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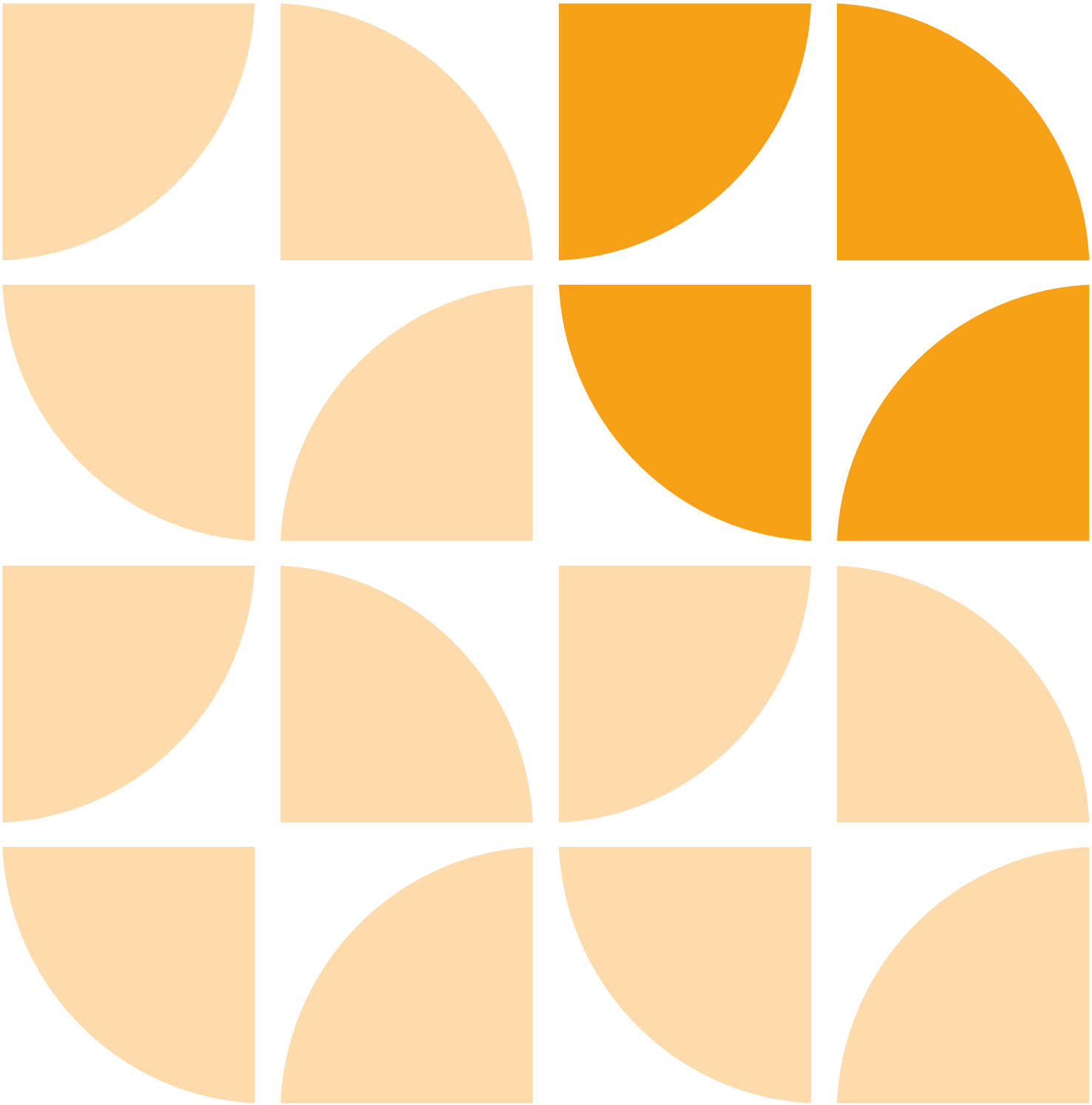
UNIT 3

Theories about Language Acquisition and CLIL Approach



Outcomes

1. Learning about the methodology used in second language acquisition.
2. Knowing the basics of learning first and second languages.
3. Learning about integration of language, content and learning skills.
4. Designing a lesson plan from a CLIL perspective.

Index

1. Introduction

We are living in a multilingual and multicultural society. It is decisive to highlight the importance of learning second languages. In Unit 2, the legal framework for implementing multilingual programmes has been analysed. In Unit 3, you will be informed about different theories and methodologies to bring it all to the classroom.

Throughout history, different academic approaches have established the building blocks of language acquisition theory. Most of them have made important contributions to the Content and Language Integrated Learning approach (CLIL for short), which, over time, has become one of the main tools to enhance multilingualism.

All in all, in order to design CLIL lesson plans, the increasing number of teachers that are using English as a medium of instruction should be familiar with the different theories, tips and tricks that will be suggested in this unit.

