CLIL Development in Bilingual Education in Taiwan: Past, Present, and Future

Yi-Ping Huang* Wen-Li Tsou**

In recent years, Content and Language Integrated Learning (CLIL) has gathered momentum in Taiwan due to attempts by the local and central governments to "bilingualize" education with English as the medium of instruction in non-language courses. In response to this expansion of "bilingualization" in primary, secondary, and higher education, this paper presents the development of CLIL, promoted by scholars in Taiwan who have been assisting in-service teachers to "go bilingual" in compulsory education since 2018, covering: (a) *borrowing* Coyle et al.'s (2010) 4Cs framework, (b) *glocalizing* the *4Cs* as the *ELF-informed* 4C 2++ framework, and (c) *internationalizing* the *ELF-informed* 4C 2++ framework. The "why" and "what" of each stage of this bilingualization process are hence further described. Achieving a better understanding to the evolution of CLIL in Taiwan might benefit teachers and researchers greatly if they consider applying CLIL for their future bilingual education.

Keywords: content and language integrated learning (CLIL), bilingual education/teaching, English as a lingua franca (ELF), glocalization, internationalization

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Introduction

As multilingualism and plurilingualism have become part of the raison d'êtreand for the European Union, Content and Language Integrated Learning (CLIL) has emerged. This approach to language education involves "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language" (Coyle et al., 2010, p.1). As part of bilingual education, CLIL aims to enable and empower "global and responsible citizens as they learn to function across cultures and worlds, that is beyond the cultural borders in which traditional schooling often operates" (Garcia, 2009, p. 6). In the same vein, Coyle and Meyer (2021) refocus scholars' efforts on the understanding of CLIL as a way to increase disciplinary literacies and to enable students to become literate across the disciplines. Thus, CLIL has evolved from concentrating on the CL (content learning) and the LL (language learning) to the I (integration). Indeed, CLIL is not static but "dynamic in terms of its potential for building an expansive yet rigorous theoretical basis" (p. 4). It is noted that although the "additional language" can be any language, English still occupies most attention in CLIL research and practice due to its prevalence as a lingua franca. As such, it will be the focus of this paper.

Among the diverse pedagogical approaches in CLIL, Coyle et al.'s (2010) 4Cs framework (Content, Cognition, Communication, and Culture) has been developed by scholars in Taiwan in response to the pressing needs of in-service teachers who teach non-language courses in English. Since 2017, local and national governments in Taiwan have attempted to "bilingualize" primary and secondary education (Chen et al., 2020; Tsou & Kao, 2018). The use of the 4Cs has evolved into the 4C 2++ (Tsou & Huang, 2022), which is still being revised in recognition of a lack of vertical coherence in the bilingualization of secondary and tertiary education. Despite the importance and development of this instructional policy, these conceptual changes have not been comprehensively documented. Without adequate explanation of the 4Cs, it is likely that the term will become a commonly misused buzzword in education.

This paper aims to explain the three stages of CLIL development in primary and secondary education in Taiwan by: (a) borrowing Coyle et al.'s (2010) 4Cs framework, (b) glocalizing the 4Cs as the ELF-informed 4C 2++ framework, and (c) internationalizing the ELF-informed 4C 2++ framework. The "why" and the "what" of each stage are described. Below a brief history of English Language Teaching (ELT) in Taiwan will be explained to contextualize CLIL development. This information

will be followed by the presentation of Coyle et al.'s 4Cs framework. Then, CLIL development in bilingual education in Taiwan will be explained. This paper concludes with directions for future research on CLIL in bilingual education in Taiwan.

Significant Changes in ELT in Taiwan

The history of ELT in Taiwan suggests three major reforms with the movement toward decentralization (the distribution of planning and decision-making away from a central authority) and internationalization (the incorporation of intercultural dimensions into education to increase student and teacher mobility). These themes will be described in each ELT reform, followed by a discussion of problematizing the ideology of ELT.

Three Major Reforms

The first related educational change includes the enactment of the Nine-year Compulsory Education policy in the 1990s. At this time, a call was made for the deregulation and liberation of education against the socio-political background of lifting martial law in Taiwan (Chou & Chin, 2012). Before this reform, curriculum "standards" were established by the Ministry of Education (MOE), with the implementation of the same textbooks and entrance examinations mandated by the MOE. In ELT, grammar, reading, and writing were emphasized with a culture of teaching focused on passing university entrance exams. After the reform, curriculum "standards" were replaced by curriculum "guidelines," textbooks were developed by private publishers and selected by schools' curriculum committees, and more opportunities for study were provided with increased admissions. The most apparent change in ELT was the adoption of Communicative Language Teaching with an emphasis on speaking to replace grammar-oriented instruction (Yeh & Chern, 2020).

