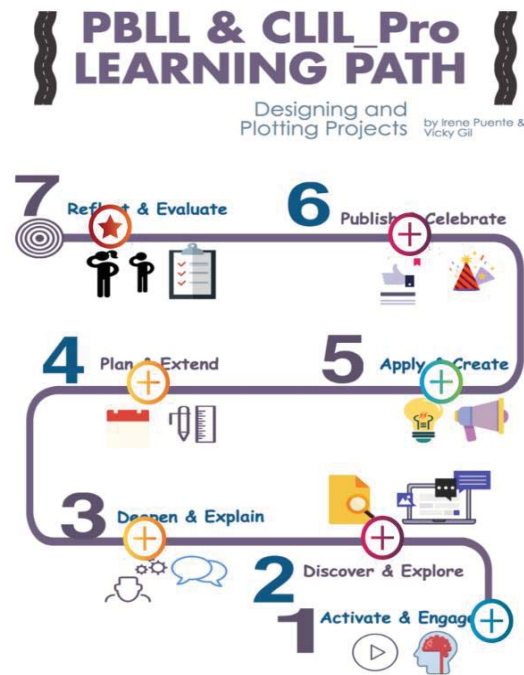


Figure 3.3. A Learning Path Interactive Image with links to explanations designed with Genially

This initial design was adapted for printing purposes as part of a series of project notebooks called *Communicative Science Notebooks* (Gil et al. 2019) and published by *Didácticos Sapiens* in three different languages, English, Spanish and Valencian. This adapted version which can be seen in Figure 3.2 began to display the definite names for the different stages. Activate and Engage became Activation; Discover and Explore became Discovery; Deepen and Explain was named Deepening; Plan and extend became Planning; Apply and Create became Creation; Publish and Celebrate was named Publishing while Celebration of Learning was left as part of the final stage, Reflect and Evaluate, which was called Assessment and Reflection.

Class Notes

As the framework was described and explained throughout different courses, the class notes and presentations became the vehicle through which teacher trainees became familiar with the components. Trainees were asked to take on the role of learners and were then immersed in either the *Kindness Project* (Appendix 1.1) or the *Persuasion Project* (Appendix

1.2), which served as a model or example of a possible product of the framework. As they progressed through the different stages they reflected upon what they had done in that particular stage and the reasons for having chosen those activities. Once they had concluded the project as learners, they were asked to take on the role of designers of a project of their own, following all of the tenets and steps of the framework. For the design process they were given more examples of activities for each of the stages and a design template (see Figure 3.4) to use as they developed their ideas. This step by step template was designed as a canvas to be used by trainees to show understanding and application of the SPECIAL framework based on *Conecta 13 Educación y desarrollo profesional* (<https://conecta13.com/canvas/>).









PROJECT NAME:	LEVEL:	designed by:
Key Competences/cross-curricular themes/ curricular links/ integration of skills 	Final product or learning artifact: Challenging problem or question/ Real world context and situation/Positive change in student or student's world/Entry level event 	Resources and use of ICTs: For Input / For Process/ For Output 
Multiple Intelligences / Differentiation 	Summary of Steps, stages and activities (sustained inquiry): 	Scaffolding: 
Expected Learning Outcomes (Key knowledge, understanding (according to curriculum) and success skills that learners will learn: At the end of this project students will) 		Grouping and timing: 
Assessment tools and strategies/ Critique and revision: 	Publishing (public product that demonstrates learning): 	Language needed with focus on form and noticing: 

Figure 3.4. Canvas template for the planning of projects

The final product of the course and their demonstration of learning was the completion of the template and the presentation of their original project to their teacher and classmates.

League of Extraordinary Teachers (LET's)

As indicated above, the framework was an integral part of Module 3 on Innovation in the Postgraduate Program on CLIL and Innovation in EFL offered by the *Universidad de Zaragoza (Experto Universitario en CLIL e Innovación en el aula de Inglés en Educación Primaria)*. In a gamification of learning (Kapp 2012), the trainees were invited to participate

in a series of challenges that could lead to the obtainment of different badges and points as part of *The League of Extraordinary Teachers*. The participants had to design a project as part of a team that included all of the stages of the project with activities to foster cooperation and collaboration, development of creative and critical thinking, differentiation for the needs of their learners, and an effective use of educational technology or digital tools. As they demonstrated learning in each of these areas, they were awarded badges (see Figure 3.5) which became part of their portfolios. Their project proposals had to be shared with peers in such a way that they could be understood and implemented by others within a learning network. At the end of the course different prizes and honors were awarded to those who had completed the challenges and to those who had obtained the highest number of points. The development was marked on a graphic made using Genially which explained what was needed in order to be awarded each of the badges and there was a leaderboard to see the progress of all of the participants (see Figure 3.5).



Figure 3.5. Badges for the different levels of the League and the *Genially* board

Communicative Science Notebooks

In 2019 I was asked to bring together a team of teachers to design *Communicative Science Notebooks* (Gil et al. 2019) for grades one to six Primary. This team was made up of teachers who had participated in training sessions on the SPECIAL framework. The team designed

36 projects (six for each grade level) for teaching Natural Science as a CLIL subject (see Table 3.2) which were published by *Didácticos Sapiens* and are currently being used by schools in Spain. All the projects follow the SPECIAL framework to propose activities and their materials for learning.

<i>Communicative Science Notebooks (Sapiens)</i>	Co-authors
1.1 -1.6	Puente and Gil 2019
2.1-2.6	Puente and Gil 2019
3.1-3.6	Calvo, Puente and Gil 2019
4.1-4.6	Egea, Villuendas and Gil 2019
5.1-5.6	Beteta, Fillola and Gil 2019
6.1-6.6	Perales, Romero and Gil 2019

Table 3.2. List of Communicative Science Notebooks (Sapiens)

The introductions to the Teacher's Guides explain the different stages of the Learning Path and the essential elements required for effective learning in CLIL. These materials were first piloted in 2018 in the school *Compañía de María* where prototypes of the projects were implemented by two of the authors to revise and improve the initial proposals. Feedback was collected both from the authors as well as from the management team at the school and adjustments were made as deemed necessary. The final editions of the *Communicative Science Notebooks* were published in 2019.

3.2. Evaluation of SPECIAL framework and training model

The following section looks at the procedures, context and tools designed for the evaluation of the SPECIAL teacher training model and framework. After several years of training pre-service and in-service teachers (see Table 3.1 above), different procedures and tools were designed and implemented to take on a qualitative study of the perceptions of practitioners in different contexts in Aragón and their applications of the framework in classrooms. As indicated above, an ethnographic approach has been undertaken which involves the creation of a community of practitioners from the selection of respondents with whom there

has been sustained involvement starting with their training and continuing with the questionnaires and observations of their implementations in the classroom. These procedures have allowed for reflection on self-practice, both my own and those of the observed teachers, and the collection of examples of good practices and models which will be used in future training and with new practitioners leading to quality teaching of EFL and CLIL.

3.2.1. Procedure for evaluation

In order to look into the applicability of the SPECIAL framework based on trainees' perceptions, a first stage was established with the design and administration of two questionnaires (see Figure 3.6): the initial one called *Research Questionnaire on PBL and CLIL-Pro*² (Appendix 2) and the subsequent one called *Follow Up Questionnaire on PBL and CLIL-Pro* (Appendix 3), which will be discussed in detail in section 3.2.3 below. In a second stage, a selection of teachers was made to participate in classroom observations carried out by applying the Observation Protocol designed for the purpose of formative evaluation in the application of the framework followed by post-observation sessions.

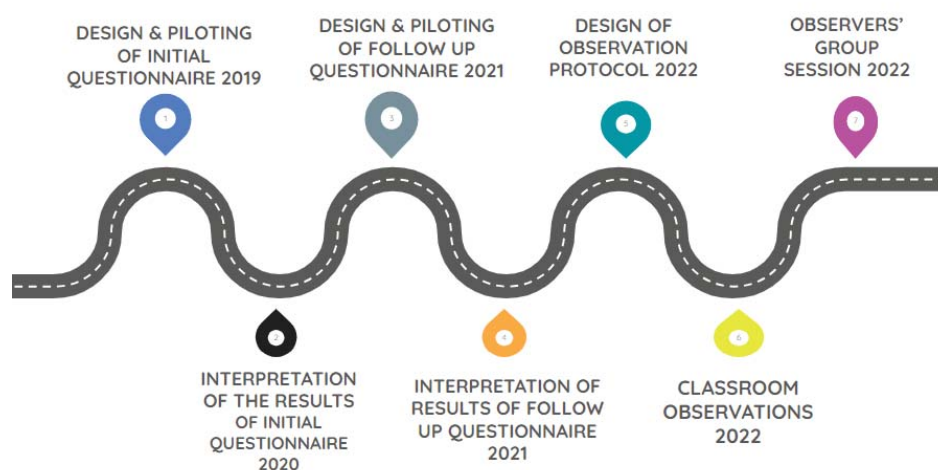


Figure 3.6. Investigation of application and applicability of SPECIAL model and framework

² PBL (Project Based Language Learning) and CLIL-Pro (Content and Language Integrated Language Projects) were the labels initially used in the training, before the SPECIAL acronym was coined as a result of this research. Hence, the original label was maintained in the questionnaires for the sake of trainees' recognition and understanding.

The Initial Questionnaire was designed in 2019. Its purpose was to collect data on what graduates remembered from their training regarding PBL in general and the SPECIAL framework, especially as regards their perceptions on its applicability. A second intention of this questionnaire was to use its findings to select several informants with whom to conduct further surveys, and/or classroom observations. A draft of this Initial Questionnaire was piloted with two colleagues who replied as four different sample cases in order to validate the sequencing and correlation of the questions and the clarity of the format of the questionnaire. Adjustments were made to several of the questions and sections, such as corrections in the way the degrees were named, or the redesign of a question, which by error allowed for more than one answer and another question which was reiterative, among others.

After having piloted and adjusted the questionnaire based on the feedback received, the final version of the Initial Questionnaire was presented through an email message which included the *Google Form* with the questions to be answered. It was sent out on February 4th, 2020, to 93 informants with a reminder sent two weeks later. The list of recipients and possible respondents was made up of both in-service and pre-service teachers who were graduates of the pre-service training, participants in different professional development courses offered to in-service teachers and/or participants in the postgraduate program in CLIL and Innovation in the English Classroom offered at the *Universidad de Zaragoza*. 33 responses were received in the first two weeks and 10 more after the reminder was sent out. A total of 43 responses were gathered with a response ratio of 45.16 %.

The responses to the Initial Questionnaire were tallied and analyzed. All but one of the respondents said they had applied at least some part of the learning framework in schools so these 42 were selected to be sent the second questionnaire called *Follow Up Questionnaire on PBL and CLIL-Pro* sent out in March 2021. This survey was designed in order to collect more detailed information on what parts of the SPECIAL framework they applied, how and in which contexts.

In the third and final stage of my evaluation research, I designed the SPECIAL Observation Protocol which had a dual purpose. The first and foremost of these purposes was to gauge to what extent the framework was being applied and to obtain possible examples of good practice to use as the basis for further sustained professional development. This observation step could be considered a continuation and deepening in

their training, as participants could self-assess and receive feedback from an observer in order to progress and improve their practices in the classroom.

For practical purposes these observations were undertaken in one of the schools, [Compañía de María](#), a state funded Catholic educational institution in the center of Zaragoza. The choice of this particular school came as a result of their interest in the training and their willingness to provide sustained professional development in Project Enhanced learning for their bilingual program. Five of the teachers that had participated in training (see Table 3.1) were asked to record themselves teaching one session corresponding to one of the stages within the project that they had designed. An observation protocol created specifically for this research was used to prepare the participating teachers for the observation, to assess the session according to the criteria marked, and to structure the post-observation feedback. Five 50-minute lessons were implemented and recorded so that they could be better accessed for analysis.

Shortly after the recordings were made and analyzed, I conducted individual post-observation sessions in order to discuss the application of the framework and the suggestions made by the observer. As the observations and the reflections generated in post-observation sessions are considered part of the professional development training program, it was very important to point out the formative nature of the feedback. At the start of the session, the observer explained the aims of the observation and feedback. Participants were asked about their feelings about how their implementation had gone and about the fact of being observed and receiving feedback. They were also informed that they would in the future apply this same protocol to recordings of other colleagues teaching EFL and CLIL at their school thus becoming teacher trainers of the SPECIAL framework themselves.

3.2.2. Context and participants for evaluation

The Initial Questionnaire was sent out to a set of 93 informants who had been part of several training scenarios. The first group of informants came from graduates from 2017-2019 at the *Universidad de Zaragoza*. These graduates had been enrolled in and completed either the subject *Planning Effective Teaching* for *Grado en Magisterio en Educación Primaria* or *Designing Learning Activities* for *Máster en Profesorado de ESO, Bachillerato y Formación Profesional*. The specific number of respondents belonging to each of the teaching

scenarios is summarized in Table 3.3. The second group of informants came from the completion of the Postgraduate program conducive to the certificate called *Experto Universitario en CLIL e Innovación en el aula de inglés de Primaria*. A third set of candidates to reply derived from several professional development courses offered at schools or training centers or as preparation for the State exams to become teachers in public schools in Aragón. Overall, 43 responses were obtained. Several of these respondents had participated in two or more courses in different contexts.

Context	Number of respondents	%
Planning Effective Teaching for <i>Grado en Magisterio en Educación Primaria</i>	16	37.2%
Designing Learning Activities for <i>Máster en Profesorado de ESO, Bachillerato y Formación Profesional</i>	14	32.6%
Postgraduate program called <i>Experto Universitario en CLIL e Innovación en el aula de inglés de Primaria</i>	18	41.9%
Training received in Schools	6	14%
Preparation for competitive exams	7	16.2%
Respondents who had participated in more than one scenario	12 in total: 4 had been in 3 different scenarios; 8 had been in 2	28%

Table 3.3. Different contexts of the respondents for the Initial Questionnaire

Forty-two respondents, who indicated that they had applied parts of the SPECIAL framework they had got acquainted with during their training, were sent the Follow Up Questionnaire to which there were 25 responses. These 25 teachers were teaching at the following levels as can be seen in Table 3.4. Several teachers replied that they were teaching at more than one level.

Educational levels	Number of respondents	Percentage
Pre-primary	3	12%
Primary	17	68%
Secondary	7	28%
Post-secondary (<i>Bachillerato</i>)	3	12%
Tertiary	1	4%
<i>Escuela Oficial de Idiomas</i>	1	4%

Table 3.4. Teaching context of respondents to Follow Up Questionnaire

As explained above, for the last step of my research, I selected one of the schools, *Compañía de María* in Zaragoza to participate in the final observation stage. In 2020 during the pandemic, a group of 15 teachers participated in an online course on the framework. These participants were teaching different CLIL subjects in English as well as EFL. Out of the participants, a small group of 5 teachers coming from the different educational levels at the school was formed (Table 3.5).

Participant	T1_S	T2_PP	T3_S	T4_P	T5_P
Educational level	Secondary	Pre-primary	Secondary	Primary	Primary
Grade taught	1st year	3rd year	1st year	3rd year	1st year
Subject taught	EFL	CLIL Science	CLIL Biology and Geology	EFL	EFL
Gender	Female	Female	Female	Female	Female

Table 3.5. Teachers participating in observations

One of the teachers came from Pre-primary, two from Primary in first and third year and two from Secondary in first and third year as well. The aim of the school was to train these teachers so that they could then apply the SPECIAL Observation Protocol to teachers who continued to train in the framework. In this way, we created a community of teachers who learned and then trained others in its use. The projects that each of the members of the

community designed were collected and organized as a resource bank for the school in the future.

As the final part of their training carried out in the previous school year, they were asked to design a project applying the SPECIAL framework to be implemented in their current subjects. Different stages of these projects were chosen for the recording of the lessons. The recordings were analyzed using the Observation Protocol Template. Finally, a post-observation feedback session took place a month after each of the 5 50-minute recorded sessions. As highlighted above, these 5 teachers will continue to train with the observer in order to become observers in the future.

3.2.3. Tools and resources for evaluation

The procedure for evaluation of the SPECIAL teacher training model and framework was carried out using specific tools designed specifically for this research. These tools and resources comprising the two questionnaires (Initial and Follow up), and the Observation Protocol, including an observation template and the post-observation feedback session, used to obtain data and evidence are discussed in this section.

Research Questionnaire on PBL and CLIL-Pro

The initial questionnaire was created using *Google Forms* with questions that led to different sections according to the replies given (see Figure 3.7). The pdf format of the full questionnaire can be consulted in Appendix 2.

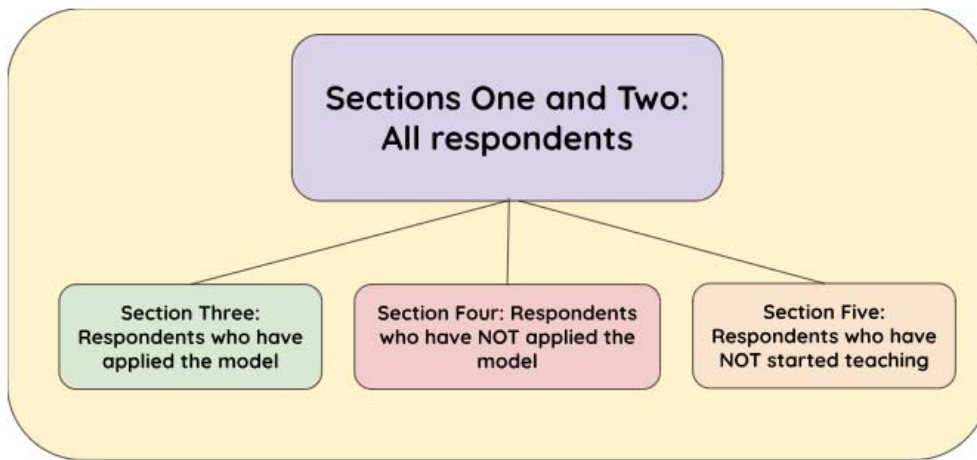


Figure 3.7. Structure of sections and respondents for Research Questionnaire on PBL and CLIL-Pro

The questions were divided into 5 sections (see Table 3.5). The first and second section were directed at all respondents and contained six questions about the training they had received on the framework (Q1), their teaching experience (Q4) and current position (Q5) and what they remembered about it. The aim of the first question was to establish the context in which they received training in the framework. This was done by asking the respondents to select from a series of options describing the different contexts. The second question asked them to explain in their own words what they thought the terms PBL (Project Based Language Learning) or CLIL-Pro (Content and Language Integrated Learning Projects) referred to and the next question (Q3) asked them to choose from a scale the degree to which they remembered a list of different aspects of the framework of Project Enhanced Learning that they had been presented in training sessions (now the SPECIAL framework). The scale ranged from not remembering what it was at all up to having trained others in this aspect. Question 6 asked to what extent they had applied the framework or any aspect of it to their own teaching with possible answers ranging from no application at all to having trained other teachers in it. Depending on the response to Q6 on their application of the framework, the *Google Form* allowed them to access a certain section of the questionnaire. Section Three was answered by teachers who were applying the framework or had done so in the past. The objective of this section was to collect data on the application and adaptation of the different aspects of the framework. Teachers who had not applied it were sent to Section Four to discuss possible benefits and drawbacks while those respondents who had

not yet started teaching answered the questions in Section Five about potential future applications. Finally, the questions making up Section Six were aimed at those respondents who had answered that they had not only applied the framework but also trained others in its use asking them to explain the context of the training and any examples of applications by their trainees.

SECTION	QUESTION	AIM
Section One: Context for training in the framework; learning remembered from training; teaching experience	Q1: What kind(s) of training have you received from me? In which of the following contexts have I been your teacher trainer? What kind(s) of training have you received from me? In which of the following contexts have I been your teacher trainer? Choose an option. Grado en Maestro Infantil Mención Bilingüe de la <i>Universidad de Zaragoza</i> ; Grado en Maestro Primaria Mención Lengua Inglesa de la <i>Universidad de Zaragoza</i> ; Máster de Profesorado Secundaria Especialidad Lengua Inglesa de la <i>Universidad de Zaragoza</i> ; Postgrado en CLIL e Innovación en el aula de Inglés de Primaria (Estudio Propio de la <i>Universidad de Zaragoza</i>); Formación en Centros Escolares o Centros de Profesorado; others.	To determine the context in which training in the framework was received
	Q2: Please describe what you think PBL or CLIL-Pro is. (open question)	To establish how much the respondents remembered about the general concept of project learning
	Q3: Please choose the option that best describes what you remember about each of the following: Stages in the learning process; Challenges to engage learners; Activation of previous knowledge; Discovering new knowledge, understanding or skills through input; Deepening learning, thinking and communication; Planning, editing and revising; Creating demonstrations of learning; Assessing learning; Celebrating learning. Options: I don't remember; It sounds familiar but I don't remember much; I remember but haven't applied it; I remember it but I wouldn't apply it; I remember and have applied it; I have applied it and trained others about it.	To scale the memorability of different specific aspects of the framework
	Q4: Please choose the option that best describes your professional experience. Options: I have not started teaching at a school yet (if chosen sends respondents to section 5); I have been teaching/taught at a school for less than two years; I have been teaching/taught at a school for 2-5 years; I have been teaching/taught at a school for 6-10 years; I have been teaching/taught at a school for more than 11 years.	To determine the teaching experience of the respondents

Section Two: Current Teaching Context	Q5: Please choose the option that best describes your current teaching job. Options: I am currently teaching Primary and/or Pre-primary at a public school; I am currently teaching Secondary at a semi-private (<i>concertado</i>) school; I am currently teaching Secondary at a private school; I am currently teaching Secondary at a public school; I am currently teaching Secondary at a semi-private (<i>concertado</i>) school; I am currently teaching Secondary at a private school.	To determine the teaching position of the respondents at the time of the completion.
	Q6: In your teaching experience have you applied anything that you learnt about PBL or CLIL-PRO in your classes? Options: I have never applied any of this; I have applied part of this in my classes. (i.e. some of the steps like Activation, Discovery, Deepening, ...); I have applied some parts with my own adaptations or changes; I have applied all of it in my classes without adaptations; I have applied all of it in my classes with some adaptations or changes; I have applied it and trained others about how to apply this in the classroom.	To measure the potential application of the framework ranging from no application to training others in some aspect of it
Section Three: For teachers who are currently teaching and using PBL and/or CLIL-Pro	Q7: What ideas, tools, strategies, etc. from PBL or CLIL-Pro have you used in your classrooms? (Check as many options as apply): The stages of Activation, Discovery, Deepening, Planning, Creating, Publishing, Assessing and Reflecting or Celebration of Learning; Challenges received through different media like <i>Voki</i> , video messages or contest posters; Establishment of previous knowledge through <i>Word Clouds</i> , <i>Brain Dumps</i> , <i>Visible Thinking</i> routines, or organizers; Learning new knowledge, skills or understandings through comprehensible input presented through a variety of media; Deepening learning and communication through thinking routines, organizers, or cooperative learning structures; Planning, editing and revising with shared feedback; Creation of public products or performances as demonstrations of learning; Assessment through rubrics with success criteria; Celebrations of learning to culminate projects; <i>Whole Brain Teaching</i> (<i>Scoreboard</i> , <i>Super Improvers</i> , <i>Mirror</i> , <i>Teach-Ok</i> , <i>Class-Yes</i> , <i>Blow the Answer</i> , <i>mini celebrations</i>); Cooperative Learning (Structures, Roles, Jigsaw Expert Groups, Teambuilding); Differentiation of Input, Interaction and/or Output with Multiple Intelligences); <i>Visible Thinking Routines</i> (<i>See</i> , <i>Think Wonder</i> ; <i>Compass Points</i> ; <i>Plus One</i> ; <i>GSCE</i> ; ...); Other	To gather data on the application of the framework in classrooms specifically on which notions were applied, their adaptations, and whole projects designed.
	Q8: Please give examples of projects or activities that you have designed inspired by this framework indicating year, subject, topic, duration and any other relevant information you may consider. (Open question)	
	Q9: How have you adapted tools and resources? Which ones? (Open question)	
	Q10: Would you be interested in participating in further stages of this research? Options: Yes, No, Maybe	To create a list of participants willing to continue in the research.

	<p>Q11: Would you like me to keep you posted on the results and findings of this research? Options: Yes, No, Maybe</p>	To create a list of participants willing to receive more information on this research.
<p>Section Four: For teachers who are currently teaching and NOT using PBLL and/or CLIL-Pro</p>	<p>Q12: What do you think could be the benefits of applying PBL to your future EFL or CLIL classes? Options: learners will be motivated to participate and learn; learners may develop autonomy; learners may develop communication skills in English; learners may develop communication skills in general; learners may develop collaboration skills; learners may develop critical thinking skills; learners may develop creativity; learners may be prepared for their futures.</p>	To gather information on the reasons for not applying any of the framework and potential future use.
	<p>Q13: Why haven't you applied all or parts of PBLL/CLIL-Pro? Please explain what you think might be the challenges or what makes you feel it isn't interesting to apply. (open question)</p>	
<p>Section Five: For trainees that have not started teaching yet</p>	<p>Q14: How interesting do you think Project based Language Learning or CLIL Projects as explained in our training might be for your future learners? Options: Not interesting for future application; Very interesting for future application.</p>	To gather information on memorable aspects of the framework and its potential for future use.
	<p>Q15: Please justify your answer above. (What challenges do you see? What may be the benefits for your learners?) Open answer.</p>	
	<p>Q16: Would you like me to keep you posted on the results and findings of this research?</p>	
<p>Section Six: For teachers who are using the framework and have trained others about some aspect of it.</p>	<p>Q17: Please describe what kind of training you have designed based on the framework. Open answer.</p>	To gather information on trainees who have become trainers and what they have trained others on.

Table 3.6. Contents and structure of initial questionnaire: Research Questionnaire on PBLL CLIL-PRO teacher training

Follow Up Questionnaire on PBLL and CLIL-Pro

This second questionnaire was sent out in March 2021 to the respondents to the first survey who had replied that they had applied some part of the framework in their classes. Twenty-five responses were received back. The aim of this survey was to collect more detailed information on which parts of the SPECIAL framework had been applied, and in which

contexts and ways it had been done so. The 22 questions of the survey collected personal and professional information, opinions and perceptions about the different components of the framework and their potential and current use in classrooms, their effectiveness and applicability as well as interests for future training. This questionnaire was also created using a *Google Forms* composed of a series of multiple choice and open ended questions (see Table 3.7 and Appendix 3). The first four questions inquired about the names, emails, and current teaching positions. The following three questions (Q5-7) asked the participants to rate a number of teaching strategies in terms of how much they had applied them in class, their perceived usefulness and their intentions of applying them in the future. These questions used the checkbox grid option in Forms which ensures that a rating is required for each of the items listed. Question 8 also listed the elements in the previous three questions asking participants to check as many options as appropriate for the strategies in which they would like to continue their professional development. The ninth question was a rating scale in which they were asked to mark their degree of agreement or disagreement with six statements describing underlying beliefs about what their teaching should be based on with different options, such as, General Learning theories, Second Language Learning and Teaching theories, experience in the classroom, research in the field of SLA or for more general learning contexts. The aim of this question was to inquire about what they felt was behind their decision-making in the classroom. Question 10 proposed a multiple-choice grid with a list of competences which respondents could mark as how effectively they might be developed through project work.

Question:	Aim:
Q1: Name and surname	To collect personal and professional information about the respondents.
Q2: Email address	
Q3: Level or levels at which you are currently teaching (you can tick more than one)	
Q4: Name of School	
Q5: Please rate how often you use each of the following (or an adaptation of this) in your own teaching in the present: Sequenced stages in the learning process, Challenges to engage	To rate to what extent they perceive the applicability, effectiveness and

<p>learners, Establishment of previous knowledge, Discovery of input for learning new knowledge, understanding and skills. Deepening learning thinking and communication skills, Planning, editing and revising, Creating and publishing demonstrations of learning, Assessing learning through rubrics with success criteria, Celebrating learning, Whole Brain Teaching, Cooperative learning, Differentiation of input, interaction and/or output, Assessing learning through rubrics with success criteria, <i>Visible Thinking</i> Routines.</p>	<p>potential of a list of strategies or components included in the SPECIAL framework.</p>
<p>Q6: Please rate how effective you feel these are to promote learning in your classroom Sequenced stages in the learning process, Challenges to engage learners, Establishment of previous knowledge, Discovery of input for learning new knowledge, understanding and skills. Deepening learning thinking and communication skills, Planning, editing and revising, Creating and publishing demonstrations of learning, Assessing learning through rubrics with success criteria, Celebrating learning, Whole Brain Teaching, Cooperative learning, Differentiation of input, interaction and/or output, Assessing learning through rubrics with success criteria, <i>Visible Thinking</i> routines.</p>	
<p>Q7: Please rate the following in terms of how likely you are to use them in the future Sequenced stages in the learning process, Challenges to engage learners, Establishment of previous knowledge, Discovery of input for learning new knowledge, understanding and skills. Deepening learning thinking and communication skills, Planning, editing and revising, Creating and publishing demonstrations of learning, Assessing learning through rubrics with success criteria, Celebrating learning, Whole Brain Teaching, Cooperative learning, Differentiation of input, interaction and/or output, Assessing learning through rubrics with success criteria, <i>Visible Thinking</i> routines.</p>	
<p>Q8: If you could receive additional training about any of the following, which would you choose? (Select all that apply)</p>	<p>To determine perceived training needs and thus potential adjustments and improvement of the framework.</p>
<p>Q9: Please mark your degree of agreement with the following: I believe that my decisions in the classroom should be based on (i) theories of second language acquisition/ (ii) general learning theories/ (iii) both SLA and GL theories/ (iv) experiences in the classroom / (v) empirical evidence of results found in research on teaching and learning a foreign language.</p>	<p>To establish the underlying beliefs about the impact of different theories, research and experience on the decisions made in class.</p>
<p>Q10: How effective do you feel that projects and these activities are for your learners' progress in the following? Communicative competence in English; Learning to learn competence; engagement and motivation; interpersonal competence; creativity and creative thinking; Critical thinking; Digital competence; content knowledge and skills; intrapersonal competence</p>	<p>To collect opinions on the effectiveness of the framework on the development of competences in learners.</p>
<p>Q11: Do you feel that you have an appropriate range of resources, tools, strategies and ideas to facilitate learning in your classrooms?</p>	<p>To determine perceived needs regarding access to resources, tools and strategies for facilitating learning in order to adjust and improve the framework.</p>
<p>Q12: What are the main difficulties experienced when planning and designing learning projects in the EFL/CLIL classroom? Can you think of any tools or training that could facilitate the process for you?</p>	<p>To identify perceived drawbacks and difficulties in the planning, design and implementation of learning projects in the classroom.</p>

Q13: What are the main difficulties experienced when implementing learning projects in the EFL/CLIL classroom?	
Q14: In the planning stage, how do you ensure that your PBLL (proposals/work) are in line with the curriculum? How do you need to adapt to the curriculum as you are implementing your teaching?	To determine strategies for the alignment of projects and curriculum that may be linked to the SPECIAL framework.
Q15: How do you deal with differentiation in your teaching?	To collect ideas on strategies for differentiation, behavior management, adjusting activities when implementing projects. To determine strategies for dealing with behavior management and differentiation that may be linked to the SPECIAL framework.
Q16: How do you deal with behavior management?	
Q17: How do you deal with activities that do not seem to be working properly?	
Q18: What do you think you do particularly well when implementing learning activities?	To identify participants' perceived strengths in implementation.
Q19: In which ways do you assess learning throughout the projects?	To establish assessment procedures and tools.
Q20: Which resources would you highlight as most effective?	To define the perception of effective resources.
Q21: What aspects do you think you are not so good at yet and may need further training?	To determine future training needs.
Q22: Which areas would you like to explore further in the future in your professional development?	

Table 3.7. Questions from the Follow Up Questionnaire

The findings derived from the responses to both questionnaires will be discussed in Chapter 6, enabling me to respond to Research Questions 5 and 6.

Observation Protocol

As the final phase of the research taken on for this dissertation, an observation protocol was designed to be used for analyzing the informants' recorded implementations. The protocol refers to the different steps carried out as a set procedure in order to collect, treat and organize the data collected from the observations. For this purpose, a template (see Table 3.9) was created to guide the analysis of the presentations and observations and align the results with the criteria established for the effective use of the framework. In this way the researcher could determine to what extent the trainees applied what they had learned about

the SPECIAL framework to their teaching and how effective it was for classroom management and promotion of competence development.

The methodological framework employed for the design of the template rests on the three following pillars. First, the design of the template was based on two sources, one, an adaptation of the Sheltered Instruction Observation Protocol (SIOP) designed by Echevarría et al. in 2004 and two, Danielson's (2008) and Danielson et al.'s (2009) proposals presented in *Enhancing Professional Practice: A Framework for Teaching* published for the first time in 1996. The second pillar is the idea of helping teachers to carry out their own action research as part of sustained professional development. Through the application of the template, teachers are scaffolded in the detection of needs in their actual practice and then in the design of a plan which they can implement and test in their classrooms in order to propose improvements and adjustments. The third and final pillar in the working methods of the design of the Observation Protocol and the template within it is the sustained involvement with 5 teachers during which the observer carries out firsthand research acting as an engaged, integral part of the community that is being studied. It should be remembered that she has adopted multiple roles in the entire procedure since she has been their trainer first and later on is the researcher throughout the sustained inquiry process. As such, she is both teacher and student. The trainer teaches the trainees about the framework and helps them in the design of their own projects but she also learns from the findings and from the interpretations that the informants have made in their applications. In consequence, all of the members of the community of practitioners including the trainer and researcher herself participate in a collaborative endeavor that works towards the improvement of teaching and learning at several different levels.

As illustrated in Figure 3.8, the Observation Protocol consisted of the following steps: 1) the administration of a pre-observation questionnaire with general questions about the session that would be recorded and analyzed (see Appendix 4), 2) the recording of the session using tablets and uploaded to a shared *Google Drive* folder, 3) the transcription of the recordings by the researcher (see Appendix 5), 4) the analysis of the sessions using AntConc software (Anthony 2022) and the data registered on the template that had been designed for this purpose (see Appendix 6), 5) the post-observation feedback sessions in which the observer and the informants discussed the findings gathered, and 6) the final group sessions intended as training for the observed teachers to become future observers,

which included a final survey asking them about their perceptions and reactions throughout the process (see Appendix 7).

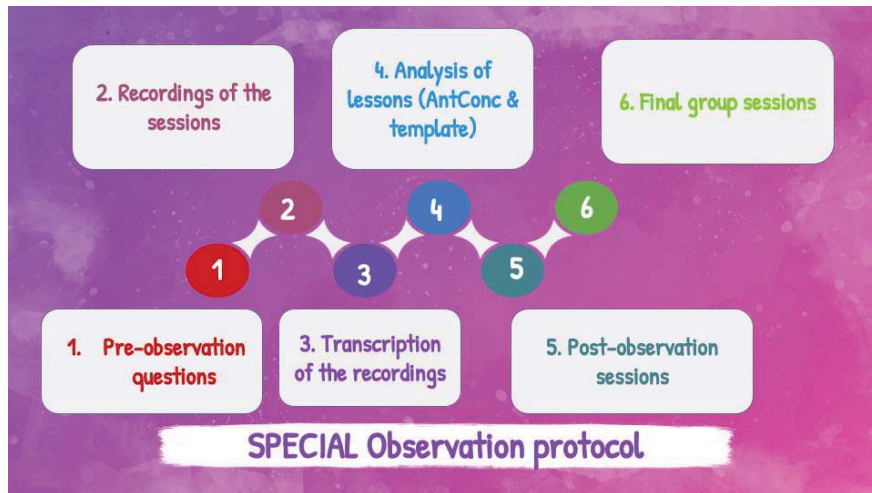


Figure 3.8. Steps in the SPECIAL Observation Protocol

In step one a brief pre-observation questionnaire was sent out before the lesson was to take place asking the informant questions (Table 3.8) about among other things, the aims of the lesson to be analyzed, the stage of the learning path that it would be part of, and requesting them to provide a link to lesson plans or other information that might help the observer understand and better gauge the development of the implemented lessons.

Question 1	What are your plans for the lesson? What are the expected learning outcomes? (Open answer)
Question 2	Is there a written document with the lesson plans that you could share? (link should be provided)
Question 3	What is the final product of the project and how does this session hope to enable student success? (Are there any enabling tasks leading to the final task?) (Open answer)
Question 4	What student needs or challenges might the teacher expect to address in this session or in this project? (Language, content, conceptual, cognitive, management). (Open answer)
Question 5	Which part of the learning path are the students currently on? (List of stages provided as multiple choice.)
Question 6	Will all of the stages be followed? (Yes, no, only a few of them)
Question 7	Is there anything else you think I should know before observing the class? (Open answer)

Table 3.8. Pre-observation questions

The second step of the Observation Protocol involved the actual recordings of the sessions. Teachers were asked to record their own 50-minute lessons without the observer present and to upload these recordings to a shared *Google Drive* folder. Each one of the teachers recorded one of their lessons representing different stages of the learning process.

In the third step, the recordings were watched by the observer and manually transcribed in order to register teacher talk and trace evidence of key components of the SPECIAL framework in action. Once transcribed, the AntConc software (Anthony 2022) was used to identify key words used by the teachers in their implementations and to establish trends and connections as individual samples and as a group.

The fourth step applied an observation template to the analysis of the lessons (Table 3.11). This observation template was designed specifically for the purposes of this research. As has been stated, it was based on the *Sheltered Instruction Observation Protocol* (henceforward SIOP) (Echevarría et al. 2004) which was designed to observe general learning classes in US schools where students denominated as English Language Learners (ELL), whose L1 was not English, had been integrated into mainstream classes taught in English. The SIOP was aimed at making mainstream teachers aware of the needs of the English language learners and calibrate to what extent their classes were effectively catering to these needs. Although the context within which the SIOP was used is very different from the context within which the SPECIAL Observation Protocol would be used, the SIOP framework includes many of the components identified as necessary for effective learning and teaching in EFL and CLIL classrooms with students whose L1 is not English. Therefore, it was considered an excellent starting point for the adaptation of a new observation protocol to be used within the context of Spanish bilingual schools. This template was piloted in an in-person observation session and then contrasted with two experts in the field who gave their feedback. This allowed the researcher to make adjustments to the template concerning the wording of the descriptors in order to aid comprehension. Some of the areas and sections were either organized, merged or separated so that they better aligned with the stages of the learning path and some redundant items were eliminated. Finally, two different versions were developed. A simpler version intended for the evaluation and feedback of presentations of projects by trainees (Table 3.9) and the other for the observation of actual lessons taking place in classrooms (Table 3.11).

	FEEDBACK
<p>1. Learning:</p> <ul style="list-style-type: none"> • The learning process and stages are coherent and visible to learners and teacher allowing learners to track and register their progress as they learn. • Learning is made memorable and meaningful, fostering connections with previous knowledge and success skills. • There is a clear progression of learning with the tasks building up to facilitate the final production and the achievement of expected learning outcomes and evaluation standards. • Materials and resources presented are effective for promoting learning (varied, attractive, clear, accurate, structured, containing some kind of Focus on Form, supporting language). 	
<p>2. Project design:</p> <ul style="list-style-type: none"> • Project follows all of the stages of the learning journey. • Project has been introduced so that learners are interested and motivated to participate with some kind of challenge or driving question involved. • Project outcomes promote significant positive changes for the learning community. • Project helps learners develop success skills (communication, creativity, critical thinking and collaboration) that may be applied to real life. 	
<p>3. Curricular alignment and assessment:</p> <ul style="list-style-type: none"> • Project is aligned with the curriculum in: <ul style="list-style-type: none"> learning objectives content evaluation criteria • Assessment proposal is <ul style="list-style-type: none"> clear for learners aligned with curriculum an integral part of the learning process 	
<p>4. Principles of CLT and SLA applied</p> <ul style="list-style-type: none"> • Input is comprehensible, varied and adjusted to differences in learners. • Interaction is built into the project promoting communication among learners. • The output or final product is relevant, meaningful, and a demonstration of learning. • The project integrates language skills. • Project supports and scaffolds language for potential success of all learners. • Project integrates language with Focus on Form, noticing and saliency of relevant language components. 	
<p>5. Principles of effective learning applied</p> <ul style="list-style-type: none"> • Project differentiates learners taking into consideration: multiple Intelligences, readiness levels and/ or learning profiles. • Project makes effective use of ICT and EdTech. • Project promotes learners' critical and creative thinking. • Project promotes collaboration making effective use of Cooperative Learning. • Project promotes active learning and participation of learners. 	

Table 3.9. Trainees' project evaluation checklist

The SPECIAL Observation Protocol contemplates all the indicators of instruction included in the SIOP adding several elements in each of the common eight components, as shown in Table 3.10. The denominations of several of these components have also been slightly modified, for example “Building background knowledge” was changed to “Activation of learning” and “Comprehensible Input” became “Discovery of input” so that trainees could easily make connections with the stages and tenets of the SPECIAL framework that they were working with.

	Sheltered Instruction Observation Protocol indicators of instruction	SPECIAL framework indicators of instruction
1.	Lesson preparation: looks at sharing of expected learning outcomes; appropriate and adapted content; scaffolding of comprehension; meaningful activities with ample language practice opportunities.	Lesson development: all SIOP plus sequencing of learning activities and feedback on where and how they are going. This cuts across all of the stages of the learning path.
2.	Building background: links to personal experience; between past and new learning; emphasis on new vocabulary.	Activation of learning: learning outcomes include language objectives and development of competences; vocabulary from past lessons is highlighted AND practiced; new learning is made relevant through the presentation of the challenge or final task. This is applied to the Activation stage.
3.	Comprehensible input; appropriate speech; step by step clear visual explanations; variety of techniques to clarify content; focus on most important information; new learning introduced in context.	Discovery of comprehensible input: all of SIOP components plus learning within relevant communicative context; explicitly teaches learning strategies connected to language skill development, such as, predicting, summarizing, etc. to aid in access to input; number of new vocabulary items is adequate to age; vocabulary is written, repeated and emphasized. This is applied to the Discovery stage.
4.	Strategies: learning strategies taught explicitly; self-monitoring fostered; scaffolding for new concepts with restating and thinking aloud; variety of question types to promote higher order thinking.	Deepening effective learning and thinking: All of SIOP components plus broader and deeper thinking through explicit connection of ideas; new learning is made memorable through mnemonics, retrieval practice and/or explicit links between ideas; feedback is provided to remind learners where they are and where they are going along the sequence. This is applied to the Deepening stage.

5.	Interaction: frequent opportunities for structured interaction with varied groupings; ample wait time for responses; clarifications in L1; scaffolding of interaction.	Structured interaction to process input: All of SIOP components plus students encouraged to talk about and practice the new information; opportunities to practice in enabling tasks that include negotiation of meaning and noticing of form and that lead to the successful completion of the final task. This is applied to the Discovery and Deepening stages.
6.	Practice and application: hands on materials for practice; activities for application of content and language knowledge and language skills.	Planning, creation and publishing of output and demonstrations of learning: all of SIOP components plus opportunities for application and transfer of content and language knowledge and knowledge skills; learners can respond in a variety of ways including non-verbally, chorally, repeating and rewording; variety of tasks proposed to demonstrate learning respecting different learning profiles; varied scaffolding for production. This is applied to the Planning, Creation and Publishing stages.
7.	Lesson delivery: supporting content and language objectives; 90% to 100% of class time engaged.	Lesson delivery: All of SIOP components plus appropriate language model provided by the teacher (adequate, correct, communicative, rich in language usage); pacing of the lesson; varied and effective materials provided to scaffold learning of content and language; instruction aligned with plans. This cuts across all of the stages.
8.	Review and assessment: Comprehension checks throughout lesson; review of key vocabulary and content concepts; informal assessment; authentic assessment with varied demonstrations of learning and clear criteria.	Assessment and reflection: all of SIOP components plus formative assessment used to gauge progress and reteach if needed; specific and frequent feedback provides opportunities for revision and reflection; students decide if objectives have been met through peer and self-assessment. This is applied to the Assessment and Reflection stage.

Table 3.10. Adaptations and additions of the SPECIAL Observation Protocol to the Sheltered Instruction Observation Protocol (Echevarría et al. 2004)

As summarized in the above table, the observation template was divided into 8 different sections comprising key theoretical and methodological aspects and components of the SPECIAL framework (as will be discussed in Chapter 4). The second version of the template (Table 3.11) aims to gather evidence of the extent to which informants effectively use and apply those aspects and components in their implementations based on the framework. These sections were labeled: Lesson development, Activation of learning, Discovery of

input, Structured interaction to process input, Deepening effective learning and thinking, Planning, creation and publishing of output and demonstrations of learning, Assessment and reflection, and Lesson delivery. The results of the observation and filling out of the template as a result of the 5 50-minute recorded lessons will be discussed in detail in section 6.2 and have been gathered in Appendix 6.

Theoretical/ methodological components	Criteria	O	F
1. Lesson development	<ol style="list-style-type: none"> 1. The learning outcomes are developed in a coherent and sequenced manner. 2. The learning outcomes are appropriate for the age and educational background of students. Teachers consider the students' L1 literacy, second language proficiency, and the processing level of the materials. 3. Supplementary materials are used to promote comprehension. These include charts, graphs, pictures, illustrations, realia, manipulatives, multimedia, and/or demonstrations by teacher and other students. 4. Materials are adapted to different learners' needs through use of graphic organizers, outlines, labeling of pictures, study guides, adapted text, and highlighted text. 5. Meaningful learning activities integrate lesson concepts with language instruction events: vocabulary, structures, functions, language learning strategies, reading and listening to learn and speaking and writing to communicate, focusing on key words and structures. 6. Meaningful learning activities are sequenced in a coherent way following a structure and informing students of where they are and where and how they are going. 		
2. Activation of learning	<ol style="list-style-type: none"> 1. Teachers write clearly defined learning outcomes on the board for students. <ul style="list-style-type: none"> - Language objectives, such as, key vocabulary and structures, functions, reading comprehension or process writing are included. - Other objectives, such as competences, concepts, cognitive or cultural, are included 2. Concepts are directly linked to students' background experience. 3. Links are explicitly made between past learning and new concepts. 4. Key vocabulary from past lessons is highlighted and practiced. 5. The new learning is made relevant to students through the presentation of a challenge or final task with a clear communicative purpose. 		
3. Discovery of Input	<ol style="list-style-type: none"> 1. Uses speech that is appropriate for students' language proficiency. 2. Makes the explanation of the task(s) clear using a step-by-step manner supported by visuals. 3. Uses a variety of techniques to make content clear focusing attention selectively on the most important information. 		

	<p>4. Introduces new learning in a relevant communicative context.</p> <p>5. Helps students develop strategies such as predicting, summarizing, ...</p> <p>6. Key vocabulary is introduced and emphasized (written, repeated, highlighted, ...). The number of key vocabulary items is adequate.</p>	
4. Structured Interaction to process input	<ol style="list-style-type: none"> 1. Frequent opportunities for interactions about lesson concepts which encourage higher order thinking skills are provided. Students are encouraged to talk about or practice the new information. 2. Structuring of interaction including varied groupings: cooperative teams, shoulder and face partners, small group clinics, ... 3. Ample and varied wait time for responses is provided. 4. Scaffolding of interactions is offered through the use of sentence frames, starters, models, key word lists, examples, gestures, clarification in L1. 5. Students are given the opportunity to engage in enabling tasks that contain opportunities for negotiation of meaning, and noticing. 6. Students are given the opportunity to engage in enabling tasks that will lead to the completion of a final task for the project. 	
5. Deepening of effective learning and thinking	<ol style="list-style-type: none"> 1. Learning strategies are taught through explicit instruction in order to develop autonomy and self-monitoring. Students are provided opportunities to use these learning strategies (clarification, verification, monitoring, memorization, guessing, inductive reasoning). 2. Scaffolding techniques are used consistently throughout the lesson, decreasing support as needed. 3. A variety of question types are consistently used to check understanding, including those that promote higher order thinking skills, recasting student responses and using think aloud. 4. The development of connections between ideas is promoted so that learning is not only broad but also deep. 5. Ideas and concepts are made memorable for students through different techniques, such as retrieval practice, mnemonics, links to other ideas, ... 6. Meaningful learning activities take place in a sequenced and coherent way following a structure and providing feedback that reminds students of where they are and where and how they are going. 	
6. Planning, creation, and publishing of output and	<ol style="list-style-type: none"> 1. Lessons include hands-on materials or manipulatives for student practice and production. 2. Activities and tasks take place that allow students to apply and transfer learning. 3. Activities take place that integrate language skills: listening, speaking, reading and writing. 4. Learners can respond non-verbally, chorally, repeating (mirror) or rewording (teach-ok). 	

<p>demonstrations of learning</p>	<p>5. Varied tasks are proposed as demonstrations of learning respecting different learning profiles. 6. Scaffolding for production is provided, such as sentence frames, substitution tables, prompts, annotated WAGOLLS, checklists, rubrics.</p>	
<p>7. Assessment and reflection</p>	<p>1. Comprehension checks are present throughout lessons as evidence of student comprehension. 2. Key vocabulary is reviewed and practiced throughout different lessons and stages. 3. Key content concepts are reviewed and practiced throughout different lessons and stages. 4. Frequent assessments for learning are used to gauge progress, and reteach when needed. 5. Specific and frequent feedback is provided on correct and incorrect responses so learners can understand what they are doing well and what may need some correction. 6. Feedback is used to provide more review and reteaching of challenging points. 7. Authentic assessment based on varied demonstrations of learning takes place. 8. Clear criteria in assessment activities are provided. 9. Students reflect on and state at the end of the lesson whether the objectives have been met. 10. Opportunities for self- and peer-assessment are offered.</p>	
<p>8. Lesson Delivery</p>	<p>1. Language model provided by the teacher is correct, communicative and adequate to learners' language proficiency level. (pace, pronunciation, intonation, rhythm, ...) 2. Language model provided by the teacher is rich in English usage, word choice, intonation, and fluency. 3. Content AND language objectives are supported by lesson delivery through strategies such as use of restatement, paraphrasing, repetition, and written records of key points. 4. Students are generally engaged and on task. 5. Pacing of the lesson is appropriate to students' ability level. 6. Teacher uses visuals and supplementary materials, such as pictures, real objects, illustrations, charts, adapted texts, audios, videos, and graphic organizers, to support and scaffold learning. 7. Planning vs. Instruction: (what had been planned is aligned with what happened in the classroom).</p>	

Table 3.11. SPECIAL Observation Template

The observation template encompasses all the components signaled in the different stages of the SPECIAL framework, plus aspects related to lesson development and lesson delivery. It succinctly lists the criteria describing the nuances of requirements established for each of the components required to facilitate the effective use of the framework. Two sections have been included that list criteria for 1) the lesson development regarding learning outcomes, materials and activities and 2) the lesson delivery which alludes to the language model provided by the teacher, the coherence of activities with the objectives, the engagement of students throughout, the use of supplementary materials to scaffold learning and the alignment of intended plans for learning and what actually took place during the lesson.