2. Second Language Acquisition Theories

There has been plenty of research on how exactly learners acquire a new language. Teachers should be aware of how the teaching-learning process takes place and be familiar with different methodologies before designing a lesson plan. This unit will, therefore, present some of the most outstanding theories on language, developed over the last decades by linguists, scholars and philosophers. Language acquisition should, indeed, be seen under different perspectives.

Linguistics studies elements such as grammar, vocabulary, socio-psychological aspects and the relationship between languages. Among the most important approaches in history, we could highlight the following ones:

- The **traditional approach**, also known as the old grammar-translation method, based on grammar and morphology. Its main unit of reference is the sentence.
- The **structuralist approach** appeared in the mid-20th century, inspired by the behaviourist school of psychology. It originated during World War II when the US army had to study other languages in order to communicate with people from different countries. This method is characterised by the emphasis on structures which are easy to repeat and memorise. Behaviourists take the view that children learn languages through imitation and positive-negative reinforcement.
- One of the most representative figures of the **cognitive approach** is Noam Chomsky. Contrary to what behaviourism states, this school theorises that all humans, regardless of their sociocultural differences, share the same underlying linguistic structure. The ability to acquire the language is a biologically innate capacity.
- The **interactionist view**, with authors such as Meissel and Long, goes further. They believe that children learn languages through interaction with the people who surround them, such as their family, friends and teachers.

Translating this theoretical framework into the teaching practice, we need to take into account that students will learn the language in a non-natural context. As the foreign language might not be spoken naturally where we live, we should create a positive atmosphere where students will feel comfortable to participate and practise it as much as possible.

The acquisition of a second language is an excellent asset for the cognitive process. In addition, there are some specific factors that affect it and can be analysed according to the following categories: age, attitude, ability and personality.

3. Theories supporting the CLIL Approach

3.1 Bloom's Taxonomy

In his taxonomy, Benjamin Bloom (1956) distinguished between lower and higher thinking skills. Starting from the simplest onwards, they are knowledge, comprehension, application, analysis, synthesis and evaluation. In 2001, a former student of his, Lorin Anderson, updated this classification using verbs rather than nouns to label the levels and swapping the order of the last two.

Table 1. Bloom's Revised Taxonomy

higher order thinking skills	**creating**	making, designing, constructing, planning, producing, inventing
	evaluating	checking, hypothesising, experimenting, judging, testing, monitoring
	analysing	comparing, organising, outlining, finding, structuring, integrating
lower order thinking skills	**applying**	implementing, carrying out, using
	understanding	comparing, explaining, classifying, exemplifying, summarizing
	remembering	recognising, listing, describing, identifying, retrieving, naming, finding, defining

Source: Self-elaboration. CEFIRE Específic de Plurilingüisme (2018) based on Lorin Anderson (2001).

The above-mentioned verbs describe most of the activities, actions and processes that take place in the classroom. These levels have undoubtedly an intuitive appeal to many teachers, as this classification might be useful to guide the way lessons are planned, starting from the most simple processes and ending up embarking on the most challenging ones.

3.2 Marzano's Taxonomy of skills in Education

Marzano, R. J. (2000) proposed a different skill classification moving from the most straight-forward to the most complex ones. He distinguished three systems: the self, the metacognitive and the cognitive systems.

The self system includes learners' attitudes, beliefs and feelings and how they determine their motivation. The metacognitive system relates to learning to learn: it helps the learner to set goals, make decisions and monitor which information is necessary and which cognitive processes are the best for the task in hand. Finally, the cognitive system presents mental skills with an ascending scale that resembles the lower and higher thinking orders devised by Bloom.

Table 2. Marzano's cognitive system

Knowledge retrieval	Comprehension	Analysis	Knowledge use
Recalling: information, facts, sequences and processes.	**Synthesis:** identifying what is important to remember. **Representation:** putting the information into categories.	**Matching** **Classifying** **Error analysis** **Generalising** **Specifying**	**Decision making** **Problem solving** **Experimental inquiry** **Investigation**

Source: Self-elaboration. CEFIRE Específic de Plurilingüisme (2018) based on R. J. Marzano (2000).

3.3 Learning styles and Gardner's multiple intelligences

Howard Gardner (1983) proposed the theory of multiple intelligences. Rather than a single block, different abilities are differentiated. Even if we all tend to be better in a particular aspect, he opposed the idea that students are labelled with just one of them. What matters is understanding which of the student's intelligences is the strongest in order to figure out what activities are advisable. The table below presents some of them and details the different ways that different intelligences have to decipher our world.