The second educational change involves the Twelve-year Basic Education Reform that extended compulsory education from nine to twelve years, effective 2019. This reform highlights the primacy of competency-based education (素養導向教學)—the cultivation of students' knowledge, skills, and attitudes to use English in real life (Yeh & Chern, 2020). This trend is in line with the orientation of Organization for Economic Co-operation and Development (OECD) (2018) to "the concept of competency" which "implies more than just the acquisition of knowledge and skills. Instead, the mobilisation of knowledge, skills, attitudes and values to meet complex

demands" (p. 5) are emphasized. Additionally, transdisciplinary teaching and cross-curricular teacher collaboration are highly encouraged, given that "future-ready students will need both broad and specialised knowledge" (OECD, 2018, p. 5). Students will also need to be capable of applying knowledge and skills to unknown situations.

The third reform concerns both local and national efforts to "bilingualize" educational systems, meaning that different portions of non-language courses are encouraged to be taught in English. This reform dates back to 2017 when the local governments (i.e., Taipei City, New Taipei City, Tainan City, and Taoyuan City) initiated "experimental bilingual curriculum projects" in public elementary schools in the name of "integrating English into learning areas," "experimental curriculum/schools," and/or "immersion education." These projects require in-service teachers to teach non-language courses in English yet do not provide clear directions in regards to the "who," "what," and "how" to do so.

At the national level, 2018 marked the beginning of the change in bilingual education when Executive Yuan announced the Blueprint to Develop Taiwan into a Bilingual Nation by 2030—to make English the second official language and a language that the general public could use in daily life. With great criticism about the rationale for a bilingual nation, the "2030 Bilingual National Policy" was renamed the "Bilingual 2030 Policy" to refocus educational values on cultivating future talent with global competence thereby increasing Taiwan's citizens' competitiveness in global value chains (National Development Council [NDC], 2021). To achieve the above aim, the Taiwanese MOE announced its bilingual education policy, stating that Taiwan will "implement in full scale bilingualization of Taiwan's education system" and "cultivate bilingual talents to bring Taiwan to the world" (MOE, 2018). Regarding the Grade 1-12 compulsory education, the policy stipulates that English teaching should be done entirely in English and, more importantly, that English should become the medium of instruction in disciplinary and transdisciplinary courses. The latter is viewed as bilingual teaching or education.

The above bilingual teaching, however, was not taken into consideration when the Twelve-Year Basic Education Curriculum Guidelines were developed. What is also overlooked is the training of certified instructors, raising questions about the effectiveness of bilingual teaching. As such, two significant mechanisms have been developed to train qualified bilingual teachers, including the pre-service teacher education programs established in 2019 (Bilingual Teaching and Research Centers for Teacher Education Institutes¹) and bilingual in-service teacher accreditation programs established in 2020. In particular, the language proficiency requirement (i.e., CEFR B2) has been used for bilingual teacher recruitment, preparation, and development. Although the top-down policy appears to be what Tsui (2020) calls "co-ercive reprofessionalization," it still leaves ample room for establishing school-based curriculum symbolic of decentralization.

This bilingualization of education also extends to tertiary education. According to "The Program on Bilingual Education for Students in College" (MOE, 2021), which was specifically stated by the government, the benchmarks for offering only Englishmedium instruction (EMI) courses mandate that subject professors conduct content courses only in English. In this paper, bilingual education or teaching refers to the teaching of (trans)disciplinary courses in English in compulsory education, while CLIL is one of the approaches to bilingual education. However, EMI refers to the delivery of discipline courses by subject-matter experts in English as the medium of instruction with a clear emphasis on topic learning and, ideally, incidental English improvement, in higher education.

Problematizing the ELT

Although there has been a shift toward decentralization, extending the amount of time students spend learning English and adopting novel pedagogies, concerns about students' future national, and individual competitiveness are still very much alive and well in Taiwan (Ke, 2022). Like other East Asian countries, the failure of ELT is often attributed to the Confucian culture of transmissive teaching (Tsui, 2020) and a teaching-for-test culture, which places a strong emphasis on exams and credentials.

Now the question is whose English counts as standard. Given the close relationship to the U.S., Taiwan adopted the American educational system early on (Chou & Chin, 2012). Thus, it is not surprising that a native-speaker model from the inner circle (e.g., U.S. and U.K.) ends up being popular in academic debate as well as

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¹ The programs were previously named "English-only" Teaching and Research Centers for Teacher Education Institutes.

in the general public discourse, albeit in declining form. In public domains, the number of cram schools (補習班) where English is taught by native speakers is increasing (Ke, 2022). Cram schools appeal to parents by using immersion (沉浸式) as an approach to enable children to sound like a native speaker—an indicator of a higher level of English proficiency—suggesting "winning from the starting point."

The above discussion reflects the preference, if not hegemony, of native-speakerism that treats varieties of English from the inner circle as legitimate norms and any deviation from them as inaccurate and deficient. As a result, we Taiwanese must strive to resemble native English speakers, especially instructors who serve as role models. Thus, unlike other nations in the expanding rings, Taiwanese teachers never own English (Kirkpatrick & Lixun, 2020; Tsui, 2020).

