

Adopting the 4Cs Framework of Content and Language Integrated Learning (CLIL)

تبني إطار Cs4 للتعليم المتكامل للمحتوى واللغة (CLIL)

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Abstract:

Content and Language Integrated Learning (CLIL) is an educational approach peculiar to prioritizing both learning a language and a subject matter. A CLIL course requires rigorous planning and setting to ensure positive reviews, and among the planning steps is implementing Content, Communication, Cognition, and Culture, all joined in what is known as the 4Cs framework. The present article aims to examine the role of each component of the 4Cs and the effect of their interdependence on the success rate of CLIL classrooms based on the existing literature. The literature reveals that all four Cs have a significant role to fulfill in a CLIL setting. It is found that scholars sometimes do not share the same vision on the prevalence of one C over another and the possibility of prioritizing one of them or more according to the needs of the learners and objectives, yet they can agree that it is advisable to implement the framework as a whole with necessary adaptation to achieve the goals set for the CLIL course.

Keywords: CLIL, 4Cs framework, interdependence, planning

ملخص:

التعلم المتكامل للمحتوى واللغة (CLIL) هو نهج تعليمي يركز على تعليم اللغة والمادة الدراسية معاً. يتطلب تنفيذ برنامج CLIL تخطيطاً دقيقاً وإعداداً مناسباً لضمان الحصول على تقييمات إيجابية. من بين خطوات التخطيط الأساسية تطبيق المحتوى، التواصل، الإدراك، والثقافة، وهي العناصر التي تشكل إطار العمل المعروف باسم Cs4. يهدف هذا المقال إلى استكشاف دور كل من هذه العناصر وتأثير ترابطها على نجاح الفصول الدراسية المعتمدة على CLIL بناءً على الأبحاث السابقة. وتشير هذه الأبحاث إلى أن العناصر الأربعة تلعب أدواراً رئيسية في بيئة CLIL. على الرغم من اختلاف وجهات نظر الباحثين حول إعطاء الأولوية لعنصر

دون الآخر أو التركيز على بعضها وفقاً لاحتياجات المتعلمين وأهدافهم، إلا أنهم يتفقون على أهمية تنفيذ جميع مكونات الإطار مع التعديلات الضرورية لتحقيق الأهداف المطلوبة للدورة التعليمية.

الكلمات المفتاحية: التعلم المتكامل للمحتوى واللغة، إطار العمل الخاص بالعناصر الأربعة، الاعتماد المتبادل، التخطيط

1.Introduction:

Content and Language Integrated Learning (CLIL) is an educational approach that aims to improve subject knowledge and language proficiency at the same time. This innovative approach emerged after the declaration of the European Commission encouraging the birth of a plurilingual community. This decision would effectively remove communicative barriers between European countries and therefore expand multiple business opportunities and cooperations. CLIL is not entirely a new concept. It shares similarities with other approaches such as Content-Based Instruction (CBI), which was developed in response to the need for French-English bilingualism in Canada during the 1960s and 1970s, and earlier immersion programs which took place in Canada as well. The successful results of the earlier-mentioned approaches motivated European scholars to create a similar approach but with a modern twist. CLIL is not a typical language course that focuses on enhancing language proficiency using meaningful content. It is a content-driven approach that aims to improve learners' knowledge of certain subject matters like maths, science, or geography through an additional language which can be a second language, a foreign language, or other languages (Coyle, 2010).

CLIL practitioners aim to guide learners towards thinking and communicating bi-multilingually, in the sense that learners can think using their mother tongue as well as a second or foreign language, and therefore express their ideas and concerns using both and even more. A CLIL classroom allows learners to decipher authentic texts and communicate with one another which helps them to build their knowledge and expand it all while learning the language. Moreover, learners can experience travelling to different parts of the world while inside their classroom. CLIL teachers use authentic materials that assist their learners in

interacting and building connections with real-world authentic experiences. However, implementing the Content and Language Integrated Learning approach comes with difficulties. Learning the theory is not the same as applying the theory, because the approach in theory seems promising if implemented correctly. Coyle et al. (2010) presented what is known as the 4Cs framework of CLIL which works as a guide for teachers to plan and deliver their lessons in order to achieve the main goal which is a dual understanding and improvement of both content and language.