As the fifth step of the SPECIAL Observation Protocol (Figure 3.8), once the researcher had filled in the template, a post-observation feedback session was conducted with each of the 5 participants on-site, which lasted for approximately 90 minutes. Each participant met individually with the researcher and discussed the data collected along with different comments and questions posed. The main observations were discussed, and feedback was provided. In some cases, some clarifications were made by the informants about certain aspects that may not have been clear or evident in the recordings or transcripts. Informants also received the completed template in writing (see Appendix 6). Previous to the post-observation session, the participants received a message to prepare them for the feedback session. The aim of the message was to remind them of their role in the community of practitioners, to specify the aims of the session and to alleviate the pressure which might have been felt if they considered this an evaluation rather than part of their sustained professional development. The idea was for participants to get the opportunity to look at themselves in action so as to compare and contrast their implementation choices and realizations with what they had planned and what they knew to be necessary for learning to take place according to the SPECIAL framework. Their teaching would be “reflected” back at them firstly so they could see themselves through the lenses of the recordings and the feedback provided by the observer's completion of the template. Secondly, participants would be able to reflect or think about their teaching following the template. The observer, as part of the post-observation reflection session, would use this tool to help the observed teachers to think about the choices made and the learning that happened in class in order to propose the possible changes or adjustments that could be made in the future in terms of, for example, instructional design, classroom management, teacher talk, or interaction.

Since many phenomena in classrooms are not easily observable (Richards and Swan 1998), such as the reasons why one option was chosen over another, the post-observation feedback session where the observer discusses the criteria of the protocol with the observed teacher is just as important as the observation itself. This is especially valuable in the application of the protocol as part of the professional development program since it will allow teachers to see to what extent they have put into practice the components of the SPECIAL framework and how learning has been planned for and implemented.

In this feedback session we went through the Observation Protocol Template reading the most important points and discussing the feedback that had been provided. The observed teachers and the observer were able to ask for clarifications and debate the different ideas proposed. In these sessions the community of practitioners learn together since the observed teachers can make their teaching choices visible to themselves and to the observer so that improvements and adaptations to classroom practice can be suggested and discussed together. The observer can collect information on gaps and needs of teachers in order to improve the framework and the training provided to pre-service and in-service teachers. In the particular case of these 5 observations, the data has also been used to analyze and discuss the application of the SPECIAL framework as can be read in Chapter 6 (Section 6.2). After the individual feedback sessions were conducted, the informants were asked to complete a survey asking them about their reactions before and after the feedback and about what they had learnt from the experience (Appendix 7).

Since, as has been stated, the findings from the analysis of the whole Observation Protocol applied to each of the 5 informants should ultimately serve as sustained professional development for these teachers and a source of information for the application of the SPECIAL framework and its consolidation leading to an improvement in the training designed to help practitioners in their professional development, a final observers' group session was set up to meet with all 5 participants (and the Head of Studies at their school who is also a CLIL teacher in Primary and had taken part in the in-service training in the framework). In this session, which took place several months after the observations and feedback sessions, all the participants met in order to share the most important aspects of the observations and what they had felt and gained. In this way, the teachers, and the observer, working as a community of practitioners within the same school were able to reflect on the different situations and learning that had resulted from these observations. This joint meeting of the teachers observed within a particular educational setting also brought about

shared reflections that lead to further learning. My role as observer, researcher and facilitator was to point out the most critical elements of the individual observations in order for the participants to be able to draw conclusions of their own, adapted to their particular contexts. The observed teachers were asked to summarize their learning from the observations and feedback and to share these with all of the participants. The most interesting parts of the recorded sessions were marked within a *Google Sheet* along with the minutes in which they occurred and the conclusions reached by all of the participants. This database will then be used by the school for future training as models of good practice or critical issues to be discussed by teachers. Within the organization of the school and its professional development plan, this initial group of 5 participants will become a team which will be in charge of observing and training colleagues using the SPECIAL framework and applying the designed Observation Protocol within their school and within others pertaining to the same group of schools throughout Spain.

This methodology chapter has first described and justified the procedure followed for the creation of the SPECIAL framework, the contexts in which it has been applied and the participants, comprising undergraduates, postgraduate students and in-service teachers, who have learnt about it as part of their training, and the tools and resources that were designed throughout its implementation. Similarly, the procedure, contexts and participants involved in the evaluation of the applicability and application of the SPECIAL framework have been discussed, and special attention has been paid to the tools designed for said purposes.

In the next chapter, the focus will be on the actual SPECIAL (Sequencing, Project Enhanced, Competence Integrated, Acquisition and Learning) framework, starting with a detailed explanation of each of the components highlighting how the theoretical framework tenets presented in Chapter 2 were applied (section 4.1). It will go on to describe and explain the specific stages in the SPECIAL framework (i.e. Activation, Discovery, Deepening, Planning, Creating, Publishing and Assessment and Reflection), stating their specific aims, drawing links with the underlying theory and discussing concrete examples of classroom activities, tools and resources from projects to illustrate each of them.

Chapter 4. SPECIAL: A proposal for a teacher training model

Chapter 4 begins to show what this dissertation hopes to contribute to the field of teacher training in EFL and CLIL. It presents my first findings regarding the framework for the design of learning situations which has been implemented in various teacher training scenarios. What follows is the application of the theoretical framework to the teaching of EFL and/or CLIL classes taught in English. In other words, this chapter will explain what teaching and learning will look like in classrooms that apply the SPECIAL framework, bringing together and applying theories on Second Language Learning and Teaching, General Learning, as well as Project and Competence Based learning.

The SPECIAL framework for instructional design and implementation has been presented in different professional development courses at pre-service and in-service levels (see Table 3.1). During these teacher training sessions, participants learn about the framework and instruction is scaffolded so that they can make connections with the theory underpinning the design of the strategies, resources, tools, steps, and stages of the learning process as well as the implications of the theory for the choices made in said instructional design.

In this chapter, I will first briefly discuss how the teacher training proposal is organized with the ultimate goal of facilitating the design and implementation of effective teaching and learning in CLIL and EFL classrooms. The framework itself will be discussed with a description and discussion of its components in Section 4.1. The different stages in the learning process, represented in the learning path, will be explained through the analysis of the aims, tools, strategies and underpinning theory proposed for each of them in 4.2. This section will include examples for Pre-primary, Primary and Secondary classrooms that have served to illustrate the stages.

Let us begin then with the conception of the teacher training model which aims to propose the framework for the design and implementation of Sequenced, Project Enhanced Acquisition and Learning. The process for improvement in the effectiveness of teaching as described by Marzano (2007; Marzano and Pickering 2011) involves three stages, those of naming, applying and reconceiving. The teacher training model described in this dissertation takes trainees through each of these stages. In the initial stage of naming, participants learn the terminology used to describe the needs of language learners and they discuss the

constructs of Second Language Learning and Teaching research, General Learning theories, Project and Competence Based Learning. The SPECIAL framework grounded in these concepts and ideas which can be summarized in Figure 4.1. is used in order to develop a common language with which to discuss and analyze the best ways to bring about effective learning in and of English. This shared metalanguage will allow trainees to better understand the framework and consequently to be able to reflect on learning that occurs throughout the process. In time it will enable trainees to design their own projects and to reflect on their choices in that design. Ultimately, this should result in growth for teachers and for their students in their development of competences.

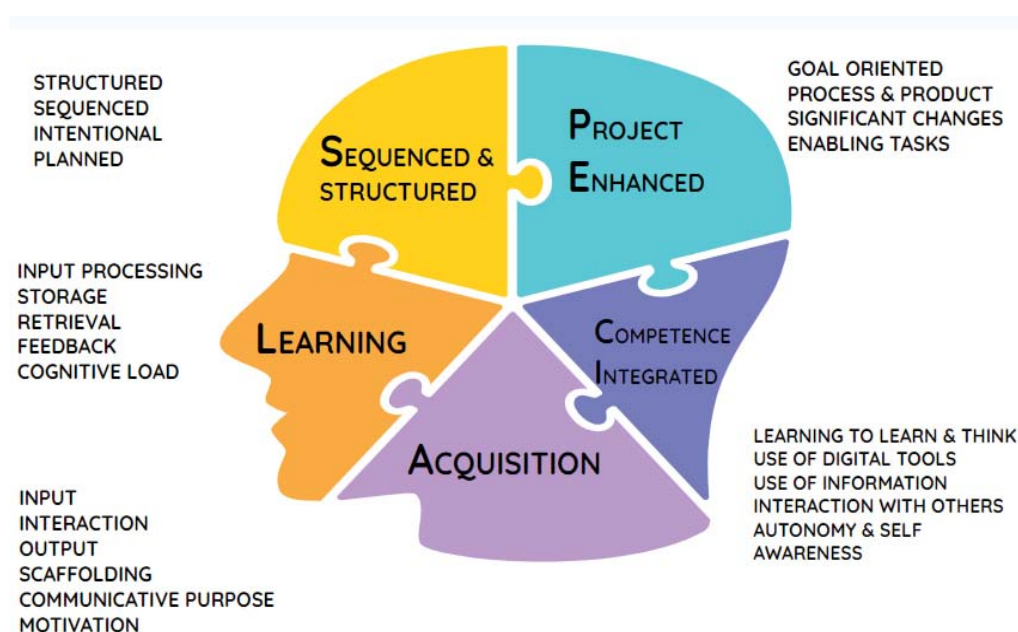


Figure 4.1. Visual representation of the SPECIAL framework foundations

In the second stage, that of applying, the trainer presents a variety of classroom applications of the different ideas, techniques, strategies and resources that have been discussed and analyzed. Trainees can see what the implications for learning are and exactly what this might look like in teaching. An example of a project is provided to serve as a model. These exemplary projects (see the *Kindness Project* and *Persuasion Project* in Appendix 1) are described and analyzed looking at how learning develops throughout the process.

In the third stage, that of reconception, trainees build on the notions presented and reconstruct their preconceived ideas about the teaching-learning process and syllabus

design. They are asked to plan their own projects using the SPECIAL framework as a guide. Different tools (see Chapters 3 and 5), such as a blank canvas template or a table with guiding questions that teachers should reflect upon during the design process, are provided for trainees to begin creating their own projects adjusted to their particular contexts. Within this teacher training model, trainees design and present their Project Enhanced learning proposals as demonstrations of what they have learnt in the different training courses. They give and receive feedback from peers and their trainer or coach so as to further define and improve their ideas for the designing of materials, resources, tasks, and projects.

Knowledge about the framework is built through the unpacking of the Second Language Learning and Teaching and General Learning theories that underlie it and that have been discussed in Chapter 2. Trainees learn about the framework's stages, their justification or the theoretical basis upon which they are built, through the trainer's explanations illustrated by examples of Pre-primary, Primary and Secondary classroom applications of each of them. That is, while discussing what each of the stages entails and the theories that guide the criteria for effective learning and acquisition in each of these stages, trainees work with examples of what all of this may look like in the EFL or CLIL classroom in terms of activities, tasks, strategies, resources and materials.

4.1. SPECIAL components

In the following sections each of the components of the Sequenced, Project Enhanced, Competence Integrated, Acquisition and Learning (SPECIAL) framework, will be discussed in turn.

4.1.1. Sequenced and structured

In the introduction of the SPECIAL framework within teacher training model we begin by looking at the need to coherently sequence the learning and the achievement of its different outcomes. Since learning and acquiring a second language is a very complex process it is vital to organize the different events, tasks or steps involved. The three main sources of inspiration for the sequence that is proposed as part of the framework and which is presented in the teacher training sessions are Gagne et al's (1992) instructional events, BCBS's 5E Instructional model and phases (Bybee et al. 2006; Bybee 2014, 2015) and Clark's (2009a) LearnInq real learning framework stages. The elements of these three

models were combined and some adjustments and adaptations made for the bilingual classroom. As has been discussed in Chapter 2 on the theoretical groundings of the model and the framework, all three of these proposals were geared towards learning of any subject in L1, so the particular needs of learners in EFL and CLIL contexts being taught English or other subjects through the medium of this second language had to be considered carefully. As can be seen in Table 4.1, different numbers of steps were put forward as events, phases or stages by all three of the models which have inspired the SPECIAL framework. The names of the stages have been modified to simplify and better represent the aims of each one.

Gagne et al.'s (1992) instructional events	The BSCS 5E Instructional Model phases (Bybee et al 2006; Bybee 2014, 2015;)	Stages in Clark's (2009a) LearnInQ real learning framework	SPECIAL framework stages
<p>1. Gaining attention: to appeal to learners' interests and engage attention.</p>	<p>1. Engagement: to access prior knowledge and engage in a new concept; to organize thinking towards the learning outcomes of current activities.</p>	<p>1. Immersion: to engage learners both emotionally and cognitively; to set up the <i>what if challenge</i>; to identify the <i>so what</i> to pursuing learning.</p>	<p>1. Activation: to activate learners' schemata, setting into gear of sensory or perceptual memory, connections with students' previous experiences and prior knowledge, motivation and engagement, relevance, communicative purpose, setting of the context and lowering of the affective filter. To present the challenge that will motivate learners to learn and communicate learning in English.</p>
<p>2. Informing learners of objectives: to activate a process of executive control; to indicate the kind of performance that will demonstrate that the learning has</p>	<p>2. Exploration: to initiate the activity, describe appropriate background, provide adequate materials and equipment, and to counter any misconceptions, then to guide students as they</p>	<p>2. Brainstorm and question: to invite learners to brainstorm what they know about the focus challenge; to invite learners to determine what they will need to know.</p>	<p>2. Discovery: to present input carefully curated or created sources to provide clear, comprehensible, multimodal opportunities; much more structured</p>

<p>been accomplished; to communicate a goal schema that includes scenario relating single objectives to the goal, and that also specifies what the learners will be able to do once they acquire the new learning and how this might be used in life as well as how they might be asked to show learning.</p>	<p>clarify their understanding, reconstruct concepts, and develop abilities.</p>		<p>direct instruction focusing also on language; to allow for variety of ways for students to process; scaffolding; to provide continued retrieval practice, and the registration or recording of new learning in organizers.</p>
<p>3. Stimulating recall of prerequisite learned capabilities: to allow learners to bring forward previously learned ideas that will be combined with new ones to produce learning.</p>	<p>3. Explanation: to direct students' attention to key aspects of the prior phases, to allow students to give their explanations and based on these, to introduce new concepts briefly and explicitly.</p>	<p>3. Plan: to plan all of the tools for use in their personal inquiries using the thinking framework.</p>	<p>3. Deepening: to guide deeper thinking, internalization, sharing, expansion, extension, and enrichment of concepts and thinking plus clear opportunities for negotiation, explicit Focus on Form and transfer.</p>
<p>4. Presenting the stimulus material: to display or communicate stimuli emphasizing features that determine perception; a variety of examples are selectively recalled, combined, and used to perform.</p>	<p>4. Elaboration: to involve students in learning experiences that extend, expand, and enrich the concepts and abilities developed in the prior phases; to facilitate transfer of concepts and abilities to new situations.</p>	<p>4. Investigate. Organise. Internalise [sic]: to provide learners with a <i>planner</i> that outlines the entire learning journey; to provide learners with <i>criteria</i> in the form of a rubric; to provide learners with the learning and thinking tools associated with each of the areas of the <i>thinkbox</i>.</p>	<p>4. Planning: to encourage learners to decide on final products, organize and present in these in public; to give and receive feedback.</p>
<p>5. Providing learning guidance: to stimulate a direction of thought and keep learners on track.</p>	<p>5. Evaluating: to determine and obtain evidence of student learning that is consistent with the experiences in previous phases.</p>	<p>5. Stop and Think: to invite learners to self-select a strategy and tool for internalization of newly accessed information; to invite learners to self-select a</p>	<p>5. Creating: to encourage learners to create a final product which pushes them to apply learning from the previous stages.</p>

		strategy and tool for sharing their comprehension: “ <i>What do you now know?</i> ”	
6. Eliciting performance: to ask students to show what they can now do.		6. Ideate: to invite learners to reconsider how they might ‘use their new learning to make a difference in their life or the lives of others’; to invite learners to determine a communication vehicle which will get their idea to an appropriate audience; to direct learners to put their <i>so what</i> idea into action.	6. Publishing: to direct learners to share their final products with a public audience.
7. Providing feedback: to give information on the correctness of their performance.		7. Innovate and celebrate: to direct learners to test and monitor the results of their <i>so what</i> ; to invite learners to celebrate their learning journey.	7. Assessment and Reflection: to evaluate and think about the learning process and the products which demonstrate what has been accomplished in terms of language skills and knowledge and content comprehension and expression. To invite learners to celebrate their processes, products and learning outcomes.
8. Assessing performance: to elicit appropriate performance as an indication that the desired learning has occurred, that is, to assess learning outcomes with validity and reliability.		8. Evaluate: to direct learners to track the thinking skills, tools and strategies used during the inquiry; to invite learners to identify the strengths and weaknesses experienced during each stage of the ThinkInQ real learning process; to guide learners to set goals	

		for reference during their next inquiry.	
9. Enhancing retention and transfer: to provide systematic reviews placed at intervals throughout weeks and months; to set a variety of new tasks for the learners to apply what has been learned.			

Table 4.1. Comparison table for Gagne et al's (1992) Instructional Events, the BSCS 5E Instructional Model (Bybee et al. 2006; Bybee 2014, 2015), Clark's (2009a) LearnInQ, and SPECIAL framework stages

Table 4.1 compares the three models which inspired the design of the SPECIAL framework's stages. As can be seen, the number of stages, seven, differs from Gagne et al.'s nine which are considered "events" and not stages *per se*, Clark (2009a) points out 8 of what she calls "stages" and Bybee et al.'s (Bybee et al. 2006; Bybee 2014, 2015) model proposes 5 "phases". The first stage of the SPECIAL framework, which comprises three of Gagne et al.'s (1992) events, those of gaining attention, informing learners of objectives, and stimulating recall of prior learning is parallel to the first phase of the 5E Model called "engagement" and what Clark (2009a) calls "immersion", her first stage. In the SPECIAL framework, this first stage is called Activation and it proposes a challenge for learners which they will be able to meet by completing the different activities and tasks designed to allow them to acquire the knowledge, skills and strategies required to create the final products and develop the necessary competences. The Activation stage also sets the starting point for learning by establishing the previous knowledge upon which the project will build (see Section 4.2.1). The term activation refers, firstly, to the stimulation of learners' schemata or mental organization necessary for the building of new knowledge to occur and, secondly, to the setting into gear of their sensory or perceptual memories and the connections that are ignited with students' previous experiences and prior knowledge, all of which will serve to trigger the learning process. Although Gagne et al. (1992), Bybee et al. (2006) and Clark's (2009a) models do promote real thinking and learning in general and throughout different subjects taught in L1, I believe that they must be adapted and supplemented in an L2 learning context infusing their solid bases with issues of motivation and engagement specific to the language

learning process, relevance, communicative purpose, setting of the context and lowering the affective filter.

The sequence continues with the Discovery stage in which learners receive, are exposed to, or are led to engage with the critical input along with a series of tasks that will facilitate the processing of said input. This would be comparable to Gagne et al.'s (1992) fourth event stated as "presenting the content" since it is where input on the new learning is provided and processed. In Bybee et al.'s (2006) model it would be parallel to phase 3, Exploration. In Clark's (2009a) framework it would correspond in part to "Immersion" and in part to her fourth stage of "Investigate. Organise. Internalise" since in both of these stages she lets learners explore resources about the new knowledge and skills and there are many organizers proposed to process said input and organize it within existing schemata. Although the aims of providing input and opportunities to process it with the help of tasks and organizers are common to all of the proposals, I think the difference in the L2 context of the SPECIAL framework is that we need to carefully curate or create the sources of input so that they provide clear, comprehensible, multimodal opportunities for students to receive the new knowledge or skills. Teachers must also provide direct instruction sooner than if they were learning in L1 and this direct instruction should focus on language, including both CALP and BICS (Cummins 2000). Some of this input may be encountered in a freer, more autonomous way, such as, for example, in learning centers where students move from one part of the classroom to another accessing different resources individually or in small groups. These learning centers may contain short videos with embedded questions, reading texts with visuals, audio explanations or infographics, to name a few. These resources can be provided for autonomous work as long as effective scaffolding is provided to go with them. Whether it be with direct instruction coming from the teacher, or, in individual, pair or teamwork where learners access the input at their own pace, it is important that there are multiple modalities for presenting it and varied opportunities for explaining the content and lexis to ensure comprehension and retention. There should be a variety of ways and opportunities for students to encounter the input and to process this new knowledge so that there are higher chances of them ultimately storing new learning into permanent memory. I believe that teachers' explanations and even self access to learning in L2 needs to be much more structured. The language that the resources use, and the visual support provided are vital so that learners have the chance to access, hear and/or see and comprehend the explanations. This should be supported by the design and provision of scaffolding in the

form of, for example, cheat sheets (Clark 2009a; Hall et al. 2012) with input enhancement (Sharwood Smith 1993; Sharwood Smith and Truscott 2014), reiterated and varied encounters with new lexis (Brown 2010; Ur 2012), continued retrieval practice of earlier learning (Silver et al 2007; Agarwal et al. 2013), visual aids for comprehension (Agarwal and Bain 2019) and the registration or recording of new learning in organizers (Marzano et al. 2001; Silver et al. 2007; Clark 2009a; Marzano and Pickering 2011). All of this will be discussed in more detail in the Discovery section of this chapter (4.2.2).

The third stage in the SPECIAL framework is called Deepening where learners are pushed and scaffolded to make more and more connections in their learning, asking them to communicate and collaborate with their peers to share and build on the knowledge and skills presented and practiced so far fostering interaction and production of output working collaboratively with their partners. This third stage is in line with Gagne et al.'s (1992) instructional event number 5, namely, "providing learning guidance", Clark's (2009a) last part of stage 4 "Internalise" and her number 5 "Stop and Think". Compared with Bybee et al.'s (2006) model it would be similar to the fourth step of "Elaboration". In a version of the framework designed for its use in Higher Education the name of the stage was changed from Deepening to Connecting in order to incorporate the element of connecting with others in order to broaden and refine their thinking and to put it into words whether in spoken interaction or in written form (Gil and Mur-Dueñas 2023). These connections arise as a consequence of using varied thinking routines, Cooperative Learning structures and *Whole Brain Teaching* strategies. The adjustment of the SPECIAL framework to L2 learners with respect to the other three proposals discussed would entail taking on the ideas of guidance, internalization, sharing, expansion, extension, and enrichment of thinking. Other elements which need to be incorporated to enhance their effectiveness in the L2 classroom include 1) clear opportunities for negotiation of meaning (Pica et al. 1991; Pica 1994; Long 2014) in the Cooperative Learning tasks (Kagan and Kagan 2009), 2) an explicit Focus on Form (Schmidt 1992; Ellis 2016), 3) the provision of scaffolding of language structures (Gibbons 2015) and 4) explicit vocabulary instruction (Ur 2012) to be used throughout the sessions in cheat sheets (Clark 2009a; Hall et al. 2012), and other varied means to go from close to far transfer of new learning. Examples of this will be provided in the section on the Deepening stage below (4.2.3).

Gagne et al.'s (1992) proposal goes on to speak of the eighth and ninth instructional events, those of "Assessing performance" and "Enhancing retention and transfer". Clark's

(2009a) sixth and seventh stages refer to the needs to “Ideate, Innovate and celebrate” and the 5E model jumps from the fourth “Elaborate” phase to that of “Evaluate”. In the SPECIAL framework, parallel to these are the fourth, fifth, and sixth stages which are called Planning, Creating and Publishing. These can be considered as one single longer stage that combines these three or as three separate ones. In the Planning stage, learners will organize their progress so far, seeing how it may allow them to successfully achieve the challenge by producing their learning artifact, the outcome of the project itself. They also share these plans with classmates and receive feedback from peers and teachers. In the Creation stage, learners elaborate their products and in the Publishing stage these are shared with others through the chosen communication medium. In this Publishing stage participants share their output by presenting and defending it in front of an audience. This audience is not only the teacher and perhaps the class as it would be in more traditional learning. Instead, learners may be addressing the whole school, their local community or, by using the Internet, a global community. Their productions, thanks to the fact that they are able to use English as a common means of communication, can be accessed and received by a broader audience that goes beyond the walls of the classroom. All three of these stages, Planning, Creation and Publishing, are essential since they incorporate the elements of Gagne et al.’s (1992) proposal of opportunities to practice in order to favor retention and the need to provide experiences for learners to apply what they have learned to new contexts and situations. In this model this is considered the ninth and final event coming after that of “Assessing performance”. Another incorporation that Clark’s (2009a) sequence puts forward is the need to get students to think about how they can put their learning into practice and real use in order to bring about positive change to “make a difference in their lives or the lives of others”, while choosing an appropriate vehicle with which to communicate it to an audience. This choice is made in the SPECIAL framework as part of the Planning stage and carried out in the Creation stage where the demonstration of learning is produced taking into account the plan and the feedback received in the previous stage. The adjustments or adaptations of the framework in this Creation stage concern the communication medium and platform especially since the purpose of the SPECIAL projects is above all a communicative one and the focus on language and form is prioritized. All of the models share the need, as in PBL, for learners to create a final product that they will share with an intended audience. In the SPECIAL framework, the final product is also considered comprehensible and pushed output for the English learners (Swain 2005), that is, students are encouraged to produce

something that others will understand and that pushes them to communicate, express their ideas and to apply learning from the previous stages.

The evaluation of all of the above will take place in the eighth and final stage of the learning path, Assessment and Reflection which is equivalent to Gagne et al.'s (1992) eighth event of "Assessing performance", Bybee et al.'s (2006) fifth E of "Evaluation" and Clark's eighth stage of "Evaluation". In Assessment and Reflection, the added elements involve thinking about both the process which led to the achievement of the objectives, and the products which demonstrate what has been accomplished in terms of language and content learning. These assessments will be carried out using different tools, such as rubrics and checklists, as well as more traditional ones like quizzes and tests, to evaluate progress in language skills and knowledge.

The clear mapping of the different stages in the progression of learning allows teachers to plan effective micro tasks where learners will acquire the necessary knowledge, understanding and skills leading to the successful accomplishment of the final macro task or project as demonstration of their learning. It is suggested to practitioners that this learning path be displayed and shared with learners as a visual reminder of the learning steps and progress along the path. This is based on Hattie and Clarke's (2018) idea of the effectiveness of clear and consistent feedback that tells learners where they are, where they are going next and how they are going along the process. In this way, the instructional sequence represented by the learning path (see Figure 3.2) and some of its underlying tenets as summarized in Figure 4.2 ensures that learning and instruction are deliberately planned by teachers in a coherent sequence and that learners are made aware of their progress towards the achievement of the expected learning outcomes.

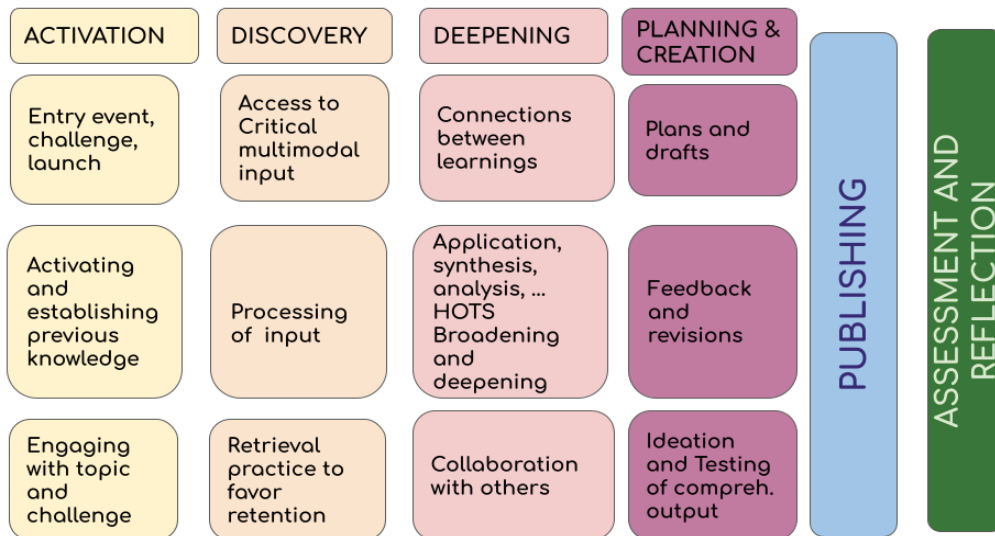


Figure 4.2. Summary of stages and essential components presented to trainees

The learning path represents the coherent instructional sequence that vertebrates the learning process from lessons to complete didactic units which end with the production of a final outcome. This outcome is an opportunity for learners to demonstrate what they have learnt along the way. The journey and its illustration serve to facilitate teachers' and learners' perceptions of their goals, their starting points and, most importantly, the progress that they make along their learning. Teachers are encouraged to mark the start, the progression, and the end of the evolution of the project by placing different markers along the stages displayed on murals or digital boards, as can be seen in this example of its use in class by teacher T5_P (Figure 4.3).



Figure 4.3. The Learning Path graphic used in a class mural for students to mark their progress

The stages are sequenced according to the events and stimuli which need to be provided for learning to take place. As has been discussed in this section, for learning and acquisition to take place a series of conditions have to be presented in a logical order (Gagne et al. 1992).

All of the different stages will be discussed in detail in section 4.2. But for now we can see how the project is sequenced and structured to allow for effective learning. The sequencing of the learning elements and events depicted in the SPECIAL framework can never be linear as it aims to emulate real learning and acquisition processes. Rather than a straight line moving forward towards the learning outcomes, it is a series of structured cyclical steps. Each of the stages can be considered a task cycle (Willis 2006) in itself and all of the tasks or microprojects in each stage enable learners to successfully complete the macroproject's objectives. Thus, each of the stages consists of one or more micro tasks with their complete task cycle which serve to prepare students for the successful completion of the final outcome as represented in Figure 4.4. Each of these micro tasks can be considered enabling tasks³ that permit the learner to receive, process and practice the knowledge, understanding and skills that have been deemed necessary for the achievement of the project's learning outcomes.

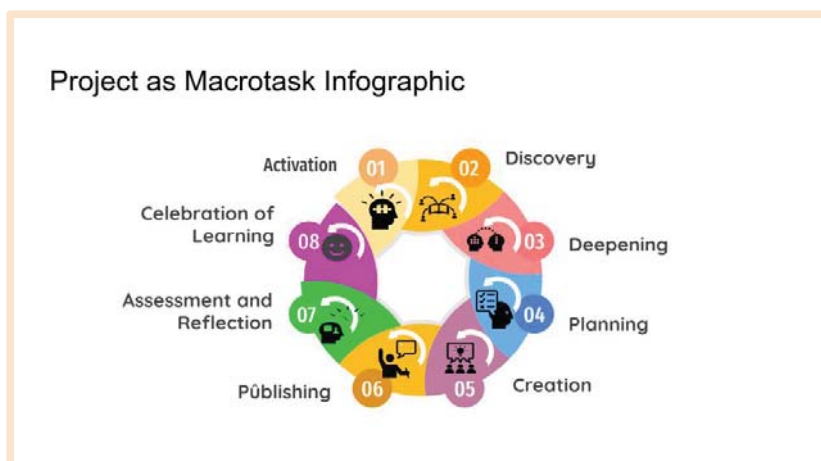


Figure 4.4. Project as macro task including several micro tasks within each stage of the SPECIAL framework

³ The term "enabling tasks" is used in a literal sense since they enable learners to gain the knowledge, understanding or skills required to complete the project. It does not refer to Estaire and Zanon's (1990) definition of tasks that focus explicitly on language.

For example, in the *Healthy Kids* Project (see Appendix 8) learners are asked to become experts on healthy habits and to help a school in the U.S. that has written to them for advice. They can communicate their suggestions by attaching a poster, video, or infographic to their email reply. In order to create the final product, they must have knowledge about eating, exercise, and emotional wellbeing. They must also develop the digital skills necessary to respond via email attaching the resource they have created using the digital tool *Canva*, for example. Learners should also understand the context and the audience that they are addressing and the communicative and visual literacy skills necessary to transmit effective messages. Since they will be giving advice, they will focus on language points to convey this communicative function, such as modal verbs and the imperative, and of course, vocabulary related to the human body and human living habits. Each of these learning outcomes will be addressed in one or more tasks throughout the different stages of the learning path. Again here, the sequencing of learning is essential since the Activation stage will establish what previous knowledge, understanding and skills learners bring to the final outcome. The Discovery and Deepening stages will allow learners to receive the necessary input and to have reiterative opportunities to process and practice so that retention and understanding are facilitated. The subsequent stages of Planning, Creation and Publishing will push learners to produce and share output that will serve to show their learning and to help others. Finally, the Assessment and Reflection stage gives learners the opportunity to think about not only their learning outcomes but also the process that has brought them to these. The constant focus on reflecting on the different strategies and skills that were required and developed throughout the sequence of stages will enable students to learn about their learning. The illustration of their learning journey, represented by the learning path and the different artifacts that have been produced along each of the stages (see Figures 3.2 and 4.3), will allow students to see their progress and their processes. In this way, not only the projects aims are accomplished, but also the development of global skills and the key competences, such as collaboration, creativity, critical thinking, and learning to learn, along with the ability to sustain and replicate autonomous learning in the future.

4.1.2. Project Enhanced

The development of the sequence of stages which make up the SPECIAL framework and which is illustrated by the learning path graphic (Figure 3.2) considers the teaching and learning of different knowledge, skills, functions and language that culminate in a final product within a Project Enhanced view. The name Project Based is replaced by Project Enhanced, inspired by Ball and Cleggs' (2015) term Content Enhanced Language Teaching (CELT) referring to CLIL in practice as discussed in Section 2.1. In their work on CLIL, Ball and Clegg (2015) prefer the term CELT rather than CLIL since for them Content Enhanced Language Teaching involves much more than a mere integration of language within content classes. In CELT, the focus lies more on language, and content becomes supplementary. In the case of the SPECIAL framework, the focus should not be on the fact that it is based on a project but instead on the fact that the project is used to frame the learning providing a context and a final aim. It is important that trainees understand that although PBL and SPECIAL share many tenets, there is one substantial difference which is the amount of structure and guidance that is provided. In hard versions of PBL, learners are free to find and explore resources and often decide what it is they want to work on, and what they will create as an outcome of the project. In other words, PBL participants are much less guided, especially, in terms of the input they are exposed to, and the outcomes reached. The SPECIAL framework proposes a much more structured, sequenced process with strongly selected, adapted and purposefully curated or designed resources and tools. This is justified by the fact that all learning happens through the vehicle of a second language and must be guided and scaffolded according to the needs of the students and their contexts.

However, PBL and Project Enhanced learning do share many other elements which are embedded into both proposals with some adjustments and additions to facilitate learning and acquisition within an EFL context. All of this has been summarized in Table 4.2, which will be discussed in detail in this section.

<p style="text-align: center;">PROJECT-ENHANCED</p>	<p style="text-align: center;">Source: www.bie.org</p>
<p>Relevant and meaningful challenges:</p> <ul style="list-style-type: none"> • Aligned with learning goals as demonstrations of learning • Connected with learners’ experiences, interests and needs • With an explicit communicative purpose 	<p>Challenging problem or question: Framing of project with a problem to solve or question to answer</p>
<p>Sequenced and sustained learning:</p> <ul style="list-style-type: none"> • Structured sequenced steps • Learning progresses in a guided way 	<p>Sustained inquiry: Rigorous extended process of posing questions, finding resources and application of information</p>
<p>Authentic curated sources and created resources Highly scaffolded real-life products as output</p>	<p>Authentic sources and products: Real-world context, tasks and tools, quality standards, or impact Speaks to personal concerns, interests, and issues in students’ lives</p>
<p>Active participation in all activities Cooperative Learning, pair work, peer feedback</p>	<p>Student choice and voice: Students decide how they work and what they create and express their ideas</p>
<p>Reflections about learning and thinking Learning to learn Metacognition</p>	<p>Reflection: students and teachers reflect on the learning, effectiveness of inquiry and project activities, quality of work and obstacles and how they are overcome</p>
<p>Critique, revision and growth Peer feedback and application for improvement Retrieval practice Marking of progress along learning path</p>	<p>Critique and revision: students receive, give and apply feedback to improve processes and products</p>
<p>Public product Demonstrations of learning shared with an audience “Making a change in their lives or the lives of others” (Clark 2009a, 2009b)</p>	<p>Public product: Student work is made public by sharing with, explaining or presenting with audience beyond classroom</p>

Table 4.2. Project elements in SPECIAL and PBL Works by BIE

PBL speaks of a challenging problem or question which frames the learning. Similarly, in the SPECIAL framework a challenge is presented at the beginning of the journey as a kind of launch. In order for effective learning to be facilitated, it is necessary to foster motivation. This can be done by launching the project with a relevant and meaningful challenge that will sustain interest and engagement in the learning process. There are three aspects which the framework relies on for the design of challenges where this will take place: one, that the learning goals are reached through the micro tasks realized by the students and that their achievement is demonstrated in the successful completion of the final product as a demonstration of learning. Two, the challenge should be strongly connected with learners' experiences, interests and needs and the content to be learnt. Third, that there is a justified reason for the use of English in the communication of the results of the learning process, that is, there is a communicative purpose built into the challenge. Learners should see (1) how all the different activities or micro tasks enable them to successfully complete the macro task or final outcome; (2) why such activities or micro tasks are important for them in their daily lives or for their future and (3) why they need to carry out the project in English and communicate their learning to an English-speaking audience.

First of all, when learning how to design the project and its challenge, trainees are taught that students should be aware of what they will need to know, understand or be able to do in order to successfully complete the challenge and that the final product will be their way of proving what they have learnt and are now able to accomplish. The different micro tasks that are proposed and carried out should develop the factual and conceptual knowledge, and skills that will pave the way for success in producing their final products which are considered as demonstrations of learning. It is thanks to the learning process undertaken that they are able to complete the requirements of the challenge which should be relevant and meaningful for learners in terms of how it will help them to progress towards meeting goals and the proof that they have accomplished the objectives are the final outcomes that they produce.

Furthermore, the relevance of the challenge should also come from the alignment with learners' interests and experiences. That is, the knowledge, skills and competences which the project will help students develop should be meaningful for them because these can be applied in their daily lives. In the *Kindness Project* (see Appendix 1.1) Primary Education students consider how they themselves show kindness towards others on a day-to-day basis, and in the *Healthy Kids Project* (see Appendix 8) learners talk about their own

habits and give advice to kids of their same age. A counter example would be asking 8-year-old learners to book tickets and accommodation for a trip to London when in real life they would not be likely to need to do this at this age. In sum, the topic of the project, the skills, and competences that learners will develop, and the final product itself should be related to learners' needs and interests to ensure relevance, motivation and engagement.

The relevance of the challenge is also connected with the communicative purpose of the macro task, in other words, the final product will meet the requirement that they effectively communicate their learning in order to help an English speaker in some way. They will need to use their communicative competences in English to convey the message bringing together what they have learnt both in terms of language and of content. For instance, in the *Kindness Project* (Appendix 1.1) students respond to a petition coming from a character called Purple Lady who has enlisted their help in explaining to her mates what kindness is and how it can be shown. As the final product, learners can choose whether to create a video, poster, wall mural or digital album communicating their learning to Purple Lady's friends who only speak English. In the *Healthy Kids Project* (see Appendix 8), students are asked to help a group of North American kids of their age by giving them advice on their healthy habits. In the challenge they are asked to create a product that will show what they have learnt about healthy living, listing their habits, explaining them in their own words and giving advice. Learners can choose to create a video or infographic to communicate their learning to their target audience, in this case the North American peers who had asked for their help.

In the second point in Table 4.2., illustrating the differences between PBL and this Project Enhanced proposal, sequenced and sustained learning replaces sustained inquiry. A hard version of PBL would require learners to look for their own information throughout the project whereas SPECIAL is much more defined and closed. The input is provided to learners in a sequenced way taking into consideration their needs as learners in a second language. Since we are dealing with learning and acquisition in and of a second language, the sources and artifacts need to be curated and/or created with the language needs of the learners in mind. Some of this input may be presented by the teacher to the whole group and other may discovered by learners but always within an intentional selection. In this way, not only do learners receive input directly from the teacher, but also, through other resources, such as videos or texts, that learners may access directly with peers as a whole group or in learning centers. Teachers guide learners in its reception and processing by

carefully curating the resources provided to ensure that the language and content are adequate and effective for learning.

For the effective comprehension and retention of the input, that is, the processing, teachers design learning micro tasks. They should choose activities and create organizers for learners to complete which focus their attention on specific selected aspects of the resources to facilitate learners' access to the new knowledge, understanding and skills and increase the probability that students will be able to store these in long term memory. The focus is on the sustained learning process that develops throughout rather than a stricter sense of inquiry.

As in PBL, authentic sources are used for the input provided to learners. However, these sources must be carefully selected and scaffolded so that access and comprehension are facilitated. In other words, teachers find, select and organize the input and the tasks that will allow for the success of learners in meeting the objectives. In the event that learners are asked to research something, the authentic sources will be curated and provided by the teacher with a clear view to building on the type of knowledge or skills demanded by the challenge at the level of the learners and within the context that they will be using them. More advanced teachers may decide to create their own sources of multimodal input taking into consideration the needs of their learners.

In PBL, students are often given the opportunity to decide their own artifact or product of learning, and research on their own about their personal choice of objectives. The SPECIAL framework, designed for EFL or content classes taught in a second language, requires more guidance. Teachers have a clear idea of where they want learners to go, how they will facilitate learning and what success will look like in the final production. The final products that students will come up with must, in fact, also be authentic examples of communication with others. However, learners will be provided with sufficient scaffolding to ensure that they have the potential to succeed.

Student choice and voice also exist in SPECIAL. Not in allowing learners to decide what they will research and produce, but instead, as part of their active participation, in the cooperative nature of the activities proposed and, in the type of output that will be produced. In fact, structured interaction using Kagan's Cooperative Learning (Kagan and Kagan 2009) will be an essential component of all the stages, in particular, in that of Deepening, where learners make and consolidate connections thanks to their participation in activities and

tasks that are designed to promote not only thinking but also the communication of these ideas with others.

The remaining three points, those of reflection, revision and public products are shared in both versions with very little change. In the SPECIAL framework there is a strong push to constantly reflect on the learning process as it advances through the placement of markers on the learning path graphic. Learners are constantly reminded of the end goals and what has been achieved leading up to their present position along the journey. The Planning and Creation stages are structured so that learners receive feedback on their plans and make necessary changes and improvements before the final production. These final outcomes are shared with as broad an audience as possible, and it is the fact that English provides the means to communicate and participate in such a wide community that motivates and justifies the efforts put into them.

To sum up, the main difference between PBL and SPECIAL's Project Enhanced proposal is the amount of structure and guidance provided both in resources and in the output which students are asked to produce. This increased curation, monitoring and scaffolding is necessary as learners will be using a second language to access authentic sources and produce learning artifacts that should be comprehensible to other speakers of English.

4.1.3. Competence Integrated

Global policies, such as those established by United Nations, European Union policies such as the CEFR (2018), and our current national legislation on education (LOMLOE 2022) require teachers to plan instruction that develops more than just the specific competences of the subject areas they are teaching. They must take on global challenges (UNESCO 2015, 2017; OECD 2019), develop Key Competences for Lifelong Learning (CEFR 2018, LOMLOE 2022), as well as what are called 21st century skills (Binkley et al. 2012), global skills (Mercer et al. 2020) or real-world success skills (PBL Works 2022) that learners will need for their futures. For a discussion of these competences and a summary of the different notions that have been used to define the basis for their integration in the framework please see Section 2.3. All these competences can be integrated to fit in well with the projects that are proposed for both CLIL and EFL classes. SPECIAL projects are defined as Competence Integrated because embedded into all of them are the elements required for effective

Second Language Learning and Teaching comprehensible (Krashen 1989), and comprehended (Gass and Selinker 1994; Gass and Varonis 1994; Ellis and Shintani 2013) input, interaction with negotiation of meaning (e.g. Long 2014; Mitchell and Meyer 2019), awareness and noticing (e.g. Lightbown and Spada 2006; Schmidt 1990, 1992, 2010), Focus on Form (e.g. Long 1991; Long and Robinson 1998, Ellis 2016) and pushed comprehensible output (e.g. Swain 2005; Mitchell and Meyer 2019) as well as explicit instruction in, and development of many of the Key Competences and skills that learners will need in order to face the challenges of their futures. The projects include micro tasks and resources that allow for the development of the following: communication, collaboration, creativity, critical thinking, digital literacies including information and ICT literacy, learning to learn and metacognition, social and civic competences and values, global competence and awareness. When teachers choose the topic of the project and design the challenge that learners will be asked to take on, they can integrate Sustainable Development Goals (UNESCO 2015, 2017), 21st century skills (Binkley et al. 2012) and the development of the key competences (CEFR 2018). The final product will be assessed through the use of rubrics with criteria based on how well learners show their development in both key and subject specific competences throughout and at the end of the process. In Table 4.3 we can see how student teachers being trained in the SPECIAL framework are given a summary of cross-cutting competences that are either already embedded into the stages of the projects or others that can be chosen as topics to be developed in the learning situations that they design.

Cross-cutting competences developed within the different stages	
Communication	<p>oral and written comprehension and expression audiovisual communication multiliteracies multilingualism cooperating and living together in diversity as enriching experiences and an opportunity to know other languages and cultures ability to express ideas clearly, listen actively, and adapt communication to different contexts including negotiation of meaning: asking for repetition, paraphrasing, using gestures, confirming comprehension, or asking for help strategic competence: paraphrasing, circumlocution, self-correction, and using context and non-verbal cues to aid comprehension and convey meaning</p>
Collaboration and cooperation	<p>cooperating and living together in diversity as enriching experiences and an opportunity to know other languages and cultures, interpersonal skills, empathy, mutual respect and cooperation among peers, mediation</p>
Creativity	<p>Creativity and understanding uncertainty as an opportunity for creativity and not a source of anxiety artistic and creative expression aesthetic development entrepreneurship: identifying, creating, and pursuing opportunities to develop innovative ideas calculated risk-taking organizing and managing resources resilience and proactivity in taking initiative mindset of creativity, problem-solving, and initiative sense of autonomy self-confidence and self efficacy</p>
Critical thinking	<p>analysis and interpretation evaluation and judgment inference and deduction metacognition and reflection problem solving and decision-making scientific thinking</p>
Digital competences	<p>Ethical and responsible use of culture in the digital age ability to use digital technologies effectively digital literacy and communication digital information retrieval digital safety</p>
Learning to learn competences	<p>The ability to adopt new competences, developing lifelong sustained learning abilities, trusting knowledge as the motor of growth with a critical understanding of risks and benefits</p>

Suggestions for competences and topics that can be incorporated into SPECIAL projects	
Social and civic competences and values	<ul style="list-style-type: none"> active citizenship, cultural awareness understanding social dynamics ethical decision making civic action and engagement collaboration, mediation and dialogue proactivity to detect situations of inequity and exclusion responsible attitude regarding the environment and animal welfare both locally and globally responsible consumer attitudes peace, justice and strong institutions quality education decent work reduced inequalities feeling part of a collective endeavor, locally and globally tolerance and respect caring for others developing empathy and generosity gender equality no poverty and zero hunger
Global competence and awareness	<ul style="list-style-type: none"> health and emotional wellbeing industry, innovation, and infrastructure clean water and sanitation climate action sustainable cities and communities affordable and clean energy economic growth responsible consumption and production life on land, life below water sustainable development

Table 4.3. Competence Integration within projects

The SPECIAL framework facilitates the design of projects which can be based on any topic or subject so that not only CLIL teachers but also EFL teachers can integrate the knowledge, procedures and attitudes that learners will need in their futures in order to participate actively and responsibly in a global community as a result of their learning as social agents completing real-life tasks (CEFR 2018; North and Picardo 2019). In the case of EFL, instead of concentrating on a series of vocabulary words and structures seen out of context or even within an artificial forced context, teachers are encouraged to take on issues, such as health and emotional well being, climate change, sustainable living, digital citizenship or tolerance and respect among many others. These topics are developed along with cross-cutting skills and abilities, such as creativity, collaboration, and critical thinking for example throughout the different stages. How the competences are developed specifically will be addressed in

section 4.2 as each stage is discussed. When applying the SPECIAL's Competence Integrated framework to CLIL, teachers can use the different competences that are subject specific as well as others that should be developed in all subjects as specified by legislation (LOMLOE 2020; *Orden ECD/853/2022*; *Orden ECD/1112/2022*; *Orden ECD/1172/2022*). In this way both EFL and CLIL teachers have a broader scope for the different bases on which to build their challenges and projects integrating key competences with the specific competences marked by the curricula for EFL or the pertinent CLIL subject areas.

To illustrate some of the topics that have been taken on in different projects we can look once again at the *Kindness Project* (Appendix 1.1) which develops interpersonal skills, empathy, generosity, respect, caring for others as well as the competences developed in all the projects which are communication, collaboration, critical thinking, and creativity along with learning to learn and digital competences. By working together in Cooperative Learning teams, communicating their new ideas to others, and reflecting on the kinds of thinking and learning that has taken place throughout the process. Within the context of helping Purple Lady to discover what kindness is and communicating with them about how she and her mates can show it, learners develop much more than just a set of lexical items and structures within their EFL classes.

In the *Garden or Greenhouse project* (Calvo et al. 2019), students learn about the subject specific content, such as the conditions for plants to thrive or parts of a plant. They also develop different competences, such as critical and high order thinking which they use to evaluate the options for their final product, collaborative decision-making skills, and global awareness of the benefits of caring for plants and the environment. This, alongside all the cross-cutting competences that are built into the projects.

Other projects have been designed using the SPECIAL framework with a great variety of topics, such as the use of the scientific method and experimentation to know the world around us, the planning of a social event with British senior citizens to share holiday traditions and customs, responsible consumer attitudes, active citizenship, and animal welfare among many others.

4.1.4. Acquisition

In the following subsection the application of different elements of Second Language Acquisition and Learning theories to planning and instruction within the SPECIAL framework

will be discussed. The focus in this subsection will be on the learning and acquisition of languages while the next section will talk about learning of other elements not linked directly to language but instead to the topics, and the development of key competences and 21st century or global skills.

The SPECIAL framework brings together the essential components of the Communicative Language Teaching (CLT) (e.g. Celce-Murcia et al. 1995; Richards 2006; Brandl 2008; Brown 2010), Task Based Learning (TBL) (e.g. Prabhu 1987; Willis 1996; Willis and Willis 2001; Ellis and Shintani 2013) and an Action-oriented approach (AoA) (e.g. CEFR 2018; Picardo and North 2019). The project is understood as an elaborate multimodal, meaning-focused collaborative macro task where a final product will be created that will serve as a way to show the achievement of the learning goals set out at the beginning. Each lesson within the course of the project will consist of sequenced activities within a micro task structure that will eventually allow learners to progress towards the demonstration of their learning. The tasks in the Discovery stage, for example, will all have a pre-task cycle where learners will be engaged and connections will be made with previous ideas or knowledge. This will be followed by the construction of new learning in the form of vocabulary, structures or skills and a post-task where there will be noticing of the language used and reflection on what knowing that language will allow learners to do in terms of communication and cognition. As can be seen in Figure 4.4. above, each stage in the project is made up of one or more task cycles that serve to foster the attainment of the different learning outcomes of the project. Therefore, the different stages sequence the development of acquisition, going from engagement and motivation, providing access to comprehensible input, interacting with others and different resources to reiterate and process the new knowledge and skills, planning the output as demonstrations of what they have learnt to end with reflection and assessment of the achievement of learning outcomes.