Table 3. Intelligences and learning styles

Intelligences	Characteristics	Classroom activities
Verbal intelligence	It involves knowledge through language: reading, writing, listening and speaking. It also involves verbal nuances such as idioms, plays on words and humour.	Word games, poetry and story-telling.
Logical-mathematical intelligence	This intelligence endeavours to understand the world by decoding recurrent patterns in terms of numbers and logical relationships.	Experiments, cosmic questions, puzzles and other problems.
Spatial intelligence	This is the intelligence that interprets what meets the eye: shapes, images, designs and textures.	Drawings, paintings, designs, patterns, clay-modelling, arts and crafts.
Kinaesthetic intelligence	It is the one at work when we speak of learning by doing, by moving our body and using our stamina.	Physical movement, dancing, roleplaying, making and inventing things.
Musical intelligence	Sound, vibration, beats and rhythm are the focus of this kind of intelligence.	Music and rhythmic patterns. Very sensitive to sounds in the environment.
Naturalist intelligence	It is our capability to admire and analyse the fauna, flora and phenomena of the natural world around us.	Outdoor activities, animals, plants, and almost any natural objects.

Interpersonal intelligence	It deals with social skills, our capacity to relate to our peers and for teamwork.	Team activities of all kinds.
Intrapersonal intelligence	It is the introspective intelligence. It is the one that deals with our capability of self-awareness: feelings, emotions, values and beliefs.	Individual work.

Source: Self-elaboration. CEFIRE Específic de Plurilingüisme (2018) based on Howard Gardner (1983).

3.4 Bloom's Taxonomy and Gardner's multiple intelligences matrix

As we have seen, Bloom divided the learning process into six different categories (grouped into higher and lower order thinking skills). When planning a lesson plan, teachers should bear in mind which ones are put at work.

By combining Bloom's and Gardner's theories, educators are provided with a wide spectrum of categories that enables them to customise and differentiate their lesson plan for the diversity of their students. Depending on their characteristics, some of them will be more performant and creative in some intellectual areas and struggle with their weaker ones. The table below intends to suggest some of the activities that can be proposed taking into account both the intelligence type and the thinking order.

Table 4. Multiple intelligences and Bloom's Taxonomy matrix

	knowing	**understanding**	**applying**	**analysing**	**evaluating**	**creating**
verbal	- Make a topic glossary - Complete a facts quiz - Make a word list - Fill in missing words - Match, list, locate, write, define, recall and label facts	- Retell or surmise - Find examples - Compare simple texts - Make up a facts quiz - Use in a sentence - Sort into categories - Summarise, - Describe	- Write using this style - Write a letter - Word games/ puzzles - Write headlines - Write newspaper articles - Research facts - Report writing	- Identify main arguments - Analyse plot/ setting - Analyse language - Debate - Identify significant events - Identify bias	- Identify most/best and why/strongest argument - Rank texts/events - Suggest changes - Conclusions	- Plan/write scripts - Plan/write a story or a poem - Create a word game - Plan a research project - Compose an exam question/ essay - Title
logical-mathematical	- List dates - Write/number facts - List attributes - Describe a process - What makes X happen?	- Sort into correct order - Predict cause/ effect - Calculate/ estimate/weigh - Devise number problems - Make up quiz questions - Explain results	- Conduct an experiment - Logic/maths/ puzzle games - Follow a recipe - Show on a timeline - Find statistics about... - Make/interpret a graph	- Identify patterns - Interpret the results - Use matrix to compare - Identify key features - Make a budget - Make a concept map - Hypothesise and test - What if?	- Identify problems - Identify errors in logic - Evaluate research validity - Rank (the most to the least) - Select the best	- Plan/make a computer programme/ website - Create logic/ maths games - Plan and carry out data collection and display - Create a new classification scheme - Build a new machine