In light of this background, bilingual teaching in Taiwan complements, but it does not replace, ELT. This is because bilingual teaching challenges the requirement for "standards." Bilingual teaching emphasizes the importance of preparing students for the challenges of the digital age through the acquisition and application of disciplinary knowledge. This can be done by recognizing the value of English as a Lingua Franca (ELF) (intelligibility and comprehensibility of English) rather than Standard English from the inner circle countries. The development of CLIL in Taiwan is made possible by the aforementioned pedagogical ideas, which will be discussed after a description of the 4Cs framework.

The 4Cs in CLIL Development

CLIL is influenced by the postmodernist perspective that emphasizes the complexity of language, learning, and teaching and so a post-method condition (core teaching principles) rather than a single ideal method is advocated in this teaching approach (Gabillon, 2020). It is thus not surprising that a wide range of CLIL research traditions and practices have been generated. Among them, Coyle (2008) proposed the 4Cs approach to better prepare students for the knowledge age. This approach compels individuals to use what they know rather than learn it before using it (see also Coyle et al., 2010). It is a framework for lesson or course planning that was jointly created by researchers and instructors. It has been widely embraced and modified over the world (e.g. Ikeda et al., 2022).

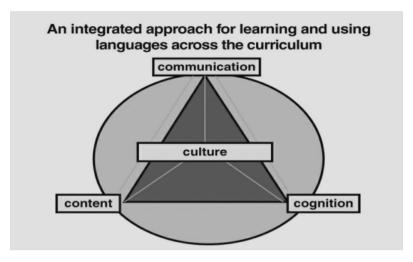
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The 4Cs approach refers to the "symbiosis" of the four "contextualized" components (Coyle et al., 2010, p. 41) (see Figure 1). In Coyle's seminal work, the keyword is "synergies," implying that the whole is larger than the sum of each part (p. 28). Each component is briefly defined below.

Content refers to the academic knowledge and skills to be taught, ranging from topical issues and themes to trans-disciplinary and national curriculum.

- 1 Cognition refers to the arrangement of content based on Bloom's taxonomy (Anderson & Krathwohl, 2001), with a focus on increasing students' higher order thinking abilities.
- 2 Communication includes three types of language:
 - 2.1 Language of learning "is an analysis of language needed for learners to access basic concepts and skills relating to the subject theme or topic" (Coyle et al., 2010, p. 37).
 - 2.2 Language for learning "focuses on the kind of language needed to operate in a foreign language environment" (Coyle et al., 2010, p. 37), such as small talk, group discussions, and presentations.
 - 2.3 Language through learning refers to any kind of new language that is considered pedagogically significant and emerges from the teaching and learning process.
- 3 Culture does not simply refer to cultural awareness that focuses on "knowledge" about culture but more about "intercultural understanding [that] involves different experiences" (p. 39).

Figure 1
The 4Cs Framework



Note. From Coyle, D., & Meyer, O. (2021). Beyond CLIL: Pluriliteracies Teaching for Deeper Learning (p. 19). Cambridge University Press.

As Morton (2018) highlights, "A recent trend in CLIL pedagogy has been to add a focus on subject-literacy to that on content and language" (p. 57). Coyle and Meyer (2021) argue that "subject literacies are much more than a 'focus' but are fundamental to the evolution of CLIL in our plurilingual, pluricultural classrooms" (p. 15). Subject or disciplinary literacies are understood as the ability to use knowledge, skills, and dispositions to communicate well and actively participate in society. This notion underlines the importance of the "I-integration" and helps revisit the 4Cs:

C-Cultures particularly focuses on "the nature and acquisition of knowledge" and C-Content mediates discipline- or thematic-related learning and engagement, then questions about developing language as an integral part of those disciplines emerge: Learners need to have the linguistic means to define, classify, report, evaluate, etc. in their L2.... Knowledge building and understanding, therefore, involves not only integrating cognitive processes (C-Cognition) with C-Content (knowledge), but also the discourses needed and used to express meaning (C-Communication and C-Cultures). (Coyle & Meyer, 2021, p. 24)

The 4Cs in CLIL Development in Taiwan

This section explains the development of CLIL in compulsory bilingual education in Taiwan by: (a) borrowing Coyle et al.'s (2010) 4Cs framework, (b) glocalizing the 4Cs as the ELF-informed 4C 2++ framework, and (c) internationalizing the ELF-informed 4C 2++ framework. Table 1 summarizes significant themes across the stages.