2. Understanding The Four Cs Framework

In their joined book, Coyle, Hood, and Marsh (2010) introduced the 4Cs framework as a helping hand to CLIL teachers in order to plan and deliver successful lessons and ensure the achievement of their planned objectives. They define the framework as:

The 4Cs framework integrates four contextualized building blocks; content (subject matter), communication (language learning and using), cognition (learning and thinking processes), and culture (developing intercultural understanding and global citizenship). In so doing, it takes account of integrating content learning and language learning within specific contexts and acknowledges the symbiotic relationship that exists between these elements.

Effective CLIL takes place as a result of this symbiosis. (p. 75)

To gain an understanding of the relationship between the 4Cs, it is important to distinctly identify each C as an individual entity.

2.1. Content:

In Content and Language Integrated Learning, C-content is said to be the starting point or ‘point de depart’ (Coyle, 2021) through which other Cs can be navigated and established. To Griva and Kasvikis, content “lies at the heart of every unit, thus its selection is of primary

importance and the starting point for module design and material construction” (2014). In defining CLIL, we see that content is meant to be the subject matter course to be delivered in classrooms ranging from science, and math to business studies. Yet, this is not the only identification of content, for in their book *Beyond CLIL*, Do Coyle and Oliver Meyer (2021) distinguish three lenses through which we can identify content. The first lens is where content is decided upon in the regular curriculum established in schools. Content, in this case, is one entity of the whole curriculum which needs to be thoroughly analyzed by teachers before delivering it to their learners without separating it from related skills and values. The second lens is where content is more flexible, encouraging the use of inter- and trans-disciplinary learning across subject disciplines (Coyle, 2021). Content here is supported through project-based and phenomena-based frameworks where learners construct their knowledge based on projects and existing phenomena which hone specific skills, build knowledge, and connect their school lives to real-world situations. Teachers here encourage learners to raise challenging questions which would assist them in connecting what they own as prior knowledge to what they accumulated throughout the session, thus eventually creating their own understanding of the discussed projects and phenomena. The third lens is where content is determined by the teachers with the assistance of their learners. It may be seen as a mere surface content that serves as a means to stimulate language learning through encouraged communication, yet involving learners in selecting themes would boost their motivation and participation in class.

2.2.Communication:

Communication, like its three comrades, plays a vital role in CLIL classrooms. Encouraged interaction inside the classroom involves learners in their learning and ensures better knowledge building and comprehension through meaningful use of the language. Education cannot take place if proper communication does not exist, as it has always been a

key factor in assisting learners to expand their knowledge as well as improve their linguistic competence. Dalton-Puffer (2007), Coyle et al. (2010), and other scholars emphasize the importance of adopting dialogical learning; learning that is built on teacher-learner and learner-learner interactions as a way to give the floor to learners to practice language through group discussions as well as asking and answering questions related to the subject matter. Communication here is based on “learning to use language and using language to learn” (Coyle, 2010), in the sense that it encompasses learning grammar and lexis but does not deny their role in language learning, focusing on form as well as meaning. Therefore, CLIL classroom interactions ensure learning both content-compatible language; which is what learners need in general to communicate; and content-obligatory language; which is the content-specific language learners need in order to comprehend and reflect on the subject.