For example, in the initial stage, that of Activation, previous knowledge about the new topic is pre-assessed with different activities. Relevance (Lightbown and Spada 2006), meaningfulness (Littlewood 2011), and a communicative purpose (Brumfit 1984, Larsen-Freeman 2000; Brandl 2008) are established through the challenge presented. The context afforded to the project in which learners are creating a final product that will help others who need to communicate in English serves to motivate language learners (Dörnyei and Skehan 2003; Dörnyei 2014) and to lower the affective filter (Krashen 1989) in the bilingual classroom. In the Discovery stage learners are exposed to comprehensible input (Krashen

1989; Gass and Selinker 1994; Ellis and Shintani 2013) through varied and multiple modes and sources. Each of these sources of input are accompanied by micro tasks geared towards the processing of these skills or new knowledge in order to promote comprehension and retention. In the Deepening stage learners interact and collaborate as they negotiate meaning, practice the new learning to facilitate retention and then apply their higher order thinking (Anderson and Krathwohl 2001) to different communicative activities. All the activities proposed in the different stages are accompanied by scaffolding (Gibbons 2015) in order to ensure that all learners have the potential to succeed. This scaffolding may entail language prompts, use of limited and intentional L1 (Larsen-Freeman 2018), coaching as pairwork, answer keys or cheat sheets that students can access if needed, among others. Feedback is provided throughout the learning process so that learners can see their language development as well as where and how they can improve. This feedback also allows learners to notice different aspects of language (Schmidt 2010) to facilitate retention and acquisition. The fourth and fifth stages of Planning and Creation ask students to produce output (Swain 1993, 2005) that they have previously organized, drafted, and improved thanks to the feedback received. Learners have the opportunity to collaborate with others and are supported by different organizers and activities that guide their creation process. In the Publishing stage learners can participate in real communicative situations (Brumfit 1984) where they share their ideas with a real and wide audience and use authentic language and multimodal resources to do so. In the Assessment and Reflection stage, learners are evaluated according to the degree to which they achieve the evaluation criteria based on the final products as demonstrations of learning. These criteria come from the curriculum for EFL (*Orden ECD/853/2022*; *Orden ECD/1112/2022*; *Orden ECD/1172/2022*) or the subject area for CLIL. Each criterion is evaluated with one or more instruments, such as tests, rubrics, or checklists with detailed standards of performance, that guide learners and help them see their progress and results. Learners also reflect on their learning processes by looking back at what they have accomplished in each of the stages in the learning journey. They discuss and register how well they feel they have collaborated with others, how much the feedback that they have received has helped them to improve or what new skills and knowledge they have acquired thanks to the project.

4.1.5. Learning

Before going on to discuss how the framework takes on tenets that are applied to any kind of learning and not strictly to second language learning, it is important to note that many of the elements that have been discussed in the previous subsection have connections with other proposals geared towards learners in L1 as well as learners of and in a second language. Project work, for instance, is discussed and proposed for both L1 and L2 learners (Bender 2012; Beckett and Ilda 2006) as is the importance of motivation and engagement in any kind of learning process (Marzano et al. 2001; Marzano 2007; Dörnyei 2014). Tomlinson (2014) discusses differentiation of content, process and product, Universal Design of Learning (CAST 2018; Hall et al. 2012; Torres and Rao 2019) talks about access, engagement and expression all of which can be related to the three essential elements for Second Language Learning and Teaching of input (e.g. Krashen 1989; Gass and Varonis 1994; Ellis and Shintani 2013), interaction (e.g. Long 2014; Mitchell and Myles 2019) and output (e.g. Swain 2005; Long 2014).

Differentiated Instruction (Tomlinson 2014)	Universal Design for Learning (CAST 2018, Hall et al. 2012, Torres and Rao 2019)	Second Language Learning and Teaching (Ellis and Shintani 2013; Long 2014; Swain 2005)
Content	Access: different ways to present and represent information	Input (e.g. Krashen 1989; Gass and Varonis 1994; Ellis and Shintani 2013)
Process	Engagement: sustaining motivation throughout the learning process	Interaction (e.g. Long 2014; Mitchell and Myles 2019)
Product	Expression: varied ways for learners to respond and demonstrate what they have learnt	Output (e.g. Swain 2005; Long 2014)

Table 4.4. Comparison between Differentiated Instruction, Universal Design of Learning and Second Language Learning and Teaching

Both the terms acquisition and learning can be applied to the progress and process of achievement of learning goals of not only language but also content and competences and in any subject area. Therefore, for the purpose of the description of the components that

come from General Learning theories that make up the framework, this section denominated “Learning” will refer to learning and acquisition of elements that are not specifically language related.

As has been mentioned, the learning goals of the SPECIAL projects entail learning of language but also a broader view of the development of key competences, cross curricular themes and global or 21st century skills. Therefore, many of the elements involved in the process are based on theories and research about cognition, that is, about learning and thinking. In fact, many aspects, such as activation, input, interaction, production, feedback and scaffolding, for example, are cross-cutting in that they are effective for learning languages but also for any kind of learning as highlighted in Chapter 2 (see Figure 2.2). How all of these are considered and applied will be discussed in each of the individual stages that are presented in Section 4.2.

The sequencing of instructional events (Gagne et al. 1992; Bybee et al. 2006; Bybee 2014, 2015), and the different steps in a learning process such as in Clark’s (2009a) *Learning* are geared towards students learning any subject in their native languages. The SPECIAL framework adapts their proposals by simplifying the stages and including instruction and learning events specifically tailored to promote language and communication.

PBL, which was also originally aimed at learners in their L1, has been adapted for the L2 classroom by structuring many aspects and carefully curating the resources provided. There are many such ideas, tools and strategies that are applied in the SPECIAL framework that come from General Learning theories but have been adapted for learning in and of English. *Whole Brain Teaching* (WBT) routines that were designed for and are used with students who are learning in their first language can work very effectively in EFL and CLIL classrooms with very little if any adjustments. *Mirror* and *Teach OK* for WBT (Biffle 2014) for example are used in the Discovery stage to present and practice input. Interaction is organized and promoted thanks to *Cooperative Learning* structures (Kagan and Kagan 2009), such as *Rally Coach* or *Fan and Pick*.

Project Zero’s *Visible Thinking* routines (Ritchhart and Church 2020), such as *See Think Wonder*; *GSCE*; or *Compass Points*, are used in the several stages with the suggestion that in EFL or CLIL classes students complete the routines as a guided whole group activity led and completed by the teacher until learners are familiar enough with the steps to continue on their own, supported by language scaffolding.

Brain Based Learning (e.g. Nuthall and Alton Lee 1994; Sweller et al. 1998; Bransford et al. 2000; Jensen 2005; Hattie and Yates 2014; Agarwal and Bain 2019) is also considered in the framework. Reiterative exposure to the lexis, key skills and concepts help students to store learning in long term memory. Retrieval practice, understood as opportunities for students to encounter topic vocabulary and concepts again and again, consolidates learning by promoting storage in long term memory (Anderson 1995; Angarwal et al. 2013). By structuring and scaffolding learning cognitive load is managed to avoid cognitive overload which refers to the situation when an individual's cognitive processing capacity is overwhelmed by the amount or complexity of information they are trying to process or learn (Sweller et al. 1988). Neuronal connections and the processes of learning are made salient for students through reflection, formative assessment and feedback so that learners develop autonomy and metacognition as well as the basic knowledge of the different subjects.

Having looked into the main constituent parts of the SPECIAL framework, in the next subsection I will describe each of the seven stages of the learning journey, discuss the implications for the design of instruction and provide examples of activities, tasks, strategies, and resources to illustrate possible implementations and adaptations for various classroom levels and educational contexts.

4.2. SPECIAL stages

All of the elements needed for effective acquisition and learning of a foreign language and competence development are sequenced within the different stages of the learning journey. As has been highlighted in Section 4.1, the instructional sequence represented by the path ensures that learning and instruction are deliberately planned and carried out according to a series of activities or micro tasks that build towards a final product, the project or macro task. These include activation of schemata and establishment of relevance and motivation, presentation of multimodal varied input, structured interaction in pairs and groups, comprehensible output geared towards authentic audiences, feedback and reflection on processes and products, scaffolding to ensure that all students have the potential to succeed, the promotion of different thinking skills, and assessment based on the evaluation criteria of the curriculum. In the following section these stages will be described and

illustrated with examples from projects that have been designed for and implemented in classrooms in Spain.

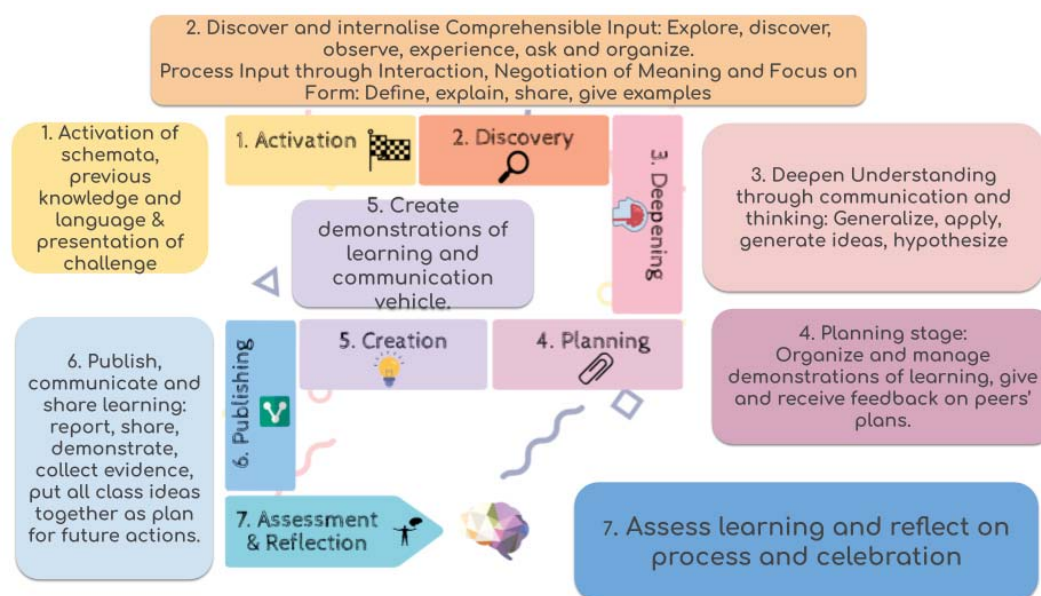


Figure 4.5. Stages of the learning path with a brief description of their aims

4.2.1. Activation stage

The learning journey begins with the Activation stage which has three main aims. The first of these is to set a relevant context with a meaningful communicative purpose by proposing a challenge for learners. Secondly, from the teachers' point of view, it seeks to establish learners' previous knowledge and experience regarding the topic of the learning situation. Thirdly, from the learners' perspective, it activates their schemata so that new learning can be connected and organized with their previous knowledge. Teachers can decide in which order these parts of Activation take place. Some may prefer to start off the learning situation with an entry event presenting what their challenge will entail while others will decide to begin with the establishment and activation of previous knowledge instead.

Motivation is essential for any kind of learning to take place (Marzano 2007; Hattie 2009) including of course language learning (Dörnyei 1994, 2014). Motivation is a complex and individualized factor that can be promoted through the creation of meaningful, authentic


and contextualized learning experiences. Learning is meaningful when it is situated in real-life contexts and involves authentic tasks or problems. Learners should be given examples of ways in which their new learning may be applied in practical situations so that they are motivated and engaged to acquire new knowledge, apply it, and transfer it to other contexts. Therefore, this initial stage uses the presentation of a challenge to set and describe a specific context and a communicative purpose. In this way, learners can see why they are dealing with the topic, how they can use what they learn, or who they may help once they have acquired the required knowledge, skills, or competences. It is essential that not only the topic of the learning situation is relevant to students, but also, the product that they will create as learning demonstrations (Lightbown and Spada 2006). That is, teachers must ensure that learners can see how what they are learning and producing is connected to their real-life experiences and needs. The description of what learners must produce as demonstrations of learning and how this will help others in some way is made explicit in a message that they receive which is considered the “challenge” for the duration of the project. The learning outcomes should be the keys to the completion of this challenge which is in turn linked to authentic situations and real-life necessities.

The challenge should ask learners to create an artifact or outcome of some sort which will demonstrate what they have learnt thanks to the different micro tasks (see Figure 4.4) designed to allow them to acquire the base knowledge required and to develop the necessary competences, skills, and strategies for the achievement of the final outcome of the macro task. This final outcome, which can also be considered “pushed comprehensible output” (Swain 2005) or a learning artifact, represents the learner’s production as a response to the challenge received. The challenge asks students for their help or participation so that they are involved in helping others, in “making a change in their lives or the lives of others” (Clark 2009a) highlighting their social agency (CEFR 2018; Picardo and North 2019). Students learn about what they are asked to do through a message that comes from outside the classroom, asking them for help or inviting them to participate in some kind of contest or event. The only language that the sender of the message can understand is English so that the purpose is a communicative one as well.


Learners are given some kind of graphic illustration of the challenge specifying success criteria and an organizer, thinking tool or routine to help them comprehend and process it and understand clearly what is required of them. An example of a challenge and



the organizer and thinking routine that is proposed for its comprehension and procession can be seen in Figure 4.6.


CHALLENGE LETTER






Dear Students,


The World Scientist Association  is organizing the "Annual Plant Contest"

You can participate by planting a garden  or a greenhouse. 

Students all over the world  can participate.

Every size    will be allowed!

Please join us for the display of School Gardens.


To participate send us a poster,  showing:

- the process to create your garden
- the species planted and some of their characteristics

We look forward to seeing your posters.

Best wishes and good luck!

WSA.




Compass Points

Name: _____

Worries

Needs

Excites



Suggestions

Challenge Organizer

Figure 4.6. Example of challenge letter and the Compass Points routine organizer based on SPECIAL framework in published materials *Communicative Science 3.3* (Calvo et al. 2019)

The completion of the organizer, following the *Compass Point Visible Thinking* routine (Project Zero <http://www.pz.harvard.edu/thinking-routines>; Ritchhart and Church 2020) , will help learners reflect on and register what the success criteria are for the production of the final outcome so that they start the learning situation with the end in mind (Marzano 2007). In other words, learners know from the very beginning what they will be producing thanks to the challenge proposed and what success will look like thanks to the success criteria defined within it. Constantly looking at the learning path throughout the entire process will also help them to visualize where they are along their learning journey, how they are going and where they are headed, all essential elements of effective feedback, according to Hattie and Clarke (2018). The presentation of the challenge should be multimodal and appealing to learners in order to foster motivation and excitement regarding the creation of the outcome. There are many different apps and digital tools which can help teachers create the messages. *Voki* can be used to create avatars that explain to the learners what the problem or situation is and how they can help. *Chatterpix* can also be used to personify any picture and add audio and animation. Learners may find *TikTok* style short videos that combine music, narration and visuals to announce a special event appealing or attractive. Infographics or posters can also be designed using *Canva*, for example. to present a contest or special event. Finally, interactive boards created using *Genially* can set up a game in which learners will be participating throughout the learning situation.

Of course, more conventional methods also work well. The teacher may tell students that she or he has run into an old friend who only speaks English and he or she has asked them for help. Alternatively, students may receive a written message on paper or via email. For instance, in the *Annual Plant Contest* example (see Figure 4.6), students receive a challenge letter from the *World Scientist Association* announcing a contest in which they can participate by creating a poster that shows the process they have followed to create their school garden, the species planted along with some of the characteristics of these plants. The success criteria are specified within the challenge letter so that learners are aware of what is expected of them from the very start of the project. The message is accompanied by a visual organizer, in this case, a diagram based on the *Compass Points* thinking routine (Project Zero <http://www.pz.harvard.edu/thinking-routines>). In order to complete the organizer, students need to read, understand and process the information as the teacher asks them questions to help them organize their thinking. These questions also aid in guiding comprehension regarding who sent the message, what they have to do to participate and

the criteria for the success of the outcome, leading them to make their own wonderings about what they will create, what they will learn and how they will learn it.

Once students are motivated and engaged with the project at hand through the presentation of the challenge, the Activation stage continues with activities and other *Visible Thinking* routines (Ritchhart and Church 2020), such as *See Think Wonder* or *Think Puzzle Explore* that help to establish previous knowledge on content and language and activate learners' schemata so that the new learning presented can build upon it.

The second aim of the Activation stage, that of the establishment of previous knowledge, is essential so that teachers can build upon what learners already know. From a constructivist point of view (Piaget 1964; Vygotsky 1978, 1986) learners actively build knowledge and meaning through their participation in social interactions with the environment based on their prior knowledge and experiences. In order for teachers to help learners construct new learning, first their preconceived notions and knowledge about the topic at hand should be established. In this way, any misconceptions or gaps can be addressed at a very early stage in their progression and a shared basis can be used to construct new learning. Several different types of activities are suggested for this. One example is a retrieval practice strategy called *Brain Dump* (Agarwal et al. 2013; Agarwal and Bain 2019) in which learners say and write all the ideas that come to mind when they hear a certain term or theme. These ideas and terms can be compiled and presented to students as part of a word cloud or collage so that learners can pick out familiar words, words they are not sure about and words they do not know. Teachers can also include their own list of words that they assume learners will remember and be familiar with at the start of the project. This *Word Cloud* activity along with the *Brain Dump* allow teachers to decide how familiar learners are with the project vocabulary and content so that any pre-teaching can be done, if necessary, in this stage.

Additionally, in this stage in order to foster interest about the topic and promote engagement (Marzano and Pickering 2011), as previous knowledge is determined, realia and visual images of the topic vocabulary may be presented within a mystery box asking learners to guess what they think is inside. As they discover its contents, they can guess what the new learning situation will be about and what sort of tasks and activities will be done throughout. In this way engagement with the topic is combined with the establishment of previous knowledge. The teacher will not only arouse interest in the new topic but will also determine how familiar learners are with this topic and the vocabulary and which terms and

concepts can be considered previous knowledge and the basis upon which to build new learning. Any necessary preteaching, or reteaching, can be done regarding lexis and/or concepts that are considered base knowledge, if the teacher determines that all or some students require more help. This ensures that new knowledge and skills are built on and also that no time is wasted teaching what has already been learnt. The teacher may consider this a diagnosis of the starting point of each of the individuals that make up the class in order to address their different needs for access, engagement and expression (CAST 2018; Hall et al. 2012; Torres and Rao 2019).

The third aim of the Activation stage, that of activating students' schemata is important since what learners already know is brought forward into working memory so that new connections can be created in their existing mental structures or schemata and understanding and these may become knowledge stored in their long term memories (e.g. Anderson 1995; Jensen 2005; Silver et al. 2007; Hattie and Yates 2014; Agarwal and Bain 2019). In order to activate schemata, students are asked to think about the new topic of the project, the requirements of the final outcome of the project itself, and personal connections between the topic and learners' personal experiences. The teacher designs organizers, such as tables, charts, visual diagrams, infographics, and mind maps, where learners can register their thinking. These organizers can be completed first as a whole group activity led by the teacher and as they become familiar routines they can be done as individual activities or collaboratively in pairs or teams. They allow learners to make their thinking and ideas visible (Ritchhart and Church 2020). That is, by being pushed to reason and express their ideas out loud their thinking is clearer to them and to their classmates. These ideas are registered in the organizers so that they can be consulted and used as scaffolding (Clark 2009a, 2009b; Gibbons 2015) as the project progresses. Simultaneously, the vocabulary that students are already familiar with and their preconceived ideas about the new topic and content are made patent so that the teacher can build on them and redirect, if necessary.

An example of how preconceived ideas, vocabulary and their needs for the learning situation can be elicited and registered is through *Visible Thinking* routines, such as *Compass Points*, discussed and illustrated previously (see Figure 4.6), or *KWL (Know, Want to know, Learnt)*, *Think Puzzle Explore* (see Figure 4.7). In the example illustrated in Figure 4.7, we can see how a collaborative *Google Slide* presentation has been used to ask learners to complete an individual table showing what they think they know about the new

topic, what questions they ask themselves or they puzzle over and in the third column how they might explore this topic further.

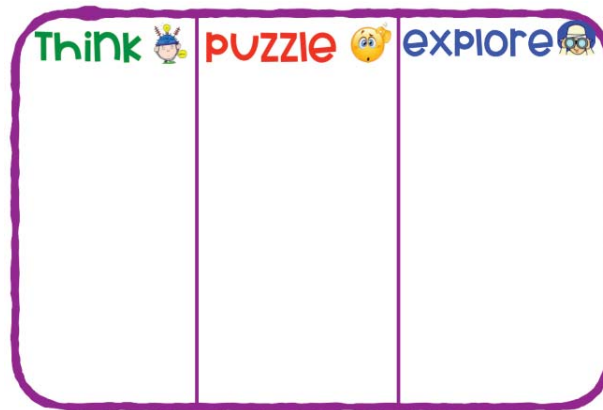


Figure 4.7. Organizer for the *Visible Thinking* routine *Think, Puzzle, Explore*

In this first stage, learning should also be differentiated and adjusted to the varied needs of learners according to UDL principles (Hall et al. 2012; CAST 2018, Torres and Rao 2019). In order to do so, we should make sure that all of our learners have the potential to succeed, and that scaffolding is provided so that they can meet the clear success criteria that have been identified for the challenge. There may be some kind of choice involved in how and/or what learners produce as their final outcomes. This choice will allow students to adapt the dimensions and complexity of their production to their needs. These final products are created in cooperative teams so learners can specialize in their areas of strength when collaborating with the rest of their teammates. In the *Garden or Greenhouse challenge* that is described in Figure 4.6 they can choose whether to plan for a garden or greenhouse and its dimension. As learners collaborate on the final outcome they must make decisions with their peers. The product should be something that is relevant and authentic and of value to the community. The goals and objectives of the learning process are made explicit and salient. All of these tenets will promote expectations and beliefs that foster motivation. The demands of the challenge and the resources that will be used to successfully meet it all work together in the Activation stage to foster motivation.

The components of the stage are summarized in Table 4.5.

Aims	Theoretical bases	Resources or tools
To propose a motivating challenge for learners with a final product that will serve as demonstration of learning	Motivation (Dörnyei 2014) Communicative purpose (Brumfit 1984; Ellis 2013; Long 2014) Relevance of topic and product for learners (Lightbown and Spada 2006) Making “a change in your life or the lives of others” (Clark 2009a, 2009b) Output as demonstrations of learning (Swain 1993, 2005) Beginning with the end in mind (Marzano 2007)	Digital resources for the presentation of the challenge: <ul style="list-style-type: none"> • videos (<i>iMovies, Edpuzzle, TikTok</i>) • audios (<i>Vocaroo</i>) • emails (<i>Gmail</i>) • avatar messages (<i>Voki</i>) talking pictures (<i>Blabberize, chatterpix</i>) • interactive boards (<i>Genially, Symbaloo</i>) • slide presentations (<i>Canva, Slides</i>) • posts (<i>Fakebook, Fake instagram template on Google Slides</i>) • Google Calendar alert Analogical presentations: visit from an English speaker; poster on classroom wall; letter in the post; announcement over the loudspeaker; anecdote told by the teacher; telephone video call
To establish previous knowledge	Hattie and Clarke's (2018) feedback in visual, pre-assessment in order to reteach if necessary Registration of previous knowledge on organizers that can be used to build on it throughout the project (Clark 2009a)	Activities to establish previous knowledge: <i>Brain Dump with Word Cloud Magic Box</i> Informal discussion
To activate schemata	Notion of activation as neural excitation needed for information to be available for learning (Anderson 1995) Constructivism (Piaget 1964; Vygotsky, 1978, 1986) Constructing knowledge upon previous knowledge (Marzano and Pickering 2011) Making students aware of the learning path they will follow (Clark 2009a)	<i>Visible Thinking</i> routines and organizers: <i>Think Puzzle Explore (KWL) Know, Want to know, Learnt Compass Points</i>
To integrate competences and 21 st century skills	Global or intercultural competence and mediation Critical thinking, collaboration and communication Learning to learn Social and civic competences “making a change in their lives or the lives of others” (Clark 2009a, 2009b)	

To differentiate learning and apply Universal Design for Learning	Product differentiated for the challenge with clear success criteria and choice for what the final outcome will entail Multiple means of engagement The affective network Optimal Relevance, value and authenticity Salience of goals and objectives Promotion of expectations and beliefs that foster motivation Varied demands and resources to optimize challenge; foster collaboration and community; Background knowledge activated
Examples or illustrations of learning situations	<ul style="list-style-type: none"> ● <i>Garden or greenhouse challenge</i> with organizer (Figure 4.6) ● <i>Compass Points</i> organizer for challenge (Figure 4.6) ● <i>Think, Puzzle, Explore</i> in collaborative <i>Google Slides</i> (Figure 4.7)

Table 0.5 . Activation stage aims, bases and resources

In sum, the Activation stage is central to set the learning in motion. It must present the context within which learning will happen and justify it by implicitly marking the relevance of the topic and the final output for learners. In this moment of the launching of their learning experience, the communicative purpose of the challenge should be made clear to learners so that they see how it can help others and how their ability to communicate in English will be central to its successful completion. The establishment of previous knowledge and the triggering of existing mental schemata will allow for the construction of new meaningful learning. This first stage is crucial in order to create the necessary motivation and foundations for the learning journey towards effective communication to be a success. As learners are asked to help an English-speaking audience to understand or be able to do something, they develop their intercultural or global competence and skills as mediators and social agents. They also develop critical thinking skills as they see how their knowledge about the world is made visible. Their learning to learn competence increases as they see how they can apply their knowledge and how the different steps in the learning path can lead them to progress in ways that are replicable and transferable to other situations. Their social and civic competences grow as they learn to understand and be understood and how to help others in a global community of cooperation.

4.2.2. Discovery stage

Once the students' previous knowledge has been established, their schemata have been activated, and the challenge describing the final product has been presented, the next stage

in the learning process is that of Discovery. This second stage has a two-fold purpose. One, to explore new knowledge, understandings or skills through critical multimodal input provided, and two, to process that input through interaction, organizers, and thinking routines, supported by different forms of scaffolding, in order to favor both comprehension and retention.

First of all, in the Discovery stage, students are presented with new knowledge through exposure to authentic and natural use of language. This allows learners to become familiar with the patterns and structures of the target language and to compare these with their previous knowledge and expectations. The differences or gaps that they notice will allow them to continue to grow in their learning and acquisition. The language that is used to present the content also serves as a model of how the target language is used in diverse and authentic communication. By being able to observe and imitate the models in the different resources presented, the learners progress in communication aspects, such as pronunciation, intonation, and lexical use. Content is presented through language, and learning happens in an integrated way supported by scaffolding that will facilitate understanding and retention. This exposure to new language and concepts occurs through what Marzano calls “critical input” (2007), Krashen calls “comprehensible input” (1989) and others call “comprehended input” (Gass and Selinker 1994; Ellis and Shintani 2013). So, we can see that no matter the debates about the denomination, type, quality, quantity or frequency required of this input, in order for learning and acquisition to take place, it is an essential and required element within the process.

The SPECIAL framework recognizes its importance and in this second stage of the learning path learners are exposed to varied and multimodal sources of input. The fact that this input is either carefully selected and adapted (curated) or designed specifically for the group and context (created) is one of the important differences with other harder versions of PBL that allow learners to find their own sources of input. In this Project Enhanced proposal, all input is either curated or created by the teacher. This is considered essential since the learners are working in a second language. Teachers should curate the resources they will use to provide the input by carefully choosing them according to the needs of the learners. Any points, such as vocabulary or grammatical structures, that may potentially be an obstacle for comprehension and retention can be adapted or scaffolded through the use of, for instance, cheat sheets (Clark 2009a; Hall et al. 2012), glossaries, or visual cues.

Digital resources, such as *Edpuzzle* or *Nearpod*, can be used to edit videos and infographics and insert further explanations, clarifications or questions to guide comprehension with feedback. Other multimodal sources of input can be specifically created with tools, such as *Canva*, *Google Slides* or *Screencastify*. Whether this input is curated or created trainees in the SPECIAL framework are provided with a number of requirements for its effective presentation and processing as can be seen in Figure 4.8.

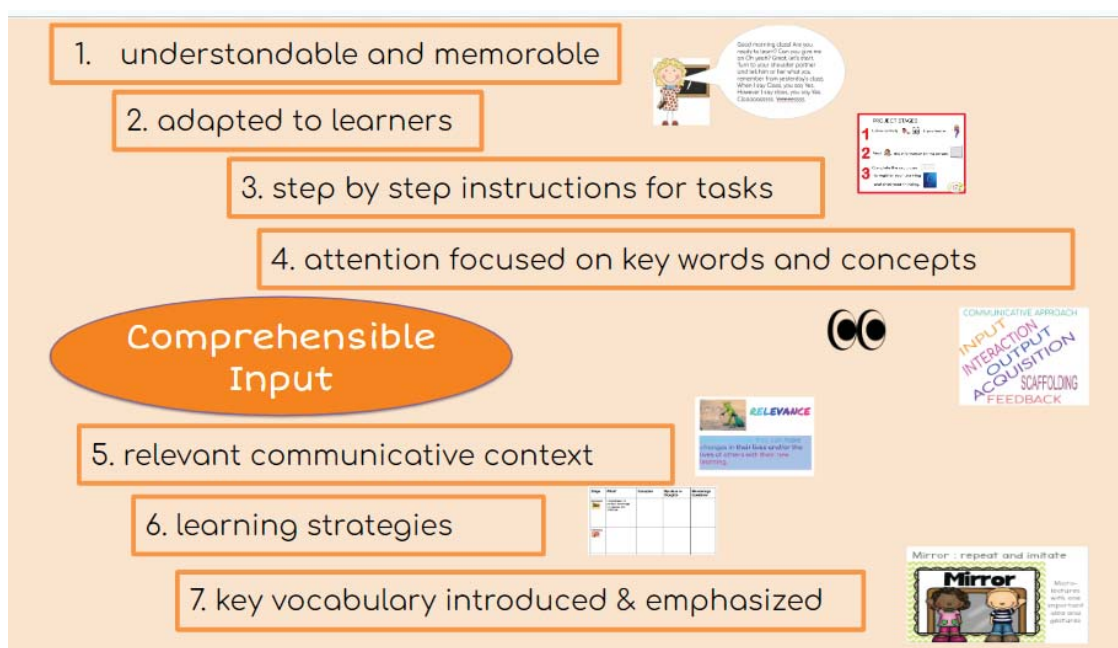


Figure 4.8. Summary of the requirements for effective input presented in training

The input that they curate or create should be understandable and memorable, that is, students should be supported in their understanding of the language and content and some sort of strategy or technique so that they remember what they have seen and/or heard. It is important to provide varied and multiple modes in what Silver et al. (2007) call “dual coding”, which is a combination of at least two modes, for example the auditory and the visual. This critical input may be presented by the teacher to the class as a whole group and made comprehensible through the use of techniques, such as gestures, visuals, modeling, realia, cognates and synonyms. The teacher should always use speech, “teacher talk” that is appropriate for students' language proficiency not only in the explanation of the input but also in that of the micro tasks to be carried out by learners, using step by step instructions

supported by visuals and demonstrations. Attention should be focused selectively on the most important information in the input (key words and key concepts) through the use of input enhancement (Sharwood Smith 1993, 2014), techniques afforded in the visual by gestures, colors, font, shapes and symbols, for example, and, in the auditory by intonation, pauses or changes in volume and pitch. The number of key words and key concepts should be limited and appropriate for the age and level of students.

Strategies, such as *Whole Brain Teaching's Mirror* and *Teach-Ok* (Biffle 2014), can be used to further support comprehension and retention. For this combination of two techniques, the teacher first calls out the command "Mirror" and explains the new concepts in brief, clear sentences considered "micro lectures" accompanying each simple idea with gestures. Learners repeat the teacher's exact words and imitate her gestures. Each micro-lecture is repeated several times. After some repetitions with their associated gestures, the teacher claps in a set rhythm and then says "Teach", learners clap following the rhythm and say "OK", as they turn to their shoulder partners and simultaneously repeat the micro-lectures and the gestures. Through the use of the cycle of these two techniques for each of the new concepts associated with gestures and repeated again and again, learners are able to better understand and remember the new learning. In Figure 4.9 we can see an example of input that can be presented and practiced with the *Mirror* and *Teach-Ok* techniques combined.



Figure 4.9. Example of input and organizer presented in the Discovery stage *Communicative Science Notebook 2.2* (Puente and Gil 2019)

The key vocabulary and concepts of the input must not only be introduced or presented once off. Instead, they should be emphasized and reiteratively used in a number of different occasions and ways. All of the new learning should be made meaningful and relevant to learners and strategies, such as monitoring, predicting, summarizing, looking for strengths and weaknesses, should be made explicit through the use of graphic organizers and the discussion of how these organizers help learners to progress towards their goals in order to promote self-efficacy, autonomy and learning to learn competences. Using organizers and/or charts they record their responses to different prompts as can be seen in Figure 4.9 where learners label the different functions of living things that they have seen and heard through the input provided. The questions, categories or thinking steps reflected on paper or digital worksheets are part of the processing required to ensure comprehension and retention. By working collaboratively in pairs or small groups, such processing can be facilitated as students interact with each other and negotiate meaning. The proposed tasks for them to show understanding will lead them to define, share, and give examples of new knowledge and understanding as they develop their skills and competences. In the example in Figure 4.10 learners participate in a *Visible Thinking* routine called *Plus One* where they watch a video without taking notes, and, afterwards write down what they remember about the video on their organizers. They then pass their papers to another partner who adds at least one more idea in the space provided. This is repeated three times for three more ideas added to the organizer. On the fourth switch of papers the original owner of the organizer receives it once again and reads and summarizes all of the ideas in the final space provided. This routine and its organizer encourage learners to think about the critical input provided in the video they have watched and to read other partners' notes four times over to finish with their own summary of the content of the input. This will allow learners to reflect on what they have seen, to put their ideas into words and to read what others have thought as well. All of this together with their summaries will favor comprehension and retention of the new learning provided in the video promoting the integration of skills (reception, production and mediation).

I remember ...

PLUS ONE THINKING ROUTINE ORGANIZER

PLUS ONE ...

PLUS ONE ...

PLUS ONE ...

Summary:

Figure 4.10. Example of a *Plus One Visible Thinking* routine and its organizer

The SPECIAL framework encourages differentiated attention (Tomlinson 2014, 2017) to the needs of learners, applying UDL principles (Hall et al. 2012; CAST 2018; Torres and Rao 2019) to provide varied means of scaffolding (Gibbons 2015; CAST 2018). As has already been mentioned, the input can be adapted in the varied and multiple means of its representation and options for perception and it can be customized offering combinations and alternatives for visual and auditory information which should be illustrated through multiple media. Thinking and the processing of the input will be guided, structured, supported and made salient to learners through the employment of varied micro tasks, organizers and strategies that may appeal to different learning profiles. An example of this can be seen in Figure 4.11 which shows a cheat sheet used in combination with a Cooperative Learning structure called *Talking Chips* (Kagan and Kagan 2009).

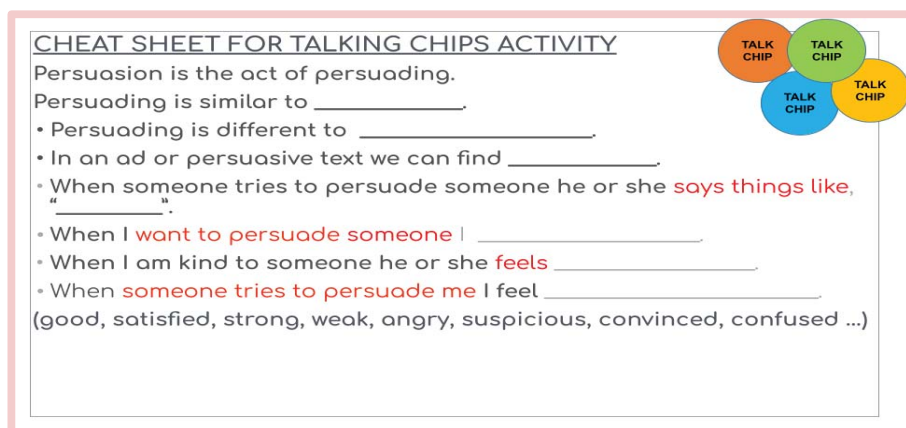


Figure 4.11. Cheat sheet to scaffold participation in Talking Chips in the Discovery stage of the Persuasion Project (See Appendix 1.2)

Cheat sheets (Clark 2009a; Hall et al. 2012) are provided as scaffolding to support understanding and interaction. These can be as simple as visual glossaries with topic vocabulary words or more complex texts that allow for a Focus on Form (Long 1991; Doughty and Williams 1998; Long and Robinson 1998; Ellis 2010, 2016) and can promote noticing (Schmidt 1990, 1992, 2010) through textual enhancement as in the example provided in Figure 4.11 which uses sentence starters and different color font to provide learners with means to start their contributions and opportunities to focus on certain structures. Cheat sheets provide our learners with the language that they need in order to show and develop understanding of the content, or what Cummins (2000) would consider CALP and the language that they require in order to effectively participate in the activities and communicate their learning, BICS. Depending on their learning profiles, students will need different kinds of support at varied moments during the learning process.

The essential components of the Discovery stage are summarized in the following table:

Aims	Theoretical bases to consider for design of project	Resources or tools
To provide critical curated or created input with the necessary scaffolding to ensure comprehension.	Critical input (Marzano 2007; Marzano and Pickering 2011) Comprehensible input (Krashen 2002) Multimodal forms of input and multiliteracies (Cope and Kalantzis 2009) Processing of input through interaction (Long 2014) Negotiation of meaning (Pica 1994; Long 2014) Focus on form (Ellis 2010) Noticing and awareness (Schmidt 2010) Varied and reiterative encounters with key vocabulary (Brown 2010; Ur 2012)	Curated multimodal sources <i>Edpuzzle</i> and <i>Nearpod</i> for adapted videos Created multimodal sources such as infographics created with <i>Canva</i> Tutorial videos created with <i>Screencastify</i>
To facilitate the processing of the input in order to promote comprehension and retention of the important concepts and vocabulary.	Scaffolding (Gibbons 2015) Use of organizers (Marzano and Pickering 2011; Clark 2009a) <i>Whole Brain Teaching</i> routines (Biffle 2014)	Visual graphics <i>Whole Brain Teaching (Mirror plus Teach-Ok)</i> Cheat sheets Organizers
To integrate competences	Global or intercultural competence and mediation, Critical thinking, collaboration and communication Learning to learn Social and civic competences as they learn to work cooperatively with others	
To differentiate learning and apply Universal Design for Learning	Differentiation of content and input Multiple means of representation and options for perception Customizing the display of information Alternatives for visual and auditory information Using multiple media Guiding information processing and visualization	
Examples or illustrations of learning situations	<ul style="list-style-type: none"> ● <i>Mirror</i> and <i>Teach Ok</i> presentation of input (Figure 4.9); ● Organizers to register processing of input (Figure 4.9); ● Registration of thinking in routines (<i>Plus One</i>) (Figure 4.10); ● Cheat sheets (Figure 4.11) 	

Table 4.6. Discovery stage aims, bases and resources

In sum, the Discovery stage works towards the achievement of the expected learning outcomes of the Project Enhanced Learning situation in that it presents critical input in such a way that comprehension is facilitated. This input can be curated, that is, selected and adapted if necessary or it can be created by teachers to highlight key concepts and vocabulary. In either the curated or created instances, the essential requirement is that input is presented in different reiterative means so that learning profiles are catered to and learners are more likely to remember it and to store learning in their long term memories. It is in this stage also that varied and scaffolded means are provided in order for students to process said input so that it becomes more easily transferable to new and different contexts. They continue to develop their critical thinking skills as they identify, register, practice, summarize and evaluate (looking for strengths and weaknesses) new vocabulary and concepts. Learners also cooperate with others, developing social and civic competences and collaborative skills. They use their growing vocabulary to communicate with others about their progress and develop their learning to learn competences by monitoring their own processes and thinking about how they can use what they now know and what learning is still required of them. This second stage is crucial for learners since it helps them encounter, understand and process the foundational knowledge and skills that will enable them to learn and successfully complete the challenge by producing the required final outcomes.

4.2.3. Deepening stage

The third stage, that of Deepening, is where learners are asked to interact with each other to push their communication of new ideas, understanding and use of higher order thinking skills (Anderson and Krathwohl 2001; Ritchhart and Church 2020). The 21st century skills of communication, collaboration, critical thinking and creativity (Binkley et al. 2012; Boss et al. 2013) are promoted and facilitated through the use of varied tools and strategies, such as structured interaction in Kagan's (2009) *Cooperative Learning*, Project Zero's *Visible Thinking* routines (Ritchhart and Church 2020), Schwartz's (2008) *Thinking Skills*, or Clark's (2009a) *Think Charts*.

Although Cooperative Learning tools may have already been used in the first two stages of the learning path, Activation and Discovery, the Deepening stage organizes learning activities so that students can not only develop their thinking further but also

improve in their ability to communicate their ideas to others. Kagan and Kagan's (2009) Cooperative Learning structures are simple step by step descriptions of how students interact with others and with resources. An example of a structure is *Rally Robin* where learners work in pairs to list ideas taking turns to say one idea each until they have no more to contribute. The rules or instructions mark exactly what learners will do or what roles they will take on. For instance, in the structure *Rally Coach*, in turns, learners in pairs take on the role of "writer", who can only listen and write, and "coach", who can only think and speak. By combining the promotion of thinking skills, such as in a *Generate Sort Connect Elaborate (GCSE)* (Ritchhart and Church 2020), with one of Kagan and Kagan's (2009) Cooperative Learning structures, such as *Rally Coach*, learners must communicate with each other and negotiate meaning, developing their communicative competences as they make their thinking visible to each other and to themselves. In this way, communication and collaboration are fostered while they also serve to consolidate learning and develop creative and critical thinking. Learners are asked to work together in heterogeneous mixed ability teams following the different routines and structures proposed with a defined set of steps and rules to ensure cooperation and meaningful communication.

Within their Cooperative Learning teams or pairs, students in the EFL or CLIL classroom carry out different activities which foster interaction with their peers regarding the topic of the content. This interaction is what allows them to make further connections between the different concepts introduced in the Discovery stage and gain new insights into the topic. The learning activities are structured so that constant retrieval practice is offered. In the previous stage, Cooperative Learning structures were used to process the input provided, that is, to help learners comprehend and remember the content of the input. In this Deepening stage, learners are pushed to work together and mobilize higher order thinking skills, such as analyzing, applying or evaluating, for example, in order to establish long term deep learning (Anderson and Krathwohl 2001; Clark 2009a, 2009b).

In the training for the application of the SPECIAL framework for the design and implementation of effective learning in the bilingual classroom, trainees are presented with the requirements for interaction (see Figure 4.12). They are told that they should create frequent opportunities for interactions about key concepts which encourage higher order thinking skills (Anderson and Krathwohl 2001; Marzano 2007). They should encourage students to repeatedly retrieve, talk about, and practice (Silver et al. 2007; Agarwal et al. 2013) the new information that has been presented in the previous stage. The interaction

should be structured and intentionally planned to include varied groupings, such as cooperative teams, shoulder and face partners (Kagan and Kagan 2009), and small group clinics (Clark 2009a). Ample and varied wait time for responses should be provided along with scaffolding (Gibbons 2015) through the use of sentence frames, starters, models, key word lists, examples, gestures, or clarification in L1. Students should be given opportunities to engage in enabling tasks that promote negotiation of meaning (Long 2014) and noticing giving way to language awareness (Schmidt 1990, 1992, 2010) leading to and facilitating the production of the final pushed comprehensible output (Swain 2005) for the successful completion of the project.



Figure 4.12. Summary of the requirements for effective interaction presented in the training model

As an illustration of this combination of Cooperative Learning and thinking skills promotion let us look at three examples of learning activities for the Deepening stage for three different projects developed for Primary and Secondary Education classrooms. In the first project discussed here learners are participating in a contest to create plans and posters for their own garden or greenhouse. Their challenge has been presented in the Activation stage (see Figure 4.6) and in the Discovery stage they have received and processed input on the different characteristics and needs of plants. In this Deepening stage they are asked to put together this information and register it in a think chart (Clark 2009a).

THINKING ABOUT PLANTS




Plant 							
Type 							
Water 							
Light 							
Nutrients 							
Space to grow 							
Time to grow 							
Pros 							
Cons 							
Implications 							

Figure 4.13. Think chart for garden or greenhouse Deepening. *Communicative Science 3.3* (Calvo et al. 2019)

Children complete this chart with the information and understandings that they have obtained from the input presented in the Discovery stage, pushing them to engage in retrieval practice. Activities that ask learners to recall something that they learned in an earlier lesson and to register it in some way facilitate the retention of that learning in long term memory (Anderson 1995; Agarwal et al. 2013). Learners are asked to recall information about the needs of the different plants in terms of water, light, nutrients, space, and time to grow. If they do not remember something they can refer back to the visuals provided as input in the previous stage. These needs are registered in the first seven rows of the chart. From remembering, they move on to deepen their thinking by evaluating the plants. They are asked to think about how convenient those plants would be for their gardens, that is, the plants' advantages and disadvantages. These are registered as pros and cons in the eighth and ninth rows of the chart. The tenth and final row encourages them to make decisions regarding the implications for their final project, that of the proposal for a garden or greenhouse. Taking into consideration the needs of each of the plants in terms of water, light, nutrients, space, and time to grow, pros and cons they can decide which of these plants they would choose for their project.

However, the think chart (see Figure 4.13) is not completed alone. It must be done using a cooperative *Rally Coach* structure (Kagan and Kagan 2009). In pairs, learners take turns carrying out the assigned roles of “writer” and “coach”. The “coach” is in charge of thinking out loud so the “writer” can register his/her thinking in the organizer provided by the teacher. In order to successfully complete the chart, the coaches must recall or read about what they learnt in previous lessons and then put their ideas into spoken words so that the writers can listen, interpret and register these ideas in the think chart. In this way, the coaches act as mediators of the information that is being transferred from the sources provided in the earlier stage and from retrieval from their memories. The writers help consolidate this in their brains by registering it in writing and these ideas will later be used for the following stage, that of planning where learners will use the information in the think chart to make decisions about their final products.

It is the combination of the use of the think chart (Clark 2009a) with the Cooperative Learning structure of *Rally Coach* (Kagan and Kagan 2009) that brings about effective learning and development of their communicative competences. By framing their thinking with the organizer (Clark 2009a), asking them first to recall information and then to decide on the advantages and disadvantages for each of the plants, they evaluate and then make decisions which will be required for the Creation stage. Learners have progressed from lower order thinking skills like recalling to higher order thinking skills like evaluating and creating as represented in the revised version of Bloom’s Taxonomy (Anderson and Krathwohl 2001).

Moreover, interacting with each other in pairs and taking turns to say their ideas out loud and register them in writing, they have also developed their communicative competence in line with CLT principles (Celce-Murcia et al. 1995; Richards 2006; Brandl 2008; Brown 2010), integrating comprehension and productions skills as well as mediation. As can be seen, the combination of the Cooperative Learning strategy of *Rally Coach* with the think chart allows them to develop the 21st century skills of communication and collaboration since the key to success in the task is to communicate effectively, take turns, check each other's comprehension and negotiate meaning throughout. Mediation occurs as they interpret and explain the information so that the other partner can register it correctly. Furthermore, not only do learners develop CALP (Cummins 2000) by practicing and retaining the language that is specific to the discipline of Natural Science and in particular that pertaining to the needs of living things and the particularities of plants, but they also

develop their BICS (Cummins 2000) required in order to transmit the information to each other. Students also work on critical thinking skills like analysis and evaluation to decide on what to choose based on pros and cons, that is, how they will design their final products leading to creativity.

The second example can be used to revise and consolidate learning for any project. It is important that in all projects students summarize or broaden their thinking on whatever topic they are concerned with. This can be done by creating a mind map that brings together what they already knew that had been established in the Activation stage and what they have learnt in the Discovery stage through the presentation and processing. This mind map will later be used in the Planning and Creating stages that follow in the learning path.



Figure 4.14. Example of T5_P's Year 2 Primary cooperative learning team completing a GSCE (Generate Sort Connect Elaborate) mind map

To aid students in the process of the creation of such a mind map, a *Visible Thinking* routine called *GSCE Generate, Sort, Connect, Elaborate* (<http://www.pz.harvard.edu>) is used. This four step routine entails, first, the generation of ideas and terms to be included in the mind map, then, the structuring of these followed by visual connections, such as arrows, boxes, or keys, and ending with the opportunity to elaborate on the ideas by adding more. By acting as prompter and monitor during the process, the teacher guides thinking and the registration of learning in a visual form. Some of the parts of the mind map that have already been completed can be provided for more initial users of the routine letting them build on the basic structure provided. Once learners are familiar with the thinking routine, they could create

subsequent mind maps from scratch. In order to further exploit the potential of this task in terms of communication and collaboration, the initial step of the mind mapping routine, that of generation of ideas can be combined with the *Talking Chips* Cooperative Learning structure (Kagan and Kagan 2009). In this structure each member of a cooperative team is given four of the same color chips. Each time learners give an idea to be included in the mind map they can place one of their chips in the center of the team table. The goal of the “game” is to get as many different colored chips to the center of the table as possible. The teacher can monitor participation by looking at the team chips to make sure that there is equal participation. Since learning is cooperative, if one of the team members has difficulties thinking of something new to add, his or her teammates can suggest ideas or coach him or her to help with the success of the individual and, consequently, the team.

In this combination of *GSCE* and *Talking Chips*, students work collaboratively through their oral and written communication to complete a mind map. This mind map allows them to have a visual representation and reminder of the key ideas and vocabulary they have learned. It also pushes them to organize their thinking in terms of connected schemata which will facilitate its consolidation and storage in long term memory. Finally, it encourages them to elaborate on their understanding so that they learn more and in more complex terms. The finished mind map represents the ways in which their critical and creative thinking have developed in terms of recall of knowledge, synthesis, logical connections between elements, and a visual representation of their mental schemata.

In the third and final example, I will describe the activities proposed as part of the Deepening stage within a project where third year Secondary students are asked to analyze the parts of different advertisements (see Appendix 1.2. *Persuasion* project). This task combines *Parts/Whole thinking* (Swartz et al. 2007) and the cooperative structure of *Jigsaw* (Kagan and Kagan 2009). Students are asked to complete an organizer designed to develop part/whole thinking, that is, they are asked to take apart a commercial advertisement to see which parts make it up, then then think about what would happen if that part was missing which leads them to define the function of the part within the whole of the advertisement enable them to see how modes are combined to make meaning in a multimodal product. In the final space they have to put the parts all together taking into consideration their different functions to rebuild it, synthesizing the components within the whole. This will later be used in the following Planning and Creation stages to create a rubric with criteria for their own proposal for an advertisement.

As can be seen in Figure 4.15 the *Parts/Whole* organizer allows learners to break down ads into their components in order to see how they make the ad what it is and how its different functions are carried out. This visual representation will help them understand better how ads work so that they will be better prepared to interpret them, think critically and finally create their own.