Table 1
Important Themes of the 4Cs in CLIL Development in Taiwan

	Past	Present	Future	
Time	Time 2017-2020		2022~	
Related publications	Tsou & Kao (2018)	Chen et al. (2020) Lu et al. (2021) Tsou & Huang (2022)	Tsou et al. (2022)	
Approach	globalized	glocalized	internationalized	
Framework	4Cs	4C 2++	refined 4C 2++	
Target students	public primary schools	public primary and secondary education	primary and secondary education	
Driving force	bilingual education projects initiated by some local governments	108 Curriculum Reform Bilingual 2030 Policy (NDC, 2021)	The Program on Bilingual Education for Students in College (MOE, 2021)	
Focus	borrowing 4Cs to provide a guideline	aligning with the 108 Curriculum Guideline	bridging the gap across educational systems	

The Past: Borrowing the 4Cs Framework

The first stage concerns the initial application of Coyle et al.'s (2010) 4Cs framework adopted by local teachers and scholars as a tool for lesson and course planning mostly in public primary schools from 2017 to 2020. The description of the "why" and the "what" is primarily based on the first CLIL resource book (Tsou & Kao, 2018).

The "Why": Teachers' Uncertainty and Policy Initiatives

The ambiguity of this bilingual education policy and the uncertainty of in-service teachers gave rise to the usage of 4Cs in CLIL in Taiwan, where internationalization is a driving force in the bilingualization of a city and municipal education. Bilingual education was first promoted by the Tainan City and Taipei City governments. Former Mayor William Lai aimed to bilingualize Tainan City by promoting English as the second official language to bring the world to Tainan and vice versa. Similarly, following the 2016 visit to Singapore, Taipei's mayor W. C. Ke decided to support bilingual education after realizing that it is essential for a city to become global. Because of the heavy emphasis on English education and the coexistence of "bilingual," "English-only instruction," "immersion in real contexts," and "English abilities" in policy announcements, internationalizing a city and education has become synonymous with Englishization.

Additionally, this stage was full of vagueness. For example, the qualifications for a "bilingual teacher" depended on the willingness of local teachers and the recruitment of certificated NESTs. Non-major subjects such as physical education (PE), Integrated Activities, and Science were implicitly prioritized for fear of parents' doubts about the effectiveness of bilingual teaching. The proportion of English use was the main concern for teachers in pedagogy. Although in-service teachers were faced with the uncertainty of bilingual teaching due to the absence of prior training or teaching experiences, the ambiguity of the bilingual education policy offered considerable room for creativity on the part of each school and teacher.

In light of this background, the 4Cs framework was adopted as a theoretical lens to support bilingual teaching by a team of scholars at National Cheng Kung University in Tainan, and the concept soon spread to other cities. It was proposed because Taiwan and the EU, where it originated, are EFL settings where teachers are frequently nonnative English speakers (NNESTs) rather than native English speakers (NESTs) and the supplementary language is a foreign rather than a second language. English is valued as a tool for communication rather than just a subject acquired for gaining good test grades.

The "What": 4Cs Framework in CLIL in Taiwan

The first CLIL resource book (Tsou & Kao, 2018) appears to borrow the 4Cs framework with an implicit attempt to recontextualize it in Taiwan, particularly for

public primary school teachers without prior bilingual training or experiences. The arguments for using CLIL and 4Cs are implied in the resource book, given that only the origin, definition, and spirit of CLIL were articulated with an illustration of CLIL in Spain (Tsou et al., 2018). Situated in ELT, CLIL was explained by how it may differ from other teaching approaches by using a continuum with the content-driven and language-driven being situated at opposite ends. Soft CLIL (language-driven teaching) and/or hard CLIL (content-driven teaching) can be adapted for usage in schools to "improve students' global competency" (Tsou, 2018; Tsou et al., 2018, p. 14). The above statements implicitly underline the primacy of ELF to increase individual competitiveness, suggesting a paradigm shift in ELT under the influence of neoliberalism and internationalization (Chang, 2022).

Coyle et al.'s (2010) 4Cs approach was borrowed as a tool for bilingual lesson planning and curriculum design in public primary schools (See Appendix A). In Tsou (2018), the original definition of the 4Cs is not provided. Instead, how each component can be used in the Taiwanese context is briefly explained and illustrated in the resource book, corresponding to Coyle and Meyer's (2021) emphasis on the importance of contextualization. For example, Tsou et al. (2018) encourage teachers to ensure that a CLIL lesson plan correspond to the 108 Curriculum Guidelines which highlight the primacy of competency-based instruction, and hence, core competency, performance tasks, and contexts should be considered.

The Present: Glocalizing the 4Cs as the 4C 2++ Framework

The second stage pertains to the glocalization of the 4Cs framework as the 4Cs 2++ framework was proposed to advocate a paradigm shift in ELF from 2020 to 2022. According to Lu et al. (2021), as local teachers designed CLIL lessons, they gradually came to understand the similarities between the 4Cs and the pedagogical principles of the 108 Curriculum Guidelines. In particular, the 4Cs framework has been glocalized as 4C 2++. This framework was used to guide the first bilingual in-service teacher accreditation program developed by a team of local scholars, organized by National Cheng Kung University, and supported by the Ministry of Education (see Tsou & Huang, 2022). The following is mainly based on Chen et al.'s (2020) paper and the second CLIL resource book published by Tsou and Huang (2022).