2.3. Cognition:

C-cognition refers to the mental processes needed in learning and thinking. Coyle et al. (2010) emphasize the importance of incorporating a taxonomy of thinking; such as that of Anderson and Krathwohl (2001); which includes lower-order thinking skills (LOTS) such as remembering, understanding, and applying as well as higher-order thinking skills (HOTS) like analyzing, creating, and evaluating into planning subject matter courses. The importance behind this inclusion is to highlight that CLIL is not about the basic transmission of knowledge from teacher to learner, it is about challenging the learners and raising their curiosity to reflect upon the content at hand using critical thinking and problem-solving skills to build their knowledge all while acquiring language skills. It targets what Vygotsky introduced as the Zone of Proximal Development (ZPD) which is the space between what learners can do with guidance and what they can do on their own. If they can move up the space, it means they are achieving the intended goals and are unlocking new skills.

2.4.Culture:

In light of modern changes and the need to promote the notion of global citizenship, educational reforms sought it best to introduce intercultural awareness to learners at a young age, therefore, creating international citizens. “Today’s strategy promoting intercultural understanding confirms culture’s place at the heart of our policies.” (Barroso, 2007). CLIL at its core seeks to spread deep understanding of different cultures. Language cannot exist without its culture, so learners cannot learn a language and neglect its inheritance. It is not a matter of memorizing songs and learning about historical events, cultural awareness is about understanding others and accepting their differences. “Correct cultural understanding can prevent misunderstandings and communication barriers, enhancing the effectiveness of communication, particularly when dealing with industry-specific terms and contexts” (Dou, 2024, p.2). What CLIL provides for its learners is access to a multicultural view of the world from their classrooms where they can learn how to communicate effectively with their peers at a micro level and extend their social interactions beyond the classrooms to reach any part of the world as global citizens.

3. The Interdependence of the 4Cs:

The Symbiotic relationship between content, communication, cognition, and culture contributes to successful planning and preparation for CLIL classrooms. Implementing them together is crucial, yet no script forces teachers to go down a specific order. As mentioned by Coyle et al., “the framework can be adapted, changed and reworked according to different contextual priorities. It is not a set formula” (2010). Some experts may choose to put their focus on culture while others see it fit to concentrate more on content.

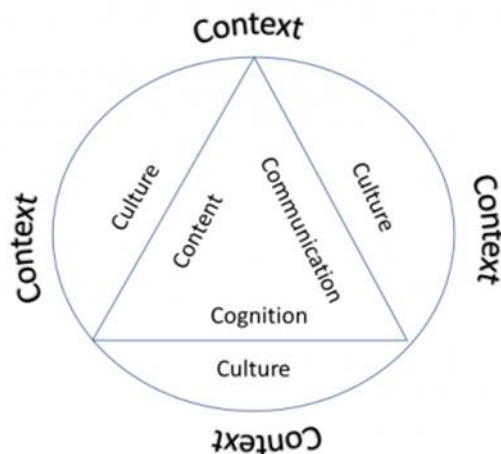


FIGURE 1 THE 4Cs TEACHING FRAMEWORK (COYLE ET AL., 2010, P. 76)

Figure 1 is extracted from Coyle, Hood, and Marsh's book (2010) which shows that communication, cognition, and content form an equilateral triangle where each side is of equal length, symbolizing that each component holds an equally important role that contributes to the overall learning experience. Culture, here, encompasses the social and educational context and extends to shaping learners' engagement with the content. However, some experts found that this representation does not cover all the considerations of CLIL and made suggestions of their own. Zydatið (2007), as one example, used the same ingredients of the framework but sought it best to put communication at the heart of the representation.