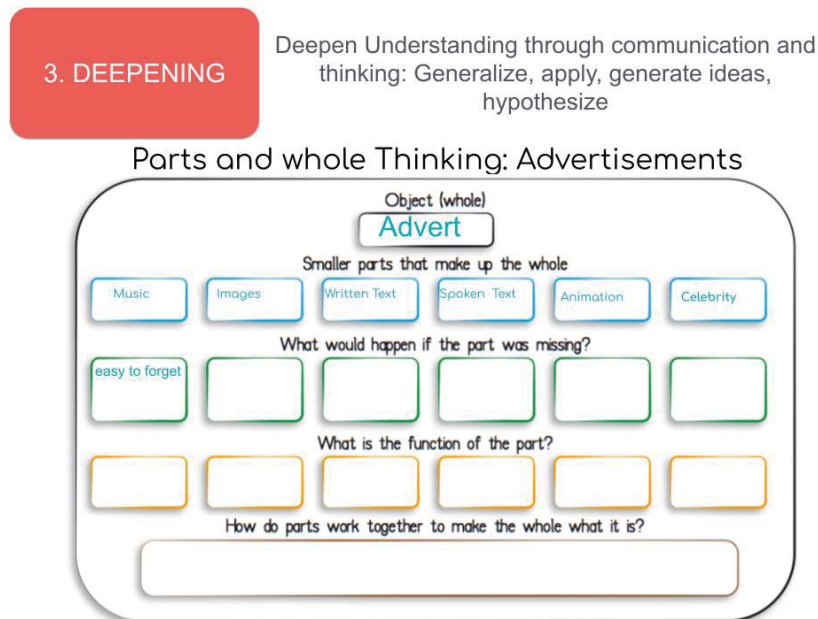


Figure 4.15. *Parts/Whole Thinking* organizer on advertisements

The following process is suggested to develop this task in class. First, the teacher will complete an organizer on the screen with the whole class by prompting students to respond to these questions about each of the parts of an advertisement, “What are the parts of this ad? What if this part were missing? So, what is the function of this part?” After this has been completed students are then asked to put all the ideas back into a description of the parts and functions of an ad to show their understanding of the purpose and functions of the output that they are to produce. Then, each Cooperative Learning team is assigned an ad and a blank organizer. Each team must analyze their given ad, register their thinking on the organizer and present their findings to the class. In this way the *Jigsaw* structure that asks teams to “specialize” in something to later teach the rest of the class allows for communication and collaboration to consolidate and deepen thinking about the topic at hand, in this case, marketing and advertising techniques. These ideas will be used in the

later stage of Planning in order for students to design the rubrics to assess their products. The criteria for effective ads will come from their thinking on the necessary components and functions derived from this activity. Students will not only have learned in a collaborative way about ads but they will also have developed their learning to learn competences seeing how the analysis and synthesis of different models can bring about the creation of new innovative multimodal products, therefore developing key 21st century skills, such as creativity and metacognition for lifelong learning.

The essential components of the Deepening stage are summarized in the following table:

Aims	Theoretical bases	Resources or tools
To facilitate further connections in learning	Silver et al. (2007) Marzano (2007) Ritchhart and Church (2020)	Organizers GSCE mind map
To promote high order critical and creative thinking	Anderson and Krathwohl (2001) Project Zero Swartz et al. (2007)	Think chart <i>Parts/Whole</i> organizer
To offer opportunities for interaction and communication of learning including both BICS and CALP	Kagan and Kagan (2009) Long (2014) Cummins (2000) Brandl (2008)	<i>Rally Coach</i> <i>Talking Chips</i> <i>Jigsaw</i>
To integrate competences	Global or intercultural competence and mediation Critical thinking, collaboration and communication Learning to learn Social and civic competences as they learn to work cooperatively with others	
To differentiate learning and apply Universal Design for Learning	Differentiation of process Building fluencies with graduated levels of support for practice and performance Variation of the methods for response and navigation Highlighting patterns, critical features, big ideas and relationships Fostering collaboration and community	
Examples or illustrations of learning situations	<ul style="list-style-type: none"> ● Think chart for plants (Figure 4.13); ● GSCE mind map and <i>Talking Chips</i> (Figure 4.14); ● <i>Parts/Whole</i> organizer for adverts (Figure 4.15) 	

Table 4.7. Deepening stage aims, bases and resources

In sum, the Deepening stage is central to learners' opportunities to get ready to share with their classmates what they have learnt and to broaden and establish further and deeper connections with the different issues dealt with in the project at hand. They apply high order thinking skills, such as analysis, synthesis and evaluation, as they communicate and collaborate with their peers and teachers. They therefore develop social and civic competences and the skill of mediation. They continue to develop their learning to learn competences by monitoring their own processes and thinking about how their understanding and ideas have changed and how they are better equipped to achieve their goals. This third stage is crucial for learners since it helps them to consolidate, broaden and deepen the foundational knowledge and skills that will enable them to be successful. This third stage in the learning path serves as a bridge between the input Discovery stage where learners receive and process the input and the next stage where learners will organize their final products or macro tasks. It provides the means for learners to be able to think in deeper and more connected ways about what they have learnt and to communicate their ideas more effectively to others. In the fourth stage, that of Planning, they will use their growing schemata, organize their ideas and work to decide how to proceed with the creation of the final output.

4.2.4. Planning stage

The Deepening stage leads to the Planning stage in which learners review and organize what they have learnt and prepare to turn this into their demonstrations of learning, that is, their final products. If we recap what has happened so far along the learning process we see how students have been engaged with the topic and the creation of the final product in the Activation stage, how they receive and process input in the Discovery stage and how they broaden and deepen knowledge and thinking and communicate this with others in the third stage of Deepening. In this fourth stage of Planning, learners take several important steps in the organization of their final productions. First of all, learners decide on issues, such as how to proceed in the creation of their learning artifacts, who will work on which parts, or when each step should take place. This is crucial for supporting the executive functions by providing project planning templates to help students understand the challenge clearly, sequence and prioritize the steps that they must follow and decide how to cooperate with team mates to create the optimal product. The long-term goals expressed at the start

of the project are broken down into more accessible short-term objectives and students mark their progress on the learning path graphic as they verbalize what they have learnt and how it helps them move towards the achievement of the final outcomes.

As a first example we can see the planning template that is provided for the project called *A School Full of Plants* in Figure 4.16 where learners specify which plant they have chosen for their project, how much water and sunlight that plant needs, and who, what and when the different steps will be carried out. They are also asked to write out simple instructions for the care of the plant. We can see here how learners are scaffolded and sequenced in their production of an outline detailing their process for the production of the output.

PLANNING: SCHOOL FULL OF PLANTS

I am going to plant a _____.

Investigate about your plant:

1. Water?
2. Sun?

It needs to to be watered _____ days a week.

It needs to be _____.

Plan:

1. Where?
2. Who?
3. How?

Write instructions for plant care .

Figure 4.16. Planning organizer *Communicative Science 3.3*

In Figure 4.17 there is a second example illustrating the *Greyhound Rescue Project* where students learn about the classification of animals and different needs in habitats. They are then asked to think about ways to help with animal welfare, decide on what to do and how to put their plans into action. Students consider how they can bring about significant positive change for others, in this case animals, based on what they have discovered and thought deeply about in the previous stages. The use of icons facilitates comprehension and learners

are provided with an organizer where they register their findings about animals in need in order to then select one of these to carry out their project. In this case, the teacher suggests a situation regarding greyhounds and children plan a fundraising race around the school playground to raise money for a dog rescue organization in Spain. Students are made aware of how what they have learnt so far can contribute to the successful completion of the challenge proposed from the beginning.

ANIMALS NEED YOUR HELP!

Sadly, there are many animals in need all around the world. Are you aware of the situation of Spanish Greyhounds in our country?

Greyhounds are used for hunting and competition in the fields of Spain. Every year over 50,000 - 100,000 dogs are considered not apt for hunting and discarded. either abandoned, hung, drowned, beaten to death or killed in other ways.

Greyhounds need your help! Can you think of ways in which you can help this situation improve?

In your Science teams:

1. Research different animals in need.
2. Choose three of these animals.
3. Complete the organizer with your discoveries.
4. Choose an animal that you would like to help.

List the different animals in need.

Choose 3:

- 1.
- 2.
- 3.

PLANNING YOUR HELP!

	Discoveries	Problems	Ideas for action
1.			
2.			
3.			

Decide which animal you would like to help and plan your campaign.

Think: How can you make a difference?

Figure 4.17. Greyhound Rescue project planner. *Communicative Science 3.4* (Calvo et al. 2019)

In our third example, the challenge of the *Kindness Project* (Appendix 1) asks learners in teams to make a plan to collect all the evidence of acts of kindness they have identified and put into practice in order to help Purple Lady and her friends understand what kindness is and how it can be shown to others. Students are given choice regarding the way in which they will collect and present the evidence of their acts of kindness. They can decide whether to make a video, a poster, a collage, a big book of kindness, a presentation, a wall quilt, or others. Children will describe their planning ideas for their peers to review. They will describe what they have decided to create, how they plan to carry it out and how long they think each part may take. They should write or draw their general idea and plan on a handout asking them to specify what they plan to do, how they will organize their production in terms of time and resources, and who will take on the different roles. The options provided allow for

multiple and varied means of representation in line with Universal Design of Learning (Hall et al. 2012; CAST 2018; Torres and Rao 2019) and Differentiated Instruction (Tomlinson 2014, 2017) principles since depending on their individual learning profiles students can show best what they have learnt.

As a further example, in the *Healthy Kids* Project (Appendix 8) Primary Education learners have been asked to help a group of kids in the US to understand their healthy lifestyles. In order to meet the challenge they can choose what to do. They can provide suggestions for organizing a sports day, a healthy menu for the school canteen or create an infographic giving advice about good hygiene and health. They can also decide about how to present it, making a poster, a booklet, or a tutorial video to present it to others. Once the students have shared their plans with the class, they give each other feedback as the teacher monitors and adds suggestions for improvement. This process of giving and receiving feedback is organized and guided by the teacher using a Cooperative Learning structure called *Feedback Carousel* (Kagan and Kagan 2009). Learners post their detailed plans for the production of their final outcomes in the classroom in a kind of gallery together with a copy of the template provided as Figure 4.17 which reminds students to jot down the questions they may have about each team's plan, the points that they feel are the plan's strengths, any links or resources that the team may use to help them and concrete suggestions for improvement. The different Cooperative Learning teams walk around the class looking at other teams' ideas and posting their feedback on post-it notes directly on the plans. The teacher must give his/her own feedback on all of the plans and OK before teams can start working on production. Since as Hattie and Clarke (2018) state, feedback that is well received, understood and applied has a very important impact on learning, students must provide evidence of how they have improved their plans thanks to the feedback received from peers and the teacher. This activity with its presentation of initial ideas and further improvements realized with the collaboration of others helps learners see the power of prototyping and iteration, both very important steps in *Design Thinking* (McIntosh 2014).

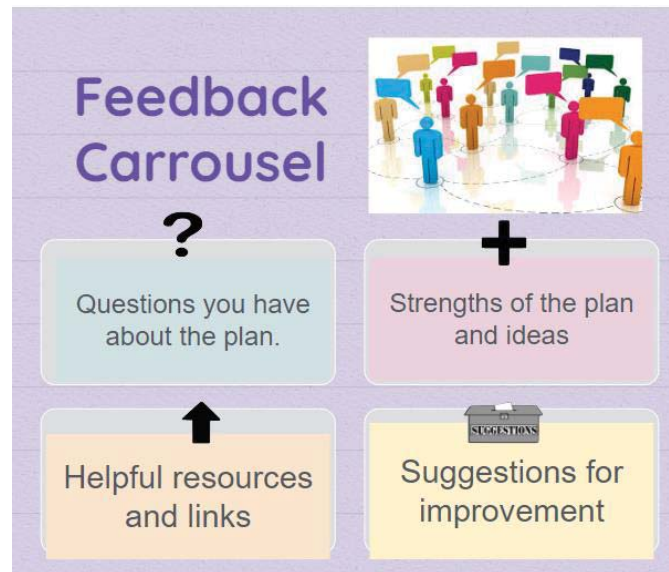


Figure 4.18. *Feedback Carousel* Cooperative Learning structure used to collect feedback on project plans

Since in this planning stage learners will have to make several decisions regarding the production of their output, there are specific activities proposed to help them make better decisions. Students are taught skillful decision-making techniques through the use of organizers and thinking routines like for instance *Tug of War* (Project Zero). This routine works well as a whole class activity and follows these steps. The teacher presents the decision to be made between two options to the class as he/she draws a rope on the board where the two different ends represent these options. Learners give reasons for one or the other option and write them on post-it notes which they place over the ends of the rope. They can also think about the consequences of taking one or the other option and add these to the *Tug of War* representation. Once all the reasons have been added, learners can make an informed decision. This routine helps students develop their strategic and critical thinking and provides them with tools to make informed decisions in their future.

The planning stage also looks at models of production or good examples and helps learners analyze these to help them create their own final outcomes. In the *Presenting My Family* Project carried out by T5_P for the classroom observations, students have been asked to create a presentation of their families in order to welcome a monster that they have adopted as a year long theme. In order to scaffold learners in the production of their own family presentation videos, they will look at and deconstruct a model provided by the teacher.

The relevance of the model provided is ensured by the interest generated in finding out about the teacher's family. The analysis centers on the language used in the model as the basis for their own later productions in the following stage of Creation. Children are given a script of the teacher's words in the video on small strips of paper. They use the *Fan and Pick* cooperative structure (Kagan and Kagan 2009) to pick the different strips in turns, read them out loud and check the pronunciation of the key words provided. As they are correctly read out loud they are placed on their tables to later be used in order to reconstruct the whole script. In this way learners get to practice reading structures that will be useful for them in their production. Many of the words used are pronouns that they have been practicing before as part of their phonics activities on tricky or sight words. Thanks to the structured repetition in the form of input flood (Nassaji and Fotos 2011) provided by the video example and the different activities, learners can notice the pronunciation and spelling of the key words that they will include in their outcomes. This noticing makes students aware of the particular uses (Schmidt 1990, 1992, 2010), which facilitates accuracy and retention in pronunciation and spelling.

Finally, good examples or what we call *WAGOLLS* whose initials stand for "What a Good One Looks Like", are used to create or dissect a rubric specifying the criteria that will be used to assess their final products. The rubric can be given directly to students at the beginning of the learning process in the Activation Stage and looked at carefully in the Planning Stage in order to see how their plans for the creation of the output align with the criteria. It is at this moment in the learning process when adjustments should be made to the plans to improve and adjust their proposals for products. This is considered a realization of the Ideation step within *Design Thinking* (McIntosh 2014) in which learners brainstorm possible outcomes and these are contrasted with peers and teachers. The feedback will help learners to continue on to the next step of Prototyping which will occur in the following stage, that of Creation.

The essential considerations for the Planning stage are summarized in the following table.

Aims	Theoretical bases to consider for design of project	Resources or tools
To facilitate the organization of production of output including decision-making and problem solving	Support executive functions by providing checklists and project planning organizer to better understand the problem, prioritize actions, sequences, and schedules of steps <i>Visible Thinking</i> routines for decision-making (Ritchhart and Church 2020) High order critical thinking skills (decision-making and evaluation)	Planning templates <i>Tug of War Visible Thinking</i> routine
To foster formative assessment providing scaffolding and feedback for improvement	Feedback well received and applied (Hattie and Clarke 2018) Perspective of others, defining the problem, ideation or brainstorming solutions, prototyping and testing and iteration, all through collaboration and bias towards action (Scheer et al. 2012, McIntosh 2014)	<i>Feedback Carousel</i> (Kagan and Kagan 2009) Providing evidence of application of feedback
To analyze examples to look for criteria for rubrics and as language models for students' own production.	Cooperative Learning (Kagan and Kagan 2009) Criteria for criteria (Clark 2009b) Input flood (Nassaji and Fotos; 2011), Noticing and awareness (Schmidt 1990, 1992, 2010) <i>Design Thinking: Ideation</i> (Scheer et al. 2012; McIntosh 2014)	<i>Fan and Pick</i> (Kagan and Kagan 2009) Jigsaw script reconstruction
To integrate competences	Global or intercultural competence (mediation) Critical thinking (problem solving and decision-making) Creativity (innovation and design thinking) Collaboration to give, receive and apply feedback Learning to learn	
To differentiate learning and apply Universal Design for Learning	Differentiation of process and product Developing executive functions by providing checklists and project planning organizers to better understand the problem, prioritize actions, sequences, and schedules of steps (Hall et al. 2012) Model think-alouds of the process and guides for breaking long-term goals into reachable short-term objectives (Hall et al. 2012; CAST 2018)	
Examples or illustrations of learning situations	<i>A School Full of Plants</i> Project <i>Greyhound Rescue</i> Project <i>Kindness</i> Project <i>Healthy Kids</i> Project <i>Presenting My Family</i> Project	

Table 4.8. Planning stage aims, bases and resources

In sum, the Planning stage facilitates learners' best attempts at producing and communicating their demonstrations of learning in the following stages. The feedback that they give and receive helps them to collaborate, improve and refine their ideas. They learn

important strategies and tools that will allow them to plan for success, establishing the strategies and steps that they need to follow. In this way they work on their executive functions using planning organizers to prioritize and sequence their actions. They also develop their high order critical thinking skills of decision- making and evaluation. All of these functions and skills are transferable to many other contexts that they will encounter in their futures and, therefore, promote the learning to learn competence as well as their social agency by asking them to fulfill real-life tasks. By constantly thinking aloud about the process that is being followed throughout all of the learning, and in particular in this Planning stage, teachers can give models of how long term goals have been broken down into shorter, more attainable ones as indicated in UDL (CAST 2018) so that all learners can understand that they have the potential to successfully complete the challenge and meet the learning objectives of the project.

4.2.5. Creation stage

In the SPECIAL framework learning is carefully planned and sequenced within a meaningful context so that all the knowledge and skills acquired and developed throughout the different stages enable students to meet the challenge which entails the completion of the macro task. The achievement of the learning outcomes are demonstrated by the production of the final product. That is, the challenge has asked learners to apply, transfer and demonstrate learning through some kind of artifact or product. In the Creation stage, learners put their plans for production into action and create their outcome. The more varied and integrative of multiple means of representation the challenges are, the better adapted they will be to the different needs and learning profiles of students.

All of the products that are created in this stage must be supported by scaffolding that will allow students to have the potential to succeed. In the teacher training model much time is spent considering the requirements of said scaffolding and looking at examples of what it might look like. Cheat sheets (Clark 2009a; Hall et al. 2012; CAST 2018; Torres and Rao 2019) where learners are given possible answers to their questions, sentence starters to initiate and promote production, or key vocabulary with which to communicate are only a few of the possibilities. They may also be provided with examples of good practice which they can use as inspiration and as a model of what is expected of them. Some teachers may be reluctant to provide models afraid that they may just be copied without much more

thought or even act as deterrents of creativity. However, discussing how and why they have been chosen as good examples can support different needs in our learners. As effective scaffolding should do, these can be used for learners who need greater support or only in the first instances of contact with a new type of text.

The organization and production of output that takes place in the Planning and Creation stages also represent several parts of the *Design Thinking* process (McIntosh 2014), those of Ideation, Prototyping and Testing. As part of Ideation, learners come up with solutions to the problem or need to be met and try to brainstorm and propose multiple possibilities and ideas to give it a physical form or representation. Students, in the Creation stage, then take on the proposals and decisions made and begin prototyping their outcomes. In other words, they will visualize, verbalize and test their ideas.

PROTOTYPE

You are going to build a prototype of your improvement.

Before building, it is useful to make a draft and

- List the materials you are going to use and where to use them
- Label the parts
- Think of how to stick the parts together

Related to real needs	The improvement wasn't really needed		The improvement was needed	
Structure stability (final object- real or prototype)	The structure is unstable	Some parts are stable	Mostly all structure is stable	The structure is stable
Use of materials	Student used the same material for the whole structure	Student used a few materials and not according to their properties	A great variety of the materials were carefully chosen	All materials were carefully chosen because of their properties. Same materials different uses.
Problem solving skills	Student needed constant help to solve issues	Student needed some help to solve issues	Student solved problems when building with some difficulties.	Student solved problems when building with a high degree of effectiveness.
Oral communication	Student gave some details.	The student gave a general idea.	All of the Project and its steps were explained.	All of the Project was fully explained and the student could answer questions about it.

And don't forget to test it!

Figure 4.19. *Machines for a Better World* Project. *Communicative Science 2.6* prototyping within Design Thinking process (Puente and Gil 2019)

As can be seen in Figure 4.19, in the *Machines for a better world* Project, Primary Education learners create a prototype of an invention or innovation, apply the criteria as self-assessment and then contrast this with the teacher's opinion. The criteria are then applied in the evaluation or testing of the prototype and any changes and adjustments are made. The conclusions reached are put into action to refine the product and the communication vehicle through which it is presented.

Very often learners may decide to employ digital tools to share ideas and feedback, and to create their final products. If this is the case then in the Creation stage students should be aided in the choice and in the realization of their ideas with video editing, slide presentation or graphic design tools, such as *Edpuzzle*, *Nearpod*, or *Canva*. They will develop their digital competences as they apply their skills to specific and guided production in this stage.

The essential considerations for the Creation stage are summarized in the following table.

Aims	Theoretical bases to consider for design of project	Resources or tools
To push learners to create the product that they have planned and ideated	Pushed comprehensible output (Swain 2005) Design thinking: create or make a solution (Scheet et al. 2012; McIntosh 2014)	WAGOLLS Models Prototype templates
To provide the necessary tools, resources and scaffolding for output production	Scaffolding written and oral production (Gibbons 2015) Digital competence development (Vuorikari et al. 2022)	Cheat sheets Digital tools (e.g. graphic design tools, video editing, language editing tools)
To promote final editing and revising	Writing as a process: revising and editing (Nunan 2004; Brown 2010) Effective feedback received in the process (Clark 2009b; Hattie and Clarke 2018)	Checklists Rubrics Detailed guidelines, instructions and success criteria
To integrate competences	Global or intercultural competence (mediation) Creativity and critical thinking Collaboration and communication Digital competences Learning to learn Social and civic competences	
To differentiate learning and apply Universal Design for Learning	Differentiation of process and product Providing multiple means of action and expression.	

Examples or illustrations of learning situations	<i>Kindness Project</i> <i>Garden or Greenhouse Project</i> <i>Machines for a Better World Project</i>
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Table 4.9. Creation stage aims, bases and resources

In sum, the Creation stage brings students learning and plans into action. Through the actual production of the learning artifacts, they can not only show what they have learnt but also push themselves to explore the gaps between what they thought they needed to know and what they now know thanks to the progress along the learning process. This will encourage them to move out of their comfort zones and push further in their production of output and grow in self-efficacy (Hattie and Yates 2014). By providing learners with opportunities to act and express their learning in different ways and through multiple media we are showing respect for the differences in our learners' profiles. This facilitates real learning for all of our students (Hall et al. 2012; CAST 2018; Torres and Rao 2019). The use of different digital tools for the production of output will help develop digital competences and their cooperation with the other members of their teams will promote collaboration and social competences. Understanding that their progress along the learning journey has enabled them to meet the challenge proposed by growing and evolving will give learners a sense of achievement and also promote the learning to learn competence, allowing them to see how goals can be met with organized work and perseverance.

4.2.6. Publishing stage

The Publishing stage guides learners in their communication and sharing of what they have learnt throughout all the previous five stages. They will report on their discoveries and productions sharing these with a broad audience so that they act as social agents following Action-oriented Approach principles (e.g. CEFR 2018; Picardo and North 2019). As we are discussing projects that are either for EFL or for subjects taught in English it is vital to ensure that communication of learning is present. In other words, if students are preparing a product that does not involve communication, then they will have to create a second product, a communication vehicle, to present it to an audience and show how it proves what they have learnt. In this communication, learners are pushed to produce output which is comprehensible to others (Swain 2005) and which brings together the input they received,

the intake that was processed and stored in their long term memories as knowledge and which allows them to produce output (Gass and Selinker 1997; Ellis 2010; Swain 2005).

As we have seen in the previous section on the Creation stage, in some projects the final outcome allows learners to apply and transfer knowledge and also to transmit the message of what they have learnt to others within the same product. In others, learners will have to create two products, one of which will serve as the communication vehicle with which to explain to others what their outcome involves. In the case of this communication vehicle, the focus should be on the process rather than on the product. That is, learners must create one or several rough drafts before their product is completed. Revision and editing may occur in several cycles aided by the help of the teacher, peers and their own self-corrections (Brown 2010).

Let us have a look at two examples in which learners create two separate products, one as a demonstration of the learning of content and the second as a way to share their learning with others. For instance, in the *Kindness Project* learners are asked to realize their acts of kindness and to provide evidence, such as photos, notes from witnesses, or audio recordings of people thanking them, etc. This proof of what they have done must be collected and presented through some kind of media so that others can perceive and understand what kindness is and how it can be shown towards others.

In the *Garden or Greenhouse Project* (Calvo et al. 2019) learners have to design a plan for a garden or greenhouse and then present it in the form of a poster to be entered for a contest. Both the plan and the poster are considered demonstrations of learning and will be assessed according to the success criteria established at the beginning of the learning process. Assessment criteria will be discussed in greater detail in the following subsection.

So that communication and sharing of learning goes well beyond the walls of the classroom, different digital tools are proposed, such as *Padlet*, *SeeSaw*, or *Symbaloo*. In each of these students can upload their products, see what others have done and provide feedback. By commenting on their own work and those of their schoolmates they can self- and peer-assess and collaborate in creating a class action plan that brings together all of their learning. Class or school blogs can also be repositories for their productions and reflections as can be more traditional analogical means, such as whiteboards and display walls.

Very often the sharing of learning comes in the form of an oral presentation that can be backed by slide presentations created using *Google Slides*, *Powerpoint*, *Canva* or

Genially. Regardless of the means chosen for the presentations it is important that learners are scaffolded in the use of the different tools. Many of them are intuitive and user-friendly but they should never become a source of frustration for learners. Often students who are familiar with their use can become experts that help other less initiated learners with their productions. The ability to share learning with others and work from different mates' strengths prepares learners for a present and future in which adapting to new tools will be a very valuable asset developing their collaboration skills, and digital and social competences.

In many different project proposals learners can be asked to create a campaign to inform others about their new learning and to encourage a broad audience to discover the issue further. For this purpose, students can be asked to create a campaign and to share it through social media. In the *Healthy Kids Project*, for example, learners use an Instagram template to recreate several posts on their healthy habits. In Figure 4.20 we can see how learners create their campaign and then share it with their families and schoolmates by means of hashtags that they come up with and a QR code that is posted on a mural in school taking viewers to the media that they have designed.



Figure 4.20. Example of campaign proposal in *Healthy Kids Project*. *Communicative Science 3.4*. (Calvo et al. 2019)

Whether their sharing is done on controlled and secure social media or on templates that imitate popular tools, such as *Twitter*, *Instagram*, *TIKTOK*, for example, the essential factor to consider is that learners are given a choice as to how they make their accomplishments public. Learning, then, becomes a social endeavor that has come about

thanks to their collaboration with team mates and that does not stay within the walls of their classroom. Communication becomes meaningful and purposeful. The fact that they are now equipped with new knowledge and skills that allow them to accomplish things that they could not do previous to their learning is another factor that establishes relevance and motivates students to continue growing and learning. It is, as such, a reason to celebrate and within this Publishing stage learners are encouraged to not only share their progress with others but also to feel joyful and proud about it. This pride and joy is expressed in the Celebration of Learning that is an integral part of the learning journey. Learners celebrate all that they have learnt and any innovations and improvements that have come about thanks to their ideas and hard work. They may receive a thank you message from the person that had originally asked for their help. Some teachers may prefer to celebrate after the Assessment and Reflection stage but it is very important to do so whether it be before evaluating or afterwards.

Aims	Theoretical bases to consider for design of project	Resources or tools
To provide the necessary tools and resources for sharing output, explaining it in a direct and visual way with a broad audience.	Public product in PBL (BIE) Real-life task and communication; meaningful communicative purpose (Brumfit 1984; Ellis 2013; Long 2014) Motivation (Dörnyei 1994, 2014) Relevance of topic and product for learners (Lightbown and Spada 2006)	Oral presentations and videos (backed by visual support on <i>Canva</i> , <i>Genially</i> <i>PowerPoint</i> , <i>Google Slide</i>) Digital platforms (e.g. <i>Padlet</i> , <i>SeeSaw</i> , <i>Symbaloo</i> , school blogs) Fake social media templates (Twitter, Instagram, TikTok) Traditional analogical means (e.g. display walls)
To promote a sense of achievement	Clark (2009a)	Celebration of learning Awareness of learning path completion Acknowledgement of challenge met and help received (in the form of a thank you message through a letter, email or video)
To integrate competences	Global or intercultural competence (mediation) Creativity and critical thinking Collaboration and communication Digital competences Learning to learn Social and civic competences	

To differentiate learning and apply Universal Design for Learning	Differentiation of product through choice Providing multiple means of action and expression (written, verbal or multimedia formats) (UDL) (Hall et al. 2012; CAST 2018; Torres and Rao 2019).
Examples or illustrations of learning situations	<i>Kindness Project</i> <i>Garden or Greenhouse Project</i> <i>Healthy Kids Project</i>

Table 4.10. Publishing stage aims, bases and resources

In sum, in the Publication stage learners share with an audience what they have created and learnt and what they are now able to do thanks to that learning. It encourages learners to go beyond the walls of their classrooms and to use their communicative competences to express messages that attend to the expressed needs of those who had presented them with their challenges. They are seeing how their learning can “make a difference in their lives or the lives of others” (Clark 2009a, 2009b) and they are celebrating their success and progress. They can also appreciate that there are many varied ways to communicate with others and to express their newfound knowledge and skills, through written, oral or multimedia formats. All of this growth helps them develop in communication, collaboration, and creativity as they transfer their learning to different contexts and transmit their messages to speakers of English.

4.2.7. Assessment and Reflection stage

Although Assessment and Reflection constitute the last stage of the learning journey they have been present throughout all of the previous stages in the form of consistent checking for understanding and *assessment for learning* or *formative assessment*. This continuous appraisal of progress that should permeate all of the learning activities and situations entails assessing not only the products but also the processes taking place (Clark 2009b; Marzano et al. 2001; Marzano and Pickering 2011). The visual representation of the different stages allows teachers to provide feedback on and physically mark where learners are at the moment, where they have progressed from and where they are headed along their learning journey (Hattie and Yates 2014). An example of this can be seen in Figure 4.3.

The aims of the stage combine thinking about and evaluating processes, products and progress. Students’ performances are seen as demonstrations of understanding and

learning and evidence of authentic communication with an audience. The reiterative checking of understanding and development of learning is focused on the diverse needs and levels present in the class and they enable teachers to adjust activities and scaffolding as required. To assess effectively, the process and the outcomes are analyzed to determine to what degree the students have demonstrated learning and understanding of key concepts, how they have progressed in language use in order to communicate effectively, and how they have worked effectively towards learning and developing skills and competences.

Different instruments are proposed to be used for formative assessment. These include observation checklists to track participation and to monitor interaction and involvement of all students in Cooperative Learning activities; the collection and provision of feedback on different organizers used as class tasks to track thinking and learning; quizzes and tests in order to evaluate progress in key vocabulary and structures; and checklists and rubrics to guide and assess outcomes and processes. To illustrate the use of rubrics we can look at Figure 4.21, an example of a rubric that is developed in teacher training with the participation of trainees to be used to assess their own project outcomes.

Project Rubric

CRITERIA	DOES NOT MEET	MEETS BUT ...	MEETS	MEETS AND ...
Completes organizers and surveys with information about products	Organizers and surveys are incomplete.	Student can complete most of the organizers and surveys with some help from the teacher.	Student can complete organizers and surveys providing relevant information about products.	Student can complete organizers and surveys providing relevant information about products and explain thinking to others
Creates oral presentations about products	Presentations about products are incomplete or difficult to follow.	Student can create and deliver oral presentations about products with help of peers and/or teacher.	Student can create and deliver effective oral presentations about products	Student can create and deliver effective oral presentations about products and justify choices made.
Analyzes ads to identify the elements of persuasion used	Inaccurate or misunderstood identification of elements of persuasion.	Student can analyze some ads to identify the elements of persuasion used in class examples shown with help.	Student can analyze ads to identify the elements of persuasion used in class examples and propose some more examples.	Student can analyze ads to identify the elements of persuasion used in class examples and propose some more examples and plan for the use of these elements in campaigns
Describes products clearly and concisely in writing	Written descriptions do not use adjectives effectively or accurately.	Student can describe products in writing with a limited use of adjectives and/or loaded words.	Student can describe products clearly and concisely in writing.	Student can describe products clearly and concisely in writing using a range of adjectives and loaded words.
Produces multimedia ads applying elements of persuasion.	Participation in ad creation is minimal.	Student can plan and produce multimedia ads applying elements of persuasion with the help of peers and/or teacher.	Student can plan and produce multimedia ads applying elements of persuasion.	Student can plan and produce multimedia ads applying elements of persuasion and justify choices.

Figure 4.21. Rubric developed for assessment of the *Persuasion* Project process and outcomes

As has been mentioned in the previous section on the Publishing stage, teachers are encouraged to help students see their progress and success and to celebrate it. To do so, students may receive recognition in the form of badges or certificates that mark the achievement of some of the learning goals or particularly salient accomplishments. This can take place directly after the sharing of learning or once the final evaluations have taken place. In either option it is essential that learners have opportunities to understand their progress and reflect on what has worked for them along the learning journey and how they might transfer their new knowledge, skills and strategies to other situations within their lives and in the future. These final reflections guided by the teacher's own thoughts and the instruments designed specifically for these purposes help to consolidate and further develop learning to learn competences and success skills.

Table 4.11 shows a summary of the Assessment and Reflection stage aims and bases.

Aims	Theoretical bases to consider for design of project	Resources or tools
To provide tools and resources for critical analysis of the final outcome of learning.	Criteria for criteria (Clark 2009b)	Rubrics Checklists Portfolio of micro tasks
To provide tools and resources for critical analysis of the process of learning.	Assessment for Learning or Formative Assessment (Clark 2009b)	Observation checklists, rubrics, quizzes and tests, badges.
To integrate competences	Learning to learn Social and civic competences	
To differentiate learning and apply Universal Design for Learning	Differentiation of product Providing multiple means of action and expression (written, verbal or multimedia formats) (UDL) (Hall et al. 2012, CAST 2018, Torres and Rao 2019)	
Examples or illustrations of learning situations	Rubrics for the assessment of process and product	

Table 4.11. Assessment and Reflection stage aims, bases and resources

In sum, the Assessment and Reflection stage is dedicated to the evaluation of both the process and the products of learning that come about thanks to the varied learning activities that have constituted the project as a whole. Through peer, self and teacher-led assessment, students analyze their progress along the learning journey using checklists, rubrics, traditional tests and quizzes and a collection of the different outcomes of the activities completed in the previous stages compiled into a portfolio of learning accomplishment evidence. The assessment proposal should be clear for learners, aligned with the curriculum and an integral part of the learning process. Following the principles of *UDL*, it is essential to provide a variety of different ways in which learners can demonstrate their understanding, knowledge and progress. Regarding reflection, learners are asked to think about their progress, strengths, and challenges. They discuss these with peers and the teacher looking at their progress along the learning path and seeing how what they have learned will help them to continue to grow in the future. The teacher also provides information on the

strengths and weaknesses of the process and the product, collecting evidence and registering these in observation checklists and rubrics.

In this section 4.2. I have delved into the specificities of each of the stages constituting the proposal for the SPECIAL framework. A visual summary of the stages is provided in Figure 4.22 below.

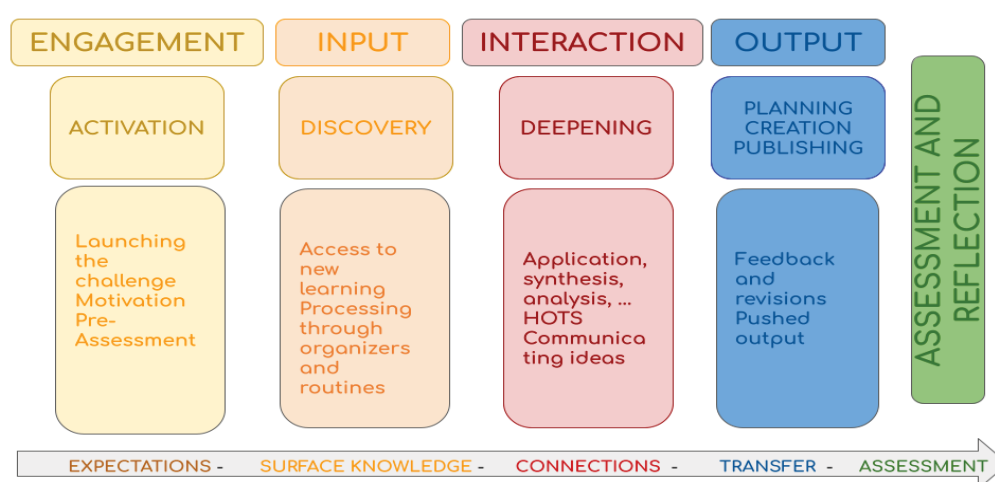


Figure 4.22. Summary of sequencing of learning within SPECIAL stages

The first stage, Activation, launches the project by setting the starting point at which learners begin and by creating the context. In this way motivation and engagement with the topic and what it will enable learners to be able to do are promoted. The second stage, that of Discovery, provides students with access to the new knowledge and skills through the critical, comprehended and multimodal input. It is in this second stage that this input is also processed and practiced so that learners can retain their new knowledge. This is done by registering their discoveries on different organizers (Silver et al. 2007; Clark 2009a) and through the use of *Visible Thinking* routines (Project Zero; Ritchhart and Church 2020).

The third stage, Deepening and Connecting, is where interaction serves to consolidate, broaden and deepen learners' understanding (Long 2014). Through different Cooperative Learning activities (Kagan and Kagan 2009) combined with *Visible Thinking* routines (Ritchhart and Church 2020) students practice retrieval of information (Agarwal et

al. 2014), make new and more meaningful connections (Clark 2009; Ritchhart and Church 2020), and communicate these to their classmates and teacher. It is through interaction that learners test their hypotheses about content and language and refine and strengthen their new knowledge and skills.

The fourth, fifth and sixth stages, those of Planning, Creation and Publishing can be thought of as three parts of a complete cycle, that of production of output. In the Planning stage all new learning is organized with the view of deciding how to shape their ideas and put them into action. Connecting with Design Thinking (McIntosh 2014) this would be the Ideation stage and the Creation stage would correspond with the Prototyping stage where ideas are tested and given physical form. The Publishing stage is where learners use their communication competences to transmit their messages back to the sender of the challenge and to as broad an audience as possible. From these stages students should learn important strategies for message planning, production and communication working collaboratively with their teammates and demonstrating their learning and development of competences.

The different lessons within the stages of the projects include meaning-based learning with activities and micro tasks for Focus on Form, noticing, hypothesis testing; instruction on vocabulary and formulaic chunks along with metalinguistic reflection, comprehensible input, frequent interaction, opportunities for output, Assessment for Learning (AFL) and assessment of both controlled and free production, social and academic language functions along with specific discourse patterns in the content areas in the case of CLIL. Learning is built sequentially starting from the establishment of previous knowledge and creation of expectations in the first stage with the presentation of the challenge moving to the presentation and processing of surface knowledge which is consolidated, broadened and deepened in the second and third stages. The application and transfer of knowledge occurs in the fourth to sixth stages as pushed output is planned, produced and shared with an audience. The final stage of Assessment and Reflection is the rounding off of learning and its evaluation which should be incorporated into all of the previous stages as well.

Chapter 4 has addressed Research Questions 2 and 3 by presenting and discussing the proposal for the SPECIAL teacher training model and framework. Its different components have been described in Section 4.1. The seven stages articulating the learning processes have been presented and discussed in detail in Section 4.2, providing examples of various projects, resources, and strategies for each of them. In the next chapter, different tools used

for the application of the SPECIAL model and framework will be examined looking at the ways in which they have been put into action in multiple scenarios and how pre-service and in-service teachers have been trained to facilitate the design of their own projects.

Chapter 5. The SPECIAL teacher training model in action

The previous chapter looked at the findings regarding the SPECIAL framework, describing its components and stages. Chapter 5 aims to respond to Research Question 4 (see Chapter 1) about how the teacher training model was put into action, that is, how the framework was presented and taught so that trainees could better understand and apply it. It illustrates the ways in which, within the model, the framework is presented to trainees so that they can design and implement their own projects in the classroom. It looks at varied resources which have been created specifically for this purpose and have been put forward in several different training scenarios, discussing how trainees are supported in their teaching competences specifically in the design of Sequenced, Project Enhanced, Competence Integrated Acquisition and Learning (SPECIAL) situations.

We will begin by looking at how the SPECIAL framework is presented in two undergraduate subjects geared towards English language specialists for Pre-primary and Primary Education teachers called *Learning and Teaching* and *Planning Effective Teaching* respectively. Trainees in these courses participate as learners in the *Kindness Project* (Appendix 1.1) which is an exemplary project designed as a model to be used to facilitate trainees' understanding, asking them to put themselves in the shoes of learners and to experience each of the stages in the learning path first hand. The second section explores how project design has been facilitated for English specialists as part of the Master's program for Secondary Education teachers at the *Universidad de Zaragoza* discussing the ways in which trainees are scaffolded in their production of projects as demonstrations of learning within the subject *Design of Learning Activities for the teaching of English as a Foreign Language*. The third and final section discusses *The League of Extraordinary Teachers*, part of the postgraduate course on CLIL and Innovation which is a gamified way to help teachers develop their teaching competences for the design and implementation of SPECIAL projects in their classrooms. I seek to illustrate how the underlying principles of Second Language Learning and Teaching, General Learning theories, Project and Competence Based Learning have been combined and applied to support trainees in the design of their own projects.

5.1. SPECIAL model in undergraduate university courses

As a way for undergraduate specialists in English Language Teaching to understand the foundations and mechanics of the SPECIAL framework, an exemplary project which I designed for this purpose called the *Kindness Project* (see Appendix 1.1) was presented. As is explained in detail in Chapter 3, this took place in two courses, *Learning and Teaching* and *Planning Effective Teaching*, offered at the *School of Education* at the *Universidad de Zaragoza* as part of their fourth year of the degree in which they become specialists in Bilingual Education and English Language respectively. Asking them to participate in the project taking on the role of learners and carrying out the tasks proposed stage by stage, allowed me to present the SPECIAL framework. With the aim of making the whys and hows of teaching visible to trainees, the project was presented as it would be in the classroom, then, the student teachers were asked to reflect about the principles behind each of the stages and their realizations. It should be noted that the resources used for this project were not intended for use by Pre-primary or Primary learners. The materials had been designed specifically so trainees could experience the different stages and their aims as learners.

As a way of launching the project, in the Activation Stage they were introduced to a new character called Purple Lady who through a *Voki* avatar asked them to help her and her mates understand what kindness is and how it can be shown to others. This character presented what would become the challenge and driving questions for the project, what is kindness, how can I show kindness to others and how will that impact on my world? By discussing how to help Purple Lady they were also able to think about what their final products would be, including a mural with all the collective acts of kindness as well as smaller Cooperative Learning Team projects presenting their own completed acts of kindness through the medium of videos, albums, infographics or any multimedia of their choice.

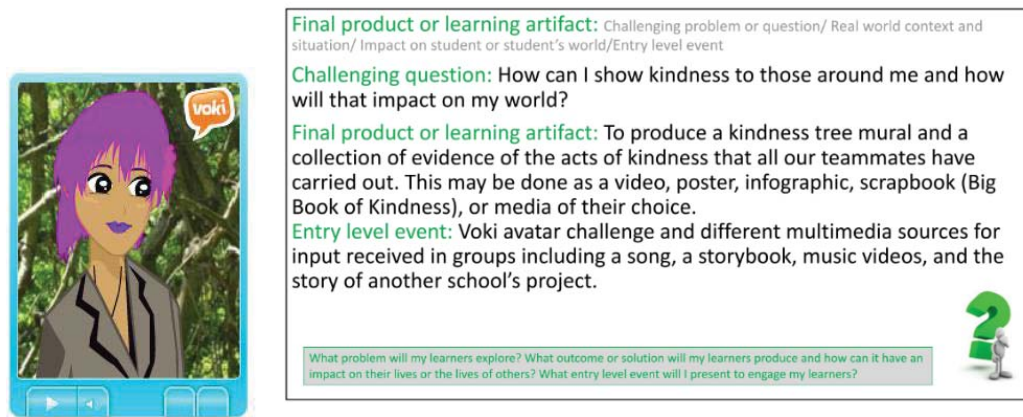


Figure 5.1. *Kindness Project Voki* avatar and description of challenge presented in the Activation stage

They were also able to see how the aim of the Activation stage which involves connecting with learners' previous experiences and conceptions about the topic was achieved. This was done by asking them what they thought kindness was and if they could give examples of acts of kindness. For this reason, trainees were also asked to watch a series of videos and to register their thinking using a *Visible Thinking See Think Wonder* routine and organizer. Trainees could see how new knowledge and skills were built upon pre-existing ones and the importance of establishing learners' starting points to adapt their teaching.

In order to understand the Discovery stage, learners explored different multimodal sources in learning centers as students would do in the classroom. The class was divided into five learning centers. Each team of four went to one of the five spots where they had access to tablets showing three videos, an infographic and a storybook. The videos included a song, a storytelling and a narration of a Kindergarten's Kindness Project (*Captain Kindness*). Trainees acting as students watched the videos, read the storybook and looked at the infographic and registered what they had learnt on large organizers placed next to the resources. As learners switched from one spot to another, they received input in different modalities and varied ways added their discoveries to the previous ones. At the end of the learning center activities, the teacher summarized learning, connecting it with the driving questions and refining learners' thinking on what kindness is and how it could be shown to others. The trainer asked them to remember what they had learnt about curating and creating input for the Discovery stage and principles of UDL to differentiate access to input. They were asked to reflect upon the connections between these principles and how they

had felt as they encountered the input. Together they reflected on what qualities were present in that input in terms of comprehensibility, language, content and thinking abilities required. They also thought about the processing of the input through the organizer as an example of retrieval practice (Bransford et al. 2000; Agarwal et al. 2013; Agarwal and Bain 2019) and evaluated it in terms of how memorable it was or was not and how it might help to develop learners' surface knowledge, high order and deep thinking (Anderson and Krathwohl 2001; Clark 2009a, 2009b) and specific and key competences for the achievement of the expected learning outcomes.

So that trainees could see how structured interaction might facilitate communication and learning in the Deepening stage, they participated in the Cooperative Learning activity called *Talking Chips* (Kagan and Kagan 2009) in which they were asked to discuss what they knew about kindness after having accessed and processed the input in the earlier stage. They were provided with two cheat sheets to scaffold their interaction. One involved a picture glossary of emotions with the keywords that they could use in their contributions and the other one including language prompts to help them participate (see Figure 5.2).

CHEAT SHEET FOR TALKING CHIPS ACTIVITY

Happy/sad/satisfied/ joyful/ worried/ lonely/ warm/ kind/ loving/
Kindness is that

When someone is kind to me I feel ...

When I am kind to someone I feel ...

We could ... (hug someone/ give someone water/ open the door for someone/ set the table for dinner/...)

Hugs make me feel ...

Yesterday I (helped/wrote/called/sent); I felt .../ I thought ... ;
... (action) makes me feel ... (emotion).

When someone is kind to me I feel ...; He/she feels /

Yesterday I (helped/wrote/called/sent) ...

Maybe I/we/you could ... (giving suggestions); Could you please ... (asking for help)



Figure 5.2. Cheat sheet to scaffold interaction in *Talking Chips* activity in the Deepening stage

Trainees were then asked to reflect on how their thinking might be broader and deeper (Clark 2009a, 2009b) thanks to their interactions with their teammates and the negotiation of meaning (Gass and Varonis 1994; Long 2014) that took place and on the degree to which they felt more confident in participating in the debate when supported by language provided by the cheat sheets (Clark 2009a; Gibbons 2015). They also looked at the use of input enhancement (Sharwood Smith 1993; Nassaji and Fotos 2011) and how it might or might not aid their retention and production. Another focus of their reflection on their participation in the Deepening stage was to examine in which ways and to what extent they had advanced in the building of knowledge on the content and the development of their communicative, social and civic competences.

As a transition towards the three following stages, Planning, Creation and Publishing, trainees were presented with the first group task which would allow them to continue to deepen and broaden their thinking and learning. They were asked to jot down on post-it notes all the ideas they may have for showing kindness to people in their daily lives using a Cooperative Learning activity called *Jot Thoughts* (Kagan and Kagan 2009). They received a new message this time created using the app called *Blabberize* which adds audio to any kind of drawing, in this case that of a tree. In this talking image, the picture of the tree asked them to place their ideas under their tree mural and then to “hang” them back onto the branches once they had actually carried out those ideas. Together they worked on creating this class mural bringing together their ideas and actions. These collected thoughts and their realizations represented class learning and were used as the bases for the Cooperative Learning team projects which they would plan, create and publish in the following three stages.

Students were given the opportunity to choose how they would represent and share their new knowledge and skills choosing from different means of representation, such as murals, videos, drama, posters, infographics or presentations. The Cooperative Learning structure called *Feedback Carousel* (Kagan and Kagan 2009) was used to give and receive feedback on their plans. In Cooperative Learning teams they explain their plans for project design in writing and leave these plans on their tables. Teams rotate from table to table and leave feedback for the other teams so that they can take on the suggestions of their peers and improve them. The received feedback is used to improve and revise products that are then shared with others, uploading them to a *Padlet* board so that learning could go beyond the walls of the classroom.

Trainees were asked to reflect on several issues, such as 1) the importance of offering students a variety of different means of accessing their learning and opportunities for choice in the way they would demonstrate and represent their learning (Hall et al. 2012; Tomlinson 2014); 2) whether or not they had been provided with the feedback that they needed, and 3) to what extent they had implemented the suggestions provided (Jensen 2005; Hattie and Clarke 2018). They also thought about 4) their interaction and production using specific strategies to their messages across, negotiation meaning and overall developing their communicative competences and 5) how their new knowledge and skills might impact their world in a positive way (Clark 2009a, 2009b).

For the Assessment and Reflection stage trainees were reminded of the rubric that they had seen in the Activation stage and used in the Planning stage to guide their productions. They then used it to reflect upon and evaluate their process and final products. They were asked to self-assess and to think about their own experiences and growth as participants in the project.

Once they had completed the project as learners so that they could experience each of the stages and see how the aims were best achieved, they were guided in further reflections. This time they thought about the actual design process of the different activities and resources within the stages, the underlying theoretical principles and what these entailed in terms of implementation in the classroom.

They were provided with a new challenge asking them to transfer and apply what they had learnt in the design of their own projects for Pre-primary and Primary Education students. This was done through the reception of a written message inviting them to create their own SPECIAL projects which included a list of criteria to help them (see Figure 5.3). Their project designs were shared with peers through presentations where they explained their proposals and justified them in light of the theoretical framework discussed in class. They were evaluated by teacher and peers on the projects and on their reflection and critical analyses of learning using the project presentation rubric which can be seen in Chapter 3 Table 3.8.

