

What is CLIL and How can it be Implemented in Local Society?

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Abstract

This study investigates the possibility of the implementation of Content and Language Integrated Learning (CLIL) in Japanese education based on a literature review of the rationale behind CLIL and its practice in European countries. CLIL is a teaching approach that simultaneously promotes new knowledge construction and language proficiency. CLIL was introduced in the 1990s, and numerous research findings on this topic have been reported since then. Close investigations of CLIL effectiveness reveal both positive and negative aspects. In this report, based on the findings of Dalton-Puffer (2008a), some suggestions will be made to improve the current CLIL approach for Japanese English learners in tertiary levels by making a harmony of CLIL classrooms and non-CLIL EFL classrooms.

Keywords: CLIL, language proficiency, knowledge construction, EFL

1. Introduction

In the current global society, also called the Knowledge Age, facilitating construction of new knowledge in education is a key and urgent issue. This study investigates the possibility of implementing Content and Language Integrated Learning (CLIL) in Japanese education based on a literature review of CLIL rationale and practice in European countries. CLIL is a content and language teaching approach based on a social constructivist view and has been capturing the attention of both researchers and practitioners

of foreign language (FL) education since the 1990s, alongside the development of a global society. In short, CLIL is a teaching approach that simultaneously promotes the construction of new knowledge and language proficiency. Numerous research findings have been reported since the advent of CLIL. Close investigations of CLIL effectiveness reveal that there are both positive and negative aspects. In this report, which is based on the findings of Dalton-Puffer (2008a), some suggestions will be made to improve the current CLIL approach making it for Japanese English learners in tertiary levels by making a harmony of CLIL classrooms and non-CLIL EFL classrooms.

2. Global Society and the Knowledge Age

The phrase “Think globally, and act locally” captures the essence of the current global society. According to Vaira (2004), globalization emphasizes the following two key terms: *convergence* and *divergence*. The word *convergence* is significant because it emphasizes “the progressive and sometime ineluctable trend toward homogenization (cultural, political and economic).” The word *divergence* represents “the heterogeneity of globalization’s effects and outcomes on the local level (national, regional and even organizational).”

We are living in a Knowledge Age. Knowledge is far more important than ever. Bereiter and Scardamalia (1998) explain the significance of knowledge from an economical and cognitive perspective. On the economy side, according to globalization and advances of IT technology, knowledge has become an economic product, exemplified in terms such as “knowledge-based economy” and “knowledge worker.” In the cognitive sciences, research has revealed “in many different domains that experts are distinguished from non-experts mainly by the extent and depth of their knowledge, not by their mental abilities, thinking skills, or general cognitive strategies” (Chi, Glaser, & Farr, 1988, as cited in Bereiter & Scardamalia, 1998, p.675).

3. The Social-Constructivist View and Language Education

To promote national prosperity, the social-constructivist view has rapidly been introduced in tertiary, secondary, and now primary education worldwide. The central tenet of the social-constructivism view is to promote active knowledge construction (Miller, Courtis, & Watters, 1931). In the social-constructivism view, students are required to fully participate in the classroom, and to learn a “deeper and richer understanding and use of knowledge” to promote the application of what they learn in the classroom to other contexts in order to construct new knowledge (Miller, Courtis, & Watters, 1931). Therefore, active learning has been a key concept for survival in the Knowledge Age and has captured the attention of educators and researchers. At the tertiary level of education, education experts and other content experts alike are searching for ways to promote active learning and to educate students with knowledge construction skills.

Then, what is the vehicle of knowledge? The vehicle is language. Foreign language education has seen a great innovation of its methodologies and implementations since the 1990s. Two of the greatest impacts in the field have been the founding of the Common European Framework of Reference for Languages (CEFR) and the prominence of Content and Language Integrated Learning (CLIL). Even though they were developed in the EU, they have had much impact on foreign language education not only in the EU but also in many Asian countries.