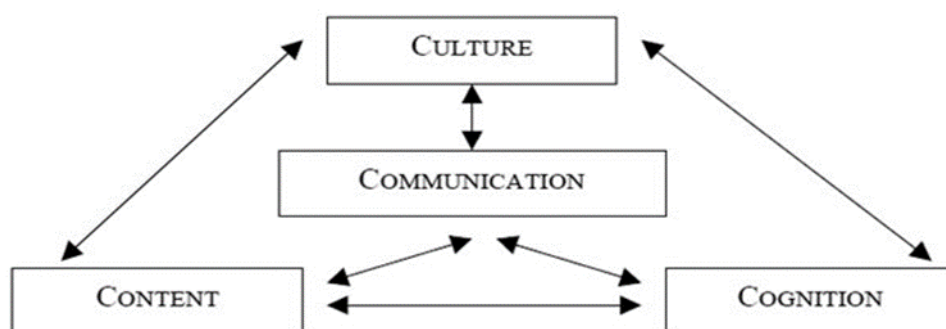


FIGURE 2: ZYDATIð CIRCULAR 4Cs FRAMEWORK

The double arrows in Figure 2 show that culture, communication, content and cognition are still equally interdependent. Placing communication at the center highlights the

importance of language in CLIL teaching and learning, but does not neglect the crucial role the other three Cs play in ensuring the acquisition of the language.

To design a CLIL lesson effectively, it is fundamental to integrate content, communication, cognition, and culture as one whole. Selecting the content of the lesson would determine the learning objectives intended to be achieved, and therefore the set of thinking and problem-solving skills that learners are required to develop would be clear. Connecting the content with cognition allows teachers to choose the activities that effectively activate the designated skills. The next step is linking content and cognition with communication. In this stage, teachers can determine the language learners need in order to communicate the knowledge ranging from language of learning; which is what learners need to access and understand the content, and language for learning; which is the language learners use to carry out their activities and build arguments, to language through learning; which is language learners acquire while dealing with content. The last step is to connect the three aforementioned Cs with culture. CLIL learners are encouraged to link the content of their studies to cultural contexts and analyze it from different cultural perspectives. This enables them to make connections with real-world experiences and create a sense of belonging among different learners with different cultural backgrounds.

4. Benefits and Challenges of Implementing the 4Cs Framework

The 4Cs framework equips teachers with a solid foundation to establish and set academically rigorous learning goals, design materials and activities aligned with the 4Cs objectives, and develop assignments and assessments that incorporate the 4Cs. It also ensures that these elements are made explicit to learners and are communicated from the beginning and throughout the CLIL course (Redlich & Pattison, 2024, p. 7). Since CLIL contexts are specifically refined to meet the learners' needs and interests as well as cover cognitive,

communicative, and cultural aspects, learners are found to be motivated to discover more about the content and are engaged and active in their learning journey. In a classroom project designed to activate Japanese learners' skills to form opinions on international issues, Dana Lingley (2022) implemented the 4Cs framework in the planning stage. Results show that learners were highly interactive with the content and showed interest in learning more during their free time. They were able to form and deliver opinions on international issues that were presented, as they also appreciated the peer interaction they had which worked as a motivation source. Lingley stated that "by providing students with appropriate content at their level and designing tasks that aid in the comprehension of that content, an equitable balance of content and language learning can be achieved." (2022, p. 41). Marija Đorđević (2023) gave an overview on two CLIL-based textbooks intended for geology students in order to examine whether CLIL criteria were met including the implementation of the 4Cs framework, specifically culture. The overview showed that the textbooks had adequate division of units, logical organization of materials as well as additional 'non-scientific' segments allowing learners to effectively improve content and language knowledge. Đorđević stated that CLIL offered freedom in learning "since it is not solely focused on content, but the intricate network of connections which inextricably bind content to cognition, culture and communication" (2023, p.94)

As appealing as the 4Cs framework appears to be, challenges that hinder its implementation can find a way to seep in and cause some distress to teachers and learners. For teachers to integrate the framework, they need to find ways to balance the four building blocks to the content of the CLIL course as well as to select the appropriate materials that would address the objectives of the four Cs. Assessment tools would also be difficult to develop since they are supposed to accurately evaluate content understanding, cognitive skills, language proficiency and cultural understanding. One of the four components may be a challenge itself, which is culture. Teachers need to be culturally aware and understanding since they would be

in the presence of a diverse classroom. Incorporating cultural aspects into lessons require rigorous planning and research in order to avoid issues like stereotyping, bias or any offensive references.