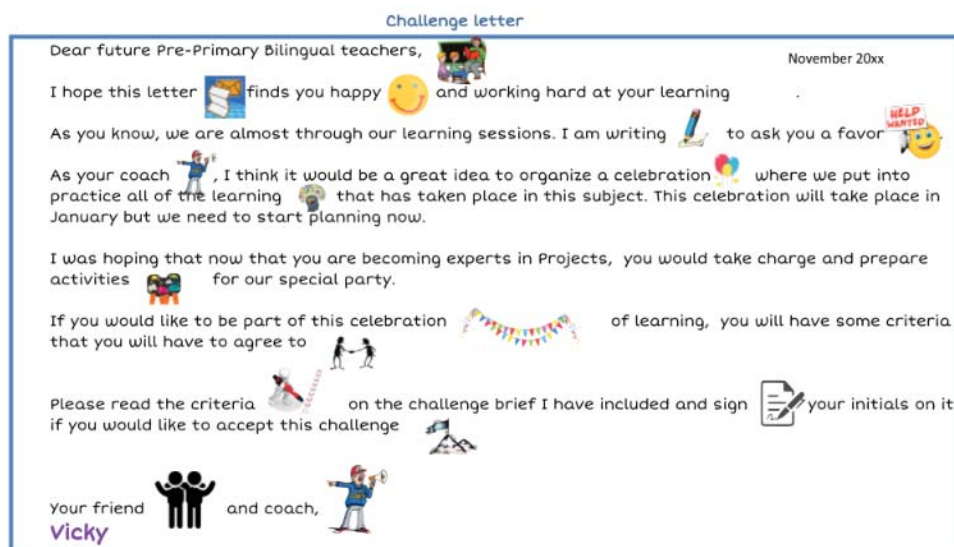


Figure 5.3. Project design challenge message received by trainees

By experiencing each of the different stages in action throughout the *Kindness project*, trainees can share what their learners will feel as participants in projects. This gives them perspective when designing their own projects to better understand and remember the different aims of the stages and the ways in which these can be achieved. The SPECIAL teacher training model and its framework help trainees to see and understand what is behind the teaching decisions and choices made in design and implementation. Both their learning and their teaching is made visible to them (Hattie and Yates 2014). Trainees can experience and grasp the connections with and between Second Language Learning and Teaching, General Learning theories Project and Competence Based Learning as they themselves become better equipped to communicate and to effectively prepare their learners for their futures.

5.2. SPECIAL in a university Master's degree in Secondary Education course

In the Master's degree course called *Design of Learning Activities for the teaching of English as a foreign language* the SPECIAL framework was illustrated through the presentation of the *Persuasion Project* (see Appendix 1.2). The different stages of the SPECIAL learning path were discussed as examples of varied realizations of each of them were explained to the Master's students asking them to carry out some of them as if they were learners in their

future classrooms. After having seen and participated in the different stages, trainees were assigned as their final evaluation their own project design based on the framework and its underlying principles. To facilitate their demonstrations of learning they were provided with several tools that will be discussed and illustrated in this section. To begin their project design process trainees were given a series of steps to follow (Figure 5.4).

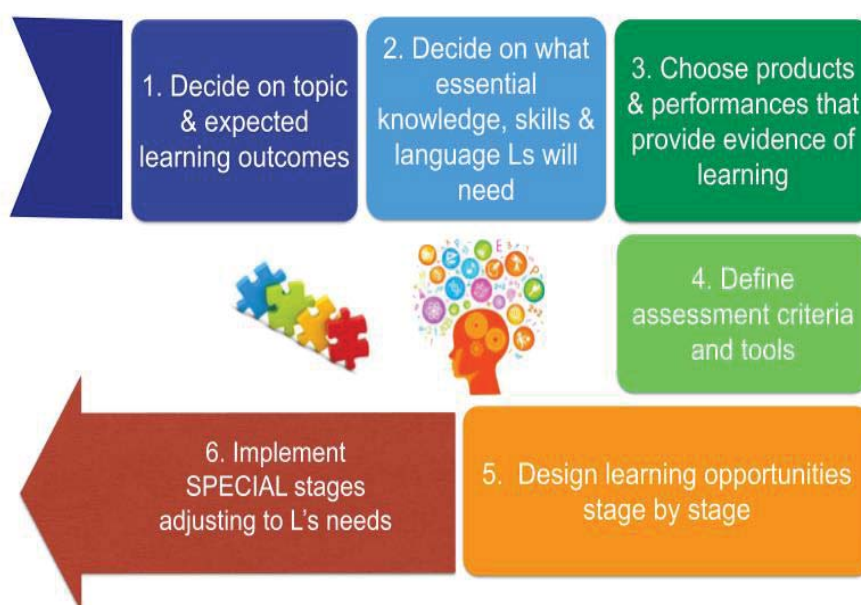


Figure 5.4. Steps to follow in the design of SPECIAL projects

Step 1 asked them to decide on the topic, the competences that would be developed and what they wanted their learners to know, understand and be able to do by the end of the project. The second step based on their competence development and expected learning outcomes asked them to consider what essential knowledge learners would need to have in order to have the potential to succeed in the achievement of these learning goals including the ones that they thought learners might already bring to the start of the project. The curriculum was to be used in order to “unpack” the competences that they hoped to help their learners develop thanks to their progress in the project. By asking them to identify the expected learning outcomes as well as what they assumed learners already know at the start of the project, trainees were made aware of the importance of establishing previous knowledge so that new learning can be built upon it (Marzano and Pickering 2011; Scheer et al. 2012) and introduced into their schemata (Silver et al. 2007).

The third step asked designers to think about the output and performances that they might ask their learners to produce to demonstrate their learning. They were led to reflect on the key role of students' pushed output (Swain 2005) in order to encourage them to go beyond their current level of performance and comfort zones so that they can progress in their learning and share it with others.

The fourth was to define what success in the learning process might look like and to define the assessment criteria and tools that would be used to evaluate learning in terms of both processes and products. This would help foster formative assessment by letting them see what and how they had learnt so that learners would not only develop the specific competences of the project but also develop their learning to learn competence to be applied in different and future situations.

In the fifth step trainees had to consider all of the stages of the SPECIAL framework that they had seen exemplified and explained in the *Persuasion* Project and use this learning in order to design each stage of their projects. This was carried out in a guided way by answering the questions in the table included below (see Table 5.1). These questions were intended to not only guide them in the production of their outputs (their projects) but also to establish connections between Second Language Learning and Acquisition theories, General learning theories and Project and Competence Development and their applications in the classroom.

Your planning	Questions to ask yourself	Activities	Tools, links and procedures
Activation	What will be your challenge or driving question? How will you present it? How will you activate and establish their previous knowledge?		
Discovery	How will you organize the learning to let learners discover input and process it so that they know and understand it? Will you set up learning centers or learn as a whole group?		
Deepening	How will you push learners to communicate, collaborate, and think about what they are learning? How can you deepen their understanding? How will you check their understanding?		
Planning	How will you promote organization skills and decision making so that they plan their products and presentations carefully and skillfully? How will learners give and receive feedback about their ideas?		
Creation	How will you support and scaffold learners as they create their products? How will you check that they are applying new knowledge and skills?		
Publishing	How will learners communicate and share their new ideas, knowledge, understanding and skills?		
Assessment, Reflection & Celebration of learning	How will you assess their products and presentations as demonstrations of learning? What tools will you use to check if they have met their success criteria and achieved the expected learning outcomes? How will you celebrate learning?		

Table 5.1. Guiding questions used in the SPECIAL teacher training model to design within trainees' learning projects

With all of the decisions regarding, for example expected learning outcomes, final products, language required, opportunities for focus on form, or scaffolding student teachers were asked to complete a canvas (see Chapter 3, Figure 3.4) within which they registered their proposals. They then presented these, reflected in the completed tables and canvases, to the trainers and received feedback before creating any of their materials or final versions.

The sixth and final step, that of implementation would happen once trainees were in their actual classrooms, possibly years after their training. For this reason, it was important to provide them with different tools that would not only facilitate their production of the final outcomes but also help them to remember and retain their learning for future transferability. This is perhaps one of the greatest challenges of this Master's degree which aims to prepare them for their professions on a theoretical and practical level. For their assessment in this subject, they were asked to take on the feedback provided and to design their own projects based on the SPECIAL framework. Many of these projects were then presented as part of

their Master's final dissertations with more involved reflections and research on different aspects of their design.

5.3. SPECIAL in a postgraduate university module

This final section of Chapter 5 looks at how the SPECIAL framework was presented as a proposal for the gamification of project design that constituted the third module of the postgraduate course offered for teachers of CLIL and EFL. This was part of a certification as *Experto universitario en CLIL e innovación en el aula de inglés de educación primaria* offered at the *Universidad de Zaragoza* (see Section 3.1.3 and Table 3.1). This graduate certification course covered several aspects of bilingual teaching and learning for the Primary classroom, such as the theoretical framework of CLIL, communication, innovation, and the integration of content and language in a bilingual curriculum.

As a way of engaging participants in the third module on innovation, all of the learning that trainees were expected to acquire was integrated into a challenge that would last the entire course. In other words, their learning was made even more meaningful by gamifying their professional development in innovation and effective methodologies and techniques for teaching in English (Gil 2018). Kapp (2012: 7) defines games as “systems in which players engage in an abstract challenge, defined by rules, interactivity, and feedback, that result in a quantifiable outcome often eliciting an emotional reaction”. He points out that gamification is much more than just points and badges. It also promotes self-determination, distributed practice, flow, social learning, scaffolding and episodic memory. All of these elements were considered to be great facilitators of learning and acquisition, so the module was infused with the most effective elements of games in order to promote engagement, collaboration, creativity, and the promotion of real-world teaching skills through the application of the SPECIAL framework in an immersive, engaging experience within a positive climate of learning.

The *League of Extraordinary Teachers* was designed so as to bring together all of the elements seen in Table 5.2, such as the necessary amount of content for curriculum and competence development, a sustained challenge with unexpected twists and turns to keep the learner engaged throughout the learning, and opportunities for choice where they could explore their individual unique paths to content acquisition, in this case referring to SPECIAL project design.









League aims	League realizations	League examples
To develop competences based on curriculum	Different micro tasks along the learning path	<i>Project Scouts</i> evaluate projects using a set of criteria; <i>Thinking Sketchers</i> participate in <i>Visible Thinking</i> routines and then design their own.
To engage and motivate learners	Presentation of a sustained challenge or driving question	Entry event video introducing the quest towards the land of learning
To provide opportunities for growth and awareness of individual progress	Points and levels Feedback	Tiered tasks with different amount of points assigned Badges see Figure 3.5 and Table 5.3
To promote participation	Interactivity	Gameboard (see Figure 3.5)
To provide opportunities for mastery of content and skills	Distributed practice	Micro tasks in levels can be redone after feedback has been received.
To promote collaboration	Teams	Team names, logos, and slogans

Table 5.2. League of Extraordinary Teachers' aims, gamification elements and examples

The game would have to include points, levels, badges, and opportunities for players to practice skills and develop over time through the completion of micro tasks that would enable them to complete their final macro task, that of designing their own projects for implementation in the classroom. They would develop their teaching competences by looking at examples of projects and then designing each of the stages of the project connecting theories on Second Language Learning and Teaching, General Learning theories and the integration of specific and key competences with what these might look like in actual classrooms.

To motivate trainees by making their learning relevant to their actual needs and situations, a conflict or problem situation was presented through a challenge for the players to overcome. In order to make it a real-world challenge with a purpose, the league proposed that participants become involved in a sequence of stages and tasks based on the SPECIAL framework to collaborate with their teammates, empowering players as they acquire the skills they need in their everyday professional lives. The aesthetics included visuals to engage learners and immerse them in the gaming experience, such as videos, an interactive game board (see Figure 3.5), badges (see Table 5.3) and rewards for successfully

completing tasks or hitting certain milestones in their design and planning of projects, and points given both for performance and completion to a certain standard of proficiency.

Number of level	Name of level and stop	Badge awarded for reaching it	Learning goal to achieve	Badge image
1	Starting line	<i>Candidate</i>	To understand and explain innovation and excellence within the teaching and learning process	
2	Initiated: Tool and Resource Bank	<i>Resource and Tool Facilitator</i>	To select, evaluate and adapt tools and activities that integrate an effective use of ICTs and Ed Tech	
3	Informed: Project Exhibit	<i>Project Scout</i>	To deconstruct models in order to understand and explain the characteristics and key concepts of Project Based Learning.	
4	Experienced: Project Planning Studio	<i>Project Designer</i>	To adapt and design projects, tasks and learning activities that develop content, cognition, communication and culture.	
5.	Expert 1: Think Tank	<i>Thinking Sketcher</i>	To understand and explain deep and visible thinking and learning.	
6.	Expert 2: Communication Central	<i>Communication and Collaboration Promoter</i>	To adapt and design learning activities that communicate collaborative, visible, deep and broad thinking and learning.	
7.	Creative 1: Differentiation Scaffolding Headquarters	<i>Differentiation Department Head</i>	To adapt, design and implement learning activities, tasks, and projects that attend to learners' different needs, rhythms, readiness levels and learning profiles.	
8.	Creative 2: Project Creation Studio	<i>Project Creator</i>	To create a project that brings together all of the learning along the quest path.	
9.	Showcase	<i>Learning Net Promoter</i>	To disseminate project and results of learning	


10.	Extraordinary: Learning Land Quest completed	Extraordinary Teacher	To share and celebrate learning achieved	
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Table 5.3. Levels, learning goals and badges for the League of Extraordinary Teachers

Table 5.3 shows how each level within the game proposed a different learning goal, the achievement of which participants had to prove with the uploading of a product to their portfolio blogs. They started at *Candidates* and moved to the first level, that of *Resource and Tool Facilitators* where they curated existing digital tools and resources, then moved to *Project Scouts* where they looked at examples of different projects geared towards learning in English as L1 that they could use as inspirations for their own creations. The trainers then evaluated these tasks and provided feedback including points and badges awarded and suggestions for improvement or further practice. The score became a feedback tool that encouraged participants to perform at their best and therefore learn better. It also provided opportunities for mastery where learners could repeatedly practice and prove that they could apply their newly learned content demonstrating their teaching knowledge base and skills (Gil 2018).

In response to Research Question number 4 asking how the SPECIAL framework is presented and taught in this teacher training model, Chapter 5 has discussed the ways in which the SPECIAL framework has been put into action and how trainees have been scaffolded so that they could use their learnings to design projects of their own. Three different scenarios have been presented from the *Universidad de Zaragoza*: undergraduate specialist courses in the fourth year of their degree, a Master's degree course for the obtainment of Secondary Education teaching qualifications and a postgraduate certification module. In all three of these, trainees first experienced the different stages of SPECIAL projects as learners and then successively reflected on the means through which competence development was promoted by making the teaching visible to them. In this way, participants were provided with the knowledge base, skills and competences that would allow them to understand the underlying principles of the SPECIAL framework, and the connections among them which helped to facilitate the design of their own effective projects for learning in CLIL and EFL classrooms.

Chapter 6. Applicability and application of the SPECIAL model and framework

Once both the SPECIAL framework (Chapter 4) and its implementation in different teacher training contexts (Chapter 5) have been described in depth, in this chapter it is my intention to look into its applicability and application as a teacher training model. Section 6.1 will delve into the SPECIAL framework's impact and perceived applicability, that is, the extent to which those who have undergone training in the framework at undergraduate, graduate level and also in-service professional development remember, understand and value its potential for the classroom. Section 6.2 will look at five examples of its application in Pre-primary, Primary and Secondary classrooms in EFL and CLIL through the use of the Observation Protocol designed for this dissertation and the analysis of the findings gathered through its application. Connections will be established between the different teachers, levels and realizations of the framework in action. Finally, conclusions will be drawn regarding the implications of the findings on its applicability and application for the adjustment and improvement of the SPECIAL teacher training model.

6.1. Applicability of the SPECIAL model and framework

As was discussed in Chapter 3 on Methodology, with the intention of gathering information to adjust and improve the SPECIAL model and framework, two questionnaires were designed and administered in 2019. Detailed information on the questionnaire design and data collection procedures is fully disclosed in Chapter 3 (see section 3.2.3) and in what follows the main findings from the respondents' answers will be presented and discussed.

6.1.1. Results from the Initial Research Questionnaire

The Initial Questionnaire (see Appendix 2), which was originally sent to 93 teacher trainees who had been participants in courses where the SPECIAL framework was presented, at that moment referred to as PBLL or CLIL-Pro training, received 43 responses.

As indicated in Table 3.3 in Chapter 3 on Methodology, most respondents had been trained at a postgraduate level, either in the Postgraduate program *Experto Universitario en*

CLIL e Innovación en el aula de inglés de Primaria and/or in the course *Designing Learning Activities* for *Máster en Profesorado de ESO, Bachillerato y Formación Profesional*. A lower percentage of respondents had taken the undergraduate course on *Planning Effective Teaching* for *Grado en Magisterio en Educación Primaria* and the lowest percentages corresponded to training received in schools as part of their sustained professional development (14%) and in preparation for competitive exams (16.2%). There were respondents that had received training in more than one of these scenarios.

As regards the teaching experience of the respondents (Figure 6.1), the same percentage (25.6%) had taught or had been teaching for 2 to 5 years as 6-10 years so just over half had more than two years of experience. Nine respondents (20.9%) had less than 2 years experience and 4 of them (9.3%) had 11 or more years of experience. Finally, 8 respondents (18.6%) had no teaching experience at all at the time of completing the survey.

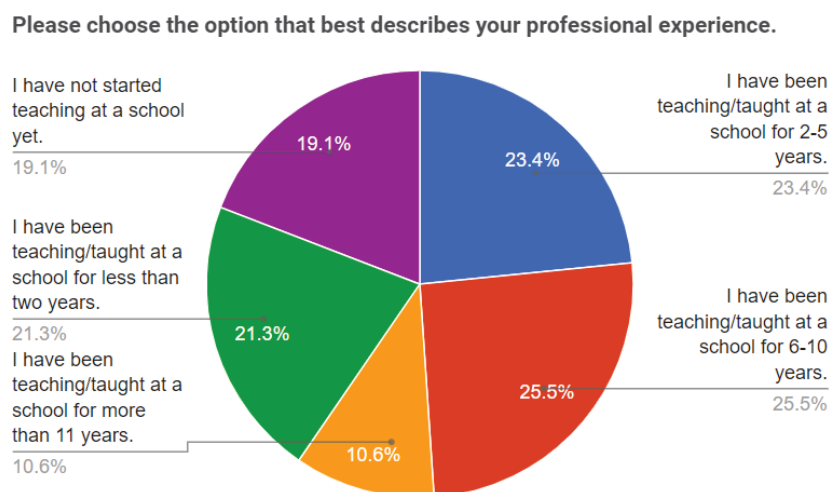


Figure 6.1. Professional experience of respondents to the initial Research Questionnaire on PBL CLIL-PRO teacher training

Thus, overall, informants were varied in terms of the scenarios in which the training was received, within undergraduate, graduate, and in-service training courses, and the teaching experience they had at the moment of responding, which is very enriching for the collection of data on their views and perceptions of the applicability of the SPECIAL framework.

As regards the professional context of the 35 respondents at the time of answering the initial questionnaire, Figure 6.2 shows that most of them worked at a public school (25), mainly in Primary (19) but also Secondary (6). The number of respondents working in

Primary and/or Pre-primary at a semi-private school is higher (5) than that of Secondary teachers at semi-private schools (3). Finally, there were 2 teachers working at private schools, one of them at the Primary/Pre-primary stage, and another one both at Primary and Secondary stages.

Please choose the option that best describes your current teaching job.

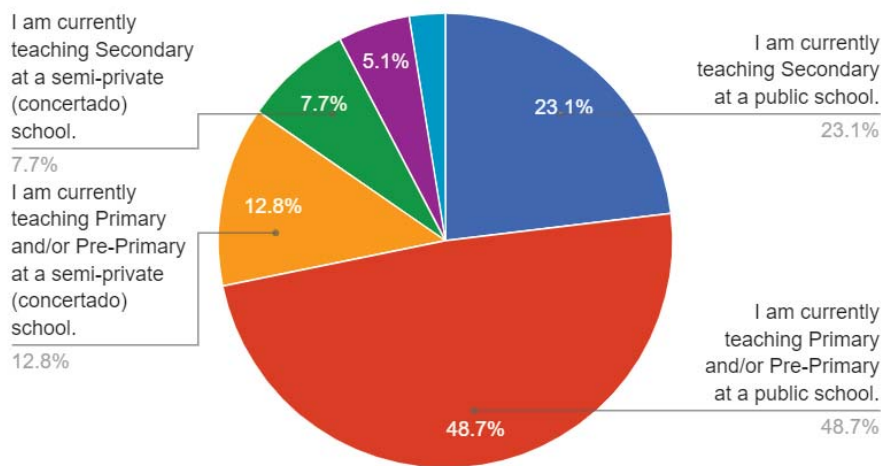


Figure 6.2. Professional teaching situation of respondents at the time of responding to the initial Research Questionnaire on PBLL CLIL-PRO teacher training

Having established the training context in which they had come into contact with the framework and past and current teaching experiences, I was interested in gathering information on what they remembered from their training and what they had applied, more specifically focusing on the following: stages in the learning process; challenges to engage learners; activation of previous knowledge; discovering new knowledge, understanding or skills through input; deepening learning, thinking and communication; planning, editing and revising; creating demonstrations of learning; assessing learning; and celebrating learning. As Figure 6.3 shows, a great majority of the respondents provided very positive answers, indicating that they had remembered, applied and even trained others in the use of the SPECIAL framework. Around 33 teachers (76.7%) were using many parts of the framework and 27 had applied all of the stages (62.8%).

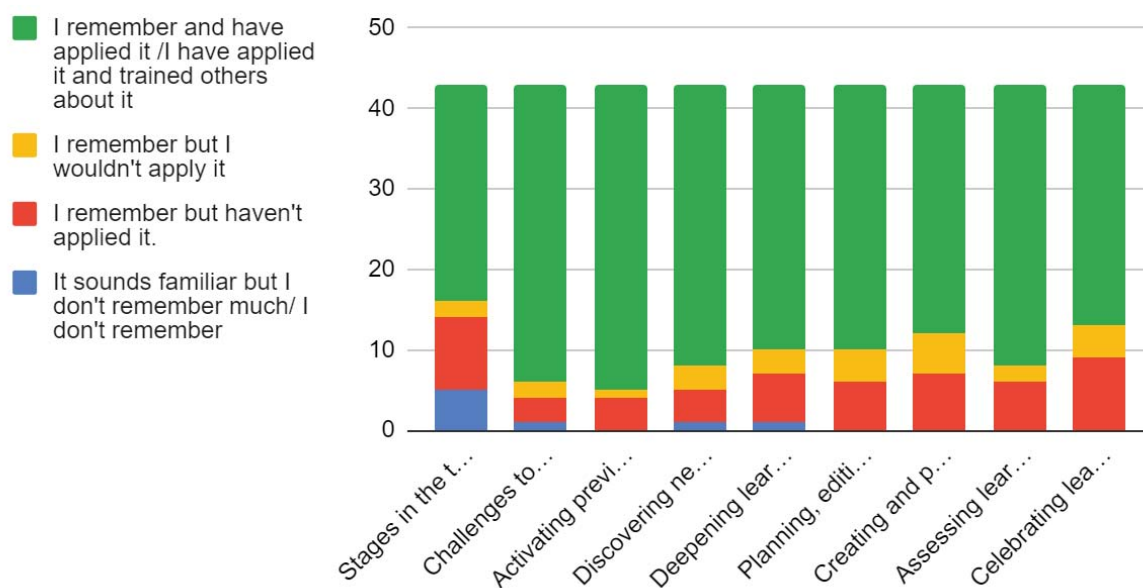


Figure 6.3. Answers provided to Question 3 of the Initial Questionnaire (Please choose the option that best describes what you remember about each of these aspects)

A low percentage of respondents (11.6%) did not remember the sequence, and a much lower one (2.3%) answered that they did not remember the specific stages of Discovery and Deepening and the challenge resource (as part of the Activation). Those who answered that they remembered but had not applied the sequence of stages yet provided some varied reasons for not having done so. For instance, some of them had no or limited teaching experience, others were at that time teaching in a foreign country where they felt it was more challenging to apply it, or, very interestingly, another respondent argued that convincing colleagues whom they had to coordinate their teaching with, was hard work:

It is difficult to convince colleagues to use it and we all need to coordinate ourselves. So, if we don't do it altogether, we don't do it. I think it would be very beneficial for students but it is hard and a lot of work for them, and especially for the teachers.

Finally, there is a low percentage of respondents reporting that they remembered but they would not apply it and none of these provided any reasons why they would not do so. Even taking into account these few negative answers, the results seem to indicate a significant community of practitioners being built among EFL and CLIL teaching in our region drawing on this framework. Their answers reinforce the idea that the way in which the framework is presented within the teacher training model, i.e. asking trainees to put themselves in the

place of learners and to experience the different stages as such, may be considered effective. Since more than 88% of the respondents reported to have remembered the stages and their aims, we can conclude that they have, in fact, been memorable and can be considered transferable.

Before asking them what parts of the SPECIAL framework they remembered, they were prompted to describe in an open question what the framework consisted of. Some of those reporting that they remembered little about it provided brief, general, superficial answers such as these:

An approach or method which guides and helps learners to grow through a rich learning process.

I think it increases students' motivation and cooperative learning while they learn a lot about a topic which may include many other "sub-topics".

On the other hand, those trainees and practitioners who had said that they remembered, and had also applied it, provided lengthy, accurate recounts of what the framework is to them. Most of these showed a view of learner-centered, active methodology to foster language learning and made use of keywords such as: skills and competences, motivation, engagement, authenticity, communicative purpose, meaningful real-life communication and tasks, cooperation, collaboration, and learning process, among others. Two of the respondents, who reported that they had not only applied the framework but also had trained others in its application, provided fully comprehensive descriptions as follow:

It is an active methodology that promotes motivation among students. There are several key elements, such as key knowledge and skills, inquiry, meaningful tasks, challenge, authenticity and students voice and choice. Projects should follow a path/journey based on the following stages: activation, discovery, deepening, planning, creation, publishing and assessment reflection and celebration. Students follow this journey to accomplish the challenge of the project. The teacher's role is motivator, facilitator and guide all along the project. It can be applied together with methodologies like Assessment for Learning, Whole Brain Teaching, Cooperative Learning and thinking routines (Visible Thinking).

A learning and student-centered approach that revolves around the completion of a set of tasks on the part of learners, which require high-order thinking skills, research, and collaborative work. These tasks constitute a major task or project that catches the learners' curiosity from the very beginning, and increases their linguistic competences and acquisition of the language.

These extensive and reiterative references to the key foundations and groundings of the framework and the excellent descriptions and definitions provided seem to indicate that trainees understood well and were adept at explaining it to others. This shows that some of my trainees are indeed well equipped and prepared to train others and enlarge the community of practice.

Not only was I interested in gathering information on what general parts of the framework were remembered from training and used but also the more specific ideas, tools, resources and strategies which had been applied in actual teaching scenarios. For those respondents who had replied that they had, in fact, applied some or all of the framework, Question 7 offered a number of items so that they could select those options which they had applied in their classes. Several of these were based on the options in Question 3 with more concrete examples of ideas, strategies, and tools and several additional choices. Table 6.1 shows that half of the 35 respondents (those with teaching experience) had used them all, the most commonly chosen ones were techniques and strategies to establish their students' previous knowledge, such as *Word Clouds*, *Brain Dumps*, *Visible Thinking* routines or organizers. Also, the great majority reported having used Cooperative Learning structures and strategies and varying media to provide comprehensible input to students that could lead to their learning of new knowledge skills or understanding. As was also evidenced above in relation to Question 3 (Figure 6.3), 26 respondents reported using the whole sequence of stages and also rubrics and success criteria to assess their students' performance. *Visible Thinking* routines were also said to be employed by many of them. What is surprising is that just 26 responses were obtained for the use of challenges when they had reported it to be one of the parts they remembered and applied the most (see Figure 6.3). It may be the case that they conceive challenges differently (solving a problem) not necessarily creating an engaging resource for that, such as a poster or a message. *Whole Brain Teaching* strategies were reported to be used by 23 respondents as well. 22 of these were teaching at Primary or Pre-primary levels. These results may indicate that Secondary teachers do not find *Whole Brain Teaching* techniques as relevant or effective for their particular contexts. However, it has been the experience of the researcher as well as the cited intention of the literature that these techniques are in fact very effective in Secondary and Post-secondary contexts (Biffle 2014). The reticence shown by the respondents who were teaching at higher levels could be due to cultural issues of the Spanish context. These teachers may feel that their students would be embarrassed or

reject participating in routines that may at surface level appear to be less serious or geared towards younger learners. These concerns could be assuaged by explicitly signaling their advantages in teacher training sessions, and encouraging teachers to clearly explain to their students how they might benefit from them as well.

	Number of respondents
Establishment of previous knowledge through <i>Word Clouds</i> , <i>Brain Dumps</i> , <i>Visible Thinking</i> routines, or organizers	33
Cooperative Learning (Structures, Roles, Jigsaw Expert Groups, Teambuilding)	31
Learning new knowledge, skills or understandings through comprehensible input presented through a variety of media	28
Deepening learning and communication through thinking routines, organizers, or Cooperative Learning structures	27
The stages of Activation, Discovery, Deepening, Planning, Creating, Publishing, Assessing and Reflecting or Celebration of Learning	26
Assessment through rubrics with success criteria	26
<i>Visible Thinking</i> routines (<i>See, Think Wonder</i> ; <i>Compass Points</i> ; <i>Plus One</i> ; <i>GSCE</i> ; etc.)	24
Challenges received through different media like <i>Voki</i> , video messages or contest posters	23
Whole Brain Teaching (<i>Scoreboard</i> , <i>Super Improvers</i> , <i>Mirror</i> , <i>Teach-Ok</i> , <i>Class-Yes</i> , <i>Blow the Answer</i> , <i>mini celebrations</i>)	23
Creation of public products or performances as demonstrations of learning	22
Planning, editing and revising with shared feedback	19
Celebrations of learning to culminate projects	19
Differentiation of Input, Interaction and/or Output with Multiple Intelligences)	18
Other (Use of task cards and trackers)	1
Other (Gamification)	1

Table 6.1. Answers provided to Question 7 of the Initial Questionnaire (What ideas, tools, strategies, etc. from PBL or CLIL-Pro have you used in your classrooms? (Check as many options as apply))

Looking into the potential applicability of the SPECIAL framework in specific educational contexts, it was my intention to gather information on whether and how the different stages or the ideas, tasks and strategies were modified and adapted to meet the learners' needs in the varied contexts of the respondents. Thus, Q9 in the questionnaire was posed as an open

question in which they could indicate which tools and resources they had adapted and how. Two of the respondents, who are now training others, have modified the labels of the different stages into: *Somos un equipo* (*We are a group*), *Sentimos* (*We feel*), *“invescubrimos* (*“we “investiscover”*) [sic.], *Planificamos* (*We plan*), *Creamos* (*We create*), *Publicamos* (*We publish*), *Evaluamos* (*We assess*) and *Celebramos* (*We celebrate*). In essence, the learning process is very similar but the labels make reference to the communal pursuit of aims by using the verbs in the first person plural. In this case the framework had been adapted to teach through the medium of Spanish, and former trainees have come up with their own learning path graphic and have translated these labels into Spanish.

Another teacher reports using an attractive strategy to present students with the challenge and engage them in the learning process from the very beginning:

When introducing challenges, the language assistant comes to class playing a specific role (sometimes wearing a costume) and presents the challenge.

Some of them mention aspects which they have integrated or enhanced in the framework, mostly gamification and the use of ICT tools (such as *Padlet*, *SeeSaw* or *Genial.ly*). Informants also highlight the need to foster and make the most of visual cues (pictures, icons, colors, infographics) to promote students' understanding, especially with younger students. This points to the need to incorporate even more principles of UDL (Hall et al. 2012), such as multiple means of access to input, engagement and representation and expression to foster students' learning, in future training. UDL (CAST 2018; Hall et al. 2012; Torres and Rao 2019) provides excellent guiding principles for differentiation to do so and should be further incorporated in the SPECIAL teacher training model and made even more salient to trainees.

As part of the Assessment stage in the learning path, the use of rubrics stands out as most frequently applied and adapted to the tasks and challenges proposed as well as to the level and cognitive development of their students. Finally, several respondents have pointed at the possibilities of adjusting *Visible Thinking* routines to their varied teaching contexts including their classes taught in Spanish for all different subjects. This is quite logical bearing in mind that they were originally designed to be used by L1 speakers in English-speaking countries. Any use within our own Spanish context will require adaptations both in L1 or L2 classrooms. The strong emphasis on *Visible Thinking* routines within the

teacher training model and framework responded to intuitive perceptions of their effectiveness. However, the positive responses regarding their use in varied classroom scenarios confirms these intuitions and reinforces the belief in the conviction that these are attractive for teachers and effective for learning. Future teacher training will continue to explore more routines and organizers and their different applications and adaptations in EFL and CLIL classrooms.

Respondents who answered that they had applied some part of the framework in their training were asked whether they would be interested in taking part in the *Follow Up Questionnaire* and be updated on the results of the research being undertaken, to which they all responded positively. This indicates a strong sense of community and eagerness to remain connected in order to share learning.

6.1.2. Results from the Follow Up Questionnaire

In March 2021, the respondents of the Initial Research Questionnaire who replied that they had applied all or some of the framework in their classes were sent the Follow Up Questionnaire. All in all, 25 responses were obtained. The first four questions inquired about personal information, such as names, emails and teaching positions, and Questions 5 and 6 were queries about the frequency with which they used some tools, strategies and stages (Q5, Table 6.2) and the extent to which they considered them effective (Q6, Table 6.3). The “establishment of previous knowledge”, “sequenced stages in the learning process”, “challenges to engage learners” and the “differentiation of input, interaction and/or output” were the four most frequently used by teachers. Based on the most frequently chosen items, we can interpret that respondents were aware of the importance in fostering learning, in general, and Second Language Learning and Teaching in particular, of: (1) creating connections between old and new knowledge and building on previous schemata to add new learning, (2) the organization and sequencing of learning events within a structured process, (3) providing challenges that engage and motivate learners, and (4) building knowledge through input that is varied and accessible to all learners. This may also point to the shared constructivist views of learning (Piaget 1964; Vygotsky 1986) of most of our trainees.

The “sequencing stages of the learning path” was chosen by 19 teachers as used always or quite often. This is perhaps the most fundamental aspect of the framework and

the second most often employed by the participants. These results are in keeping with what was expected. However, in the next question (Table 6.3), on the effectiveness of each element, “sequencing stages of the learning path” is listed in fourth place in terms of how useful it is deemed to be. 19 teachers indicated that they use the stages almost always or quite often while a total of 22 feel they are useful. It would be interesting to discover why the remaining 3 do not use them despite their positive perceptions. This may be due to the restrictions imposed by some schools, such as, textbook adherence and/or colleagues that may hinder or deter the use of some strategies in class despite their perceptions of high effectiveness. We will see how forced coordination with other teachers or alignment with school policies are often stated as an obstacle for implementing innovation and change.

	Almost always and quite often
Establishment of previous knowledge	20
Sequenced stages in the learning process	19
Challenges to engage learners	18
Differentiation of input, interaction and/or output	17
Assessing learning through rubrics with success criteria	15
Deepening learning thinking and communication skills	14
Creating and publishing demonstrations of learning	14
Planning, editing and revising	13
<i>Whole Brain Teaching</i>	13
Cooperative Learning	13
Discovery of input for learning new knowledge, understanding and skills	13
<i>Visible Thinking</i> routines	11
Celebrating learning	10

Table 6.2. Answers provided to Question 5 of the Follow Up Questionnaire (Please rate how often you use each of the following (or an adaptation of this) in your own teaching in the present)

	Very useful/useful
Establishment of previous knowledge	24
Sequenced stages in the learning process	23
Challenges to engage learners	23
Differentiation of input, interaction and/or output	22
Assessing learning through rubrics with success criteria	22
Deepening learning thinking and communication skills	22
Creating and publishing demonstrations of learning	22
Planning, editing and revising	21
<i>Whole Brain Teaching</i>	21
Cooperative Learning	20
Discovery of input for learning new knowledge, understanding and skills	20
<i>Visible Thinking</i> routines	16
Celebrating learning	15

Table 6.3. Answers provided to Question 6 of the Follow Up Questionnaire (Please rate how effective these are to promote learning in your classroom)

Some greater discrepancies arise when comparing the results across the two tables in terms of what they perceive to be very useful or useful, and what they say they are actually using in the classroom. In this respect, “assessing learning”, “discovery of input”, “deepening learning”, “planning, editing and revising”, and “*Visible Thinking* routines” are perceived as highly useful but are not that often used in class. One would expect teachers to take on board those elements that they perceive as most effective. The fact that there are such differences in the data obtained from the questionnaire may indicate that the implementation of these tools and strategies is complicated perhaps for reasons of time and may require more training or better conditions for their application. This will be kept in mind for future training hoping to encourage teachers to put into practice strategies that they have valued highly. Furthermore, perhaps this can be linked to one of the previous replies that pointed to the challenges of coordinating teaching methodologies with other colleagues and school policies which could partially explain those mismatches. Often teachers may be invested in innovating and implementing new strategies but are held back by the requirements imposed

by schools that all of the teachers coordinate and use the same resources and methodologies.

Respondents were also asked in Question 7 about their intentions in their future teaching and whether they will use (or keep using) those ideas, skills and strategies. Table 6.4 shows the number of respondents who chose the option “I will definitely use it”. In each case, the rest of respondents chose the option “I will probably use it”, except in the case of three teachers who indicated that they may use it in relation to just a few items. It is interesting to see that the first two (“establishment of previous knowledge” and “sequenced stages in the learning process”) are in line with what they report to be currently doing (Table 6.2) and perceived as very useful (Table 6.3). However, concerning the following three points, (1) “assessing learning through rubrics with success criteria”, (2) “celebrating learning”, and (3) “Cooperative Learning”, more respondents plan to use these in the future than those who use them at the moment. In particular, “celebrating learning” was only selected as used often by 10 trainees, whereas 21 indicated that they would definitely use it in the future. This is quite surprising and may suggest that they had not really remembered them and used them but are willing to try them out once they have been reminded of their possibilities through the questionnaire. The importance of positive reinforcement of learning fostered by the celebrations of learning may have to be pointed out more insistently in future training.

	I will definitely use it
Establishment of previous knowledge	22
Sequenced stages in the learning process	22
Challenges to engage learners	21
Differentiation of input, interaction and/or output	21
Assessing learning through rubrics with success criteria	21
Deepening learning thinking and communication skills	19
Creating and publishing demonstrations of learning	19
Planning, editing and revising	17
Whole Brain Teaching	17
Cooperative Learning	16

Discovery of input for learning new knowledge, understanding and skills	16
<i>Visible Thinking</i> routines	15
Celebrating learning	13

Table 6.4. Answers provided to Question 7 of the Follow Up Questionnaire (Please rate the following in terms of how likely you are to use them in the future)

As surprising as these differences are, even more so are the gaps between what participants perceived as useful and what they claimed they definitely would use in the future. Such differences have been visually represented in Figure 6.4. This discrepancy was found in the cases of (i) “deepening learning” and (ii) “*Visible Thinking* routines” – where, in both cases, 22 considered it (very) useful but only 16 planned to definitely use it, and (iii) “challenges to engage learners” – where 23 considered it (very) useful but only 17 definitely planned to use it. In general, it seems that responding to the questionnaire has made them reflect on different aspects of their training which they seek to embrace in their future teaching as well and in any case their answers show their perceived applicability of the main components of the SPECIAL framework as very high.

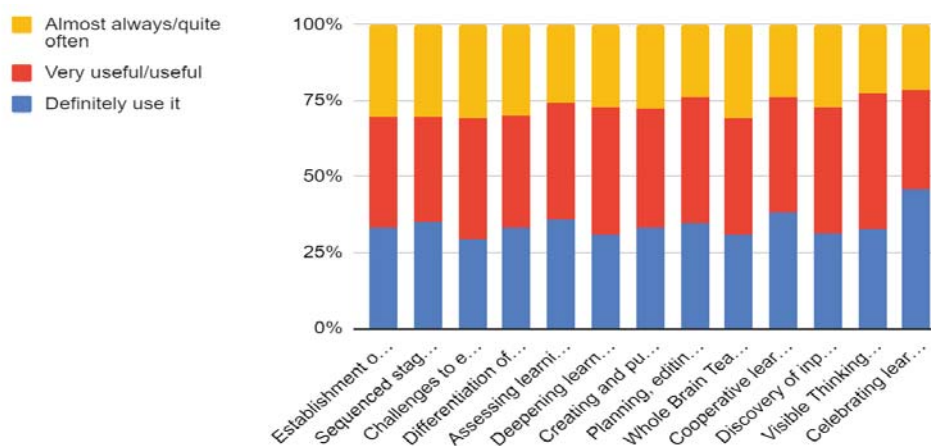


Figure 6.4. Comparison of answers provided to Questions 5, 6 and 7 of the Follow Up Questionnaire

When asked about their needs for further training, they marked different choices. Few of them were marked by more than half of the respondents (see Figure 6.5). This may point to the idea that, in many aspects, they feel that they have already received sufficient training and that future development will come with experience and implementation. This could be

articulated in professional development courses within schools or areas as opportunities for experienced teachers to share their know-how and resources with colleagues as has been done in the third stage of this research discussed in section 6.2.

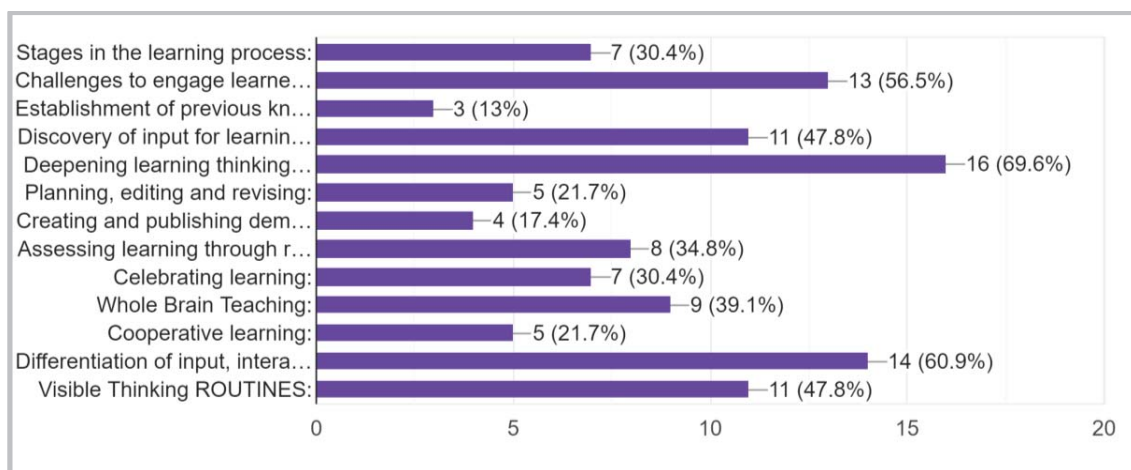


Figure 6.5. Answers provided to Question 8 of the Follow Up Questionnaire on further training

The areas that were most identified as needs for future training are “deepening learning, thinking, and communication skills” (69.6%), “differentiation of input, interaction and output” (60.9%), and “challenges to engage learners” (56.5%). All three of these are, in fact, important concerns for teachers and should be incorporated into more advanced levels of professional development offered to experienced teachers as ways to sustain their growth as practitioners.

Future training for these teachers could look further into more strategies that are being used successfully in L1 Spanish classes and their necessary adaptations for the English classroom, such as the application of UDL to differentiate access to input and the representation of learning, and the development of digital competences in teachers allowing them to curate or create better and more engaging resources for their learners. Such digital skills and teachers’ are more and more necessary, especially looking towards a near future when teachers may need to certify their digital competences by means of the European Digital Competence Framework for Citizens DIGCOMP 2.2 (Vuorikari et al. 2022).

Question 9 asked respondents to reflect on what was behind the decisions made in the classroom. On a scale ranging from strongly disagree to strongly agree, participants had to rate several statements. The results are summarized in Table 6.5 below and show that

the “combination of both general theories of learning and acquisition” was the most highly rated followed closely by the affirmation that their decisions were based on empirical evidence of results found in research. The most divided response was found for the statement “I believe that my decisions should be based on experiences in the classroom and NOT on theory” where 14 agreed and 9 disagreed. These results seem to indicate that almost half of the teachers want to believe that classroom practice is more important than more theoretical constructs which they may have learned about in courses taken as undergraduates or postgraduates at university. This can be understood as a reaffirmation of their own values as “real” practitioners positioned against research carried out from a more academic stance. As a result, this may point to the need to continue to build bridges between theory, research, and practice, stressing theoretical underpinnings upon which the SPECIAL framework is based. That is, current and future trainers should make explicit connections between the different strategies and resources presented in pre-service and in-service professional development, Second Language Learning and Teaching and General Learning constructs and the literature and research that ground them so that further bridges are established between theory, research and practice. In the post-observation feedback these links can be made salient by discussing the reasons behind the choices made during implementation.

	Strongly agree and agree	Disagree
I believe that my decisions in the classroom should be based on theories of learning AND second language acquisition.	22	1
I believe that my decisions should be based on empirical evidence of results found in research on teaching and learning a foreign language/EFL/...	20	3
I believe that my decisions in the classroom should be based on theories of second language acquisition.	19	4
I believe that my decisions should be based on empirical evidence of results found in research on teaching and learning.	19	4
I believe that my decisions in the classroom should be based on general theories of learning.	18	5
I believe that my decision should be based on experiences in the classroom and not on theory.	14	9

Table 6.5. Answers provided to Question 9 of the Follow up Questionnaire: Perceived basis for decision-making in planning and implementation

When teachers were asked which competences or attitudes they felt were most effectively promoted through the SPECIAL framework (Question 10), they ranked “communicative competence in English”, “engagement and motivation” and “learning to learn competence” highest. 20 respondents considered that “PBL and CLIL-Pro” were very effective for the promotion of all three of these (Figure 6.6). A great percentage of teachers also reported that students’ interpersonal competence, creativity and creative thinking, and critical thinking were very much fostered in their classes through the application of the framework. What is interesting to see is that all the teachers considered the entirety of the key elements for effective learning to be at least somewhat fostered by the use of the different parts of the SPECIAL framework in their classes.

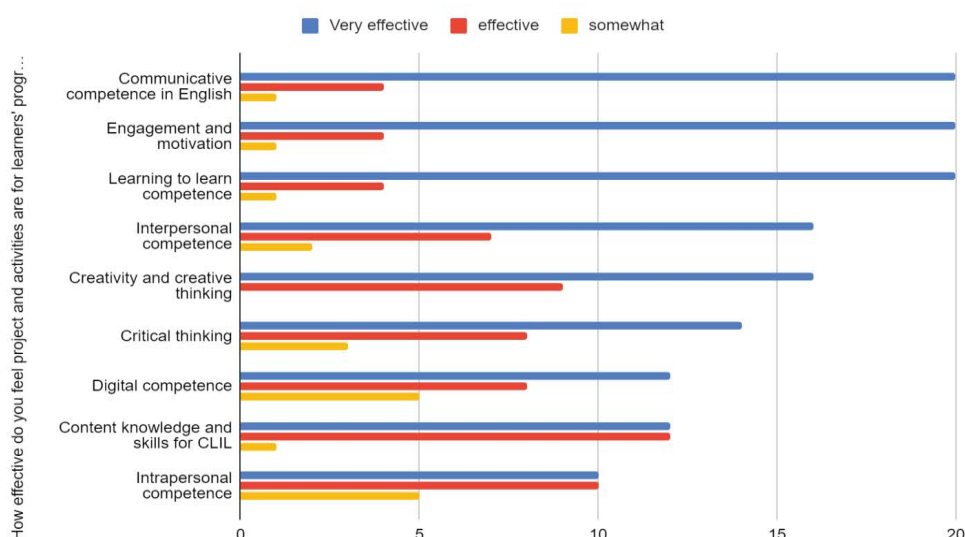


Figure 6.5. Answers provided to Question 10 of the Follow up Questionnaire: How effective do you feel that projects are for learners’ progress in the following?

When asked about the range of resources, tools, strategies and ideas used to facilitate learning through projects in their classes after their training (Question 11), most of them (17) replied that they had found and adapted resources, a few of them (5) had collaborated with other teachers to create those, and just a couple of them had created resources on their own. One further respondent indicated that they had used resources without adaptations. The adaptation and creation of resources, tools and strategies can be seen as key in the planning and implementation of the SPECIAL framework to provide curated input that is in

line with students' needs and to foster interaction and promote output in the classroom. It would be ideal, then, if further collaboration among teachers was promoted by schools and by institutions. The idea to create a folder in the school's Google Drive was one of the main proposals for the future in the in-service training completed at the pilot school (see Section 6.2). This folder will contain videos of good practice examples and resources to be shared with all of the teachers in the bilingual program. In this way, all of the resources created as a result of their training and application of the framework will be used by all of the teachers and newly hired teachers can have access to models of good practice and resources that have already been tested and validated by others at least as a starting point.

Many respondents refer back to problems in selecting and adapting resources, and with time and collaboration in Questions 12 and 13 which inquire about the difficulties experienced when planning, designing and implementing projects in the EFL/CLIL classroom. These were formulated as open questions and received responses such as these:

*Some difficulties experienced are **timing and collaboration** with part of other colleagues.*

*These activities take up **much planning and design**. Teachers' team **cooperation** is highly advisable, digital resources may help to a certain extent.*

*Figuring out how to do it at the beginning was a huge issue. Now a big difficulty sometimes is **finding suitable resources** in English.*

*It's difficult to **find resources and materials**. I follow the interactive notebooks methodology, and you need **time to create** the inputs.*

Even if collaboration is often stated as a difficulty, it needs to be fostered and embraced since the richness of diverse strengths can facilitate learning in schools.

Questions 15 to 17 ask teachers about what they do in order to deal with differentiation, behavior management and activities that are not working properly. A summary of their answers to these three open questions can be seen in Table 6.6.

Dealing with differentiation	Dealing with behavior management issues	Dealing with activities that are not working properly
Adapted activities and resources; small clinics; differentiated materials and assessment; scaffolding; heterogeneous groups; taking into account Multiple Intelligences; cheat sheets; task cards; activities for fast finishers; differentiation content, process and product; use of visuals and pictograms; Cooperative Learning; simplifying materials; open final products with student choice	According to school norms; <i>Whole Brain Teaching</i> (scoreboard) ; gamification and reward systems (<i>Class Dojo</i>); being coherent and firm; with patience	Trial and error till they work; changes and adaptations; analysis of what went wrong; teacher self-assessment; exit tickets to evaluate activities; changing time, participation, materials; giving more and better instructions; giving them instructions in L1; taking notes for future implementations

Table 6.6. Summary of the results from Questions 15-17

Differentiation was expected and proved to be a key aspect in the design and implementation of learning projects, that is why a specific question was introduced for trainees in the SPECIAL framework to indicate how they deal with it in their teaching (Question 15). Different aspects were mentioned ranging from adjusting the output to be produced or getting students to work collaboratively in groups, to the use of strategies that promote understanding and participation (including the use of visuals, multimodal input or cheat sheets).

I take into account MM.II and learning styles. I provide a variety of inputs (hands on activities, mind maps, videos...) and I give opportunities to produce outputs (models, posters, charts, thinking routines...) Also, I design cheat sheets to guide outputs and to provide feedback in show and tells.

I develop several paths to finish in the same end. While some pupils write, other ones are cutting and pasting the words, paragraphs, or just mention it through speaking and using labels or flashcards.