4. Common European Framework of Reference for Languages (CEFR)

CEFR was established in the EU in 2001. CEFR is a backward designed language curriculum, which only describes the goals, but not the content or methodologies to achieve those goals (Richards, 2015, p. 565). It consists of illustrative “can-do lists” and descriptors of learner proficiency for six levels: from A1 (novice) to C2 (expert). The descriptors can be applied to any language. CEFR has had a major impact on language policy makers and second-language acquisition (SLA) researchers not only in the EU, but also in Asian countries. Japan is one of the countries that started implementing CEFR and created a local version of CEFR called CEFR-J.

5. CEFR, CLIL, and Japan

Universities in Japan have been researching methodologies to improve students’ English language proficiency. One possible option is implementation of CLIL as developed in the EU. Since the establishment of the CEFR in 2001, CLIL has been capturing much attention not only from SLA researchers, but also from language policy makers, and has been implemented in primary, secondary, and tertiary levels of institutions. The basic premise of CLIL is that content teachers who are not language education experts teach the content in a foreign language. The rationale behind CLIL relates to the EU’s plurilingualism approach, where the aim of language education is no longer considered to be mastery at an ‘ideal native speaker’ level of proficiency but rather that all linguistic knowledge and abilities have a place with a multilingual repertory (Council of Europe, 2001).

6. What is CLIL?

The word CLIL was first adopted in Europe in 1994 and defined as “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 pre-defined levels” (Marsh & Frigols, 2012). Using the target language as the medium of instruction in a foreign language (FL) classroom is not a new idea. There existed alternative methods in the past, such as immersion and a content-based approach (CBT). However, CLIL instructors have distinguishing features in terms of language use and

Table 1

Differences of CLIL, Immersion, and CBT

	CLIL	Immersion	CBT
Medium	FL	FL/SL	FL/SL
Instructors	Non-native content instructor	Native content instructors	Native language instructor
L1 use	Allowed	Not allowed	Not allowed

proficiency. Table 1 shows these differences.

The first distinguishing feature of CLIL is the type of instructor. In immersion and CBT classrooms, native content or language teachers teach either language or content; however, in CLIL classrooms, non-native content teachers teach classes. The second area is difference in first language (L1) use. L1 use is not allowed in immersion and CBT classrooms. However, CLIL classrooms allow both students and instructors to use L1 to promote learning of both content and language. The code switching in CLIL is called *translanguaging*, which refers to the systematic switch between languages to promote learning language and content (Coyle, Hood, & Marsh, 2010, p.16). This flexibility of L1 use allows instructors to come up with various styles of CLIL. For example, for advanced proficiency learners, the whole classroom can be taught in the target language, while for novice learners, lectures may be done in L1, and other activities can be conducted in the target language. Furthermore, students can ask questions in L1 while the instructors answer them in the target language. The dominant difference between CLIL and Immersion or CBT is the flexibility of language choice.

7. Rationale behind CLIL

In CLIL classrooms, students are considered “active and interactive agents,” and asked to generate better new knowledge construction (Bozdođan, & Karlidađ, 2013). The rationale behind CLIL is based on a social-constructivism view and applies active learning styles inside the classroom. The ultimate goal of its educational view is to create new knowledge in the classroom. As shown in Table 2, CLIL applies a combination of the social-constructivist model (Anderson & Krathworhl, 2001) and the BICS-CALP model by Cummins (1982) to promote higher-ordering thinking skills and language learning.

Table 2

Taxonomy table of the two-dimensional model based on Krathwohl (2002)

The Knowledge Dimension	The Cognitive Process Dimension					
	Remember	Understand	Apply	Analyze	Evaluate	Create
	Lower-order processing			Higher-order processing		
A. Factual Knowledge						
B. Conceptual Knowledge						
C. Procedural Knowledge						
D. Metacognitive Knowledge						

To survive in the Knowledge Age, higher order processing should be facilitated among students to promote knowledge constructions. According to Meyer (2010), to realize successful learning, *input*, *tasks*, *output*, and *scaffolding* have to be carefully determined so that they can trigger various cognitive activities among students. Meyer (2010) further states that students can skip lower-order processing if necessary since learning can take place concurrently rather than sequentially.

As for the language learning aspect of CLIL, it applies the BICS-CALP model by Cummins (1982). The rationale behind BICS-CALP is that language learning facilitation is maximized when the given task is cognitively highly demanding but heavily contextualized. “The integration of language and subject matter content offers the possibility of meeting the two conditions” (Naves, 2009).