5. Conclusion:

Content and Language Integrated Learning is an innovative approach to language teaching and learning that broadens the way we perceive second/foreign language acquisition. The benefits of implementing CLIL encompass content knowledge and language acquisition to promote the notion of global citizenship. Being part of a bigger world assists learners in finding their place in the world and actively participating in creating a better place as well as encouraging social interactions. This approach goes beyond the classrooms in a way that it prepares its learners to engage in meaningful interactions, and reflect on their learning all while expanding the multilingual world. Incorporating the 4Cs framework is a successful tool for teachers to plan and deliver courses/units that highlight the importance of knowledge building and scaffolding, improving language proficiency, activating metacognitive skills, and raising cultural awareness.

6. List of references:

- Burazer, L., & Janez Skela. (2024). *Content and Language Integrated Learning (Clil) – Just Another Off-Shoot of Communicative Language Teaching or a Post-method Foreign-Language Pedagogy on Its Own Terms?* 139–178.
<https://doi.org/10.18690/um.ff.1.2024.5>
- Coyle, D., Hood, P., & Marsh, D. (2010). *Content and Language Integrated Learning*. Cambridge University Press.
- Dalton-Puffer, C. (2007). *Discourse in content and language integrated learning (CLIL) classrooms*. John Benjamins Pub.

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- Dalton-Puffer, C. (2011). Content-and-Language Integrated Learning: From Practice to Principles? *Annual Review of Applied Linguistics*, 31(31), 182–204.
<https://doi.org/10.1017/s0267190511000092>
 - Do Coyle, & Meyer, O. (2021). *Beyond CLIL: pluriliteracies teaching for deeper learning*. Cambridge University Press.
 - Escobar Urmeneta, C. (2019). An Introduction to Content and Language Integrated Learning (CLIL) for Teachers and Teacher Educators. *CLIL. Journal of Innovation and Research in Plurilingual and Pluricultural Education*, 2(1), 7.
<https://doi.org/10.5565/rev/clil.21>
 - Lingley, D. (2022). Activating Higher Order Thinking Skills in the EFL Classroom: A Four Cs Approach to Soft-CLIL. *Zenodo (CERN European Organization for Nuclear Research)*, Vol. 1, 34–42. <https://doi.org/10.5281/zenodo.7455737>
 - López, Q., María, N. (2021). Implementing the 4Cs Framework for Effective CLIL Teaching. A Master's Dissertation.
 - McDougald, J. (2016). CLIL approaches in education: Opportunities, challenges, or threats? *Latin American Journal of Content & Language Integrated Learning*, 9(2), 253–266.
<https://doi.org/10.5294/lacil.2016.9.2.1>
 - Meyer, O. (2011). *Introducing the CLIL-Pyramid: Key Strategies and Principles for CLIL Planning and Teaching*.
 - Meyer, O., Coyle, D., Halbach, A., Schuck, K., & Ting, T. (2015). A pluriliteracies approach to content and language integrated learning – mapping learner progressions in knowledge construction and meaning-making. *Language, Culture and Curriculum*, 28(1), 41–57. <https://doi.org/10.1080/07908318.2014.1000924>

- Nikolić, D. (1970). Intelligibility within a Modified CLIL Framework. *Glottodidactica. An International Journal of Applied Linguistics*, 44(1), 119–130.
<https://doi.org/10.14746/gl.2017.44.1.07>
- Pérez Cañado, M. L. (2016). From the CLIL craze to the CLIL conundrum: Addressing the current CLIL controversy. *Bellaterra Journal of Teaching & Learning Language & Literature*, 9(1), 9. <https://doi.org/10.5565/rev/jtl3.667>
- Redlich, J., & Pattison, S. (2024). Combining CEFR and 4C CLIL Frameworks for Principled Literature in Language Teaching. *NOBEL Journal of Literature and Language Teaching*, 15(1), 1–21. <https://doi.org/10.15642/nobel.2024.15.1.1-21>