spatial	- Draw what you know - Show X on a map - Complete a visual quiz - Pictionary - Describe how something looks	- Illustrate/draw an example - Visually summarise - Compare two images - Draw a diagram - Multiple choice quiz	- Mind mapping - Make a flow-chart - Make a poster/ brochure - Draw cartoons - Make slides	- Mind mapping - Identify key features from an image - Make a matrix for comparisons - Develop a rubric	- Rank artwork/ images/designs - Recommend changes - Critically evaluate website/artwork/ image - Which is best and why?	- Plan/present a slideshow - Plan/create artwork around a theme - Plan/design sets/ costumes/props/ fashions
kinaesthetic	- Describe how to perform a skill - Describe how to make a... - Move or act like a... - Cut and paste examples... - Make one with plasticine - Use hands to show a number	- Make a model to show... - Mime/use your body to show...	- Practise skills in games - Play charades - Make something from instructions - Form an equation using students	- Develop a rubric to assess a performance/skills - Use matrix to compare performances	- Evaluate a performance - Evaluate a roleplay	- Plan and perform a scene/roleplay - Create a new sport - Plan and make puppets
musical	- Make these sounds - Sing learned song - Play learned music - Music facts quiz	- Compare two songs/sounds - List good/bad features of a song/ sounds - Name the song - Associate this song/sound with...	- Choose appropriate sound effects - Musical performance - Put learned facts into a song/a rap/a poem	- Analyse musical effects - Use matrix to compare singers music	- Critically review music - Critically review the use of music in media - Recommend changes	- Plan/perform a rap/song/jingle/ poem - Rewrite lyrics of a song/jingle/rap for another purpose
naturalist	- Record and talk - Find photos - Categorise - Classify	- Take photos - Describe - Research	- Use magnifying glass/periscope - Design and make	- Group - Select	- Debate - Create	- Present mineral collections - Present slideshows on nature - Act as a guide in a local natural park
interpersonal	- Work together to list...	- Describe this person - Act as this character - Compare two characters - List good/bad features of a character	- Teach someone... - Discuss social skills... - Work with others - Interview someone - Conduct surveys	- Explain/defend a person - Do character analysis - Identify social solutions - Explain why people...	- Critically review as a group - Negotiate to decide on a solution - Debate as a group - Peer assessment	- Plan an investigation - Plan and conduct a peer assessment - Set targets for a peer
intrapersonal	- Describe yourself - List your experiences - Describe what you know	- Explain your views/opinions/ feelings/reactions - Explain what you have learned and how	- Make a personal timeline - Set personal goals - Keep a learning log - Self-reflect...	- Analyse personal strengths - Make a self-mind map - When would you do this?	- How do you learn best? - Evaluate yourself... - Which character is most like you and why? - Which of these applies to you and why?	- Plan ways to achieve your goals

Source: Self-elaboration. CEFIRE Específic de Plurilingüisme (2018) adapted from Pohl, M. (2000) and Anthony Steed (2012).

3.5 Lev Vygotsky's Scaffolding theory

Scaffolding instruction as a teaching strategy originates from Lev Vygotsky's sociocultural theory and his concept of the *zone of proximal development* (from now on, ZPD) defined by Raymond (2000) such as:

The zone of proximal development is the distance between what children can do by themselves and the next learning that they can be helped to achieve with competent assistance (p.176).

The scaffolding teaching strategy provides individualized support based on the learner's ZPD (Chang, Sung, & Chen, 2002). In scaffolding instruction, a more knowledgeable other provides scaffolds or supports to facilitate the learner's development. The scaffolds facilitate a student's ability to build on prior knowledge and internalize new information. The activities provided in scaffolding instruction are just beyond the level of what the learner can do alone (Olson & Pratt, 2000). The more capable other provides the scaffolds so that the learner can accomplish (with assistance) the tasks that he or she could otherwise not complete, thus helping the learner through the ZPD (Bransford, Brown, & Cocking, 2000).

Vygotsky's theory explains that the role of teachers and others (such as family members, a more competent partner...) is supporting the student development and providing scaffolding to get to that next stage or level that they are not ready to achieve on their own yet.

In the educational setting, scaffolds may include models, cues, prompts, hints, partial solutions, think-aloud modeling and direct instruction (Hartman, 2002). In *Teaching Children and Adolescents/teenager with Special Needs,* Olson, J. & Platt, J. (2000) provided an example of a procedural facilitator (hint, cue-card, partially completed example).

One of the primary benefits of scaffolding instruction is that it engages learners, who do not passively listen to the information presented by the teacher. They, instead, build on previous knowledge and move on to a new one through teacher prompting. The differentiation, potentiality of scaffolding, is both its strength and its weakness. It can fit different types of levels and learning styles, but it might be extremely time-consuming.