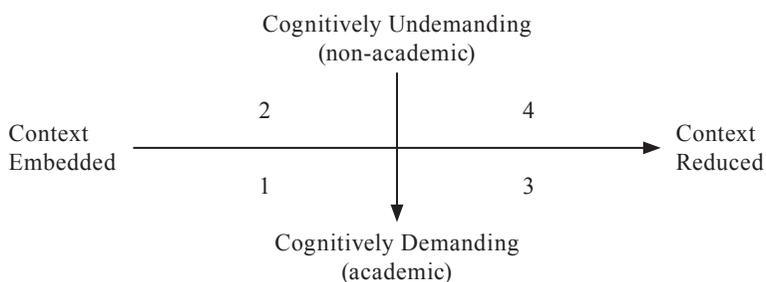


Figure 1. From the BICS Model to the CALP Model? adapted from Cummins (1982)

8. Core Elements in CLIL's 4Cs: Content, Communication, Cognition, and Culture

Based on the previous two models of content learning and language learning, CLIL came up with the 4C framework: Content, Communication, Cognition, and Culture (Coyle, Hood, & Marsh, 2010, p.41). Content refers to subject matter, which is the basis for not only acquiring knowledge, but also for creating new knowledge and developing skills. Various styles of communication are necessary to promote new knowledge constructions based on the content. Also, content relates to cognitive demands (processing for thinking and for language learning). CLIL is not just for content and language learning; it also promotes awareness of intercultural understanding and global citizenship by touching on different cultures and ways of thinking (Coyle, Hood, & Marsh, 2010, p.41). A glance at the rationale behind CLIL seems quite complicated, but Meyer (2010) developed a concrete and informative outline for curriculum developers of CLIL called the CLIL Pyramid, shown in Figure 2.

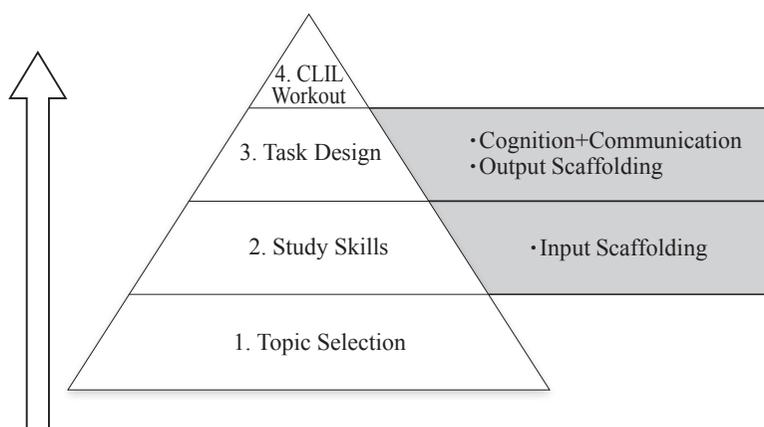


Figure 2. CLIL Pyramid based on Meyer (2010)

Curriculum developers and instructors start by choosing a topic (i.e., 1. Topic Selection). After choosing a topic, Meyer (2010) points out that to promote learning with students of different learning styles, multimodal input and distribution are necessary and, depending on the selected input, the degree of scaffolding should be determined to facilitate learning (i.e., 2. Choice of Media). Then, task design is significant since it helps lead learners to “both higher order thinking and authentic communication / interaction in different interactive formats (solo work, pair work, group work, etc.)” (Meyer, 2010, p.24). Consideration of the kind of output desired and how much scaffolding is necessary to achieve the output task should occur before the teaching plan is carried out. Meyer (2010) further provides a useful unit template to help practitioners develop their own teaching plans (see Meyer 2010, p.24).

9. Outcomes of CLIL

What kind of outcome can we expect from CLIL? Regarding this matter, Dalton-Puffer (2008a) gives an informative literature review of CLIL practice in European countries. This section describes the summary of outcomes for CLIL based on Dalton-Puffer (2008a).