Through scaffolding and providing my students the visuals and support they need.

Respondents indicate the need to pay special attention to students with learning needs. In-service teachers design adapted materials, provide different means to achieve learning outcomes and give them further choices in the ways that input is processed or how understanding and learning is demonstrated in the production of their output.

First of all, the students with a significative ACS (adaptación curricular significativa) have to create a simplified version of the final part of the project, and they are provided with more scaffolding throughout the process.

Apart from that, the projects proposed are always OPEN tasks, which means that they allow students to foster their creativity and create different products.

Behavior management issues do not seem to be so problematic in the classes of the respondents, but still, they mention a lot of strategies that they use to get and keep students' attention, especially *Whole Brain Teaching* (such as *Class, yes, the Scoreboard, Mirror, or Teach-Okay*). They also say that they establish rules and maintain them throughout the year, and some of them indicate that they make use of *ClassDojo* and rewards of different types to maintain students' attention and to promote participation. In any case, introducing learning projects in the classroom entails that students take on very active roles as they need to complete tasks and activities. When students are active, and on-task, pursuing a collective outcome, their engagement tends to be high and the likelihood of finding behavior management issues low.

Respondents answered that when activities do not seem to be working properly (Q17; Table 6.6) they try to modify them as they are being implemented, and adapt them redesigning them for the following year. They show to be reflective teachers who gather evidence from their proposals and their teaching through varied techniques, and take action on them, which is a very important feature to promote critical reflection. They also acknowledge that it is sometimes difficult to determine why an activity or task may (not) work as many different variables come into play.

I try to use Exit Tickets that include an "evaluation of the activity" part, where I let my students suggest improvements for the future.

If it's too obvious that something is not working, to be honest, I try to be creative and improvise to give a twist to the activity, having as a point of departure the designed material.

I usually evaluate my teaching practice at the end of every term. Besides, my students use the technique two stars and a wish (Assessment for Learning) to evaluate my lessons and me as a teacher.

I improve activities, projects, classroom management techniques... every school year. If an activity doesn't work, I improve it for the next time. Actually, some activities work absolutely fine in a class (for example, year 5A) and the same activity is a disaster in another class (for example, year 5B).

In Question 18 when asked about what they did particularly well, each of the teachers provided a unique answer that ranged from “coming up with creative ideas for activities and challenges”, to “planning according to the curriculum”, “sequencing learning” or “promoting students’ motivation”. Similarly, their perceived weaknesses are rather varied including “differentiated instruction” (which is shared by a great number of them), “Cooperative Learning”, “deep learning” or “assessment”, as can be gathered from their answers to Question 21. That is why teaching teams need to be fostered and communities of practice created so that teachers of English and in English can share their strengths and find ways to overcome their weaknesses, promoting learning and a sustained pursuit of effective teaching practices.

I always look at the evaluation criteria and establish the learning outcomes thinking how I am going to contribute to the accomplishment of each of them throughout the project and how I am going to assess it.

Yes, I check the evaluation criteria (criterios de evaluación). But in English they are quite open, so it's easy.

As regards their Assessment of learning (Question 19), it is interesting to see that so many respondents refer to formative assessment tools, such as rubrics, checklists and also direct observation. Other less commonly mentioned resources are exit tickets and portfolios. This shows that the assessment and reflection stage in the framework is considered vital and highly practical. In particular, the provision of many different models of rubrics and checklists and the considerations about criteria may be most helpful for teachers since they are required to provide data and evidence backing their evaluations.

Different views are apparent on which resources work best or are most effective (Question 20). Some highlight the use of the guide for Project Enhanced proposals received and used in their training in the SPECIAL framework as seen in Chapter 5. Some others focus on specific resources for the implementation of learning projects. In this case differences have a lot to do with the varied levels respondents were teaching in. Whereas those in Pre-primary contexts mentioned manipulatives, songs and dancing, those in Primary frequently referred to task cards, cheat sheets and *Visible Thinking* routines and those in Secondary tend to highlight ICT and the use of platforms such as *Padlet* or *EdPuzzle*. Some resources, such as *Whole Brain Teaching* techniques, games and rubrics were mentioned throughout regardless of the context in which they teach. Finally, there were

some responses that pointed out the need to use a variety of resources, which may also be a strategy to cater for learners' diversity, showing different learning styles and needs and seeking to respond to these by allowing for different ways to access the input, varied ways to engage learners and multiple means of representation and expression (Hall et al. 2012).

I consider that different kinds of materials are needed. It is important to have a wide range of resources. The more, the better. There is not only one the best, it is a mix of many of them. Technological, books, films, games, etc.

The questionnaire closed asking respondents about their perceived needs for further training and their professional development. Further training seemed to be welcomed at least by this devoted group of respondents and different aspects were mentioned. Some repeated calls were in line with their stated weaknesses, namely, with regards to differentiated instruction and diversity in the classroom. They would also welcome training in Cooperative Learning and in the use of further *Visible Thinking* routines within Project Enhanced teaching and learning and training to be focused on real examples of effective projects designed, implemented and evaluated in the classroom.

According to the information gathered in the questionnaires on the perceived applicability of the SPECIAL framework, we can see how assessment, differentiation, the use of *Visible Thinking* routines and the engagement of students are issues in which trainees would like to continue developing. Finding and adapting appropriate resources and managing time are some of the challenges that teachers face on a daily basis. Collaboration with other teachers continues to be complicated but also valued as a necessary means to consolidate the use of innovative strategies for teaching and learning. Teachers recognize the importance of designing effective learning environments and situations that develop specific and key competences and can see how the SPECIAL framework can contribute to that and facilitate learning and acquisition.

Perhaps one of the most outstanding scaffolding that teachers can be afforded in professional development is an organized and accessible compilation of examples of good practices and effective resources and the involvement in a community of practitioners where they can share and reflect on their ideas as a starting point for the creation of their own materials adapted to their specific contexts. With this purpose in mind, the following section proposes the observation of 5 teachers who are putting the SPECIAL framework into

practice at the same school but at different educational levels. It will register observations and conclusions drawn from these so that other teachers can learn from them and also so that the framework and teacher training model can benefit from the gathered data to drive adjustments and improvements.

6.2. Application of the SPECIAL model and framework

In order to explore the actual application of the framework and the effectiveness of its training on participants, an observation protocol including messages, recordings, analyses based on a template, post-observation feedback sessions, and a post-feedback survey (see Appendix 7 and section 3.2.3) was created and applied from 2021 to 2022 among in-service teachers who had taken courses at undergraduate and graduate and/or professional development level in which the framework was presented. As indicated in section 3.2.2, a selection was made of 5 teachers, who had received training in the SPECIAL framework and had applied it in the design of their own projects. These teachers were asked to participate in the next stage of their training which involved the use of an observation protocol designed specifically for this research, aiming to establish to what extent the trainees' understanding of the framework affected their teaching and what feedback could be provided in order to further promote and facilitate their professional development. Informants also agreed to become future observers within their school. In other words, the observations and feedback received became sustained professional development for the participants and for their colleagues, whom they would train in the future. In this way we could respond to the detected need for tools with which to provide teachers with self-confidence and assurance about their own practices. The tools designed as part of this Observation Protocol as specifically described in Figure 3.8 consisted of (1) the pre-observation questionnaire that asked teachers some general questions about the session that would be analyzed (Appendix 4); (2) the analysis of the recorded sessions applying a template designed to gather information on the different elements detected in the session and which was an adaptation of the *Sheltered Instruction Observation Protocol* by Echevarría et al (2004) together with Danielson's (1996, 2008) and Danielson et al.'s (2009) proposals (Appendix 6); and (3) a post-observation session where the participant received feedback from the trainer, observer and researcher.⁴

⁴ I am a trainer as well as a researcher throughout the sustained inquiry process and as such I am both teacher and student, learning from the findings while the informants also have the dual role of students and teachers.

Through the recordings of the lessons the teaching of the 5 participating teachers was “reflected” back at them so they could see themselves through the lenses of the images and audio as well as through the perceptions of the observer. The feedback was provided by the observer's completion of the template and shared in the subsequent discussions with participants in the post-observation session. The observer, as part of this session, used the template to help the observed teachers think about the choices made and the learning that happened in the classroom in order to highlight the strengths of the teachers building their confidence and self-efficacy. This information allowed the observer to share and contrast any possible suggestions for changes or adjustments that could be made in the future in terms of, for example, instructional design, classroom management, teacher talk, or interaction within the SPECIAL teacher training model.

Let us begin by discussing the results from the analysis of the teacher talk (Appendix 5) in each of the five recorded sessions in which they were implementing different parts of the SPECIAL framework. To do so, AntConc software (Anthony 2022) was used to identify the most frequently used words in each of the participants' teacher talk recorded in the session. These findings will allow us to gain insights into specific strategies implemented and the focus of the teaching.

T1_S

In the recorded session T1_S was delivering an EFL lesson on the weather as part of the Discovery stage following the SPECIAL framework aiming at providing input. A close look at her teacher talk (see Appendix 5.1) afforded by the software used, shows that, surprisingly, this Secondary Education teacher who is addressing a much higher level of student competences actually uses the least number of words during her session, 662 versus the highest amount used by a first year Primary Education teacher (1661 words) during her recorded session. Trying to understand why this might be, the fact that both teachers use videos as alternate sources of input rules out this possible reason. It could be due to the fact that while the Secondary Education teacher sets time apart for students to work on their response in a freer way, the Primary Education teacher is constantly providing feedback and encouraging learners with words and scaffolding. That is, the higher level of student competences in Secondary allows for much more autonomy than that of the young learners in Primary. She uses teacher talk to draw students' attention to Focus on Form, more specifically, vocabulary related to weather after watching a video featuring a

meteorologist, and the formation of adjectives based on nouns such as in, “If there is a lot of fog it’s foggy. And if there is a storm it’s stormy.” In fact, the word “weather” appears as number 9 in the rank of most commonly used words (see Table 6. 6). Because the teacher repeats the question “What is the weather like in...”, the words “what” and “like” are also included among the 20 most frequently used words in her session. Also, the high frequency use of “like” is accounted for bearing in mind her instruction asking students to say what they like doing on different days depending on the weather “On a ... day I like...”.

Type	Rank	Freq
<i>you</i>	1	28
<i>a</i>	2	24
<i>in</i>	3	22
<i>the</i>	4	21
<i>to</i>	4	21
<i>it</i>	6	18
<i>s</i>	6	18
<i>I</i>	8	16
<i>and</i>	9	15
<i>is</i>	9	15
<i>weather</i>	9	15
<i>what</i>	12	13
<i>can</i>	13	11
<i>this</i>	14	10
<i>about</i>	15	9
<i>if</i>	16	8
<i>we</i>	16	8
<i>like</i>	18	7
<i>yes</i>	18	7

<i>today</i>	20	6
<i>Zaragoza</i>	20	6

Table 6.7. Twenty most frequently used words in T1_S's teacher talk

Table 6.7 further shows that “you” is the most commonly used word in her teacher talk, as the teacher instructs learners on what to do (“Can you tell me if you remember...?”, “Here you put a webpage where you can see the weather ...”, “If you type Zaragoza, you can...”). “We” also is within the 20 most frequently used words as she provides communal understandings (“In snowy weather we always...”, “In stormy weather we always...”). There are no comprehension questions about the video. Instead, the teacher tends to stress key structures and vocabulary through repetition. She seems to aim for students to imitate those exact expressions to convey personal ideas. There is also restatement and paraphrasing to go along with the repetitions such as in, “I would like you to insert a picture, a photo of the place, in a document. You create a document...”. At this stage of the SPECIAL framework it may be expected to have further opportunities to practice the vocabulary and structures introduced in the input and to go a step further in prompting more interaction not only with the teacher but also between peers and to focus to a greater extent on conveying meaning and freer production. Suggestions provided by the observer involved the need for a communicative purpose and more interaction which could be done by providing more information gaps, encouraging the use of learning strategies, and designing more scaffolding. She was encouraged to embed many more real comprehension checks into the lessons both for the understanding of the video and for the production practice that followed. Practice should evolve from this very guided one to much freer production. The observer also recommended that the students be reminded of why they would need to know how to use this language in connection with their project outcomes and real-life situations making learning more meaningful and relevant in line with CA principles.

T2_PP

The session recorded with T2_PP revolved around the scientific method in a 5-year-old Pre-primary CLIL class, which was part of the Activation stage, as a first contact to help students progress towards the achievement of the learning outcomes and their final products, their participation in the school's Science Fair. The analysis of her teacher talk (see Appendix 5.2) reveals a very high frequency of questions and expressions of surprise which are used

to capture students' attention and engage them in the events. Many referential questions are used to prompt learners to retrieve and review key vocabulary such as in "What is that?", "What is this?" The word "what" is ranked fourth in frequency and has been used 36 times within the lesson. This use may be necessary when students' level is low and their output and possibilities to participate are limited. The teacher also uses rising intonation to ask learners to complete her sentences as in for example, "So, now it's time to Experiment, yes very good". We can also see how the teacher has repeated exactly what the student has said in a louder voice so that everyone can hear or if there have been any minor readjustments to be made how she has recast their answers in a more appropriate way. There is a frequent use of *Whole Brain Teaching* techniques with *Class Yes* being the most used and *Mirror, mirror* and *Blow the answer into your hand* in second and third place, respectively. This indicates that these techniques have been identified by the teacher as potentially effective and have been integrated successfully into classroom management.

The feedback provided reflects the importance afforded to creating a positive learning environment to lower the affective filter (Krashen 1989) and engage learners (Hall et al. 2012). Expressions, such as "Fantastic", "Good", "Very good", "Super", "Awesome", "Big clap clap for you", "Congrats", "Well done" are used as positive reinforcement to encourage very young learners and to reward their participation in class. In fact, as can be seen in Table 6.8 "good" ranks 11 and "very" 18 in the frequency of use of words in her teacher talk in this session.

Key vocabulary in this particular lesson regarding the steps in scientific method applied to an experiment on the floatability of different materials appear consistently throughout the lesson ("experiment", "hypothesis", "sink", "float") together with school objects ("rubber", "sharpener", "crayon", "paper", "block", or "scissors"). Some L1 is used in order to check and scaffold understanding. This is either done by allowing students to say the word in Spanish so that the teacher can repeat it in English or by sandwiching the L1 key words between their realizations in English such as in, "why- por qué - why?". These prove to be effective techniques of pedagogical translanguaging (Larsen-Freeman 2018; Cenoz and Gorter 2021) that avoid a focus on decontextualized translation and instead, provide very quick, to the point scaffolding through the use of L1.

Type	Rank	Freq
<i>you</i>	1	63
<i>the</i>	2	62
<i>to</i>	3	44
<i>what</i>	4	36
<i>is</i>	5	35
<i>s</i>	6	34
<i>it</i>	7	30
<i>think</i>	8	29
<i>do</i>	9	26
<i>are</i>	10	25
<i>good</i>	11	23
<i>ok</i>	12	22
<i>that</i>	12	22
<i>a</i>	14	19
<i>and</i>	14	19
<i>going</i>	14	19
<i>very</i>	14	19
<i>so</i>	18	18
<i>class</i>	19	17
<i>have</i>	19	17
<i>I</i>	19	17

Table 6.8. Twenty most frequently used words in T2_PP's teacher talk in her recorded session corresponding to the Activation stage

In the feedback provided by the observer many strengths were pointed out, such as the input enhancement provided through the use of intonation, stress and rhythm along with constant use of key vocabulary words as input flood. Both of these techniques promote retention of these key terms in long term memory. The L1 was used in a selective and effective way in order to scaffold understanding throughout, supported as well by the mini flashcards and

realia that were employed to promote participation and check comprehension frequently. *Whole Brain Teaching* routines were used as an effective means to structure interaction and create an engaging and emotionally safe learning climate. Some suggestions were provided regarding the possible choral repetitions that could have been added to augment participation of all learners rather than in individual turns. Prediction was also employed as a learning and engagement strategy and the teacher was encouraged to involve all students in these by asking them to give their own opinions with simple thumbs up or down gestures. In this way all learners would be interested and invested in the experiments carried out by individuals to see if they had been correct or not in their hypotheses. The organizers designed for the registration of their team experiments were highlighted as an excellent tool for processing the input and retrieval practice since learners were asked to recall and write the results of earlier experiments and were able to ask others if they could not remember. The observer suggested that the results registered in the organizers could be used as scripts for learners to record audios to be included with QR codes in their murals and shared products on the scientific method as final outcomes of their projects.

T3_S

In the CLIL biology session recorded, taught by T3_S, as part of the Deepening stage, the focus was on guiding students' understanding of functions of the atmosphere, enriching their thinking, while interacting and negotiating meaning with their peers and consolidating connections and learning. This was ensured by asking students to register their newly found connections in a well-designed, tailored organizer. The analysis of teacher talk in her session (see Appendix 5.3) shows that she emphasized previous learning ("These days we have been studying the atmosphere, so we know") as well as the aims of the lesson ("The task today is to discover the atmosphere functions"). The teacher constantly checks for understanding of both the content and the task requirements, as in:

So we have to understand what we are reading and with all that information we are going to complete a diagram, ok? understood? Yes? So, this is the diagram that you have to complete. You are going to do it in (Google) Classroom ok? And you just have to complete one diagram for each group.

She provides very detailed instructions on what students need to do to complete the task successfully, which leads her to repeat commands, to paraphrase and to make use of

formulaic and rhetorical comprehension checks, which frequently entail the use of “ok” (ranking 9 in Table 6.9). L1 is frequently used to clarify instructions and meaning, as a possible consequence of her concern to be fully understood and for students to be able to follow the more and more complex ideas presented.

So one of you will read it out loud. Another one of you will summarize it, what is the meaning of summarize? Eh? Resumir, that's right. Lo resumirá, lo explicará. Ok? So another one will summarize it, and out loud also. And another one will complete the diagram. Do you understand?

Type	Rank	Freq
<i>the</i>	1	110
<i>you</i>	2	72
<i>that</i>	3	54
<i>it</i>	4	46
<i>so</i>	4	46
<i>of</i>	6	43
<i>to</i>	6	43
<i>is</i>	8	41
<i>ok</i>	9	39
<i>and</i>	10	34
<i>s</i>	11	31
<i>a</i>	12	30
<i>we</i>	12	30
<i>are</i>	14	27
<i>have</i>	14	27
<i>will</i>	16	26
<i>do</i>	17	25
<i>one</i>	17	25

<i>for</i>	19	24
<i>in</i>	19	24
<i>what</i>	19	24

Table 6.9. Twenty most frequently used words in T3_S's teacher talk in her recorded session corresponding to the Deepening stage

Table 6.9 shows that “you” is again the second most frequent word, only followed by “the”. As can be seen in the previous example, her instruction-loaded speech brings with it a lot of second person plural pronouns and the future tense, especially “will”, which appears as the 16th most frequent word used in her teacher talk in this session (e.g. “you will have to”, “you are going to”, “you will write/summarize”). “That” appears as the third most frequently used word, as a result of her use of phrases, such as, “That’s right” for provision of feedback and to provide definitions and explanations, such as “Something that is deadly is something that can kill you”. This seems to be in line with what might be expected in this stage of the framework, where the deepening of content and more connection within this require opportunities for students to process it in multiple ways and to register their learning.

Since learners were working within the Deepening stage of the framework and a great deal of subject specific vocabulary was found in the text, the feedback provided by the observer suggested that the students register in writing the extended list of CALP vocabulary encountered throughout the lesson. Specific resources, such as, creating a shared *Hyperdoc* as a glossary were discussed with the teacher emphasizing the need to allow for processing and retention of input. This would also provide opportunities for retrieval practice of previously learnt scientific terms as well as a running record of learning where noticing of spelling for example could be included. It was also suggested that there should be some kind of mention of the final challenge or product that would arise from this project and how this micro task prepared them for it so that learners could see the relevance of their learning and its transferability to different contexts. The observer discussed translanguaging with the teacher who felt insecure about overusing L1 in her explanations. Some suggestions for providing other forms of scaffolding were explained, such as the register of words previously mentioned and more visual support to aid comprehension. Learning strategies which were used effectively by the teacher were highlighted encouraging the teacher to make them explicit as such to learners by explaining their benefits for effective and independent learning.

T4_P

The session recorded with Participant T4_P corresponds to the Creation stage of the SPECIAL framework and, as such, learners will be drafting their descriptions with the support of what they call a “Writing Route” which they have learnt about in the Planning stage and which they adapt and use in their L1 classes as well. Their written production will be the description of an object that they have found as part of a gamified mission to help Batman return a series of stolen objects to their rightful owners. Students will use these written descriptions as scripts for an audio recording that they will include in emails addressed to different teachers who have asked for their help in finding their missing objects. All of the context provided has been presented along the previous stages through a Genially interactive board with all the resources incorporated. Learners are used to preparing for each new part of their challenge by accessing the different resources provided independently as homework.

In the recorded lesson T4_P establishes a very clear agenda for the development of the classroom (see Appendix 5.4), and she indicates the different steps to be followed by students by means of sequencers such as, first of all, then, etc. She also presents and makes use of specific strategies and resources that students seem to be used to, such as, cheat sheets, a study guide and what they call “a route” with sentence starters and examples for production of text types. Just as in the case of the previous participants, the word “you” ranks first (see Table 6.10) as a result of specific instructions provided to students (“So you can take it, you take your light, you use it or you try and then you put it again here”). This example further shows the high incidence of use of the word “here”, which is very frequently employed as a deictic element to refer to location in the classroom and in the digital tools used, the word “light”, which is a key element to solve the mystery around which the lesson revolves, and of the word “so” to work as a discourse marker. Another example would be the following: “So what do you think? Do you want to try?”. Similarly, “ok” is also used with this function, as well as in the interrogative as a comprehension check of students’ understanding of instructions.

Type	Rank	Freq
<i>you</i>	1	81
<i>the</i>	2	44
<i>to</i>	3	32
<i>it</i>	4	31
<i>and</i>	5	27
<i>here</i>	6	26
<i>have</i>	7	24
<i>I</i>	8	22
<i>ok</i>	8	22
<i>so</i>	10	18
<i>do</i>	11	16
<i>can</i>	12	15
<i>if</i>	13	13
<i>is</i>	14	12
<i>your</i>	14	12
<i>light</i>	16	11
<i>that</i>	16	11
<i>different</i>	18	10
<i>in</i>	18	10
<i>need</i>	18	10
<i>this</i>	18	10

Table 6.10. Twenty most frequently used words in T4_P's teacher talk in her recorded session corresponding to the Creation stage

The word "if" also features prominently in Table 6.10. T4_P uses it to give choices to students and somehow personalize their learning and completion of tasks. She, for instance, prompts students to decide "If you want to check more vocabulary..."; "It's here if you want it", etc. Overall, there are very explicit step by step instructions given and many references made to the different resources available as scaffolding. The observer in the feedback

provided suggests that perhaps there could be more language instruction events where students would get to pronounce and repeat some of the structures and words that they will use in the descriptions. The excellent creation of a relevant and meaningful context is highlighted as well as the differentiated scaffolding that is provided for independent use by learners. It is suggested that more connections should be made with past and future learning and it should be made explicit that these new skills that they are acquiring will help them meet the challenge posed by Batman and Robin at the start of the project. There is a very effective use of the Cooperative Learning structure *Talking Chips*. The observer points it out and encourages the teacher to continue to use it and perhaps incorporate roles where one learner acts as listener and writer and another as thinker and speaker. In this way reception and production could be integrated assuring that learners also get practice in oral comprehension and pronunciation.

One of the issues that is discussed with the T4_P is checking for comprehension checks. Many of the questions that the teacher asks in this sense are rhetorical, such as “Ok?” or “Do you understand?”. There is no way for students to stop the explanation if they need more clarification and no real way for the teacher to know if they are all following along or if someone has gotten lost. The observer suggests that more real comprehension checks should be present asking students to demonstrate or repeat what they have understood about the directions. Since there are many instructions given in a short time there should also be ways in which these instructions can be made memorable perhaps by writing some things on the board or on the presentation on the board and including a class cheat sheet on the wall for all to see if needed with the different steps that will be followed in the session.

T5_P

The session recorded by T5_P constitutes the Planning stage of a project in which learners are asked as their challenge to present their families to a monster that they will be adopting. It is part of a year-long theme where they are introduced to different monsters and then decide to each adopt one of them. In the different projects throughout the school year they present the monster to their families, describe their homes, tell the monster about their daily activities and eating habits, etc. This particular lesson provides them with a WAGOLL or example model of the teacher presenting her own family and then guides learners' understanding of the different parts of the presentation and the language used so that they will be able to create their own scripts for their recorded audio presentations in subsequent

stages and lessons.

When analyzing the recording and the teacher talk from participant T5_P her use of *Whole Brain Teaching* techniques becomes apparent (see Appendix 5.5). In particular, in this lesson, she makes use of the Scoreboard, and they celebrate learning. She employs the *Class-yes* routine in different ways 16 times and she makes them blow their answers into their hands 7 times throughout the class. These techniques were learned in training sessions and have been incorporated in daily classroom management. The mother tongue has only been used on one occasion to make learners distinguish between “mi mother” and “my mother”. “Mi mother? My mother, good.”

As can be seen in Table 6.11, “you” is the most frequently used word employed 66 times to address students, give commands or ask questions like “Are you ready?”, “Can you read it?”. and also “we” appears among the 20 most common words as it was used on 26 occasions. This could be interpreted as a way to involve all the students as a group to make them part of the collective you or the first person plural, it is also used as a way to address learners. This is especially relevant when not grammatically necessary and added for pragmatic reasons to show proximity with students (“Ok, (we have to) be superquiet”) or clarifying who is expected to do the different actions described (“Very good, now (you) give it to Lucy, then Lucy reads”). As in the case of other participants, “ok” was found to be used both as informal comprehension checks in question form and as a way to indicate the beginning or end of something or a transition from one activity to another: “ok, so, now ...”, “ok, now listen”, “ok, now”.

A feature that stands out is the use of different simple commands either direct ones or in the form of a question. Such use of commands would explain the appearance of “listen” in Table 6.10 with 19 hits, and also the use of other verbs less commonly uttered, such as “say” with 16 hits, “put” with 12 hits or “remember” with 9. Most of these apply to actions which the children can see as the teacher demonstrates.

Type	Rank	Freq
<i>you</i>	1	66
<i>the</i>	2	64
<i>is</i>	3	59

<i>to</i>	4	54
<i>it</i>	5	47
<i>I</i>	6	41
<i>so</i>	6	41
<i>this</i>	8	36
<i>good</i>	9	35
<i>very</i>	10	32
<i>class</i>	11	31
<i>ok</i>	11	31
<i>now</i>	13	29
<i>my</i>	14	28
<i>she</i>	14	28
<i>are</i>	16	26
<i>we</i>	16	26
<i>and</i>	18	25
<i>going</i>	19	23
<i>listen</i>	20	19
<i>one</i>	20	19

Table 6.11. Twenty most frequently used words in T5_P's teacher talk in her recorded session corresponding to the Planning stage

Very frequent positive feedback is used for motivation, to encourage learners with intensifiers to create a positive class environment and lower the affective filter, which explains the frequent use of "Good" (ranking 9), commonly accompanied by "very", or "super". The reason why some pronouns like "she" (and also "we"), or possessive adjectives like "my" appear frequently in T5_P's teacher talk is also because these are used as metalanguage in the classroom, as they are referred to because they entail examples of sight words or tricky words following a synthetic phonics approach. These are being reviewed at the beginning of the class and then their appearance in the activity accounts for their high frequency of use. It is interesting to note that this occurs within a lesson that

constitutes the Planning stage where learners are preparing for their final macro task which is a video presenting their own families to an adopted monster. These *Tricky Words* according to Jolly Phonics will be employed by learners to complete the descriptions of their families and, therefore, can be considered the key vocabulary for the final product. As such, some of the instances of these grammar words can be seen as content related words. Other key vocabulary, although not featuring among the 20 most frequently used words, include the words “family” used 8 times, “presentation” used 7, “mother” used on 5 occasions.

The feedback provided by the observer highlights several excellent examples of classroom management and learning development that should be identified and tagged as models of good practice to be shared with colleagues. These include 1) step by step development of skills which allows students to reach complex objectives by the end of the project; 2) specific error correction and feedback provided on pronunciation and spelling; 3) *Whole Brain Teaching* used for focusing attention and transitions as well as for promoting participation; 4) Cooperative Learning structure *Fan and Pick* used to structure interaction; 5) use of a model or WAGOLL as first listening comprehension which then turns into selfgenerated scaffolding for the Creation stage that will follow. Some suggestions involve more explicit references to the stage which they are in and how they can use their learning for the completion of the final challenges and the use of *Mirror* to get children to practice some of the key vocabulary more frequently.

The analysis of all five of the verbatim transcriptions of the teacher talk together with the feedback provided to all of the teachers (see Appendix 6) has allowed me to identify different patterns and trends which can point to what teachers have learnt and applied in their training on the SPECIAL framework, regardless of the stage in which they are immersed or the educational level they are teaching at. When looking at the first section referring to lesson development, it is apparent that *Whole Brain Teaching* strategies which were introduced in training are much more present in the Pre-primary and Primary classrooms where three of the five teachers successfully use different classroom management strategies, such as *Scoreboard*, *Class-Yes*, *Mirror*, and *Blow the answer into your hand*.

Wait, we are going to blow it in our hands, ok? Remember when we do this? If you know the answer, blow it in your hand and when I say release you say it, blow it in your hand, release, [children corally respond] she. (T5_P)

What's that? It's an ... observation. It's the first step of the scientific method so it is Observation. Mirror, mirror. Observation. (T2_PP)

There is also a much stronger and effective use of intonation, rhythm and stress in the Pre-primary and Primary classrooms, in particular in the two earliest years, in order to prompt students' participation in interaction with the teacher and to clarify meaning and stress the importance of certain keywords. T2_PP, for example, draws out certain words to focus learners' attention on them and uses quick pedagogical translanguaging to make a connection with their L1 knowledge.

The next step is, do you remember that? Very good, it's a question, The question, The question is WHYYYY, (nos preguntamos por qué, ¿verdad?) WHYYYY the ship floats and WHYYYY the coin sinks. ok? (T2_PP)

All of the teachers use repetition as a further technique to favor retention and focus attention on key words. This can be seen illustrated in T2_S's repeated emphasis on words like "function(s), and gasses.

So if you look at the diagram, here, (points) you are going to write the different functions of the atmosphere, Ok? Function number 1, number 2, number 3. And some of these functions, you are also going to write the gasses, the gasses of the atmosphere that are related to that function. Ok? So for example, here in function number 4 you will have to write the function and say, That function is related to nitrogen, for example, ok? Tendréis que escribir el gas con él que está relacionada esa función, The gas that this function is related ok?

As can also be seen in the example above, pedagogical translanguaging (Larsen-Freeman 2018; Sahan and Rose 2021) is very frequently used in the more complex delivery of content in CLIL for secondary. It also commonly occurs in the explanation of multiple step instructions as follows:

Each paragraph, in each paragraph of the text you will have different roles. Para cada párrafo tendréis un función diferente. So, one of you will read the paragraph out loud. Lo leerá ... What is the meaning of out loud? En voz alta. For your group, not for the entire class. So one of you will read it out loud. Another one of you will summarize it, what is the meaning of summarize? Eh? Resumir, that's right. Lo resumirá, lo explicará. Ok? (T3_S)

On occasions the Pre-primary and Primary teachers will use a single word in L1 to clarify and reinforce meaning.

Then step number 5, eh, you can use your cheat sheet. Do you remember last year that I gave you lots of these cheat sheets? Chuleta? ok? (T4_P)

In other instances, the teacher asks the children to give her the words in L1 by using questions, rising intonation or pauses as in,

Ok class class, what is happening here? Let me see. Yes. Hey listen to me please. Yesterday I was playing with my boat and the boat, the paper boat is floating, do you know what is the meaning of floating? (flotar) Yes very good, fantastic. The boat is floating on the water but then he put a coin in the water and .. (T2_PP)

However, one of the teachers employs L2 for the entirety of the class and L1 only as a diacritic to distinguish between the first person singular possessive pronoun “my” and the Spanish one “mi” stressing the pronunciation of the vowel sound.

Can you read it? Very good. Mi mother? My mother, good. Listen, MY mother. [child repeats my] very good. Wow, super good. (T5_P)

In the Pre-primary and Primary classrooms scaffolding is also provided through the use of gestures, deictics and physical demonstrations which is emphasized in the SPECIAL teacher training model as a way to support understanding and promote retention in long term memory.

So the first step is the puzzle. When I came here today to the class I found this. I found all the puzzles and I have 1, 2, ... eight different puzzles. So I think that the first step is that I give you one for each team and you have to complete the puzzle. Maybe you need the light for something that you have to do with that. Ok, I don't know. I'm not sure. First do it and then try something with the light. I'm going to put the light here. So, if you need it you can come here, take the light. First you have to clean your hands ok? You come here and you can take it and then you have to put it again and leave it here on the table because maybe another team needs the light, ok? (T4_P)

Synthetic phonic strategies are used to focus on form and help learners notice pronunciation in the Primary EFL class, which illustrates the preparation for production in the Planning stage. It is also interesting to note that the teacher uses metalanguage to indicate that the words they are practicing do not follow the simple code of synthetic phonics but rather belong to the category of *Tricky* or *Sight Words*:

So, before we start we are going to see if we remember the tricky words that we have been working on, hello we're here! Thank you. The tricky words! so, remember they are tricky because they don't follow jolly phonics so they are tricky. Who remembers this one?, raise your hand if you remember, Roberto? He, He, very good. (T5_P)

Other patterns and trends that illustrate the application of different elements of the SPECIAL framework in action are highlighted as follows:

- Effective use of *Whole Brain Teaching* routines (Biffle 2014) in Pre-primary and Primary classrooms to foster oral production as in *Mirror*, to differentiate waiting time for student responses as in *Blow the answer into your hand*, to encourage learners to share their understanding with their partners (*Teach-ok*), to reward learners for participation and rule adherence (*Scoreboard*) and to capture or redirect attention (*Class-Yes*). The fact that these routines have become an integral part of their lessons seems to indicate that trainees identified these as potentially relevant and have in effect helped them to structure interaction and manage classroom behavior throughout the different stages and regardless of the educational levels. However, it should be noted that there is no use of any of these strategies in the Secondary classrooms. This may be due to the fact that in the training sessions teachers perceive these as geared only for younger students despite their proven use in all levels of education (Biffle 2014).
- Focus on key vocabulary (Ur 2012) or structures through repetition both for content learning and communication (Cummins 2000). All of the 5 teachers observed used repetition to draw learners' attention to key vocabulary terms and to support comprehension in the different stages and in both EFL and CLIL contexts. However, this may give teachers a false impression of providing noticing. The mere frequency of the presence of certain words does not guarantee that students' attention will, in fact, be drawn to these. Other techniques, such as stress, rhythm and intonation, similar to those used by the Pre-primary and year 1 Primary teacher should be incorporated in those repetitions to ensure that learners focus on the keywords and structures and these are better retained in long term memory. Very verbose and lengthy explanations, despite the repetitions within them, may result in the loss of concentration in students.
- Positive adjectives and adverbs to provide feedback fostering motivation and encouraging learners to produce (Krashen 1989; Swain 2005; Hattie and Clarke

2018) have been used throughout all of the observed lessons. All of the teachers used positive reinforcement through comments, such as “very good, good, great”, to lower the affective filter and create a safe climate in which learners are freer to produce in the foreign language and test their hypotheses. Nevertheless, these sometimes empty and rote expressions may not be enough to motivate students and foster their progress. Other techniques that were used seem to have more potential for engaging students and promoting more and better participation, such as more specific references to what has been accomplished or what needs to be adjusted to ensure communication and provide more effective feedback guiding them towards their next steps and goals in learning and how to achieve them (Hattie and Clarke 2018).

- Pedagogical translanguaging for the scaffolding of comprehension of complex content concepts and instructions for the completion of tasks. Although the use of L1 varied in all 5 of the observed teachers, there seems to be more of it used in the CLIL lessons (T 2 and T3) than in those teaching EFL (T1, T4 and T5). This might be interpreted in accordance with the shared conception that English lessons should contain little or no L1 which the Secondary EFL teacher might have or in the case of the Year 1 Primary teacher with self-confidence in her own communicative abilities. The CLIL teachers on the other hand that use the L1 often seem to be doing so in the L2 in order to support comprehension. This is a legitimate reason to do so, although sometimes it seems to reflect in the case of the Secondary teacher a lack of confidence in the learners’ linguistic abilities in the English language. In all cases teachers should be made aware of when and why they use the L1 in order to make the most effective and necessary use of translanguaging.

In the following section the results gathered from all of the observation templates will be discussed looking at trends and patterns in order to draw further conclusions regarding the effectiveness of the framework for design and implementation of SPECIAL projects within real classrooms. The compilation of all five observations as registered in the templates can be seen in Appendix 6.

All of the teachers begin the lesson by reminding learners of what they have learnt so far although not specifically mentioning the stage they are in along the learning path.

There is also a varied use of multimedia to motivate learners and give their learning a meaningful and relevant context. Videos are used to launch the project (T2_PP) and engage students in the Activation stage, to present new content (T1_S) in the Discovery stage and to provide models for later production (T5_P) in the Planning stage. A multimodal *Genially* interactive board which the teacher has created for this project serves to provide structure and context as the students progress along the different stages (T3_P). Interaction is structured through the use of Cooperative Learning structures, such as, *Talking Chips* and *Fan and Pick* (Kagan and Kagan 2009) and also through the employment of roles and role cards to promote interaction amongst peers. Registration of learning occurs thanks to the different organizers used from Pre-primary to Secondary, such as the experiment organizer for the activation stage in Pre-primary, the description route for the Discovery stage in Year 4 Primary, or the jigsaw script for the Planning stage in Year 1 Primary.

Retrieval practice (Agarwal et al. 2013; Agarwal and Bain 2019) is present in all the lessons as the teachers prompt students to recall different keywords. Students create their own scaffolding to be used in later stages of their learning and production, those of planning and creating. In the CLIL lesson for Secondary students use an organizer in the form of a diagram that they complete in order to transfer and share their learning.

Skills are well integrated in most of the lessons with a clear predominance of oral reception in all of the classes, oral production in the Pre-primary and Year 1 primary class and written production in the three eldest classes. Writing is highly scaffolded through the use of a “Description Route” which is a cheat sheet that marks steps in the creation of a description which all students must follow in Year 4 Primary. This route includes key vocabulary and sentence frames that they use to write their descriptions. This guided production that will lead to freer production is present in all but one of the lessons, that which corresponds to the Pre-primary class. This is justified by the fact that the Pre-primary learners will not be asked to produce freely in writing until later in their development. Scaffolding for writing is also provided through the use of cheat sheets by T4 and models and scripts which they develop for themselves in T5. Input enhancement (Sharwood Smith 1993; Nassaji and Fotos 2011) to promote noticing (Schmidt 2010) and retention of form is present through the use of bold font (T3, T4, T5), colors (T4, T5), word cards (T5), diagrams (T3), and organizers (T2, T3, T4, T5). Finally, there are no formal assessments shown as such in the lessons recorded and analyzed. However, more informal formative assessments are included taken on by peers as part of the Cooperative Learning structure *Fan and Pick*

(Kagan and Kagan 2009). In the third step of the structure one of the students takes on the role of checker providing peer feedback on the pronunciation and choice of answers given. They are in charge of contrasting the answer provided by their teammates with the answer key provided as a cheat sheet. In this way different learning strategies are developed with students, such as asking for clarification, summarizing and mnemonic techniques (Marzano et al. 2001; Marzano and Pickering 2011; Agarwal and Bain 2019). Students take on the cooperative roles of monitoring their peers' learning and verifying their responses (Kagan and Kagan 2009).

All the teachers closely monitor production and provide corrective feedback albeit in different ways. Some of the teachers provide more specific goal-oriented feedback on the process while others just reinforce accurate answers and correct errors in production through direct methods or recasting (e.g. Thornbury 1999; Larsen-Freeman 2000; Brown 2010).

In order to promote professional development with the observed teachers, the observations and the completion of the templates were shared with each of them in individual post-observation sessions where they had the opportunity to listen to the observer and read the feedback provided to see and reflect on the choices they had made in class. The joint reflections of the observer and each of the 5 participants were discussed so that possible changes or adjustments could be made in future implementations in terms of, for example, instructional design, classroom management, teacher talk, or interaction. These shared thoughts also helped me as the observer to better understand the principles and priorities that underlie their implementations of the SPECIAL framework.

As an example of the types of considerations that came about in the feedback sessions we can look at T5_P's case. The observer suggested that perhaps the teacher could have made the sequencing of learning and how it would help learners to meet the final challenge more explicit during the lesson. The teacher replied that the learners - because of their age (six-seven years old) - might lose focus if they were reminded often of what was coming. She felt they needed a more "here and now" focus instead, to prevent them from feeling blocked. Together the trainer and the teacher decided that at the end of the session the students guided by the teacher would look at the learning path to see how what they had learnt in that session would help them move towards their final aims.

After their feedback sessions, the informants were asked to complete a survey (Appendix 7 and in Chapter 3) asking them about their reactions before and after the

feedback. All the respondents replied that they were excited to see if they could learn something from the feedback, 3 of them felt excited to hear how someone else would see their teaching, and 4 volunteered to become observers in the future. Three of them talked about feeling nervous for different reasons, 1) because they did not like the lesson that they had recorded; 2) because they were concerned about how students would behave, and 3) because they were not sure about what to expect. They were also asked to list something that they felt they had learnt from the experience. They talked about how they were able to see the importance of giving examples, they mentioned that the feedback session had been a great opportunity to reflect on their teaching and change old habits; they said they had seen that they should let students interact more frequently, and use video resources more effectively, even if they had been thought of as warm-up activities. One participant expressed that she had felt empowered because she had a lot of good things to help her support changes that needed to be incorporated. Another participant stated that the feedback had helped her to be more confident in CLIL lessons and in the way they were organized for her very young learners. This expressed empowerment and increased confidence could be the result of the building of bridges between theory, research, training and practice that is the object of this dissertation and may help to bring about positive change in teaching and learning in bilingual classrooms. The trainer and researcher was able to act as a mediator between the theoretical constructs and the practice and implementation of trainees.

The study of the application of the SPECIAL framework through the Observation Protocol has led to detect some patterns which can be pointed out as areas for improvement both in classroom practice and for the training model, as follows,

- **Higher frequency of students' oral participation throughout the lessons.** There should be more opportunities for students to practice and participate orally. Some suggestions for this emphasize the possibilities of incorporating choral responses and repetitions. *Whole Brain Teaching* techniques, such as *Mirror* or *Teach-okay* can be used to have students repeat key vocabulary and concepts or common error corrections. This would involve all students in the learning process rather than just individuals, providing much more class time in which everyone is producing so that retention is favored for all learners.
- **More frequent promotion of noticing in classroom materials and in the**

feedback provided. Learners should have ample opportunities to be made aware of the form of language being used for meaningful communication and help them to retain these in long term memory in their accurate forms throughout all of the stages. Different techniques can be used for input enhancement (Sharwood Smith 1993; Nassaji and Fotos 2011) in classroom materials, such as written texts or cheat sheets (Clark 2009a) for example, the inclusion of textual markers like bold and enlarged font, or strong colors and interesting shapes. Also, orally by changing or exaggerating intonation, stress and rhythm learners' attention can be drawn to pronunciation and the importance of certain keywords in order to help them to retain these in long term memory in their accurate forms.

- **Better and more differentiated scaffolding.** Supporting learners so that they can effectively use what they have learned in order to communicate and share their thinking with others is still very challenging even for more experienced teachers. The design of effective scaffolding that addresses the different needs of learners requires first knowing what possible barriers learners may encounter and then providing differentiated and multiple means of access, engagement and representation (Tomlinson and McTighe 2006; Tomlinson 2014, 2017; Hall et al. 2012; Torres and Rao 2019) so that all learners have the potential to succeed (Marzano et al. 2001; Marzano and Pickering 2011; Hattie 2012; Hattie and Clarke 2018).
- **Clearer contextualization of learning within the learning process.** It is essential that learners are made aware of their learning as a process along the SPECIAL stages and path. They should know what the expected learning outcomes are at the start and they should receive ample information through feedback on where they are going and how well they are progressing towards meeting those goals (Hattie 2012; Hattie and Clarke 2018), fostering their learning to learn competences, self-efficacy and autonomy. There should be explicit references to where they are headed and especially how what they are learning can help them to progress and achieve the desired outcomes in the present and other real-life success skills for their futures. This can be done by continually referring to the learning path and the different stages in which learners are immersed at any particular point in their learning progress. This should be present visually in the classroom and/or in classroom materials so that learners understand that learning is a continuous process that requires sustained effort but that yields positive results for their growth.

- **More frequent and effective comprehension checks that actually gauge understanding of all students.** Keeping track of learners' progress and challenges is vital so that teaching can be adjusted accordingly. As teachers we should not assume that all learners understand what has been presented as input. Therefore, constant and reiterative checks need to be incorporated that help detect the need to support them. Activities and resources need to be designed and implemented which frame learners' thinking and focus their attention on the key points of the expected learning and which enable their success in the completion of the final macro task. Lessons should include interaction in pairs or teams where learners can explain to each other what they have understood, helping teachers and learners themselves to identify any moments of misunderstanding or misconceptions or of breakdowns in the communication processes. *Teach-ok* and individual whiteboards can be useful tools to employ while monitoring learners.

The findings regarding the feedback provided to the observed teachers serve a dual purpose. On the one hand, they are geared towards the teachers and the improvement of their own classroom practice and, on the other hand, they will be used to see what aspects of the SPECIAL framework need to be adjusted and reinforced in future training where they will be exemplified with real classroom instances drawn from the observations. This will allow future trainees to see concrete realizations of how these suggestions are put into practice in the classroom.

The most important finding derived from this study, however, is the community of practitioners which has been created connecting the trainer and all of the teachers who are using the SPECIAL framework to design their learning projects and teach their EFL and CLIL classes. Specifically in the case of the 5 observed teachers, their resources, which were created for these purposes, have been shared in a Google Drive folder along with different new sessions that are being recorded tagged as examples of good practices. This brings about very fruitful sustained and sustainable professional development that in-service teachers can use to continue growing and to help train newly incorporated teachers in what has become a shared metalanguage with which to discuss their strengths and weaknesses. In this way the methodological skills of EFL and CLIL teachers may be developed and improved (Vázquez and Alcalá 2010; Pérez Cañado 2016; Dalton-Puffer 2018; Morton 2019; Otto and San Isidro 2019).

Furthermore, pre-service training at the *Universidad de Zaragoza* has also benefited from the findings of this study since these will allow me to adjust how the framework is presented and taught within the SPECIAL teacher training model emphasizing and reinforcing what have been marked as key concepts, strategies and techniques to promote learning. In this way it is more likely that pre-service trainees will remember and apply these once they are teaching and that in-service trainees can use them to grow professionally during their careers.

In testing Hypothesis 4, Chapter 6 has responded to Research Questions 5 and 6 by analyzing and evaluating the applicability and actual application of the proposed SPECIAL model and framework based on the data obtained from the questionnaires and observations carried out with the community of practitioners. It has also discussed the implications of these regarding possible adjustments, improvements, and aspects that should be reinforced in the framework and teacher training model responding to Research Question 7. In the next and final chapter conclusions will be drawn regarding the whole of this dissertation and the research undertaken to complete it signaling the implications these may have for the SPECIAL model and framework pointing out its limitations and possible venues for further study.

Chapter 7. Concluding remarks: Forging journeys

In this final chapter a comprehensive summary of the principal aims and research questions addressed throughout this study will be presented in alignment with its general objective and defined scope. Subsequently, an examination of the most notable and significant findings, accompanied by the supporting evidence will be provided. To continue, the limitations inherent in the research and the constraints encountered during its execution will be identified and discussed along with possible approaches to addressing these limitations and augmenting contributions. Additionally, potential avenues for further research will be identified, providing prospects for sustained exploration and expansion of knowledge based on the present study. The ensuing section will delve into the pedagogical and practical implications of the research, providing some recommendations and applications for educators and practitioners derived from the investigation and exploring its potential contributions to the field of Second Language Learning and Teaching. The chapter will culminate with the formulation of a thoughtful reflection on the research process, highlighting the experience of my learning journey and the invaluable insights gained, thus deepening my understanding of effective teaching and learning in both EFL and CLIL classrooms.

This dissertation has postulated and tested a set of hypotheses. Firstly, it has posited that establishing connections between Second Language Learning and Teaching, Cognitive Educational or General Learning theories, Project and Competence Based Learning can lead to the development of an effective foreign language teacher training model in response to the lack of comprehensive professional development programs (Richards and Swan 1998; Lova Mellado et al. 2013; Pérez Cañado 2016, Dalton-Puffer 2018; Otto and San Isidro 2019). This model is intended to enable and empower foreign language teachers in fostering communicative competences and other global competences in their students, thereby addressing the needs for pre-service and in-service training and strengthening multilingual teachers' pedagogical knowledge and methodological skills (Vázquez and Alcalá 2010; Pérez Cañado 2016; Dalton-Puffer 2018; Morton 2019; Otto and San Isidro 2019). Secondly, it has proposed the formulation of a comprehensive framework for designing learning projects, strategically catering to the aforementioned training needs. Thirdly, the study believes that the proposed SPECIAL model and framework are versatile, capable of effective application in both CLIL and EFL contexts, spanning Pre-primary,

Primary, and Secondary education levels. The fourth hypothesis pertains to the necessity of potential adaptations of the framework to suit specific educational contexts, such as varying types of schools, bilingual programs, or teacher experience, to ensure efficacy and effectiveness. Additionally, the research emphasizes the need to equip teachers with the skills to make appropriate adjustments as they engage in designing and implementing their projects.

The general objective of my doctoral research has been to explore the potential benefits of establishing bridges between Second Language Learning and Teaching, General Learning theories, Project and Competence Based Learning, research, and classroom practices. Within this context, my inquiry sought to propose, implement and evaluate a comprehensive teacher training model that delineates an effective teaching framework and to validate and refine the model and framework, fostering in turn the development of my own professional competences as an educator and researcher. Moreover, the envisioned and final outcome of this research is to positively impact the development of communicative competences, as well as other key competences and global skills, among learners in various EFL and CLIL classrooms.

The scope of this study has centered on a thorough examination of my own role as a teacher educator and trainer at the *Universidad de Zaragoza* and the trainees who have participated in courses which I have taught. Nonetheless, my intention extends to disseminating the research findings to a broader audience of teacher trainers, teachers, and researchers. Moreover, it is my belief that the methodological approach adopted in this study may possess transferable qualities that could perhaps be adapted for the investigation of other educational innovations, offering potential for similar proposals and evaluations in other contexts. This adaptability enhances the applicability of the research study and its methodology in diverse settings and strengthens the potential for its dissemination and practical implementation.

7.1. Summary of study results

Two sets of research findings have been discerned. The first one encompasses the design and implementation of the teacher training model and framework, which directly address Research Questions 1 to 4 (see Table 1.1). The second set involves the evaluation of the model's versatility and effectiveness, achieved by analyzing the evidence gathered

regarding its applicability and real-world implementation, thereby responding to Research Questions 5 to 7.