3.6 Bruner's Scaffolding

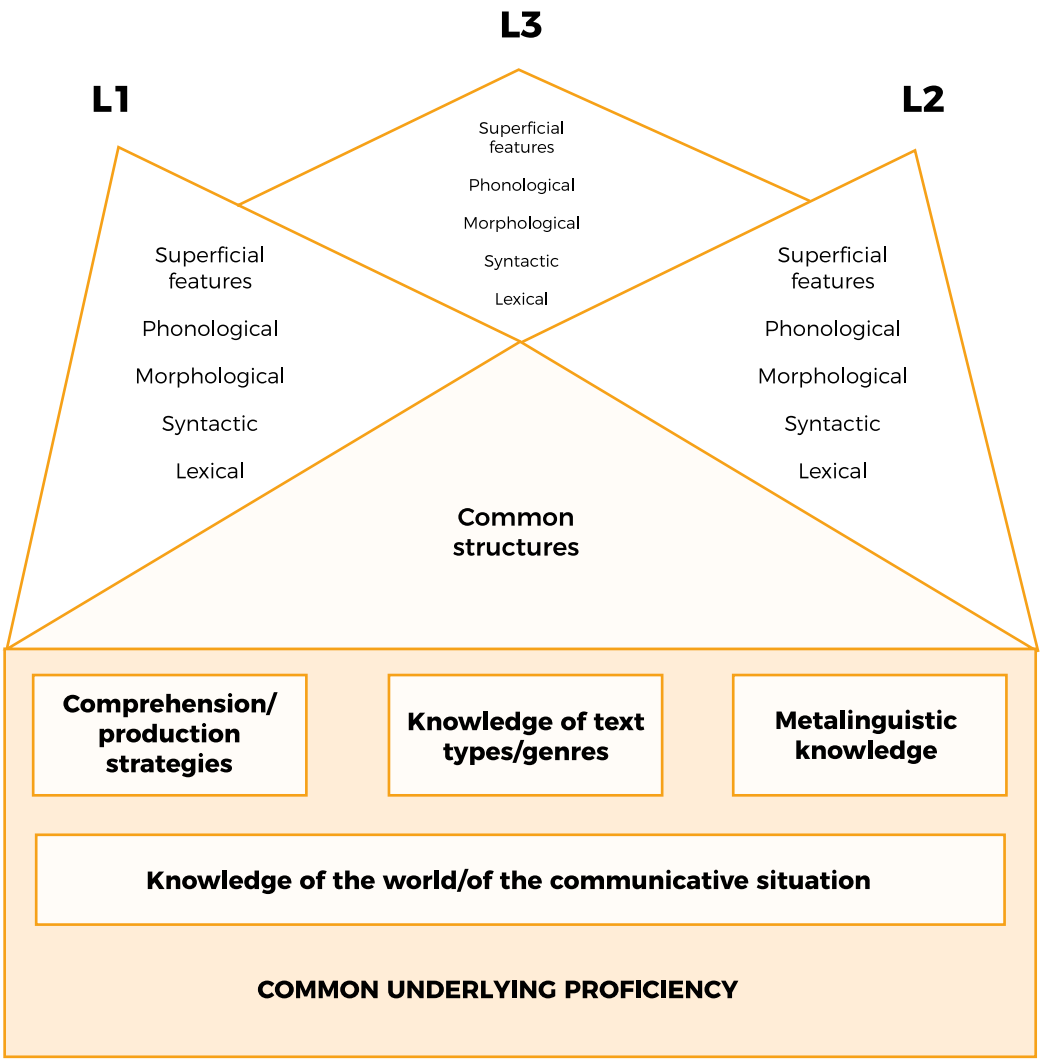
Jerome Bruner (1976) developed Vygotsky's theoretical model. He coined two terms: **routines** and **scaffolding.** The former are repetitive and highly predictable interactions, which take place between young learners and the adults around them. A good example of them is story-telling. The latter, instead, refers to the prompts given by educators to children. In due time, as higher levels are reached, like in a building site, scaffolding will become unnecessary and will be *dismantled*.

3.7 Jim Cummins' Common Underlying Proficiency Level (CUP)

Cummins' Common Underlying Proficiency theory (from now on, CUP) analyses the reasons why it is easier to learn additional languages. He explained that, when children are learning their mother tongue, they are also acquiring some skills and implicit metalinguistic knowledge that can be drawn upon when learning an L2.

According to him, CUP provides the base for the development of both languages, L1 and L2. This is to say, L1 has beneficial effects on the second language, and the other way around. Furthermore, students should be encouraged to continue their native language development. Besides, it is necessary, when learning a second language, to highlight some aspects which are relevant for the learning process, such as personal confidence, children's age, quantity of language exposure, quality of language exposure, cognitive abilities, L1 literacy, personality and motivation.

Image 1. Common Underlying Proficiency



Source: Self-elaboration. CEFIRE Específic de Plurilingüisme (2018) based on Cummins, Jim (1979).

3.8 The theory of Stephen Krashen

Stephen Krashen (1987) is an expert in the field of linguistics who has specialised in language acquisition and development. His contribution has been grouped into five hypotheses:

- **The Acquisition-Learning distinction**

According to Krashen, there are two independent systems of second language performance: 'the acquired system' and 'the learned system'. On the one hand, the first one is the product of a subconscious process, very similar to the process children undergo when they acquire their first language. It requires meaningful interaction in the target language in which speakers are concentrated not in the form of their utterances, but in the communicative act. On the other hand, the 'learned system' is the product of formal instruction and it comprises a conscious process, which results in conscious knowledge 'about' the language, of grammar rules, for example. In his view, 'learning' is less important than 'acquisition'.

- **The Monitor hypothesis**

Once he has established the relationship between acquisition and learning, he defines the influence of the latter on the former. The monitoring function is the practical result of the learned grammar. He explains that the acquisition system is the utterance initiator, while the learning system performs the role of the 'monitor' or the 'editor'. The 'monitor' acts in a planning, editing and correcting function when three specific conditions are met: that second language learners have sufficient time at their disposal, that they focus on form or think about correctness and that they know the rule.