The "Why": Arguing for a Paradigm Shift

In order to understand the reasons underpinning the glocalization of the 4Cs

framework, the circumstances of Taiwan's English education are analyzed, followed by a brief discussion of glocalization theory.

When the Local Meets the Global in Taiwan

To address local needs, Hutchinsond and Waters's (1987) framework of needs analysis was adopted. This framework emphasizes lacks (what the learners need), wants (what the learners hope to know), and necessity (what the learners must know to function well in the world). In terms of necessity, Taiwan has enacted the 12-Year Basic Education Curriculum Guideline and hence the bilingual education curriculum should also fit into the overall guideline; that is, bilingual education should also emphasize the cultivation of competencies rather than knowledge acquisition. The emergence of 12-Year Basic Education indicates the nation's need for preparing globally competent students in response to the declining birth rate, aging population, and fast-changing job types, information, and technology. Global competence generally includes one's professional and communicative abilities. As such, bilingual education needs to cultivate not simply English abilities but more importantly one's global competence via English. In this sense, bilingual education in Taiwan cannot be equivalent to traditional English education that underscores the teaching and application of linguistic knowledge.

In terms of lacks, the fear of using English as a result of lack of fluency, loss of face, and peer pressure in the Chinese culture is not new news. These same fears can be found in Taiwanese teachers required to teach in English. Moreover, foreign language teachers, especially NESTs, can more easily get teaching jobs simply because of their nativeness rather than because of any certifications or teaching qualifications they may have (e.g., Chen et al., 2020). All of these imply a deep-seated belief in English learning—that is, performance is measured by conforming to the native speakers' norm. Regarding wants, test-oriented and textbook-based English learning tend to demotivate students. The local educational culture suggests that improving English cannot be accomplished using a conventional educational approach that emphasizes testing, language acquisition, language usage, or conventions of native speakers. Thus, a novel approach to bilingual education emerges as a ray of hope.

A New Approach to Bilingual Education: Glocalization

Xiong and Feng (2020) caution that the use of the term "bilingual education"

may imply the result of globalization that homogenizes, often if not always westernizes, curricula, policies, and pedagogies, while re-configuration of the global simultaneously exists. Robertson (1994, 1995) proposes the notion of "glocalization" as he criticizes a globalization that homogenizes cultures and its response to recognize local cultures as localization. He argues that "globalization" and "localization" are too contradictory to ignore "the simultaneity and the interpenetration" of global and local forces (Robertson, 1995, p. 30). Glocalization represents the integration of homogenization and heterogenization, as well as universalization and particularization. In other words, the local conditions need to be understood in relation to global forces and vice versa. The global and local should be interpreted dialectically (Tolgfor & Barker, 2021).

Glocalization has gained popularity in ELT, but not necessarily in bilingual education. In ELT, scholars have deconstructed standard English and the NES norms to permit local and cultural variations (Lu et al., 2017; Rhedding-Jones, 2002). It is, however, not until recently that the term EIL (English as an International Language) (Xu, 2018) has been debated as a glocalization notion or phenomenon, since the "global" forms of English have diverse variations in response to local and international communities. As such, pedagogies in recognition of local variations (e.g., translingual practice, ELF- and EIL-awareness pedagogy) have been proposed. In bilingual education, Xiong and Feng (2020) argue for the localization or recontextualization of what Swain and Johnson (1997) define as immersion programs as they find new features in immersion programs in China. These new features include the language-driven focus of immersion, the collaboration between local teachers and native English-speaking teachers, and a mixture of long-term and short-term immersion in China and abroad.

Given that seemingly global curriculum policies presume change in response to local traditions and cultures, there is a need to address such dynamics at the intersection between the global and the local. Tsou and Huang (2022) thus propose a glocalization approach to bilingual education in Taiwan, with an attempt to argue for a paradigm shift not merely from ESL/EFL to ELF/EIL, but more fundamentally from a binary contrast of globalization and localization to a *dynamic* concept of glocalization.

The "What": The ELF-informed 4C 2++ Framework

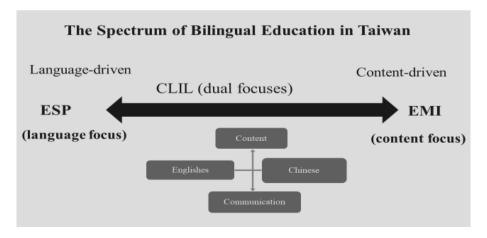
In line with Chen et al.'s (2020) proposal for ELF-informed bilingual education,

Tsou and Huang (2022) explicate the reasons that make ELF useful in the Taiwanese context. An emphasis on standard English, the NES norm, or nativeness in the inner circle may be suggested by the above-mentioned fear of using English and test-oriented learning in Chinese culture. As non-native English speakers interact more frequently and ELF gains instructional significance, the understanding of good English learners needs to change. Under this circumstance, good English learners are reconceptualized as those who are able to fluently communicate with others. This notion highlights the primacy of intelligibly and effective communication rather than having "perfect" or native-like English. It also implies a pedagogical change, since the original focus on linguistic competence, English learners, accuracy, exams, and English as a subject have been changed into communicative competence, English users, fluency, performance assessment, and English as a tool.