The SPECIAL framework presents a Sequenced (Gagne et al. 1992; Bybee 2015; Clark 2009a), Project Enhanced (BIE; Mergendoller and Thomas 2005; Bender 2012; Boss et al. 2013; Stoller and Myers 2019), and Competence Integrated (Mercer et al. 2020; Sobe 2021) approach to language acquisition and learning. The SPECIAL teacher training model seeks to present and make trainees experience the framework and explore the connections with theories and research, facilitating more effective teaching within both EFL and CLIL classrooms.

Throughout the seven stages of the SPECIAL framework (Activation, Discovery, Deepening, Planning, Creation, Publishing, and Assessment and Reflection), significant tenets and principles of Second Language Learning and Teaching are incorporated to enhance the acquisition process. In the Activation stage learners are motivated and engaged by challenging tasks that prompt them to create a final product aiding communication in English (Dörnyei and Skehan 2003; Dörnyei 2014). The challenge presented establishes relevance, meaningfulness, and a communicative purpose (e.g. Brumfit 1984; Lightbown and Spada 2006; Brandl 2008; Brown 2010), while lowering affective filters (Krashen 1989). In the Discovery stage, learners are exposed to comprehensible (Krashen 1989; Ellis 2009), comprehended and apperceived (Gass and Selinker 1994) and critical (Marzano 2007) input through a variety of multimodal resources, supported by scaffolding (Gibbons 2015) to enhance comprehension. In the Deepening stage, learners actively interact and collaborate, negotiating meaning (Long 2014) while engaging in communicative micro tasks to solidify their newfound knowledge and develop their competences. Throughout all stages, scaffolded support is provided to ensure equitable opportunities for success (Gibbons 2015). Such scaffolding may involve the use of language prompts and deliberate incorporation of the first language (L1) as necessary (Larsen-Freeman 2018; Cenoz and Gorter 2021). Consistent feedback is provided throughout the learning process, enabling learners to monitor their language development, identify comprehension gaps, and receive corrective, targeted guidance to enhance their language production and knowledge development. Additionally, the feedback provided facilitates learners' noticing of different language aspects, thus fostering language retention and acquisition (Schmidt 2010).

In the Planning, Creation, and Publishing stages of the framework, learners engage

in organizing, drafting, and producing comprehensible output (Swain 1993, 2005) as demonstrations of their acquired knowledge. These stages facilitate learners' participation in genuine communicative situations (Brumfit 1984; Brandl 2008; Littlewood 2011; Long 2014) and encourage them to interact with authentic audiences in English, utilizing authentic language and multimodal means of communication. During the Assessment and Reflection stage, learners' achievement of learning outcomes is evaluated, and they engage in metacognitive processes by reflecting on their learning experiences, outcomes, and the strategies, knowledge, and skills that contributed to their success.

General Learning or Cognitive theories and research are thoughtfully integrated into different stages of the framework, encompassing a range of instructional approaches and strategies originally designed for learning in a first language (L1). Project Based Learning (BIE, Stoller 2002; Mergendoller and Thomas 2005; Bender 2012; Stoller and Myers 2019) serves as a foundational pillar upon which the framework is built, employing projects to structure the learning process, providing contextual relevance and fostering the creation of tangible products as final goals. Sequencing of instruction (Gagne et al. 1992; Bybee et al. 2006; Clark 2009a; Bybee 2015), Whole Brain Teaching (Biffle 2014), Cooperative Learning (Kagan and Kagan 2009), *Visible Thinking* (Ritchhart and Church 2020), and Universal Design for Learning (CAST; Hall et al. 2012) are all fundamental to the design and implementation of the proposed learning model.

Training through the SPECIAL model, in these concepts, strategies, and tools, rooted in theoretical foundations and research findings, can foster professional growth among pre-service and in-service teachers. The interpretation and implementation of these ideas by teachers contribute to new insights and learning for trainers, enhancing both pre-service and in-service professional development. The established bridges facilitate bidirectional connections between research on these theories and the community of practitioners, consisting of teachers and their trainers.

The second set of the findings revolves around the assessment of the model and framework's effectiveness in addressing teachers' needs and expectations, its adaptability to diverse contexts, addressing Research Question 5 and its applicability in response to Research Question 6. The examination of the proposed SPECIAL model and framework has been methodically undertaken through the administration of questionnaires in order to examine trainees' retention, understanding and application of the framework's components, and their perceptions of its effectiveness in enhancing learners' competences.

Encouragingly, as discussed in Chapter 6, a considerable number of teachers reported recalling the essential components and stages, indicating favorable memorability and retention of the model's principles. Moreover, trainees not only remembered the framework but also acknowledged its practical application in their classrooms. A growing community of practitioners is embracing the proposed concepts and strategies, evident in the extensive references to key foundations and principles of the framework in their responses to both the *Initial*, and especially the *Follow Up Questionnaires*. Most trainees exhibit a solid understanding of the framework, some of them even demonstrating their ability to train others, substantiated by their explanations and examples.

Various strategies, such as *Word Clouds*, *Brain Dumps*, *Visible Thinking* routines, organizers, Cooperative Learning structures, and diverse media for input, emerged as the most frequently employed resources. The great majority reported comprehensive implementation of all stages and assessments aligned with the model's proposals. Some of the strategies and approaches had been adapted for their use in other contexts as well. The responses affirm a strong sense of community and a desire to remain updated and connected, as all respondents expressed a positive inclination towards receiving information on the study's outcomes and continuation.

Moreover, respondents exhibited heightened awareness of crucial aspects, such as, connecting prior and new knowledge, sequencing learning events, creating engaging and motivating learning challenges, and providing varied, accessible input to foster knowledge building. Noteworthy competences and attitudes that trainees felt were significantly developed in their students through the framework's application encompassed communicative competence, engagement and motivation, learning to learn competence, interpersonal competence, and creativity and critical thinking. Most respondents asserted their ability to curate and adapt resources suitable for their specific teaching contexts. Overall, the respondents demonstrated a high perception of the framework's applicability across different educational levels, substantiated by evidence of their reflectiveness and commitment to professional growth, particularly in aspects such as *Differentiated Instruction*, Cooperative Learning, and *Visible Thinking*.

The effectiveness of the model was further explored through the observations of 5 participants by means of the SPECIAL Observation Protocol. The research findings from the classroom observations conducted to assess the application of the framework and its impact on teaching can be summarized as follows. The teachers initiated their lessons by

establishing connections with learners' prior knowledge (Piaget 1964; Vygotsky 1978; Silver et al. 2007; Marzano and Pickering 2011), yet explicit references to the specific stages of the framework or the learning trajectory were not made. Multimedia resources were employed diversely to bring about motivation and provide relevance, meaningfulness, and context (e.g. Brumfit 1984; Lightbown and Spada 2006; Brandl 2008; Brown 2010). Interaction was structured through the implementation of Cooperative Learning structures (Kagan and Kagan 2009). To facilitate cognition, organizers were employed to guide and frame students' thinking (Marzano et al. 2001; Silver et al. 2007; Clark 2009a). Language skills were integrated into the lessons, with a notable emphasis on oral comprehension and production for younger learners, while writing received greater prominence among older students. Scaffolding strategies were employed to support students' language production, incorporating input enhancement (Sharwood-Smith 1993; Sharwood-Smith and Truscott 2014), writing frames, word cards, flashcards, diagrams, and cheat sheets (Clark 2009a). Furthermore, various learning strategies, including summarization, note-taking (Marzano et al. 2001; Silver et al. 2007), and mnemonic techniques (Agarwal and Bain 2019), were implemented. The teachers demonstrated proactive monitoring throughout the lessons, providing corrective feedback to students. Importantly, all five teachers expressed enthusiasm for ongoing learning and professional growth, with the feedback from the observer contributing to heightened self-confidence and empowerment to foster substantial pedagogical innovation and transformation in their classrooms.

The feedback provided based on the observations identified these teachers as very reflexive practitioners with expressed desire to continue growing in their professional development. Moreover, the need to provide teachers with greater self-confidence and a sense of self-efficacy evidenced by recurring responses to open questions in the questionnaires was consistent with this as were the suggestions provided by the observer. Some of these suggestions entailed the necessary promotion of more oral participation, frequent opportunities for noticing language form and better and more differentiated scaffolding. The feedback also suggested that more frequent and effective comprehension checks should occur throughout the lessons ensuring that all learners knew what they were learning and how this would enable them to communicate more effectively and successfully complete the macro task.

The observations demonstrated that there is a strong and growing community of practitioners who are interested in their own development and that of their colleagues. Four

of the five observed teachers have volunteered to become observers and support their colleagues in their professional development.

7.2. Research limitations and constraints

As with any research endeavor, this dissertation proposing the SPECIAL teacher training model and framework and investigating its applicability and impact has encountered certain limitations and constraints that deserve thoughtful consideration. In this section, the factors that may have influenced the outcomes and interpretations of the study will be acknowledged and reflected upon. By recognizing these limitations, the aim is to enhance the transparency and validity of the findings while providing valuable insights for future researchers and teacher trainers.

The first limitation in this study pertains to the possibility of bias due to my dual roles as both trainer and researcher. As the individual responsible for delivering the training and conducting the investigation, there exists a potential for personal beliefs or vested interests to influence the interpretation and analysis of data. The awareness of this possible bias has pushed me to take on cross validation and triangulation combining the quantitative analysis provided by the data gathered in the questionnaires with the qualitative and observational data collected through the recorded sessions with the participants. The comparison and contrasting of data from different sources has allowed me to enhance the validity and credibility of these conclusions. In any case, it is my belief that despite this potential for bias, there are benefits to my dual role, such as my implication and drive which in my view have outweighed the disadvantages and have worked to bring about interesting and solid findings.

Another constraint arises from the relatively limited number of observation sessions, encompassing only one session for each of the 5 participating teachers implementing their designed projects and learning paths for their students. Additionally, all five observed teachers were working within the same school, leading to a lack of variation in the observed contexts. This was decided for the purposes of facilitating contact with the informants and ensuring closer conditions within the learning environment. To enhance the robustness of the findings for future research, more sustained and diverse observations across multiple educational settings should need to be undertaken.

The utilization of questionnaires to gather data from only a selected sample of trainees may lead to a limitation in the study's findings. As respondents are not inclusive of

those who chose not to participate, the perspectives of non-respondents remain unknown. To attain a more comprehensive understanding, future research should aim to include more participants having received training in the SPECIAL framework. To foster a more comprehensive perspective on the effectiveness and implementation of the framework, involving a broader array of stakeholders, including a larger number of teachers, trainers, and researchers, is desirable. In further investigations, their varied insights and experiences can contribute to a more well-rounded evaluation of the framework's practicality and application. Moreover, the study's focus on observing only specific sessions may limit the depth of understanding regarding the impact of the SPECIAL model and framework. For a more comprehensive evaluation, it is essential to conduct more sustained observations encompassing the entirety of projects, and gather additional information on the design process employed by teachers.

Another limitation may lie in the rather local application of the SPECIAL framework and the scarce outreach of the teacher training model and research so far. A more extensive dissemination effort is necessary to facilitate broader awareness and understanding among educators and other stakeholders in the educational community. Hopefully upon the completion of this dissertation several articles will arise from it leading to its access by a broader audience.

7.3. Avenues for further research

Throughout the course of this dissertation, the applicability and application of the SPECIAL model and framework in the context of language teaching and learning has been explored and examined. The findings of this research study have shed light on their potential to enhance second language learning, acquisition and proficiency among students, as well as its implications for teacher training and professional development. However, this study also reveals several areas that require further investigation and exploration to advance our understanding of effective pedagogical practices and optimize educational outcomes. In this section, I delve into these areas for further research, identifying potential avenues that can expand upon the existing knowledge and contribute to its ongoing evolution. By addressing these gaps, future research can build upon the foundation laid by this study and promote innovative and evidence-based approaches to foreign language teaching and learning.

First of all, research should be continued over a more extended period of time and across diverse contexts. The inclusion of more teacher trainers, researchers and practitioners and the sustained analysis of the investigations across whole projects could yield a more comprehensive understanding of the framework's impact and its adaptability and lead to improvements and modifications of the SPECIAL model. Exploring the framework's application through different theoretical lenses would also offer deeper insights into its underlying mechanisms and instructional effectiveness as would employing more cross-validation and triangulation methodologies in future research to strengthen the validity and reliability of findings, enhancing the robustness of empirical evidence.

Also, further investigations could be made through documentary analysis of materials and resources used in EFL and CLIL classrooms in which the framework is applied to study sources, adaptations and curation as well as creation of these. This would lead to the identification of potential areas of improvement both in the materials and in the professional competences required for teachers to curate, adapt and create them. Moreover, putting the focus on learners and their outcomes and evaluating their written, oral and multimodal productions may yield valuable insights regarding the impact of the SPECIAL framework on language acquisition, learning and competence development. Students' attitudes and perceptions on the strategies and resources employed should also be considered in future research.

7.4. Implications and recommendations

The findings derived from the research on the applicability and application of the framework offer promising support for the SPECIAL training model, wherein trainees engage in firsthand learning, experiencing the framework as learners. This pedagogical strategy seems to have a positive impact on the trainees' ability to retain and apply the framework's stages effectively, facilitating the transfer of their acquired knowledge and skills to their professional contexts. The validation of the model underscores its effectiveness in preparing teachers to proficiently implement the framework in their teaching practices once they assume their roles as practitioners. Discrepancies arising from teachers' perceptions of strategy effectiveness versus their utilization in teaching which have been detected through their answers may be indicative of instances where trainees have inadvertently overlooked or forgotten certain strategies seen in training. However, once reminded of these strategies,

teachers still seem to recognize their potential efficacy. Addressing this discrepancy may require a greater emphasis on these strategies during training sessions, and more sustained professional development, particularly focusing on concepts such as celebrations of learning, assessments with rubrics, and Cooperative Learning. These targeted focuses, resulting from the respondents' answers and participants' observations upon their SPECIAL training model experience, can contribute to a more solid integration of these strategies in instructional practices.

The need to offer more comprehensive and sustained training opportunities at both pre-service and in-service levels for EFL and CLIL teachers identified in previous research (Vázquez and Alcalá 2010; Pérez Cañado 2016; Dalton-Puffer 2018; Morton 2019; Otto and San Isidro 2019) has been confirmed by the results of this study, and the SPECIAL framework and model can help to cater for these training gaps and needs. Particular emphasis should be placed on providing training tailored to more experienced teachers, granting them access to evolving effective strategies and contemporary pedagogical concepts. Specialized digital technology training should also be incorporated as many teachers will be asked to certify and demonstrate their achievements and digital competences. Furthermore, targeted training on *Universal Design for Learning* and *Differentiated Instruction*, coupled with multiliteracies and multimodal representations is perceived by educators as a pressing concern. Training in these aspects would empower them to cater to diverse learners' needs more effectively.

Furthermore, specific strategies and resources employed in the SPECIAL training model, such as the design and implementation of *Visible Thinking* routines and organizers, could lead to the students' development of critical thinking and metacognitive skills, therefore enhancing their learning outcomes. Secondary Education teachers' perceptions suggest their reluctance to apply *Whole Brain Teaching* routines which have been proven to be highly effective with older students. It would be interesting to inform teachers about the specific benefits of this instructional approach and encourage them to adopt it for their teaching practices throughout different levels.

The findings also indicate that, in many instances, teachers work on intuition rather than on solid pedagogical principles which may or may not underlie their knowledge. Therefore, in the training model, more emphasis should be placed on the connections between theory, research and practice, enhancing educators' awareness. By promoting greater saliency and noticing of these bridges, more informed and evidence-based decision-

making in the classroom could be fostered. This increased awareness of the connections between theory, research and practice would also enable teachers to support and justify such decisions and their instruction with colleagues, parents, and other stakeholders.

Finally, another detected challenge that teachers face regards the conditions for implementation of innovations in their schools, based on the identified discrepancies between perceived effectiveness, use of strategies and some of their actual answers and comments. The implementation of identified good practices by teachers may be impeded by limitations of time, school requirements and policies. Therefore, a culture of innovation with favorable school conditions and policies that recognize time constraints faced by teachers and provide effective training and acknowledgment of teachers' competences, encouraging and supporting teachers should be cultivated by policy makers and educators. Addressing these constraints can foster a more conducive environment for effective teaching practices and sustained professional development. Teachers should be encouraged to showcase successful practices, and schools should actively participate in or establish broad communities of practitioners to facilitate the exchange of innovative ideas and approaches. Growing the community of practitioners who can provide in-service training to fellow educators would lead to multiplying the impact of this study, extending the reach of the SPECIAL framework and its benefits directly to learning and competence development in EFL and CLIL classrooms.

7.5. Final thoughts

In conclusion, the data gathered from the questionnaires and the systematic observations of classroom activities, tools, and strategies have yielded invaluable insights, informing both the presentation and conceptualization of the theoretical framework by me as researcher, teacher and teacher trainer, and the practitioners' own reflective practice, prompting them to reconsider their decision-making process based on the underlying research. This contention revolves around the recognition that teachers often rely on intuition, which may or may not be grounded in theory. As teacher trainers impart theoretical knowledge, it empowers practitioners to comprehend and adapt their intuition and instructional approaches, increasing their sense of professional self-efficacy and ultimately enhancing their instructional outcomes. Concurrently, the observations of practice and their shared analyses provide a basis for teachers to reflect on their practice and for myself as researcher

and teacher trainer to reassess the SPECIAL framework's effectiveness and the presentation of the SPECIAL model to future trainees. Thus, a dynamic and reciprocal exchange exists between practitioners and me, as trainer and researcher. The practitioners, upon receiving feedback from observations and reports, gain valuable insights to fine-tune their pedagogical strategies while continually refining their personal theoretical framework. Conversely, as a researcher, through conversations with teachers and observations, I have gained a deeper understanding of how the theoretical framework manifests in classroom choices and performance, enabling me to discern the needs of future trainees and foster their development and my own as an effective teacher trainer.

The ethnographic approach which has been taken on for this study has allowed me, as an observer, to carry out first hand research acting as an engaged, integral part of the community that is being explored. I have adopted the role of trainer as well as researcher throughout the sustained inquiry process and, as such, I have been both teacher and student learning from the findings while the informants also have the dual role of teachers and students. All the research is considered a collaborative endeavor that works towards the improvement of foreign language teaching and learning at several different levels.

The methodology and research journey itself may be another contribution since they exhibit transferability. The process and methodology could be replicated beginning with the proposal of an innovative framework, followed by the systematic design and implementation of training initiatives. Subsequently, empirical research could assess the impact and applicability of that training, affording opportunities for refining its groundings and presentation. In this way, the comprehensive research process taken on for this study could be applied in diverse contexts or to different types of innovations.

Along my learning journey, it has been a great challenge to systematize and record my beliefs, knowledge and perceptions in a rigorous way. The research carried out for my doctoral studies and the writing of this thesis has allowed me to dedicate time and focus to this endeavor. Even if there is much to be done in the spreading of the SPECIAL framework and model, there has been much informal sharing with colleagues who are also teacher trainers and a vast number of trainees who have participated in different scenarios.

My contribution to the field is the SPECIAL teacher training model which has been shown through the quantitative, qualitative and observation data to be effective for preparing teachers for their professional futures. This model posits a framework which provides trainees with the necessary knowledge, skills and strategies for the design and

implementation of learning projects based on connections between theories, research and best practices. The connections and synergies presented in the model and articulated in the framework can improve the effectiveness of both teacher training and instructional classroom practices. The research carried out in this study proposes changes and improvements in the model and framework which will ground and guide future teacher training and research in EFL and CLIL classrooms.

However, the most significant achievement of this research is the community of practitioners which has been established and continues to grow as time progresses. This community includes teacher trainers and their trainees, practitioners and researchers as well. Together they will ultimately be the agents of change. By applying the findings of theories and research to improved and adapted teacher professional development proposals, trainers will enable teachers to use their refined learning as springboards for adjustments and enrichments of their practice. This will in turn lead to significantly improved outcomes in the foreign language learning and competence development of the global citizens of the future.

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APPENDICES

Appendix 1. Exemplary projects used in teacher training

Appendix 1.1. *Kindness Project*

Project name: *Kindness Project*
 Level: *Teacher training courses*
 Designed by *Vicky Gil*



Key Competences/cross-curricular themes/curricular links/ Integration of skills

CFL; DC, LL, SCC, SIE, CAE

Values: kindness, preventing violence, empathy, respect for others' feelings

Skills: reading, writing, listening, speaking and interaction

21st Century Skills and 4 C's: Collaboration, Cognition, Community or Citizenship, Communication



Multiple Intelligences addressed/ Differentiation

Through input- linguistic, spatial, interpersonal and intrapersonal

Through processing- interpersonal, intrapersonal, logical. linguistic

Through production (depending on task outcome) – kinesthetic, logical, spatial, musical, interpersonal, intrapersonal, naturalistic, linguistic



Expected Learning Outcomes (Key knowledge, understanding (according to curriculum) and success skills that learners will learn:

At the end of this project students will

- Know vocabulary and structures to express feelings and emotions; consequences of actions; offers of help;
- Understand what kindness is and how our actions make others feel
- Be able to plan and discuss actions and their consequences
- Be able to present their ideas and actions using ICTs



Assessment tools and strategies/ Critique and revision:

Students will design a plan and proposal to show to the class

Feedback Carousel for collection of feedback

Rubrics for 1) assessment of final product and 2) group processing skills



Publishing (public product that demonstrates learning):

With whom? Anyone on the Internet, school community, classmates

How? Blog, Padlet, Voicethread, Youtube channel, Seesaw digital portfolio

Why? (communicative purpose) To inspire others to plan their own acts of kindness




Final product or learning artifact: Challenging problem or question/ Real world context and situation/ Impact on student or student's world/Entry level event

Challenging question: How can I show kindness to those around me and how will that impact on my world?

Final product or learning artifact: To produce a kindness tree mural and a collection of evidence of the acts of kindness that all our teammates have carried out. This may be done as a video, poster, infographic, scrapbook (Big Book of Kindness), or media of their choice.

Entry level event: Voki avatar challenge and different multimedia sources for input received in groups including a song, a storybook, music videos, and the story of another school's project.

What problem will my learners explore? What outcome or solution will my learners produce and how can it have an impact on their lives or the lives of others? What entry level event will I present to engage my learners?



Steps, stages and activities (sustained inquiry): Questions and answers generated /Process of inquiry followed/ Finding and using resources/ opportunities for reflection and interaction

Activation stage: VOKI avatar message from Purple Lady, "Say something nice" activity to establish previous knowledge and experiences.


Input stage: Watch videos and listen to songs and stories about kindness to complete *See Think Wonder* chart.

Deepening Stage: *Talking Chips*; *All write round table coaches*; *Jot Thoughts* for generating ideas; cheat sheets; Kindness tree mural

Output Stages (Planning, Creation and Publishing): Plan for collection and presentation of kindness evidence in the form of their choice; *Feedback Carousel*; different media for publication of results


Assessment and Reflection Stage: Rubrics for process and product; strengths, suggestions for improvement, and more resources.

How will learners discover, understand, acquire, share and give evidence of their learning through each of the input, process and output stages?




Resources and use of ICTs: For Input / For Process/ For Output
 IWB or screen and projector for video watching and sharing class ideas, tablets and smartphones for group work and final products
 Voki and Blabberize to present tasks
 Smartphones or video cameras to produce evidence, different media tools to publish projects (*Voicethread, Padlet, blogs, Youtube channel, ...*)
 Emails for some of the acts of kindness

What resources and ICTs will enable learners to discover, understand, acquire, share and give evidence of their learning?




Scaffolding:
Cooperative learning to promote interaction and structure participation
Cheat sheets to provide sentence starters, chunks and key vocabulary with language focus incorporated.
Some students may choose to draw rather than write their ideas.

How will I provide fine-tuned help to accomplish a particular task, which includes creating interest in the task, breaking it down into smaller steps, modeling it, showing alternate ways to accomplish it, and keeping learner on track by minimizing frustration and giving reminders of the purpose or goal? How will learners interact with an adult to support the learning process and acquire new knowledge and skills?



Grouping and timing: *Talking Chips, All write round table coaches, Jot Thoughts* and products in CL teams; pair and individual work. 4-6 lessons

How will I use Cooperative Learning to help learners express and discuss the contents with others? How much time will each stage require?



Language needed with focus on form and noticing: Previous/ To understand/ To interact and complete task/ To present and discuss evidence of learning

Happy/sad/satisfied/ joyful/ worried/ lonely/ warm/ kind/ loving/

Kindness is that

When someone is kind to me I feel ...

When I am kind to someone I feel ...

We could ... (hug someone/ give someone water/ open the door for someone/ set the table for dinner/...)

Hugs make me feel ...

Yesterday I (helped/wrote/called/sent); I felt .../ I thought ... ;

(action) makes me feel (emotion). When someone is kind to me I feel ...; He/she feels /

Yesterday I (helped/wrote/called/sent)

Maybe I/we/you could (giving suggestions); Could you please ... (asking for help);

Could I help you with that? (offering help)

Thank you very much. That was very kind of you./ You're welcome. (Showing and accepting gratitude)




What language will learners need to understand, express and discuss the contents with others?

What language will you focus on or notice to promote their ability to understand and communicate about the task?

Appendix 1.2. *Persuasion Project*

Persuasion Project Example for Design of
 Learning Activities
*Máster de profesorado en educación
 secundaria. Especialidad de inglés como
 lengua extranjera*
Universidad de Zaragoza
vickygil@unizar.es



Bridges to the future, Inc.
 The Company that builds dreams for the Future

To: Research Innovation and Development Department
 From: Product Management
 Subject: Marketing the Future

During the next four weeks, you are to put all existing projects aside and devote time and effort to developing our company's next new product.

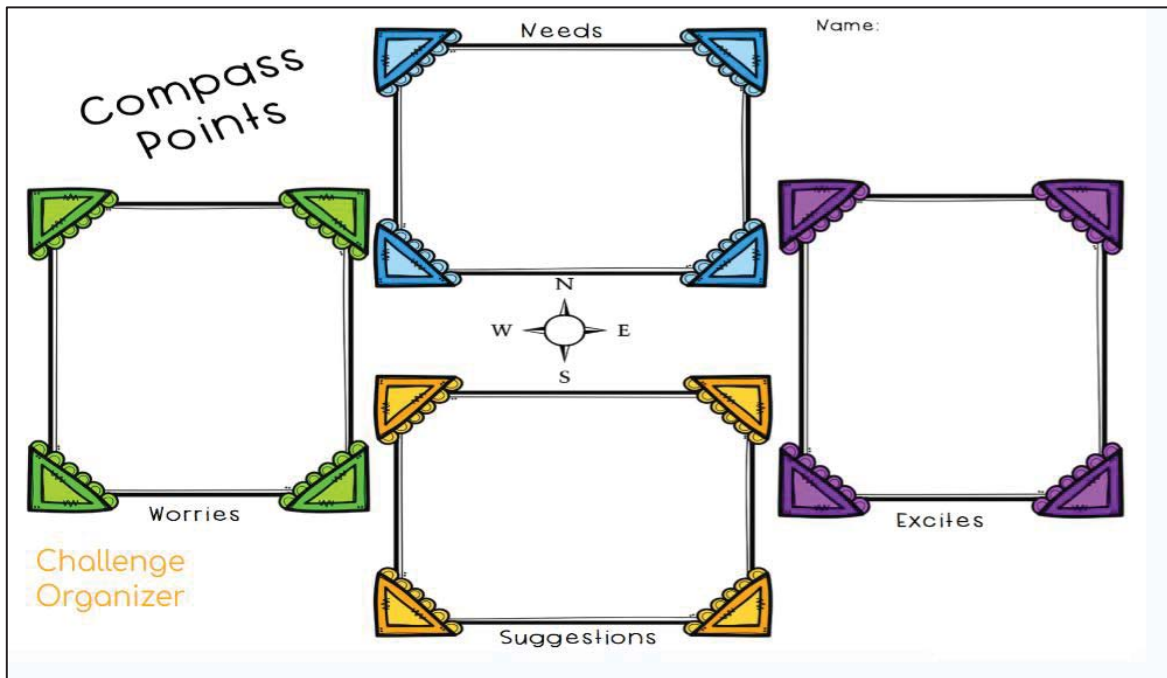
Our research shows that the average teenage consumer is looking for an existing product that has been redesigned to meet the demands of your future generation. Your department has no limits.

In teams of four, you will choose an existing product to be revolutionized for the 21st Century consumer. You will then design the marketing campaign to sell this product.

During your first two weeks, your group will outline a project plan and submit it to the Project Management Office for approval.

At the conclusion of four week's work, your team will describe a revolutionized product and present the marketing campaign to sell it. As always, never lose sight of our company mission - Look to the Future!

Jenny Wilson, Product Manager



Expected Learning Outcomes

By the end of this project learners will know/understand/ be able to ...

- Understand gist and details of multimedia ads
- Extract information from adverts and descriptions and demonstrate understanding by completing organizers.
- Plan and produce oral presentations describing products to persuade others to buy them.
- Understand written texts about the elements of persuasion and demonstrate understanding by identifying and applying these to their own ads.
- Write descriptions and ads for products
- Fill out forms and surveys about others' products

Success criteria

- Complete organizers and surveys with information about products
- Create oral presentations about products
- Analyze ads to identify the elements of persuasion used and plan for use
- Describe products clearly and concisely in writing
- Produce multimedia ads applying elements of persuasion and justifying choices

Curricular links (Ev Criteria, standards, KC, Values)

Crit.IN.: 1.1.; 2.1; 3.1; 4.1.

Est. IN.: 1.1.1; 2.1.1; 3.1.1; 4.1.1 and 4.1.2

K.C.: CLC ; SIE; SCC; CAE

Values and Cr Curr. Audiovisual communication; critical and creative thinking; entrepreneurial spirit.

Assessment procedures and tools & (marking Criteria):

- Listening organizers (10%)
- Completed surveys (10%)
- Oral presentation rubric (20%)
- Ads analysis organizers (10%)
- Ad rubric (20%)
- Description rubric (20%)
- Vocabulary quiz (10%)

Stage	Questions to ask yourself	Activities	Tools, links and procedures
Activation	<p>What will be your challenge or driving question? How will you present it?</p> <p>How will you activate and establish their previous knowledge?</p>	<p>Learners receive a letter from a company asking them as experts in teenagers to improve a product and create a campaign to promote it. Learners complete a <i>Compass Points</i> organizer about the challenge.</p> <p>Learners brainstorm all their ideas on products and characteristics that teenagers look for. Learners make lists of ads that they remember and think are effective.</p>	<p>Letter from Bridges ...</p> <p>Compass Points Routine and organizer</p> <p>Brain Dump on Answer Garden</p> <p>Round Table on ads</p> <p>Word Cloud on elements of persuasion</p> <p>KWL on creating ads</p>
Discovery	<p>How will you organize the learning to let learners discover input and process it so that they know and understand it? Will you set up learning centers or learn as a</p>	<p>Whole class review of adjectives and visual display</p> <p>Elements of persuasion reading text</p> <p>Watching and discussing ads in CL teams</p> <p>Recap of learning on ads</p> <p>Digital tools</p>	<p>Visual thinking display of adjectives on <i>Padlet</i></p> <p>Reading organizer What/So what/ Now what</p> <p>See <i>Think Wonder and Talking Chips!</i></p> <p>T charts for analyzing ads</p> <p>Placemat Round Table</p> <p><i>Jigsaw digital expert groups</i></p>

Stage	Questions to ask yourself	Activities	Tools, links and procedures
Deepening	<p>How will you push learners to communicate, collaborate, and think about what they are learning?</p> <p>How can you deepen their understanding?</p> <p>How will you check their understanding?</p>	<p>Evaluation of Ads</p> <p>Analysis of ads and parts/whole</p> <p>Reflections on learning process</p> <p>Pushing Creative Thinking</p>	<p>Parts and the whole Routine and organizer</p> <p>L part of KWL</p>
Planning	<p>How will you promote organization skills and decision making so that they plan their products and presentations carefully and skillfully? How will learners give and receive feedback about their ideas?</p>	<p>Deciding as a team</p> <p>Making skillful decisions</p> <p>Team plan description</p> <p>Peer feedback</p>	<p>Tug of War Routine and Organizer</p> <p>Skillful decision making chart</p> <p>What/ How and When Planner</p> <p>Feedback Carousel</p>

Stage	Questions to ask yourself	Activities	Tools, links and procedures
Creation	<p>How will you support and scaffold learners as they create their products?</p> <p>How will you check that they are applying new knowledge and skills?</p>	<p>Creation of Ad and Campaign</p> <p>Description of product</p>	<p>Digital tools explored by experts:</p> <p>Video recording and editing tools...</p> <p>Reporting vehicle</p>
Publishing	<p>How will learners communicate and share their new ideas, knowledge, understanding and skills?</p>	<p>Uploading to the Internet</p>	<p>Blog, webpage, Padlet..</p>

Your planning	Questions to ask yourself	Activities	Tools, links and procedures
Assessment, Reflection and Celebration of learning	<p>How and when will you assess their learning processes? How and when will you assess their products and presentations as demonstrations of learning?</p> <p>What tools will you use to check if they have met their success criteria and achieved the expected learning outcomes?</p> <p>How will learning be showcased and celebrated?</p>	<ul style="list-style-type: none"> ● Listening (T charts) ● surveys ● Oral presentation ● Ads analysis ● Ad ● Description of product ● Vocabulary quiz ● Marketing campaign share 	<ul style="list-style-type: none"> ● Listening organizers (10%) ● Completed surveys (10%) ● Oral presentation rubric (20%) ● Ads analysis organizers (10%) ● Ad rubric (20%) ● Description rubric (20%) ● Vocabulary quiz (10%) ● Padlet for all ads

Appendix 2. Initial Questionnaire

The questionnaire can be accessed [here](#) as a *Google Form*.

Research Questionnaire on PBLL CLIL PRO teacher training

This survey is part of the research I am carrying out for my PhD in English Studies at the Universidad de Zaragoza. I would really appreciate it if you took the time to complete it so that I can continue to improve Teacher Training. Thank you in advance for your collaboration.

** Indicates required question*

1. **Email ***

2. **What kind(s) of training have you received from me? In which of the following contexts have I been your teacher trainer? ***

Check all that apply.

- Grado en Maestro Infantil Mención Bilingüe de la Universidad de Zaragoza
- Grado en Maestro Primaria Mención Lengua Extranjera Inglés de la Universidad de Zaragoza
- Máster de Profesorado Secundaria Especialidad Lengua Inglesa de la Universidad de Zaragoza
- Postgrado en CLIL e Innovación en el aula de Inglés de Primaria (Estudio Propio de la Universidad de Zaragoza)
- Formación en Centros Escolares o Centros de Profesorado
- Other: _____

3. **Please describe what you think PBLL or CLIL Pro is. ***

4. Please choose the option that best describes what you remember about each of the following: *

Check all that apply.

	I don't remember	It sounds familiar but I don't remember much	I remember but haven't applied it	I remember it but I wouldn't apply it	I remember and have applied it	I have applied it and trained others about it
Stages in the teaching-learning process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Challenges to engage learners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Activating previous knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discovering new knowledge, understanding or skills through input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deepening learning, thinking and communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planning, editing and revising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creating and publishing demonstrations of learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessing learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Celebrating learning						

5. Please choose the option that best describes your professional experience. *

Mark only one oval.

- I have not started teaching at a school yet. *Skip to question 15*
- I have been teaching/taught at a school for less than two years.
- I have been teaching/taught at a school for 2-5 years.
- I have been teaching/taught at a school for 6-10 years.
- I have been teaching/taught at a school for more than 11 years.

Current teaching context

6. Please choose the option that best describes your current teaching job. *

Check all that apply.

- I am currently teaching Primary and/or Pre-Primary at a public school.
- I am currently teaching Primary and/or Pre-Primary at a semi-private (concertado) school.
- I am currently teaching Primary and/or Pre-Primary at a private school.
- I am currently teaching Secondary at a public school.
- I am currently teaching Secondary at a semi-private (concertado) school.
- I am currently teaching Secondary at a private school.

7. In your teaching experience have you applied anything that you learnt about PBL or CLIL PRO in your classes? *

Mark only one oval.

- I have never applied any of this. *Skip to question 13*
- I have applied part of this in my classes. (i.e. some of the steps like Activation, Discovery, Deepening, ...)
- I have applied some parts with my own adaptations or changes.
- I have applied all of it in my classes without adaptations.
- I have applied all of it in my classes with some adaptations or changes.
- I have applied it and trained others about how to apply this in the classroom.

For teachers who are currently teaching and using PBL and/or CLIL Pro

8. What ideas, tools, strategies, etc. from PBL or CLIL Pro have you used in your classrooms? (Check as many options as apply) *

Check all that apply.

- The stages of Activation, Discovery, Deepening, Planning, Creating, Publishing, Assessing and Reflecting or Celebration of Learning.
- Challenges received through different media like Voki, video messages, or contest posters.
- Establishment of previous knowledge through word clouds, brain dumps, Thinking routines, or organizers.
- Learning new knowledge, skills or understandings through comprehensible input presented through a variety of media.
- Deepening learning and communication through thinking routines, organizers, or cooperative learning structures.
- Planning, editing and revising with shared feedback
- Creation of public products or performances as demonstrations of learning
- Assessment through rubrics with success criteria
- Celebrations of learning to culminate projects
- Whole Brain Teaching (Scoreboard, Super Improvers, Mirror, Teach-Ok, Class-Yes, Blow the Answer, mini celebrations)
- Cooperative Learning (Structures, Roles, Jigsaw Expert Groups, Teambuilding)
- Differentiation of Input, Interaction and/or Output with Multiple Intelligences)
- Visible Thinking Routines (See, Think Wonder; Compass Points; Plus One; GSCE; ...)
- Other: _____

9. Please give examples of projects or activities that you have designed inspired by this model indicating year, subject, topic, duration and any other relevant information you may consider.

10. How have you adapted tools and resources? Which ones? *

11. Would you be interested in participating in further stages of this research? *

Check all that apply.

- Yes
 No
 Maybe

12. Would you like me to keep you posted on the results and findings of this research?

Check all that apply.

- Yes
 No
 Maybe

Thank you very much for your collaboration and interest in completing this questionnaire.

For teachers who are currently teaching and NOT using PBL and/or CLIL Pro

13. What do you think could be the benefits of applying PBL to your future EFL or CLIL classes?

Check all that apply.

- learners will be motivated to participate and learn
- learners may develop autonomy
- learners may develop communication skills in English
- learners may develop communication skills in general
- learners may develop collaboration skills
- learners may develop critical thinking skills
- learners may develop creativity
- learners may be prepared for their futures

14. Why haven't you applied all or parts of PBL/CLIL Pro? Please explain what you think might be the challenges or what makes you feel it isn't interesting to apply. *

Thank you very much for your collaboration and interest in completing this questionnaire. If in the future you decide to implement some aspect of PBL and/or CLIL Pro, please write to me at vickygil@unizar.es as I would love to hear about how it goes. All the best, Vicky

For trainees that have not started teaching yet

15. How interesting do you think Project based Language Learning or CLIL Projects as explained in our training might be for your future learners?

Mark only one oval.

Not interesting for future application.

1

2

3

4

5

Very interesting for future application.

16. Please justify your answer above. (What challenges do you see? What may be the benefits for your learners?) *

17. Would you like me to keep you posted on the results and findings of this research?

Mark only one oval.

Yes

No

Maybe

Thank you very much for your collaboration and interest in completing this questionnaire. If in the future you decide to implement some aspect of PBL and/or CLIL Pro, please write to me at vickygil@unizar.es as I would love to hear about how it goes. All the best, Vicky

Appendix 3. Follow Up Questionnaire

The questionnaire can be accessed [here](#) as Google Form.

Follow up Questionnaire on PBL and CLIL Pro

Second stage of research for PhD (Vicky Gil) <http://bit.ly/PBLPhDform2>

** Indica que la pregunta es obligatoria*

1. Name and surname *

2. email address

3. Level or levels at which you are currently teaching (you can tick more than one) *

Selecciona todos los que correspondan.

- Pre- Primary (Infantil)
- Primary
- Secondary
- post-secondary (bachillerato)
- Tertiary (University)
- Escuela Oficial de Idiomas
- Academias

4. Name of School

5. Please rate how often you use each of the following (or an adaptation of this) in ^{*} your own teaching in the present:

Check all that apply.

	almost never	rarely	sometimes	quite often	almost always
Sequenced stages in the learning process:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Challenges to engage learners:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Establishment of previous knowledge:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discovery of input for learning new knowledge, understanding and skills:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deepening learning thinking and communication skills:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planning, editing and revising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creating and publishing demonstrations of learning:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessing learning through rubrics with success criteria:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Celebrating learning:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please rate how effective you feel these are to promote learning in your classroom :

*

Check all that apply.

	I have not used it	Not useful	Somewhat useful	useful	very useful
Sequenced stages in the learning process:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Challenges to engage learners:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Establishment of previous knowledge:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discovery of input for learning new knowledge, understanding and skills:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deepening learning thinking and communication skills:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planning, editing and revising:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creating and publishing demonstrations of learning:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessing learning through rubrics with success criteria:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Celebrating learning:					

7. Please rate the following in terms of how likely you are to use them in the future: *

Check all that apply.

	I do not think I will use it	I may use it in the future	I will probably use it in the future	I will definitely use it in the future
Sequenced stages in the learning process:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Challenges to engage learners:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Establishment of previous knowledge:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discovery of input for learning new knowledge, understanding and skills:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deepening learning thinking and communication skills:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planning, editing and revising:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creating and publishing demonstrations of learning:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessing learning through rubrics with success criteria:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. If you could receive additional training about any of the following which would you choose? (Select all that apply) *

Check all that apply.

- Stages in the learning process:
- Challenges to engage learners:
- Establishment of previous knowledge:
- Discovery of input for learning new knowledge, understanding and skills:
- Deepening learning thinking and communication skills:
- Planning, editing and revising:
- Creating and publishing demonstrations of learning:
- Assessing learning through rubrics with success criteria:
- Celebrating learning:
- Whole Brain Teaching:
- Cooperative learning:
- Differentiation of input, interaction and/or output:
- Visible Thinking ROUTINES:

9. Please mark your degree of agreement with the following (strongly disagree, disagree, agree, strongly agree): *

Mark only one oval per row.

	strongly disagree	disagree	agree	strongly agree
I believe that my decisions in the classroom should be based on theories of second language acquisition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that my decisions in the classroom should be based on general theories of learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that my decisions in the classroom should be based on theories of learning AND second language acquisition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that my decision should be based on experiences in the classroom and not on theory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that my decisions should be based on empirical evidence of results found in research on teaching and learning a	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. How effective do you feel that projects and these activities are for your learners' progress in the following? *

Mark only one oval per row.

	Not effective at all	Somewhat effective	Effective	Very effective
communicative competence in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
interpersonal competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
intrapersonal competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
learning to learn competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
digital competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
engagement and motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
creativity and creative thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
content knowledge and skills for CLIL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Do you feel that you have an appropriate range of resources, tools, strategies and ideas to facilitate learning in your classrooms? *

Mark only one oval.

- No, I do not know where to find these resources.
- I have created these resources for myself.
- I have found resources and have adapted them for my classes.
- I have found these resources and used them without adaptations for my classes.
- I have found resources and collaborated with other teachers to create others.

12. What are the main difficulties experienced when planning and designing learning projects in the EFL/CLIL classroom? Can you think of any tools or training that could facilitate the process for you? *

13. What are the main difficulties experienced when implementing learning projects in the EFL/CLIL classroom?

14. In the planning stage, how do you ensure that your PBL (proposals/work) are in line with the curriculum? How do you need to adapt to the curriculum as you are implementing your teaching?

15. How do you deal with differentiation in your teaching? *

16. How do you deal with behavior management? *

17. How do you deal with activities that do not seem to be working properly? *

18. What do you think you do particularly well when implementing learning activities? *

19. In which ways do you assess learning throughout the projects? *

20. Which resources would you highlight as most effective? *

21. What aspects do you think you are not so good at yet and may need further training? *

22. Which areas would you like to explore further in the future in your professional development? *

Appendix 4. Pre-observation questions as part of the Observation Protocol

Pre-observation questions

Compañía de María Coaching Team video recordings

1. What are your plans for the lesson? What are the expected learning outcomes?

2. Is there a written document with the lesson plans that you could share?

Files submitted:

3. What is the final product of the project and how does this session hope to enable student success? (Are there any enabling tasks leading to the final task?)

4. What student needs or challenges might the teacher expect to address in this session or in this project? (Language, content, conceptual, cognitive, management).

5. Which part of the learning path are the students currently on?

Check all that apply.

- Activation
- Discovery of Input
- Deepening and Connecting
- Planning, creation and publishing
- Reflection and Assessment

6. Will all of the stages be followed?

Mark only one oval.

- yes, all of them will be followed
- only a few of them will be followed
- no

7. Is there anything else you think I should know before observing the class?

Appendix 5. Transcribed teacher talk and visual representation of most frequently used words

Appendix 5.1. Teacher talk T1_ S and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)

Watch the video and try to keep in mind words related to weather, if you hear windy or temperature or .. You will hear a native speaker who may speak very quickly.

Can you tell me if you remember because he has said lots of vocabulary words related to weather. What's his job? A meteorologist, that's his job and he explains what he does. But what vocabulary words can you remember? Wet, good and what is the opposite of wet? Dry, very good.

Yes because he has been talking about different tools that he uses to measure the weather.

Keeping this in mind I want you to answer the questions. What is this? The first picture, what is this? A cloud? Good.

It's a little bit more difficult. Fog.

According to these pictures and words can you tell me what the weather is like? If there is a lot of fog it's foggy. And if there is a storm it's stormy.

What can you see here?

But we have put this vocabulary but we can put more. Cold? Where can we put cold? Yes in two.

Icy? Rainy? Number 5. Stormy in which picture? Do you remember that word? It's between hot and cold, do you remember that word? Warm.

This one is hot and sunny, I would say number five yes.

Now, taking this into account, I want you to look at this, ok listen, here you put a webpage where you can see the weather anywhere around the world. If you type Zaragoza since we are here, if you type Zaragoza, you can see the weather here in Zaragoza.

Today in Zaragoza, yes, more things about the weather in Zaragoza. What about the temperature, is it warm or hot or cold? Look at your t-shirts. What about the wind? Is it windy today? So the weather in Zaragoza today is ... it's warm, it's not windy.

What about in Ontario? What's the weather like today in Ontario? It's ... I can't hear you. It's cold because the temperature is low, it's rainy in the morning, it's going to be snowy tomorrow and it's cloudy today.

Now, it's your turn now take your props and now we are going to use these props. Can you complete this sentence? When it's foggy, it's difficult to ... drive, yes, good, any more suggestions?

On a day I like ... What would you say about this? On a windy day I like to go surfing. Yes, if you are at the beach.

In hot and sunny weather I always wear shorts and a t-shirt and I like to go ...

On ... days I hate ...

I love snowy weather because I can go to the park and make a snowball fight. Make a snowman, yes.

In stormy weather we always ... take an umbrella, stay at home.

In snowy weather we always drink hot chocolate.

In groups you find out some information about a place with extreme weather, an interesting fact like animals in the area, ..

In groups, it must be in groups, ready, steady, go.

We're talking about a place with extreme weather, in a document yeah in a document. I would like you to insert a picture, a photo of the place, in a document. You create a document...

Who's ready? I need a group who is ready. Dani? Have you got a photo in your document?
Nothing else.

Finished? I need somebody to listen.

I need a group to present their information please. You don't have to write a lot. Just say something about the place.

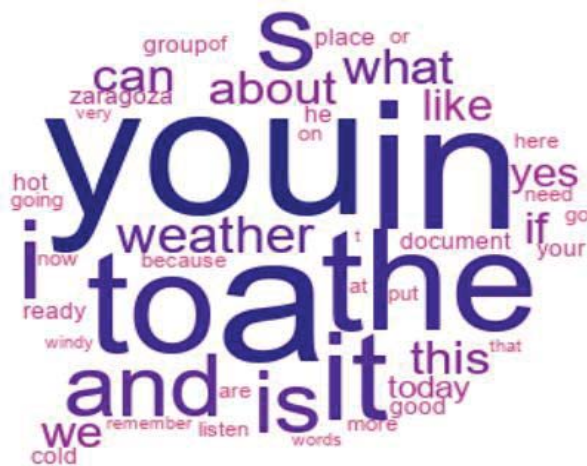
Three minutes, ok, three minutes, come on, I need one group. If you're not ready for today, you are going to miss it.

Ok, one group is ready.

Listen everybody please shhh to finish with this group is going to present

Please pay attention and listen to them. Which is your place? Very good boys and girls, well done, excellent. Thank you very much.

(662 words)



Appendix 5.2. Teacher talk T2_PP and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)

Good morning everyone. What happened? What is happening here? Oh, it's a pirate ship? Oh my goodness! Ok ok don't worry, we are going to find out what is happening here! Ok please. Is it a coin at the bottom?

Class class yes yes, Can you take off your coats please and sit down here please. Ok, Class class are you ready?, First of all I have to say good morning everyone. How are you today? Happy, fine! Are you sad? Why are you sad? Oh you miss your mom and your dad! Don't worry this afternoon you are going to play with them, ok? Are you happy? Can I see your happy face? Ok, are you nervous? Why? Really so you are going to celebrate it, don't be nervous!

Tell me how are you today? Are you super happy? That's really awesome. I said how are you Lucas? Are you nervous, are you happy, are you excited?

So class class. Look at this. Who is it? It's Pete the cat, the scientist cat and what do you think he's doing here? Maybe we can listen. What is happening today! ok? Are you ready? Hey let me see your ears

Very good Luis. Fantastic, Ok class class, what is happening here? Let me see. Yes. Hey listen to me please. Yesterday I was playing with my boat and the boat, the paper boat is floating, do you know what is the meaning of floating? (*flotar*) Yes very good, fantastic. The boat is floating on the water but then he put a coin in the water and ..

What's happened with the coin? Look, this is the coin and look, ah!

Yes, very good the coin sinks, sinks, the coin sinks and the paper boat floats. What is the meaning of sink, Mateo, (*hundido*) very good. So, the paper ship floats and the coin ... sinks,

Look. ha, Pete the cat, the Scientist cat said can you find out why - *por qué*- why the paper boat is floating and the coin is ... how do you say that? Sink, very good.

So. Maybe we can use the ... scientific method, do you remember that? The scientific method to do some ... experiments. Let's do a quick review of the scientific method. What's that? It's an ... observation. It's the first step of the scientific method so it is Observation. Mirror, mirror. Observation,

The next step is, do you remember that? Very good, it's a question, The question, The question is WHY, (*nos preguntamos por qué, ¿verdad?*) WHY the ship floats and WHY the coin sinks. ok?

Next step, You have to make a ... Very good, Lucas. Do you remember? I think ..., I think ... Do you remember? This is your idea, your prediction, What do you think about the ship?

Oh very good hypothesis. Laia says that maybe if you put the coin inside the paper boat then the paper boat is going to sink. It's a good idea.

I think ...? Let me see Isabela what do you think? I think ...? Good, very good Isaabella. You don't know what is going to happen because for that.. we have to do an ... What is that? Yes, an experiment. The next step. Mirror, mirror, experiment

Ok so when we finish with our experiment we have to draw our? Marco?? Conclusions, fantastic.

So I think it's time to do... our experiment! Experiment Let me see your hands. Experiment, experiment. Guillermo, let me see your hands.

So, here we have a lot of materials, a lot of objects to experiment. Ok? We are going to see if these materials ... What is that? yes float! Or ... (What you say this in English) What is this word in English? Sink, Again, sink, What's that? Float. Yes. and this? Sink, yes. What's that?