- **The Natural Order hypothesis**

It is based on research findings (Dulay & Burt, 1974; Fathman, 1975; Makino, 1980 cited in Krashen, 1987) which suggested that the acquisition of grammatical structures follows a predictable 'natural order'. For a given language, some grammatical structures tend to be acquired earlier than others. This order seemed to be independent of the learners' age, L1 background and conditions of exposure.

- **The Input hypothesis**

The Input hypothesis is only concerned with 'acquisition', not 'learning'. According to it, learners improve and progress along the 'natural order' when they receive second language 'input' that is one step beyond their current stage of linguistic competence.

- **The Affective Filter hypothesis**

According to Krashen, a number of 'affective variables' play a facilitative, but non-causal role in second language acquisition. They include: motivation, self-confidence and anxiety. Krashen claims that learners with high motivation, self-confidence, a good self-image and a low level of anxiety are better equipped for success in second language acquisition.

4. CLIL Approach

4.1 What Is CLIL?

Different terms have been coined to translate the Content and Language Integrated approach (CLIL). In French, EMILE is used (*Enseignement d'une matière intégré à une langue étrangère*). The Spanish version (AICLE) stands for *Aprendizaje Integrado de Contenido y Lenguas Extranjeras*. In our linguistic domain, TILC has been proposed (*Tractament Integrat de Llengües i Continguts*).

Put in a nutshell, this is its definition: "CLIL is a dual-focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery to predefined levels." (Maljers, Marsh, Wolff, Genesee, Frigols-Martín, Mehisto, 2010).

Therefore, CLIL is an umbrella term that embraces different programmes where an additional language is used to teach non-linguistic content. The CLIL approach will take a different shape depending on factors such as the education system, education stage or the wider socio-linguistic environment in which it is embedded.

According to David Marsh, his first theoretician, there is no single blueprint for CLIL. Its essence is in integration. The dual focus of having to reach both language and content outcomes is bound to transform the conventional teaching practice. Researchers are now even talking of a triple focus by adding to language and content another factor, students' thinking skills. (Coyle, Hood, Marsh, 2010).

4.2 CLIL core features

Many of the core features of CLIL are not specific to CLIL, but are part and parcel of basic good practice in education. Even so, all need to be taken into account during lesson planning and lesson delivery. It is precisely the integration of many of these techniques into an average lesson, and all these features into one's teaching repertoire, which can turn out to be a challenge for teachers. The following table lists them all.

Table 5. CLIL core features

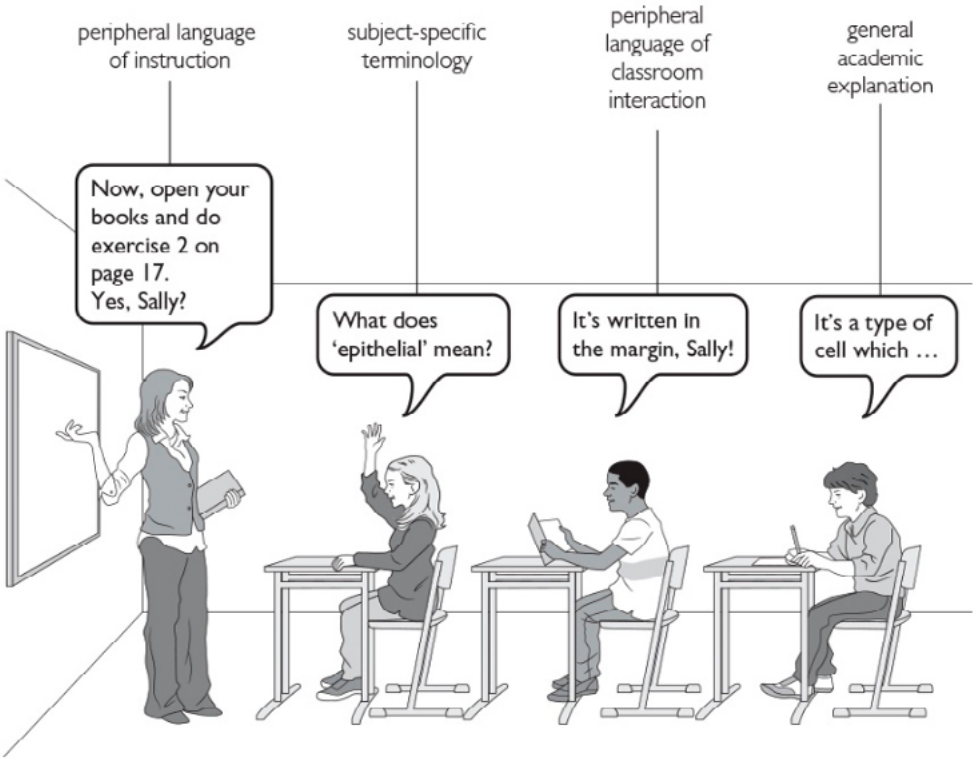
CLIL core features	
Multiple focus - Supporting language learning in content classes. - Supporting content learning in language classes. - Integrating several subjects. - Organising learning through cross-curricular topics. - Themes and projects. - Supporting reflection on the learning process (cognition).	**Safe and enriching learning environment** - Using routine activities and discourse. - Displaying language and content throughout the classroom. - Building student confidence to experiment with language and content. - Using classroom learning centres (such as the maths corner, the science corner...). - Guiding access to authentic learning materials and environments. - Increasing student language awareness.
Authenticity - Letting the students ask for language help. - They need to maximise the accommodation of student interests (e.g. in the selection of the topics, tasks...). - Making a regular connection between learning and the students' lives (e.g. personalising the tasks). - Connecting with other speakers of the CLIL language (e.g. participating, Project Based Learning). - Using current materials from the media and other sources (coins, dices, online games, etc.).	**Active learning** - Students communicating more than the teacher (verbalisation of procedures). - Students help set content, language and learning skills outcomes. - Students evaluate progress in achieving learning outcomes. - Favouring peer co-operative work (pair work, group work, whole class). - Negotiating the meaning of language and content with students. - Teachers acting as facilitators.
Scaffolding - Building on a student's existing knowledge, skills, attitudes, interests and experience. - Repackaging information in user-friendly ways (use of graphics, manipulatives, etc). - Responding to different learning styles (visual, kinaesthetic, verbal...). - Fostering creative and critical thinking (e.g. in problem solving). - Challenging students to take another step forward and not just to remain in the comfort zone (e.g. thinking of a different way of solving a problem).	**Co-operation** - Planning courses/lessons/themes in co-operation with CLIL and non-CLIL teachers (e.g. through a Project Based Learning approach). - Involving parents in learning about CLIL and how to support students (e.g. with meaningful homework). - Involving the local community, authorities and employers (e.g. with a project studying geometry in public).