In addition, the definition of CLIL at the first stage is slightly changed to emphasize the importance of its dual focuses without differentiating between soft and hard CLIL. CLIL is situated in a continuum of the language-driven end (ESP, English for Specific Purposes) and content-driven end (EMI). This conceptualization is in line with the criticism about the skewed focus on hierarchy of language and content learning (Coyle & Meyer, 2021) (see Figure 2). It may also implicitly highlight the primacy of disciplinary literacy, which will be fully explained in the next stage.

Figure 2

Continuum of Bilingual Education



More specifically, Coyle et al.'s (2010) 4Cs approach was adapted because it matches the spirit of Taiwan's new curriculum guidelines. Tsou and Huang (2022) explain that a glocalization approach of 4C 2++ represents Content, Communication, Cognition, Culture/community/citizen, +translanguaging, and +scaffolding. Figure 3 illustrates how these concepts collaborate with the four pedagogical principles of the new curriculum guidelines in Taiwan: "integration of knowledge, skills, and attitudes," "an emphasis on context in learning," "an emphasis on learning processes, methods, and strategies," and "an emphasis on action and performance" (National Institute of Education, 2017, pp. 7-8). The components of the glocalized 4C2++ framework are explained below (see Tsou & Huang, 2022, pp. 39-42).

- 1. Content: This notion includes subject matter, themes, or issues. It is proposed to consider the first pedagogical principle of "integration of knowledge, skills, and attitudes" when teachers design a CLIL lesson, unit, or course. Related to this principle are (a) the emphasis that teachers should consider not only knowledge or skill acquisition but also moral and affective development and (b) the argument that performance assessment should replace paper-and-pencil tests in CLIL teaching.
- 2. Cognition: As cognition is also related to content, cognition likewise concerns the integration of knowledge, skills, and attitudes with a focus on H.O.T. (higher level of thinking) rather than L.O.T. (lower level of thinking) (Coyle et al., 2010). H.O.T. includes creating, evaluating, and analyzing, while L.O.T. refers to remembering, understanding, and applying. In other words, in CLIL, teachers should aim for H.O.T. and consider cognitive loads and sequencing in CLIL design.
- 3. Culture/community/citizen: Culture refers to cross-cultural understanding; community means a connection between curriculum and real-life situations or local communities; and citizen indicates the cultivation of global citizenship. All of these notions collaborate with the second pedagogical principle of the new curriculum guidelines, that is, "contextualization" or "an emphasis on contexts in learning." In other words, CLIL teachers in Taiwan should lead students to observe, analyze, and evaluate phenomena in real contexts, allow students to think from multiple perspectives, and guide students to transform knowledge into action.

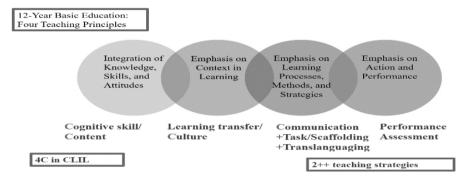
- 4. **Communication:** CLIL teaching emphasizes that English is a tool for learning rather than a subject; the key in CLIL is the word "integration." It is through English that subject matter or knowledge can be conveyed or communicated. This notion includes Coyle et al.'s (2010) three dimensions: Language *of* learning (target words, phrases, sentences, and discourses in academic subjects), language *for* learning (useful expressions for task fulfillment), language *through* learning (new English expressions resulting from student-teacher or student-student interaction).
- 5. +translanguaging: Translanguaging refers to the intentional and selective use of different languages, modes and semiotic resources in teaching. It can be understood as "multiple discursive practices in which bilinguals engage in order to make sense of their bilingual worlds" (García, 2009, p. 45, original emphasis). Translanguaing is thus not a direct translation nor is it a form of code-switching between Mandarin Chinese and English. The use of translanguaging for both teachers and students can empower them to realize and demonstrate the reality in which they are ELF users and emphasis should be placed on effective communication rather than native-like accuracy and fluency.
- 6. +task/scaffolding: As indicated in Content, "integration of knowledge, skills, and attitudes" can only be shown through performance or tasks. Therefore, CLIL favors task-based teaching with a focus on text and task authenticity, as well as learner interests and action. Students are thus learning by doing and experimenting, which is what the last principle called "an emphasis on action." During the learning process, teachers need to provide "scaffolding" in comprehension and fulfilling tasks (Mahan, 2020). All the translanguaging, multimodality, or semiotic resources can be scaffolding, which help students take ownership of their learning. This approach fits well with the third principle of the new curriculum in Taiwan— "an emphasis on learning process, methods, and strategies"; that is, learning is a process of self-reflection and self-improvement rather than passive reception or knowledge transmission.