We have some materials here but we are going to do a quick review of the vocabulary. Ok? Do you remember what is that? Scissors, fantastic, scissors (for) to cut. What's that? Block, very good it's a block, it's for playing, a red block, very good Yago.

What's that? It's a red ... a red ball, fantastic. I don't know if you remember that. Sacapunta? Sacapuntas in English is ...? Sharpener, sharpener, very good and ... It's blue and maybe it's a little bit purple. What's that? Yes, it's white but what is the name of that? Borrador Is that right? In English! Ru... ? Rubber, It's with this sound ru. Ru.... Rubber, very good with this sound ru,

Appendix 5.3. Teacher talk T3_S and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)

Ok, so today, first, we are going to do the minute of silence right now. And then we will do a reading and speaking activity about the functions of the atmosphere. Ok? But first let's begin with the minute of silence. (It says on board What are the functions of the atmosphere?) And three, two, one silence. (minute of silence)

So here is what we are going to do, ok? The task today is to discover the atmosphere functions. These days we have been studying the atmosphere so we know what it is made of, the gasses that it's made of, we know the structure, the different layers that make the atmosphere. so today we're going to see what is the function of the atmosphere. What is it here for? Ok? We know some things because we have been seeing some things. Some things that the atmosphere is good at or does for living things, or for humans that protects us, for example-. We have been seeing some things but today we are going to discover all of them, all of the functions, ok? So, We are going to do, to discover that, a reading activity. It's a reading activity that you're going to do in groups. Ok? So you are going to read in groups. You have to, important!, understand what you read, It doesn't matter if you complete all the activity but you haven't understand, eso no sirve de nada . Ok? So we have to understand what we are reading and with all that information we are going to complete a diagram, ok? understood? Yes? So, this is the diagram that you have to complete. You are going to do it in classroom ok? And you just have to complete one diagram for each group. So you can open the task in classroom in one ipad and eh each time write one of you ok? but you have only to complete one. Ok? I am going to upload it in Classroom so open your ipads. (Time given to open them)

So if you look at the diagram, here, (points) you are going to write the different functions of the atmosphere, Ok? Function number 1, number 2, number 3. And some of these functions, you are also going to write the gasses, the gasses of the atmosphere that are related to that function. Ok? So for example, here in function number 4 you will have to write the function and say, That function is related to nitrogen, for example, ok? Tendréis que escribir el gas con él que está relacionada esa función, The gas that this function is related ok?

So how are we going to do it? It's important that we understand what we are reading. So, if there is something that we don't understand, if there is a word that we do not understand, of course you can raise your hand and I can help you or you can look for it, look for that word in the dictionary not in the google translator, in the dictionary because you are able to understand this text. Sois capaces de entender este texto, ok? So maybe there are some words that you don't understand but that is what the dictionary or me, that is what we are here for. Ok?

So, how are we going to do this activity? I told you it was a reading activity so each one of you is going to be A, B, and C, Ok?, so Ignacio is A, Malena is B, Pablo is C. (continues to list students and roles)

Ok? Each one of you has a letter and you will have different roles. Tendréis diferentes papeles. Different roles during the activity- eh We will talk about this group of four.

Each paragraph, in each paragraph of the text you will have different roles. Para cada párrafo tendréis un función diferente. So, one of you will read the paragraph out loud. Lo leerá ... What is the meaning of out loud? En voz alta. For your group, not for the entire class. So one of you will read it out loud. Another one of you will summarize it, what is the meaning of summarize? Eh? Resumir, that's right. Lo resumirá, lo explicará. Ok? So another one will summarize it, and out loud also. And another one will complete the diagram. Do you understand? So each time you will have a different role. One you will have to read, another time you will write, another time you will have to summarize. And you will be changing your roles.

Do you understand the task? Yes? Ok, So, open that text and let's read the first paragraph. The first paragraph, read it for you.

Ok have you read it? Ok, So what's the text about? The atmosphere? And what about the atmosphere? That's right. Ok? So what does the atmosphere does for living things? Ok? What are the functions of the atmosphere for living things?

What is the meaning of provide? You have a word in ... marked, it's provide, what is the meaning of provide? Proveer? And what is the meaning of proveer? Dar, Suministrar. Ok? So it says that the atmosphere provides us with some important things. Ok? Que nos provee, que nos da. Ok?

Appendix 5.4. Teacher talk T4_P and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)

So do you want to check if there is something new today? Yesss.

So this is new for today. Today we have to describe the different objects that come here in the class. Ok? So we need to follow these different steps but first of all I think we have a new message from Robin. Can you see it here?

Hi friends, my name is Robin. Come on hurry up, you are almost finished with the mission. I know you want to describe the different objects. I can help you with that. Use the light (so today we need the light!) I gave you. Do you remember the light Robin gave us last week? Follow the steps and use the different buttons to continue. You are doing a great job. Ok so Robin says very good.

So the first step is the puzzle. When I came here today to the class I found this. I found all the puzzles and I have 1, 2, ... eight different puzzles. So I think that the first step is that I give you one for each team and you have to complete the puzzle. Maybe you need the light for something that you have to do with that. Ok, I don't know. I'm not sure. First do it and then try something with the light. I'm going to put the light here. So, if you need it you can come here, take the light. First you have to clean your hands ok? You come here and you can take it and then you have to put it again and leave it here on the table because maybe another team needs the light, ok? So you can take it, you take your light, you use it or you try and then you put it again here. Don't say, Hey I need the light and you go quickly and .. No, you put it again here. Do you understand? Good.

So we move to step number ?? two. Step number two. You have to take this sheet to describe your object. So everything that you need today is here. ok? So you have here, this is here in the middle, it is the sheet that you need to write to describe your object so, number three, read or maybe if you have read before the rubric you need to reread it ok? because I do not know if you have read it at home. Before starting step number two, before start writing on your sheet, you have to read the rubric, ok? And if you want to use the ipad you can press here in the magnifying glass and you can check the rubric as well, ok?

Number four, you have to take the plan, ok? you have to follow the different steps to complete your description, ok?. We call it everyday *ruta* in language and here in English ok? and you have it here as well. It's here if you want it. You have one for you, ok?

Then step number 5, eh, you can use your cheat sheet. Do you remember last year that I gave you lots of these, cheat sheets? *Chuleta?* ok? Maybe you need it to complete your description. Ok? So here you have different sentences, different examples that you can use while you are writing, ok? And there is one for each of you, ok?

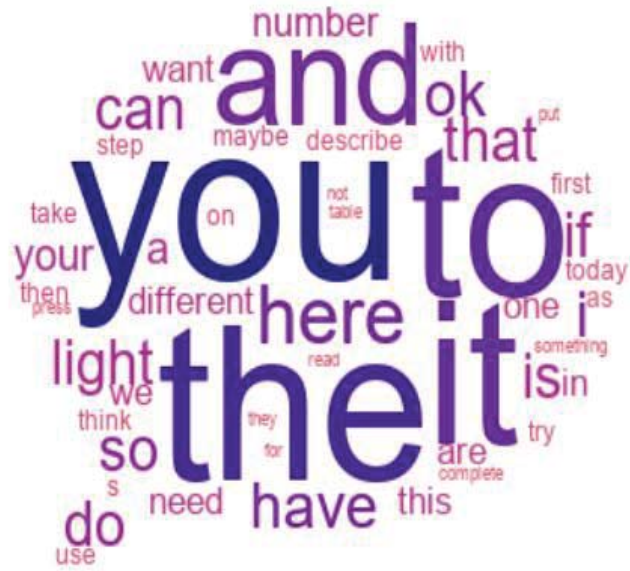
And here, if you press here, did you try your study guide at home? Yes. And what happens if you press here? What do we have? A video? No, it's not a video. A presentation? Very good, it's a presentation with different vocabulary so you have it here as well ok? maybe if you want to check more vocabulary or check different structures or something to write you can press here and the last one, this is if you want extra vocabulary, if you want more to write more difficult words. You can press here and you have more vocabulary and maybe now you are asking and how do we get this presentation. You can scan this QR code and then you have it in your ipad. Ok?

Do you understand all the steps. I am going to click on number one and you can start. .So first of all while I put number one I am going to give you the puzzle. Take your time, relax, don't run. Complete the puzzle and then try something with the light. Ok do you understand, you can start.

Here you are, Ok, perfect. This one is yours and yours,

You need to do it together, in the same table, you can move to the table. Maybe it's better if you try in the same table, not dividing, don't divide your work, i think it's better if you complete it in the same table. Do you think the eyes go like this? It's impossible that one eye goes here and the other here and the hair in the middle! I'm not sure. Ok do you have it? So what do you think, do you want to try? I think you know it, you are number seven so what does this mean? ... You have to describe it. Very good. We have a ... is it yours?

(877 words)



Appendix 5.5. Teacher talk T5_P and word cloud with most frequently used words (provided by AntConc software, Anthony 2022)

So, before we start we are going to see if we remember the tricky words that we have been working on, hello we're here! Thank you. The tricky words! So, remember they are tricky because they don't follow jolly phonics so they are tricky. Who remembers this one?, raise your hand if you remember, Roberto? He, He, very good. The next one, Wait, we are going to blow it in our hands, ok? Remember when we do this? If you know the answer, blow it in your hand and when I say release you say it, blow it in your hand, release, she, oh let's practice again. Blow it in your hand, Release, she. She, very good. Ok, What about this one? Do you remember? If you remember, blow it in your hand. Release eii oh man no, this one is eeee no that's not eee, I I, I, I. Ok so it's very important that we practice. I, I, I very good. Next one. Blow it into your hand, Release Me, very good. And the last one, if you know the answer, blow it into your hand, (mixed answers). Yes, some of you did it correctly, MY. Ok. Let's read them super fast, read them super fast to see if you remember. He, she, I, That wasn't super fast, I. I I I I I I, ok We are going to write it here so we can remember, I as in I love you. Ok I, I.

So now. Now we are going to practice reading some of the words that we are going to use so we are going to read in our teams. Where is your team? Can you high five your teammates? Can you high five, high five, high five your teammates? Very good. That's very good, come on.

Ok enough enough, enough. Class class class! Yes, yes, yes Ok, so now, We are going to practice reading these words with this game, it's called *Fan and pick* can you repeat? Fan and Pick, fan and pick. Very good. So here you have some numbers, Number one is fan and number two is pick, number three, what is number three? Can you read it? Read, and number four? Check, very good. so number one, hello everyone, Paula, Number one has to ... you are number one Lucas. So Number one has to fan so number one has to grab all the cards together like this. Number one has to do this, ok? No, no, no, like this.

So now, Lucas is number one. Paula is number two so Paula has to pick, can you pick? Very good now you give it to Lucy, then Lucy reads, can you read it "My sister", my sister now you give it to Roberto, Is it correct? Yes! So you can say, Very good Lucía! Very good Lucía! Very good! Ok so now this one you put it here and now we switch. Now Roberto is going to be number one, Lucas is going to be number two, Paula number three and Lucy, number four.

Are you ready? Are you ready? Ok much better. You have to read all the words, all the words.

Does it say "mi dog"? No, my dog. Good When you finish reading a word put it in a different place, don't put them together.

Class, class, class, class, class. Oh man. Class, class, class! Ok so now we are going to continue with a different exercise. So you have to leave all the papers on your tables so you can see them. (Teacher monitors that children are following instructions) I am going to take this, this is for me. Ok so. Now, hellooo. I am going to give you some extra cards. Don't touch them yet. Ok? (She puts a set of cards on each team table) Don't touch them, don't touch. So now. Class? Yes. What's happening today? This is not working! Class? No. That's not how it works! However I say class you say yes. Whispers class they whisper yes. Now I am going to show you a video of MY family presentation. Are you ready? The first time that we watch the video you only have to listen, just listen, ok? Everybody look at the screen! Jorge, don't touch the cards, do you understand? Don't touch the cards. Who touched them?

Why isn't it working? (having trouble hearing the audio on the video) Ah, it worked! Ok, are you ready to watch the video? I am going to switch off the lights. Ready, Freddie? It's not working. Why isn't it working? Ok, we have to be super quiet, Ok ready? You have to be super quiet (They watch the video in silence and get very excited when they see her pets.) So, Ok now class class, class class. Now you have to do the same presentation about your families so to practice you are going to look for the things that I say. So for example, if I say hello you have to look for the card that says hello. Can you find the card that says hello? Show me, show me, uh, yes very good, show it to the class! Hello! Very good, put it up, put it up. Did you find it? Put it up! Good, very good. Alright so now, ok, listen, when you find the card that says hello you are going to use, you are going to put it the first thing on the table. Hello? For example, on Emma's table, Laura's table, Claudia's table, Javi's table and Luis's table. You are going to use your tables to put them in order. Where is the hello card? So hello put it here and the rest over here. Ready? I don't see it here! Where do you have to put it? Ready, hello, I don't see it over there, very good. Class, class, ...

Ok now you are going to continue listening and you need to find the rest of the cards to make sentences. So for example. Let's hear it now.

What did I say? I said hello, this is my family. Very good. So now you have to look for this card, this is my family. I said Hello and then what did I say? Very good, very good, oh, you're so fast! I'm impressed, Alberto! ... What did I say? Did I say Manolo? No, I didn't say Manolo. Class, I am going to play it again, listen, listen, listen, come on listen. Hello, this is (kids answer this is my family) very good, very good.

Manolo is a boy so he, very good! What did I say?

Ok now listen, ready for the next part? Does it say he or she? Yes, ok. She is ... What is she? Is she my sister? Look what it says here, This is Vicky. She is ... Yes, she is my mother. Super good, this team!! Wow!

Does it say she here? No! So the first she, where is she? Look for the cards! She is ... What's missing? Look what it says here! This is Vicky. She is my ... Is she my sister? No! She is my mother, of course! Look what it says here, this is Vicky, this is ...? She is ... Super good! Wow! Let's continue. Everybody, please. Sh, sh, sh, Daniel, ready? You have to listen to the next part! Are you ready? Listen.

Everybody listen please. You have to listen to the next part, ready? Uh,

This is Lucía, she is my sister. This is Lucía. She is ... my sister, very good. She, she is my sister.

One, two, three everyone. Listen. Quiet everyone Lucas, listen. This is me. I am Irene. Oh you have some on the floor! I am, I am. Did you find the "I am"? This is, this is ... This is me, right! (the teacher monitors the cards on all the different tables.) This is me, ok! Now this part is a little bit more difficult so listen.

Look, wait! I said Wait! My pet. My pet. My pet, very good! Oh, you're not listening, I said, Wait, my pet. My cat? No, I said My pet ... ahhh there you go, yes, very good.

Now, the last part is super easy. You have to listen because we are going to do it a little bit faster. This is Nala. She is my cat. Listen, listen, This is Nala, She, she, she is my cat. Very good. And now class! And the very last part. And this is Broccoli, he is my dog. Is Broccoli. He is my dog.

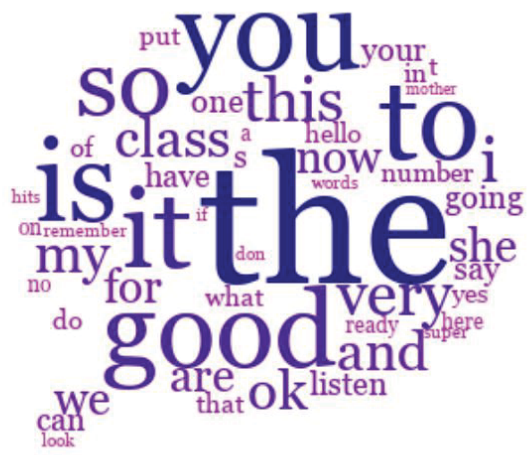
Ok, class, class. And the last part is ... ok and the last part is bye bye!

Ok so now class class class. We have finished with it and you did super good so you are going to get a very big Oh yeah. Remember that if we don't stop the oh yeah when we are supposed to, we turn the happy into a sad so we do Oh yeah one time, ok?

Ok, So now, now, this is MY family presentation. The next day with this you are going to do YOUR family presentation. If you take out the red part, for example the red part if I take out Lucía, Irene, Class, class, come on, Look now we can do it. So, look, now Claudia can do her presentation. So Claudia can do hers, so for example. What is your mother's name? Marta, Ok. Do you have a sister? And what is her name? And now this one. Please pay attention. Do you have any pets? No, so we take these away. Claudia is ready for her family presentation. Can you read it? Very good. Mi mother? My mother, good. Listen, very good. Wow, super good.

The next day you will do your family presentations, ok? Yes? So bye bye.

(1661 words)



Appendix 6. SPECIAL Observation Template completed by researcher

T1_S EFL	T2_PP CLIL	T3_S CLIL	T4_P EFL	T5_P EFL
<p>LESSON DEVELOPMENT</p> <p>Try to think of what learners will be able to do rather than describe the types of activities. For example, silence and closing should not appear and the aim could be: use weather vocabulary to explore and present a place with extreme weather conditions. They should know how they will be applying their vocabulary and for what purpose. Is this then going to help them to complete their projects? If so, they should be reminded of this.</p> <p>Why do kids their age need to know and talk about the weather? This is also something that they talk about in the video. Perhaps they could brainstorm reasons and have these present as the lessons develop. The fact that their classmates are in Ontario, Canada could serve as a great connection for them.</p>	<p>LESSON DEVELOPMENT</p> <p>Clearly developed thinking which is structured through the Scientific Method so that kids are not only learning the steps but are actually using them to discover the answers to their observation questions.</p> <p>So. <i>Maybe we can use the ... scientific method, do you remember that? The scientific method to do some ... experiments (as she gestures). Let's do a quick review of the scientific method. What's that? It's an ... observation. It's the first step of the scientific method so it is ... Observation. Mirror, Mirror. Observation, the next step is, do you remember that? Very good, it's a question. The question, The question is WHYYYYY, (nos</i></p>	<p>LESSON DEVELOPMENT</p> <p>I wonder if students are made aware of learning outcomes and how this activity fits in with the broader project or unit of work, i.e. how does the completion of this diagram enable them to do a more complex macro-task or project? Why is it important or relevant for them to know all this?</p> <p>Good focus on key words. Use of pedagogical translanguaging.</p> <p><i>What is the meaning of provide? You have a word in ... marked, it's provide, what is the meaning of provide? Proveer? And what is the meaning of proveer? Dar, Suministrar. Ok? So it says that the atmosphere provides us with some important things. Ok? Que nos provee, que nos da. Ok? Cosas importantes.</i></p> <p>Excellent organizer that will help them see the overview</p>	<p>LESSON DEVELOPMENT</p> <p>No learning outcomes visible unless they are on the Genially board.</p> <p>Very clear illustrations and interactive buttons on Genially board that students have had access to as a study guide. All of these files support comprehension and production. The teacher uses manipulatives like the puzzles and the magic light. She also supports understanding with physical demonstrations.</p> <p>Organizer of the route is excellent scaffolding with use of illustrations and icons to aid understanding.</p> <p>There are supplementary materials for students that want to challenge themselves further and for those who need more practice.</p> <p>Good idea to make the description of items relevant and communicative since</p>	<p>LESSON DEVELOPMENT</p> <p>Good review of Tricky Words which later appear in the activities of the lesson.</p> <p>Very clear learning outcomes well linked to skills that will be developed.</p> <p>Step by step development of skills allows students to reach complex objectives by the end of the project.</p> <p>Learning to read single words including several tricky high frequency words, connecting written words with meaning and pronunciation, structures of sentences, reading as segmenting and blending (as in WAIT /w-e-i-t/), seeing and identifying the spoken words in writing, distinctions in pronoun genders, intonation, punctuation, reading as scripts for speaking, listening and checking, ...</p> <p>Multimedia, realia, and manipulatives used to promote students'</p>

<p>This could be provided through cheat sheets for example.</p> <p>I wonder if any of the students would need more scaffolding in order to understand the video.</p> <p>How is language instruction present? Some focus on the language should be present. Learners should know where they are in their learning process and what knowing this will allow them to do. This would also connect with relevance. How is this new learning useful to them?</p> <p>If there was an information gap then this would be communicative. Perhaps they could have cards with different climates described and they could coach each other so that they all have all of the information.</p>	<p><i>preguntamos por qué, verdad?) WHYYY the ship floats and WHYYY the coin sinks. Ok?</i></p> <p>Excellent use of mini flashcards to scaffold understanding and promote production through the <i>Mirror</i> routine. The demonstrations that take place also help students understand and remember concepts such as float or sink.</p>	<p>and the key points of the text. Perhaps they could be made aware of this as scaffolding for the understanding of the concepts of the project.</p> <p>There might also be some kind of differentiation in the text for those with more difficulties.</p> <p>Very clear sequencing of learning within the lesson but it could be made explicit and connected with the overall unit or project, informing students of where they are and where they are going.</p>	<p>they are part of correspondence with teachers who have lost some of their things. The descriptions that they write of the objects will allow them to help others.</p> <p>The learning outcomes should be presented either orally or in writing.</p> <p>Perhaps there could be more language instruction events where students get to pronounce and repeat some of the structures and words that they will use in the descriptions. Since the emphasis is on writing, several of the students read the words as if they were Spanish. The teacher could use a routine like <i>Whole Brain Teaching's Mirror and Teach-Ok</i>. She could say something like, "Look at this. What is it? Yes, it's a rectangle. The adjective to describe it is rectangular. Mirror, rectangle, rectangular. Teach-Ok."</p>	<p>comprehension.</p> <p>Very meaningful and language-focused activities for teaching vocabulary and structures. Relevant to interests since they are very interested in hearing about their teacher and then can use this to talk about themselves.</p> <p>Excellent sequencing though it is not made explicit.</p> <p>Connections could be made from the beginning of the activity to tell them that they are going to listen to the teacher's presentation and then play some games that will magically help them to do their own presentations.</p> <p>As mentioned above, the students could have been made aware of the sequencing or how enabling these activities will be.</p> <p>There could be some adaptation of the materials to different needs but the close monitoring of student work may be acting as a differentiation strategy.</p> <p>Routines such as "mirror"</p>
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				<p>could be used to organize choral repetitions of key words.</p> <p>Some students may not be participating when in the whole group since there are several students who call out the answers very quickly. "Blow the answer" is a very good solution to this problem.</p>
<p>ACTIVATION:</p> <p>Good connection with the different weather conditions that their mates are experiencing in Canada.</p> <p>It is not clear what the challenge or final product is for this project.</p> <p>There should be more connections drawn with key competences and global issues such as climate change and students' own experiences with weather.</p> <p>Learners should be able to see how the learning from this lesson will enable them to successfully complete the challenge.</p>	<p>ACTIVATION:</p> <p>Students are engaged in the activity from the very start of the class as they find items such as a rubber, a pencil sharpener, etc. on the table and receive a message from <i>Pete the Cat</i>.</p> <p>Connections made with previous learning:</p> <p>Pete the cat and his challenge helps engage learners.</p> <p>If this is connected to a larger project, there should be mentions and reminders of the final outcome often throughout the lesson.</p>	<p>ACTIVATION:</p> <p>Connections with previous knowledge established. Strong emphasis on key vocabulary.</p> <p>There should perhaps be a kind of register of the words that are explained in class. Perhaps in a doc that then is kept in <i>Classroom</i> or each student can keep the record as a kind of glossary in their notebooks.</p> <p>I cannot see which of these words are new and which are being reviewed.</p> <p>There should be some kind of mention of the final challenge or product that will arise from this project and how this prepares them for it</p>	<p>ACTIVATION:</p> <p>They are learning how to describe objects and this new learning is made relevant by the task of using this ability to help others and meet the challenge proposed by Robin.</p> <p>More connections should be made with past and future learning. It should be made explicit that these new skills that they are acquiring will help them meet the challenge.</p> <p>Another possibility would be to hear some of the teachers describing an object and learners have to identify it. This would allow more of a focus on listening</p>	<p>ACTIVATION:</p> <p>Good retrieval practice at the beginning of the lesson with the Tricky Words activity.</p> <p>Teacher tells them orally what they will be doing at the start of each new part of the activity. Connections made with what they will be doing in the following lessons and what this lesson's activities will allow them to do.</p> <p>Could learning outcomes be shared in a simple and visual way? See comments in the previous section about the possibilities of sharing the final objective of the activities and how they</p>

	<p>It is an excellent idea to act out each thing that Pete is saying in the video with realia (the boat, the coin, the water, ...).</p> <p>Perhaps there could be two routines, one would be "Mirror" where they have to repeat and imitate gestures and the other one could be called "Echo" and they have to look at the flashcard and repeat the word. These two routines could be combined to give learners lots of opportunities to listen and repeat as they see either gestures or pictures to support their understanding.</p>	<p>(enabling tasks).</p> <p>Good explanation of the dynamics of the activity.</p>	<p>comprehension and could act as a model for the descriptions that they would later write.</p>	<p>might help them to reach it.</p> <p>Teacher could remind them of the tricky words once they start using them in the later activities saying something like, "My, remember that was one of our tricky words! Can you say ``My" for me?"</p> <p>Perhaps a reminder at the beginning of what will be their final task would be needed.</p>
<p>INPUT PROCESSING: English used is clear and appropriate. Visuals explain what learners need to do. The video is clear and easy to understand since it is intended for kids. The only focus is on vocabulary words that they are already familiar with but with very little context or comprehension of</p>	<p>INPUT PROCESSING: Clear speech with lots of repetition and visuals supporting understanding. Use of flashcards, gestures, and demonstrations with active participation allow learners to repeat and understand. Use of the scientific method to allow children</p>	<p>INPUT PROCESSING: Students receive the comprehensible input through the text and the teacher's explanations. I wonder if in a later lesson they will go over the paragraphs and their diagrams. I would suggest that one of the groups models the activity for the rest of the</p>	<p>INPUT PROCESSING: The visuals support the explanation of all of the parts of the study guide. It is a good idea to allow kids to explore the study guide on their own before the class. Learning is introduced in a relevant communicative context that also serves as motivation for learning. Perhaps some volunteers</p>	<p>INPUT PROCESSING: Very appropriate and natural speech with no use of L1. Lots of repetition, exemplification and gestures used to support understanding. Use of intonation to focus attention on key points. The learning of vocabulary is directly linked to the video that they will watch and the</p>

<p>meaning. Other varied sources could be used so support comprehension. Vocabulary is repeated orally and written both on board and on the screen. There should be more of a relevant communicative context both for watching the video and for the practice activity. There should be more focus on understanding the contents of the video itself and opportunities for learners to show understanding. More strategies, such as predicting and summarizing, should be used for the processing of the video content.</p>	<p>to test their hypothesis is an excellent way to make learning relevant and practice strategies such as predicting. Key vocabulary has been introduced well and repeated often, giving learners lots of opportunities to repeat individually and as a group: Would the teacher want any of these words to be seen in writing? Perhaps one or two could appear?</p>	<p>class or an explanation where you ask all the A's to raise their hands and tell them their role and so on. You might also make role cards so that they physically switch cards for each new paragraph. You might also use a different font for each person so that you can see who has written what. (All the A's use green font, all the B's use blue, etc. You could also adapt the Fan n Pick placemat. The organizer works well to make the important information salient to students but perhaps there should be more whole group sharing of the results.</p>	<p>could come to the board to explain the parts of the Genially board. This would take talking time away from the teacher and would also serve as motivation for those that spent time at home exploring the materials provided. I wonder if the route has been explained to them previously. It would be very interesting to use it to go over the items and check comprehension and practice pronunciation. More emphasis could be put on key vocabulary and structures. The words are read and written but listening and speaking should also be practiced often.</p>	<p>script that they put together that will act as the model for their own presentations. A sensible amount of vocabulary words is practiced in speaking, listening and reading as they see it, hear it and repeat it constantly throughout the lesson. Students seem to be very familiar with the meanings of all of these words.</p>
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<p>STRUCTURED INTERACTION: The interaction in this lesson happens only between the teacher and individual students when asked to participate. They work in groups to do the last activity but there is very little structure or roles. The teacher calls on individuals by name and moves on to other students if someone doesn't answer. There is a lot of scaffolding offered as students answer but I wonder how much students will remember and use it in the future. There could be more structured pairwork in which there is an information gap and they need to communicate in order to complete the activity. The group activity should be more structured so that all of them participate. This could be done with roles. When we call on individual students there is very little participation overall. If they shared their sentences with their partners they would have much more talking time. More noticing activities or specific feedback aimed at noticing should be present.</p>	<p>STRUCTURED INTERACTION: Lots of practice in repeating and in choosing options. Ample wait time provided through the use of <i>Blow the answer into your hand</i>. Scaffolding of Pete's instructions are provided by the teacher as she demonstrates what Pete is saying. Perhaps as a child makes his or her prediction the rest of the class could also make it with just thumbs up and thumbs down. In this way all of them would be interested in the results of the experiment. They should also repeat the results of both the predictions and the experiments in a choral way so that all of the learners get a chance to participate and practice.</p>	<p>STRUCTURED INTERACTION: Groups of three with one group of four. Only very quick students get a chance to answer when the teacher asks a question. Good use of clarification in L1. A lot of the interaction happens in Spanish. Perhaps they could be told that only the person who summarizes can speak Spanish if they need to clarify something. Teacher could recast some of their responses and ask all the class to repeat the key words or structures. It's important to get all of them to NOTICE the key words. Very good development of connections between ideas. Will they have to know any of this for other outputs such as a final task or an exam? How does knowing this help them to become better citizens? The communicative purpose that is implicit in the roles could be made more explicit. Students should be encouraged to try to communicate with each other in English. This activity helps them develop summarizing techniques. This could also be made explicit along with why this could be useful for their learning. The key vocabulary could be registered and kept so that they have the chance to see it and hear it over and over.</p>	<p>STRUCTURED INTERACTION: The incorporation of <i>Talking Chips</i> is an excellent way of getting students to say the sentences out loud. Excellent Cooperative Learning. Perhaps you could have a rule that the person who writes must always write what a teammate thinks and says and then they take turns. One has to think and talk and the other has to listen and write and then they switch roles. This could be done as a Rally Coach structure. More oral responses should be promoted as individuals and teams. How could noticing be incorporated? It should be made explicit that learning how to write descriptions will enable them to successfully complete the challenge and help others.</p>	<p>STRUCTURED INTERACTION: <i>Whole Brain Teaching</i> routines like <i>Scoreboard</i>, <i>Class-yes</i>, and <i>Blow the answer into your hand</i> used to promote and manage interaction. <i>Fan and Pick</i>, one of Kagan's Cooperative Learning structures, was used to structure interaction, pushing all students to take on the different tasks for each role. Excellent use of Whole Brain Teaching routines to get children involved and manage the class. Perhaps "Mirror" could have been used to practice some of the words followed by "Teach-Okay". Excellent use of "Fan and Pick" Kagan's cooperative structure, the instructions are a bit complex but students carried them out well thanks to the modeling and monitoring done by the teacher. Once this structure has been practiced it should be used often to justify the effort made to teach it the first time. Again it may be effective to connect this with the final task within the bigger picture of the project.</p>
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<p>EFFECTIVE LEARNING AND THINKING:</p> <p>No learning strategies are presented.</p> <p>Scaffolding is oral and no noticing of this scaffolding is promoted.</p> <p>No comprehension questions are used to check understanding of the video.</p> <p>More learning strategies, scaffolding, noticing, and comprehension checks should be promoted both for the videos and for the production practice that follows.</p>	<p>EFFECTIVE LEARNING AND THINKING:</p> <p>They listen to Pete the Cat's message on a laptop as the teacher demonstrates with the material on the table).</p> <p>This registering on their organizers also works as retrieval practice since they can recall what happened during the earlier part of the class regarding the sink or float experiments that they carried out.</p>	<p>EFFECTIVE LEARNING AND THINKING:</p> <p>Good use of learning strategies, such as asking for clarification and summarizing.</p> <p>Much of the checking for understanding happens just with rhetoric questions:</p> <p>More scaffolding could have been provided in a way that only those who need it would access it. There could be a completed model that they could use to check their work after each paragraph. Maybe a <i>Google slides</i> with one slide for each paragraph or printed copies in which they can check each paragraph separately.</p> <p>Very good development of connections between ideas. Will they have to know any of this for other outputs, such as a final task or an exam? How does knowing this help them to become better citizens?</p>	<p>EFFECTIVE LEARNING AND THINKING:</p> <p>The fact that all the materials are available to students on the Genially board allows them to develop autonomy. The support provided is very flexible providing remedial help along with extension.</p> <p>Teacher asks "Do you understand?" but there are no really effective ways of checking for understanding.</p> <p>The learning activities are meaningful and have been made even more so by the game context proposed.</p> <p>The icons on the route help to make the vocabulary and structures more memorable.</p> <p>There should be more <i>think alouds</i> throughout the explanations and as they write their descriptions. This should be modeled by the teacher. More real comprehension checks should be present asking students to demonstrate or repeat what they have understood about the directions.</p>	<p>EFFECTIVE LEARNING AND THINKING:</p> <p>Several learning strategies are developed such as the following:</p> <p>Teacher gives them a memorization strategy, a way to remember I, by writing "I heart you" on the board.</p> <p>Teacher assigns a role in the Cooperative Learning activity which is to check a teammate's answer. This promotes verification and monitoring.</p> <p>Understanding is scaffolded through repetition, visual support, word cards and gestures.</p> <p>Retrieval practice with the tricky words seen at the beginning is present as these words appear repeatedly in the text.</p> <p>The tricky words that appear later on in the text could be linked to earlier practice.</p>
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OUTPUT AND DEMONSTRATIONS OF LEARNING:	OUTPUT AND DEMONSTRATIONS OF LEARNING:	OUTPUT AND DEMONSTRATIONS OF LEARNING:	OUTPUT AND DEMONSTRATIONS OF LEARNING:	OUTPUT AND DEMONSTRATIONS OF LEARNING:
<p>The activity asks them to apply the vocabulary and structures that were being learned. Language skills are reduced to speaking since the listening activity with the video is restricted to “hearing” vocabulary words. Students always respond out loud, verbally and individually with sentences that they have prepared beforehand.</p> <p>The same kind of task is repeated for the video and for the sentences.</p> <p>Sentence frames are provided as well as prompts for students to complete.</p> <p>Student production should be more communicative and promote interaction.</p> <p>Different forms of interaction should be proposed going from more guided production to freer more personal output.</p>	<p>Once children have had ample time to practice with the different steps of the scientific method they work in small groups to complete an organizer which registers what they predict will happen in each of the experiments. Very hands on and personalized application of what has been learnt. Previous oral activities are registered on paper substituting written words for icons and illustrations and asking children to simply circle their predictions.</p> <p>No writing or reading is required. This is an excellent way to make students autonomous and to allow them to record and share their predictions with the resources that they have according to their age and developmental levels.</p> <p>This registering on their organizers also works as</p>	<p>The diagram works very well to organize the key information in the texts. The information transfer involved will help to make it memorable.</p> <p>Good integration of skills through the cooperative task assigned.</p> <p>Perhaps there could be more chances at choral repetition.</p> <p>See earlier comments on scaffolding.</p> <p>Good language model. Lots of restatement, paraphrasing, repetition and pedagogical translanguaging.</p> <p>Perhaps more visuals could have been used for some of the more complex terms.</p> <p>There should be more opportunities for negotiation of meaning and noticing like for example making them explicitly responsible for their roles. The reader must try to pronounce very clearly so that the team understands. The summarizer should take notes</p>	<p>The hands-on and manipulative materials provided, such as the genially board, the puzzle pieces, the magic light and the route, allow students to practice and produce in a very autonomous way.</p> <p>Good use of the route for the description of objects combined with talking chips.</p> <p>This combination of an organizer and a Cooperative Learning routine pushed students to practice and integrate both oral and written skills.</p> <p>The cheat sheets provide excellent scaffolding as does the route. There is also extra support for those learners that want to do more difficult or complex work.</p> <p>I would like to know more about how the items of the route were taught.</p> <p>There could be more explicit connections between what they are learning to do</p>	<p>Very hands-on and manipulative materials present throughout the lesson, such as in the projections on the screen, the video, the game board and the word cards.</p> <p>Integration of skills present as children listen, read, interact and speak.</p> <p>Lots of choral responses, repetition and varied tasks.</p> <p>The model provided by the video serves as scaffolding for their future production.</p> <p>Opportunities for learners to show learning non-verbally. Students demonstrate their learning by showing cards.</p> <p>Excellent materials that allow children to physically build the script for their presentations.</p> <p>By replacing the words in red they can personalize their own presentations in a very visual way. Perhaps</p>

	<p>retrieval practice since they can recall what happened during the earlier part of the class regarding the sink or float experiments that they carried out.</p>	<p>and ask questions if he or she does not understand something in the text. The writer should ask before writing anything on the organizer.</p> <p>It would also be interesting to offer students models of what they will say in their roles. This could be done with the role cards that I suggested. As the summarizer you might say things like, "So the function that is discussed is ... The gas that is related to this function is ..."</p> <p>More scaffolding could have been provided in a way that only those who need it would access it. There could be a completed model that they could use to check their work after each paragraph. Maybe a <i>Google Slide presentation</i> with one slide for each paragraph or printed copies in which they can check each paragraph separately.</p>	<p>(describe objects) and their mission or challenge. The teacher could say something like, <i>Hey, now that we can describe objects so well in English we can really help Robin!</i></p> <p>There could also be more choral repetition. This could be done briefly with the items on the route using "Mirror" for repetition and "Teach-Ok" for paraphrasing.</p> <p>Learners in the "Talking Chips" activity should also be responsible for helping their partners to do their best work, that is if the one writing does not understand what the one talking is saying then he or she must push him or her to make themselves more comprehensible or more accurate. If the learner that is the talker sees that the writer has written something inaccurately then he or she must correct and guide the writer.</p>	<p>this could also be done digitally using a magnetic poetry template on Google Slides. This could even be homework or fast finisher work.</p> <p>Students are asked to listen to the model and then identify and organize the different structures and vocabulary used. This becomes a script which they will use to personalize their own presentations</p> <p>The script that they create through all of the activities could be registered by taking a photo and then this could work even better as scaffolding and practice for the final task. By uploading it to SeeSaw they could also use this to then record their own audio on the photo that they took.</p>	<p>LESSON DELIVERY: Language model is correct</p>	<p>LESSON DELIVERY: Great language model</p>	<p>LESSON DELIVERY: Good language model. Lots of</p>	<p>LESSON DELIVERY: The teacher uses clear</p>	<p>LESSON DELIVERY: Very natural speech with</p>
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<p>and adequate to the language proficiency level. It is rich in English usage. There is restatement, paraphrasing, repetition, and written records of key points. Some students are not on task since they know that they have already answered and probably won't have to participate again.</p> <p>Pictures are used to scaffold understanding of vocabulary. More noticing should happen perhaps in the correction and feedback with the use of visuals to support it.</p> <p>More pairwork and choral responses should be incorporated.</p> <p>Students could be made more accountable for the different parts of the lesson so that all students are on task most of the time.</p>	<p>with a very natural use of language to communicate. Very good use of intonation and stress to mark the key words or ideas. Learners are very engaged and the scaffolding techniques seem to work well to support understanding.</p>	<p>restatement, paraphrasing, repetition and pedagogical translanguaging. Perhaps more visuals could have been used for some of the more complex terms.</p>	<p>language communicates correctly. The pace is quite fast but students seem to be following along well. Restatement and paraphrasing along with repetition support understanding of language. The visuals provided help the learners to follow along with the lesson. The Genially board is an excellent vehicle for the supplementary materials provided by the teacher. The route that has been developed and which is also used in Spanish language classes is very effective with its icons and illustrations. I wonder if some students may get lost since the pace is quite quick. Perhaps you could ask a student to repeat or explain in their own words what has just been said. This should be done for particularly important parts of the explanation saying something like, "So, Johnny can you tell us what happens when you click here?"</p>	<p>no use of L1 adapting pace, intonation and rhythm to the needs of students. Very rich and fluent use of vocabulary and classroom language. Restatement, paraphrasing, repetition and word cards help to support and achieve the learning objectives. All the students are engaged throughout the lesson and although the dynamics are complex, they are on task and following instructions. Pacing is quick but it respects students' rhythms. Classroom management strategies like class-yes allow the teacher to keep them on task. The video with the model of the presentation helps to scaffold comprehension and later production. The icons and words on the Fan and pick game board also scaffold the instructions and roles of the Cooperative Learning structure.</p>
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			<p>When giving instructions, you can follow a protocol such as,</p> <ol style="list-style-type: none"> 1. Explain or demonstrate 2. Model or demonstrate 3. Ask a student to paraphrase 4. Ask if any clarifications are needed. <p>See the parts of the script marked.</p>	<p>The lesson seems to follow the plan well. I would suggest doing some choral reading of the words before they play “Fan and pick” using the same dynamic as was used with Tricky words. Maybe one of the kids could choose the words for the others to read using the terms, pick, read and check to practice that as well.</p>
<p>REFLECTION AND ASSESSMENT:</p> <p>Some feedback is provided to recast some of the learners’ answers.</p> <p>In this particular lesson no assessment took place. I wonder what evaluation tools and criteria will be applied.</p> <p>There should be more comprehension checks because some students may not be visible or heard and they could fall through the cracks.</p> <p>Assessment for learning</p>	<p>REFLECTION AND ASSESSMENT:</p> <p>The key vocabulary of classroom objects is practiced and reinforced as they choose which object to carry out the experiment with. The key content words <i>sink</i> and <i>float</i> are repeated throughout the lesson and reinforced with images and gestures.</p> <p>Perhaps there could be more frequent comprehension checks when the learners are individually at the table.</p>	<p>REFLECTION AND ASSESSMENT:</p> <p>Very good practice of key vocabulary as these are marked in bold in the texts and then used in the graphic organizer.</p> <p>More real comprehension checks should be used.</p>	<p>REFLECTION AND ASSESSMENT:</p> <p>Comprehension checks are rhetorical with the teacher asking “Ok?” or “Do you understand?”. There is no way for students to stop if they need more clarification and no real way to know if they are all following along.</p> <p>Since there are many instructions given in a short time there should also be ways in which these instructions can be made memorable perhaps by writing some things on the board or on the presentation on the board. There could even be a</p>	<p>REFLECTION AND ASSESSMENT:</p> <p>The teacher often lets children finish her sentences to check their understanding.</p> <p>The tricky words that are practiced at the beginning of the lesson reappear in the different activities providing a review and sometimes a reteaching of key points.</p> <p>Frequent feedback is given with very specific error corrections.</p> <p>Informal peer assessment occurs with the role of checker in the Cooperative</p>

<p>would allow the teacher to detect students who are having difficulties.</p> <p>There is feedback provided but it should be more specific about what is correct or incorrect so that there is learning. It should also be followed by explanations to make it noticeable and memorable.</p> <p>The evaluation criteria should be directly linked to the evaluation instrument and should come from the curriculum.</p>	<p>I like the idea of the individual experiments which they register on the organizer. Will they have a chance to tell others about what they discovered? This could be a great tool to then record in audio the results of the experiment or the conclusions.</p>	<p>cheat sheet on the wall for all of the class to see if needed. It could show the steps to follow using icons.</p> <ol style="list-style-type: none"> 1. Listen 2. Explore the message. 3. Put your puzzle together. 4. Use the magic light to discover the clue. 5. Describe using the route and the talking chips. <p>Feedback should be given on oral production as it is happening. This works best if the teacher jots down corrections to be given anonymously and to the whole group saying something like,</p>	<p>Learning structure. Students have to listen to their teammates read the cards and correct or congratulate them on their work.</p> <p>More feedback could be given so that their progression in skills is made visible.</p> <p>Excellent sequencing so that step by step learners create their own scaffolding for future production.</p> <p>Constant monitoring of team work.</p>
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Appendix 7. Post-observation survey as part of the SPECIAL Observation Protocol

Post observation survey for final SPECIAL group session

Reflection on observation protocol

** Indica que la pregunta es obligatoria*

1. Please tell me how you felt right before our feedback session. You can check several responses. *

Selecciona todos los que correspondan.

- Nervous because I wasn't sure what to expect.
- Nervous because I didn't like the lesson that I had recorded.
- Nervous because I don't like to receive feedback.
- Nervous because I don't like to have people see my teaching.
- Excited to hear how someone else sees my teaching.
- Excited to see if I could learn something from the feedback.
- Too tired to really pay much attention to the feedback.
- Confused about what I was going to be doing in that session.
- Neither concerned nor excited.
- Otro: _____

2. How did you feel after the feedback session? You can check as many boxes as apply. *

Selecciona todos los que correspondan.

- I agreed with most of the feedback received.
- I didn't agree with most of the feedback received.
- I agreed with some of the feedback received but disagreed with other points.

3. How did you feel after the feedback session? You can check as many boxes as apply. *

Selecciona todos los que correspondan.

- I didn't like receiving feedback. I felt judged and uncomfortable.
- I didn't like receiving feedback. I think it was a waste of time.
- I liked receiving feedback but I don't think I learned much.
- I think it was a positive learning experience for me as a teacher.
- I think I would like to give other colleagues feedback to help them.

4. How did you feel after the feedback session? You can check as many boxes as apply. *

Selecciona todos los que correspondan.

- I don't think I can apply most of the things that I learnt from the feedback.
- I think I can apply most of the things that I learnt from the feedback.
- I think I can apply more than four of the things that I learnt from the feedback.
- I think I can apply between one and four of the things that I learnt from the feedback.

5. Please tell me something that you remember from the feedback session. *

6. Please tell me something that you have applied from the feedback session. *

7. Please tell me if there is something that is not clear and that you would like to hear more about before applying the protocol as an observer. *

Appendix 8. Healthy Kids Project



Stage	Questions to ask yourself	HEALTHY HABITS PROJECT PLAN	LINKS TO TOOLS FOR HEALTHY HABITS PROJECT
Activation	<p>What will be your challenge or driving question?</p> <p>How will you present it?</p> <p>How will you activate and establish their previous knowledge?</p>	<p>Students receive a VOKI message from a school in New Jersey that has problems getting their kids to eat a healthy diet and they ask children for ideas since they have heard that they are healthy eaters.</p> <p>Children will start by looking at an image with pictures of healthy habits and try to guess what it represents, they will then do a brain dump about things they associate with a healthy and happy body and another one for an unhealthy and sad body. They will classify their ideas into two wall charts with their own pictures to illustrate the words.</p>	<p>Message from New Jersey friends</p> <p>Image for Activation</p> <p>Brain dump task card for two wall charts: healthy vs. unhealthy</p> <p>Wall Chart to compare Healthy/Unhealthy Habits</p>
Discovery	<p>How will you organize the learning to let learners discover input and process it so that they know and understand it?</p> <p>Will you set up learning centers or learn as a whole group?</p>	<p>Four learning activities.</p> <ol style="list-style-type: none"> 1) In whole group: children watch video on healthy eating and complete a see think wonder chart. 2) children go back to their initial wall charts and start adding or changing ideas with more pictures of healthy vs. unhealthy habits; 3) children write or say sentences suggesting and persuading according to situations on cards like, "You have a tummy ache and your friend wants to know what you ate for lunch"; 4) children learn to use tools to create reply such as Canva, Ed Puzzle, See Saw, 	<p>Healthy eating video</p> <p>See Think Wonder Chart</p> <p>Wall Chart/Padlet to compare Healthy/Unhealthy Habits</p> <p>Persuasion Role Cards</p> <p>Cheat Sheet for persuasion role play</p> <p>See Saw task card</p> <p>See Saw Tutorial</p> <p>Canva task card</p> <p>Canva tutorial</p>

Stage*	Questions to ask yourself	HEALTHY HABITS PROJECT PLAN	TOOLS FOR HEALTHY HABITS PROJECT
Deepening	<p>How will you push learners to communicate, collaborate, and think about what they are learning?</p> <p>How can you deepen their understanding?</p> <p>How will you check their understanding?</p>	<p>Children will complete a chart registering what they eat and do (exercise, sleep, ...) in a week. They will analyze group results with a bar graph.</p> <p>In cooperative teams they will do a decision making activity about choosing what to eat for the school menu. They will be provided with cheat sheets.</p> <p>Children will use Generate Sort Connect Elaborate to make a mind map with suggestions for healthy living.</p> <p>The mind map and results of the data will be used to check understanding</p> <p>Scaffolding will be provided (children will have pictures to paste into their charts and mind maps).</p>	<p>Data registration for weekly habits</p> <p>Bar Graph activity to present data</p> <p>Skillful decision making chart for menu</p> <p>Cheat sheet for decision making</p> <p>GSCE task card</p> <p>GSCE organizer</p> <p>Checklist to check understanding in mind maps and charts</p> <p>Pictures and Pictograms for scaffolding</p>
Planning	<p>How will you promote organization skills and decision making so that they plan their products and presentations carefully and skillfully?</p> <p>How will learners give and receive feedback about their ideas?</p>	<p>Children will decide in cooperative teams on what product to create:</p> <ul style="list-style-type: none"> - plan for organizing a sports day (What, when, where, how) - a healthy menu for school - an infographic giving advice about good hygiene <p>Children will describe their ideas using pictures and icons for their peers to review.</p> <p>Feedback carousel will be used for peer review and feedback on proposals.</p> <p>Teacher will give an ok on plans before starting production.</p>	<p>Planning Brief</p> <p>Tug of War for decision making</p> <p>Feedback Carousel Task card</p> <p>Teacher approval of plans</p>

Your planning	Questions to ask yourself	HEALTHY HABITS PROJECT PLAN	LINKS TO TOOLS FOR HEALTHY HABITS PROJECT
Creation	<p>How will you support and scaffold learners as they create their products?</p> <p>How will you check that they are applying new knowledge and skills?</p>	<p>Children will hear about their rubrics before starting.</p> <p>Scaffolding will be provided (children will have pictures to paste into their charts and mind maps)</p> <p>There will be a recording corner in the class with tablets for them to make their videos.</p> <p>The class computer will be used for the creation of infographics and we will go to the computer lab at least once during this stage.</p>	<p>Rubrics for assessing products</p> <p>Product Task Cards</p> <p>Pictures and Pictograms for scaffolding</p>
Publishing	<p>How will learners communicate and share their new ideas, knowledge, understanding and skills?</p>	<p>Learners will upload their productions onto a Padlet created by the teacher or using SEESAW, they will then record a video mail for their NJ friends including the link to the Padlet. Their productions will also be shared with the school using the blog and corridor walls.</p>	<p>Padlet link</p> <p>Video mail cheat sheet</p>

Your planning	Questions to ask yourself	HEALTHY HABITS PROJECT PLAN	LINKS TO TOOLS FOR HEALTHY HABITS PROJECT
<p>Assessment Reflection and Celebration of learning</p>	<p>How and when will you assess their learning processes? How and when will you assess their products and presentations as demonstrations of learning? What tools will you use to check if they have met their success criteria and achieved the expected learning outcomes? How will you celebrate learning?</p>	<p>Assessment of learning will be carried out through the use of several rubrics, and a short quiz on vocabulary The teacher will also use a rubric and checklist to establish whether children have successfully completed the mind maps, bar graphs and other classroom activities in notebooks.</p> <p>Learning Assessment Rubric 40 % Vocabulary comprehension Quiz 30 % Activity checklist 30%</p> <p>Activities will receive one point if completed with some help and two points if completed on their own.</p> <p>Celebrate by having a healthy habits party</p>	<p>Rubrics for assessing products Key vocabulary Quiz for children to name, identify or locate words</p> <p>Checklist for class activities</p>