4.3 Language levels in CLIL

As we have already seen, CLIL is a term that encompasses different teaching approaches. Three dimensions should be differentiated: conceptual content, procedural choices and the language level derived from the discourse context. The 'mixing desk' metaphor illustrates the way these are combined. When proposing a task, CLIL teachers can adapt it to the characteristics of their class. Moreover, it is of utter importance to contrast the different language levels. These are the following ones:

- The **subject-specific language** refers to the obligatory contents of the syllabus. When planning CLIL, we should highlight the key vocabulary. For example, mind-maps, posters and other resources are perfect in order to provide scaffolding or to visualise the main concepts.
- **General academic language** has to do with thinking processes and skills such as inferring, manipulating, communicating, attributing, comparing, contrasting, grouping and analysing.
- **Peripheral language** includes words and expressions which are used to organise and carry out classroom routines, for instance assigning roles, giving instructions or organising tasks. Sometimes, there might be some overlapping with general academic language.

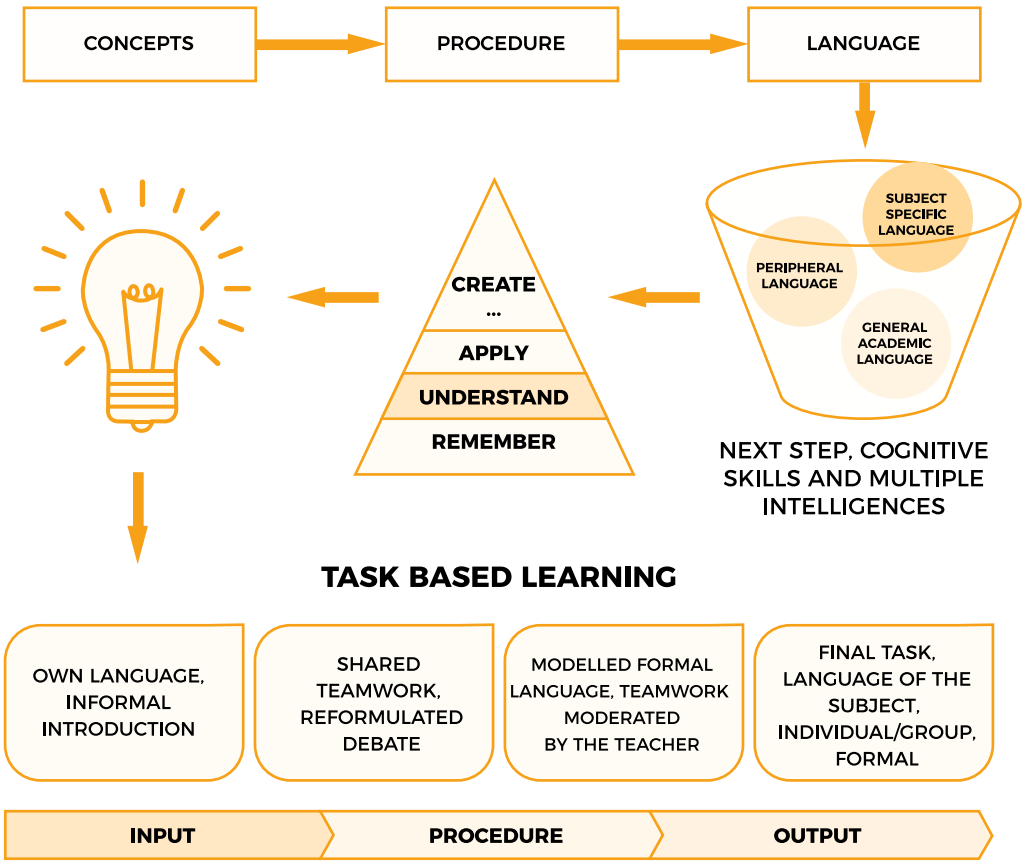
Image 2. CLIL language levels



Source: Ball, P., Kelly, K., Clegg. J. (2015: 129).

The following infographic visualises the 'exploratory talk' theory (Barnes, Mercer & Hodgkinson, 2008) that puts into context the CLIL dimensions and language levels that have just been described.

Image 3. CLIL dimensions and language levels



Source: CEFIRE Específic de Plurilingüisme (2018).

Alternatively, P. Gibbons (2002) provides us with a complementary language articulation. Three stages of language production are distinguished. Their main features can be consulted in the table below.

Table 4. From private to public talk

Input process (private talk)	Own language/Informal language, warm-up activities with flashcards, board games, total Physical Response activities, etc. The goal is to introduce the main key concepts in a ludic way. Students use informal language and their own language.
Procedure (semi-public talk)	Students work cooperatively. They interact using the main concepts, previously introduced debating, giving opinions or reaching agreements in different activities. In this point, they start to pass from the private language to semi-public task. In other words, they use informal structures and, at the same time, they use the formal language linked to the subject. The second step is to work cooperatively through different tasks with the continuous feedback of the teacher. Students carry on using the "semi-public" talk helped by the teacher, who models their speech.
Output (public talk)	A final task should be planned in the output phase, in which students use all the key structures of the subject and create a new product, either speaking or writing.

Source: Self-elaboration. CEFIRE específic de Plurilingüisme (2018) from *Putting CLIL into practice*.

4.4 The four Cs and their curricular specification