Additionally, it is stated that "+task/scaffolding" emphasizes the importance of performance evaluation so that students can show what they have learned through activities rather than tests and teachers can give feedback to support learning

(assessment for learning). This method promotes learning transfer while increasing learners' internalization, and it is referred to as "an emphasis on action and performance" in the new curriculum in Taiwan.

Figure 3

The Connection between Four Teaching Principles in the 12-Year Basic Education and 4C 2++



Note. Adapted from Tsou, W. L., & Huang, Y. P. (2022). A resource book for bilingual education in Taiwan: A glocalized design and practice (p. 42). Bookman.

The Future: Internationalizing the ELF-informed 4C 2++ Framework

Vertical consistency in curriculum across educational levels becomes pedagogically crucial given the urgent requirement to bilingualize elementary, secondary, and higher education for the nation's future talent. The third stage illustrates the future of the 4C 2++ in CLIL, namely, to internationalize the ELF-informed 4C 2++ framework in bilingual education in Taiwan. It follows that literacy development and Internationalization of Education at Home (IoH) should be considered. The information below is based on an EMI reference book (Tsou et al., 2022) and the implementation of a professional development program for bilingual instructors in senior high schools supported by Taiwan's MOE.

The "Why": Internationalization of the 4C 2++ in CLIL

The aforementioned discussion of the 4C 2++ in CLIL has not taken into consideration Internationalization of Education at Home (IoH) (e.g., Beelen & Jones, 2015) nor literacy development across educational levels.

Doing Glocal for Becoming Mobile.

As was mentioned in the preceding section, there is general agreement that global mobility is necessary in education. The question then becomes, "Where does the 4Cs lead students?" The focus now switches from glocalization to IoH because IoH is seen as a way to help "professionals who possess a wide variety of experience and abilities, including English proficiency and international mobility" (National Development Council, 2022).

According to Beelen and Jones (2015), IoH refers to "the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all students within domestic learning environments" (p. 76). "For all members of the academic community," it "has become more urgent than ever" (De Wit & Altbach, 2021, p. 44). IoH can be understood as the careful design of real-world international experiences at schools for all students. If this argument is accepted, two significant points are worth noting: First, mobility through increasing global competence should no longer be an elite form of education; instead, it should be accessible to every student. The first point attaches much importance to the second argument that English as lingua franca can become a common asset or window, as it is envisioned as "social semiotic"— "a tool that enables conceptual development" (Coffin & Donohue, 2014, p. 23). It has to be stressed that English as a medium of instruction does not assume "English-only" nor does it assume a sink-or-swim situation in bilingual learning. EMI in bilingual teaching refers to use of ELF as a means of instruction, highlighting the importance of valuing any semiotic resources (e.g., linguistic and non-linguistic resources) teachers and learners bring to classrooms.

From General, to Academic, and Eventually to Disciplinary Literacies

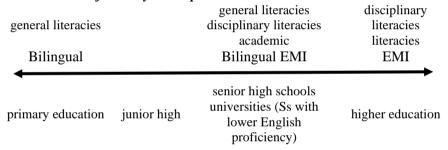
In the seminal work "Beyond CLIL," Coyle and Meyer (2021) argue for a focus on the acquisition of disciplinary literacies. As they explained:

We conceptualise academic language or language of schooling as consisting of both subject-specific and generic language elements. Academic language offers learners ways to abstract complex ideas, whereas the use of colloquial language is ideal for expressing content and negotiating meaning in highly accessible and more concrete ways. Progression includes growing command of subject-specific modes (charts, maps, tables, formulas, drawings, etc.) in both analogue and digital as well as hybrid or plurimodal forms. Pluriliteracies progression involves a

growing awareness of disciplinary cultures that are a prerequisite to successfully communicating knowledge across subjects, cultures and languages. (pp. 77-78)

Concurring with the above argument, Dr. Tsou proposes a continuum of two ends of bilingual education in primary schools and English-medium instruction (EMI) in higher education in Taiwan, with bilingual EMI education in senior high schools in between (Tsou & Huang, 2022; Tsou et al., 2022). Specialists offer EMI courses without focusing on language acquisition, whereas bilingual EMI is meant to cover both language acquisition and content. In order to make room for EMI in higher education, the language of content in bilingual EMI education in secondary schools should start to emphasize the importance of disciplinary literacies. Figure 4 illustrates such literacy development to bridge "curriculum disconnects" across educational levels.