In CLIL, the primary focus is on the substance (content) as opposed to the form. In order to acquire new knowledge and skills, people usually need not only access to new information, but also to connect that information to their own existing knowledge, skills and attitudes. Moreover, as meaning-making is both a personal and a social process (culture or community), new knowledge and skills develop through personal as well as co-operative reflection/analysis (cognition) and through a communicative process (communication).

The 4Cs Framework integrates four contextualised building blocks: content (subject matter), communication (language learning and using), cognition (learning and thinking processes) and culture (developing intercultural understanding and global citizenship). Then, it takes into account the integration of content learning and language learning within a specific context and acknowledges the relationship that links these elements (Coyle , Hood, & Marsh, 2010).

- **Content**:

It refers to the progression towards new knowledge, skills and understanding. It does not have to be part of a concrete curriculum discipline such as maths. It can be drawn from alternative approaches to a curriculum involving cross-curricular and integrated studies.

To give an example, we could think of a game in which students have to go shopping to a supermarket and have to use coins. They are expected to carry out different activities: solving addition and subtraction problems, choosing healthy food, considering the price, etc.

- **Communication:**

It refers to interaction using language and learning. Learners are encouraged to use the target language, both speaking and writing, and to take part in meaningful interactions. It is the case, for instance, when students verbalise the steps that they have followed to solve a problem.

- **Cognition:**

It involves engaging in High Order Thinking (HOT) processes, such as the ones we have already seen in Bloom's taxonomy. Learners are encouraged to construct their own understanding and to solve challenges by exploring, for example, different answers and procedures.

- **Culture/community:**

CLIL offers a rich potential for developing notions of multicultural citizenship and global understanding but these need to be planned and transparent (Commission of the European Communities, 2008).

5. Conclusion

The most outstanding theories on which Content and Language Integrated Learning (CLIL) is based have been presented in this unit. Special attention has also been paid to the CLIL core features, the so-called four Cs framework and, last but not least, different tools, frameworks and models that might be useful when planning the contents, language, activities and materials that are necessary for CLIL teaching.

Therefore, the basic principles for lesson planning have been argued. Different kinds of learning styles, stages and scaffolding techniques have been considered. All of them should be taken into account by educators who are going to teach a non-linguistic area in English, as they will require not only to be fluent in the foreign language, but also resourceful in methodology and teaching techniques.

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