Figure 4
The Continuum of Literacy Development



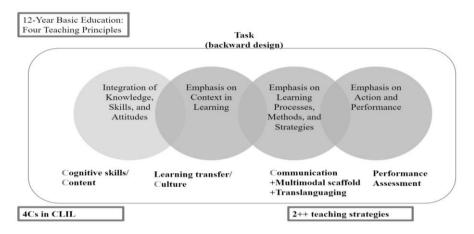
The "What": The Refined 4C 2++ Framework

This section intends to describe what is refined and to clarify misunderstandings surrounding the 4C 2++ framework. Figure 5 shows the latest 4C 2++ framework. Three changes have been made: First, the original teaching strategy called "+scaffolding/tasks" is broken into two notions: "multimodal scaffold" is a teaching strategy that designs quality teaching considering youth's multiple intelligences in the information age. The other notion, "task," is conceptualized as an outcome in the backward design that teachers should contemplate at the initial stages of planning. Second, as depicted in the prior section, the C in Communication (language of content) includes both general and disciplinary literacies depending on the educational and English proficiency levels of students.

Third and most important of all, it is argued that the 4C 2++ is *not* a label or slogan that "molds" bilingual teaching into one specific *form* of teaching nor is it synonymous with bilingual education. Rather, "CLIL is best seen as a way of bringing together a range of pedagogical or methodological principles and perspectives for the integration of content and language" (Morton & Llinares, 2017, p. 1). Of key importance of the 4C 2++ is the *heuristic* of all sets of beliefs and rules, functioning like a "recipe" not a "bible," for designing quality bilingual teaching. The "integration" or "fusion" of content and language learning for nurturing local talent with global competence is also crucial.

Figure 5

Refined 4C 2++



In conclusion, the thread of the 4C 2++ development is evolution through exploration and reflection. As Coyle and Meyer (2021) put it, "Engaging in critical re-visioning supports teachers, motivates change and disrupts 'this is what we do' to promote 'this is what we are exploring together'" (p. 29). As such, the importance of investigating, and even problematizing, the 4C 2++ cannot be overemphasized.

Conclusion

This paper represents the most complete discussion to date of the 4Cs in CLIL development in Taiwan. It would seem that empirical evidence is required to substantiate and/or modify the proposed framework and teaching strategies. More

research is needed on the effects and effectiveness of the 4Cs 2++ in the elementary and secondary educational contexts. Although the (refined) 4C 2++ frameworks all assume the usefulness of ELF and translanguaging, the potential of their use in the classroom clearly needs further exploration. Also, as Coyle and Meyer (2021) urge, deep learning should be of primary concern and therefore investigation of learning processes and products must be conducted. Given the significant role of context in CLIL, bilingual schools' policies must be examined because this dimension receives less description. As global competence is defined by the national government, the correlation between global competence, (disciplinary) literacies, and the 4Cs 2++ will be the next step to make the CLIL development more fruitful. The above-mentioned documentation, analysis, and directions, we believe, will benefit glocalization of CLIL research and practice around the globe.

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Appendix A

A CLIL Lesson Plan

(Tsou, 2018, p. 37)

附件二 空白教師協作教案範例格式

單元名稱				年級:		科目:		
價值定位						1111		
領域核心素養								
(見課綱)								
單元目標								
,								
表現任務								
情境脈絡								
(文化情境/								
社區環境)								
架構節次								
單元學習評量								
第一節								
學習表現								
(見課綱)								
學習內容								
(見課綱)								
學習目標	學科內容							
	先備知識 學科專業知識							
	語言內容(Language of leaning)							
	目標字詞:							
	目標句型:							
學習活動	步驟			材料		認知能力		
	多媒體教材/學習單							
	課室互動語言							
	教師指導語 延伸語言							
	(Language for (Language		跨語言實踐 (translanguaging)					
	learning)	through learning)		P7ma 日見民(translanguaging)				
		(低年級可省	1略)	Art. Art		609 AL.		
				教師	\dashv	學生		
Att with the day of								
複習或評量								

CLIL 在臺灣雙語教育的發展:過去、現在、與未來

黄怡萍*鄒文莉**

近年來,由於政府推動教育「雙語化」--在非語言課程中使用英語作為教學語言--使得「學科內容與語言整合」教學(CLIL)在臺灣掀起一股風潮。因應政府雙語教育政策從小學延伸至中學乃至高等教育,本文介紹臺灣在地學者協助在職教師發展雙語教學的歷程,包括:第一階段,學者將 Coyle 等人的 (2010) 4Cs 教學框架用於臺灣雙語教學;第二階段,學者將「全球在地化」概念融入4Cs,成為「ELF-informed 4C 2++」的框架;第三階段,學者將「ELF-informed 4C 2++」的框架國際化。以上三階段發展之原因與內容將在文內分別闡述。瞭解臺灣 CLIL 的演變有利於教師與研究人員考慮雙語教育的未來發展。

關鍵詞:學科內容與語言整合、雙語教育/教學、英語作為通用語、全球在地化、 國際化

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