First of all, related to the content outcome, “g [G]enerally speaking research results are, however, positive, with most studies making the observation that CLIL learners possess the same amount of content knowledge as their peers who were taught in the L1” (Dalton-Puffer, 2008a, p.4). Dalton-Puffer explains that limited knowledge of an L2 requires higher processing of input by students, such as elaboration, relating details or discovering contradictions, with the result that “deeper semantic processing and better understanding of curricular concepts can occur” (Dalton-Puffer, 2008a, p.4).

Language outcomes related to CLIL instruction are listed in Table 3. Receptive skills (listening and reading), vocabulary, morphology, and creative thinking are more favorably affected by CLIL than non-CLIL FL classrooms. On the other hand, Dalton-Puffer (2008a) warns that grammar skills (syntax), writing, informal/non-technical language, pronunciation, and pragmatic aspects are either absent in CLIL classrooms or else are no better than in non-CLIL FL classrooms.

Table 3

Language competencies favorably affected or unaffected by CLIL adapted from Dalton-Puffer (2008a)

Favorably affected	Unaffected or Indefinite
Receptive skills	Syntax
Vocabulary	Writing
Morphology	Informal/non-technical language
Creativity, risk-taking, fluency, quantity	Pronunciation
Emotive/affective outcomes	Pragmatics

10. How can CLIL be improved?

Regarding this result, Dalton-Puffer (2008a) argues that improvement of CLIL and better articulation of traditional FL and CLIL will facilitate communicative competence. Communicative competence is “a person’s knowledge of how to use language appropriately as a communicative resource” (Richards, 2015). It was a concept originally constructed by Hymes (1974). Based on the original version by Hymes (1974), Canale and Swain (1980) made a revision. Communicative competence consists of four competences: grammatical competence (syntactic knowledge), discourse competence (e.g., knowledge of how to create a story), sociolinguistic competence (e.g., knowledge of when to say “sorry”) and strategic competence (e.g., knowledge of paraphrasing). Dalton-Puffer (2008a) defines the issues in CLIL based on the following model:

10.1 Linguistic competence

CLIL clearly gives an advantage for improving lexical abilities because learners always face lexical gaps to implement. However, the fixed communication pattern of Initiation-Response-Feedback (IRF) where teachers ask questions, students respond, and teachers give feedback limits the syntactic patterns and reduces the possibility of learners taking a risk to expand their syntactic knowledge.

10.2 Sociolinguistic competence

The fact that clearly established roles exists between teachers and students limits the variety of speech acts such that responsiveness, questions, assentives, assertives, and requirements frequently occur, while dissentives, concessives, suppositives, commissives, and apologies do not often occur in CLIL or in FL. It is necessary to teach these speech acts explicitly.

10.3 Discourse competence

In CLIL or FL classrooms, teachers are usually very supportive and understand or try to understand students' incomplete contributions, which does not happen outside the classroom. Comprehension checks by the teacher are usually as simple as, "Do you understand?" Student responses will be "yeah" or "yes," which limits discourse varieties in the classroom.

10.4 Strategic competence

Communication strategies are also limited in variety in CLIL. Moreover, they are not applicable outside the classroom.

10.5 Summary

Dalton-Puffer (2008a) concludes her paper by suggesting: 1) careful adjustment to language and content choice is necessary; and 2) stakeholders should integrate non-CLIL foreign language curricula and CLIL curricula to take advantage of both CLIL and FL classrooms. To sum up, this section discussed what kind of adjustments are necessary to promote FL learning in CLIL classrooms based on Dalton-Puffer (2008a). We found two dimensions: one is that there are aspects that should be improved inside CLIL classrooms; and the other is that there are aspects that should be integrated in both CLIL and non-CLIL FL classrooms. Based on these findings, I would like to present detailed suggestions to promote FL learning with Japan in mind.

11. CLIL Implementation in Japan

This section sketches out ways to promote FL learning in CLIL, integrating the non-CLIL classroom, autonomous learning, and English Campus (EC). First off, two methods for promoting grammatical competence are discussed.

11.1 Context Embedded Language Learning (CELL)

Context Embedded Language Learning is an approach to facilitate FL grammatical competence through scaffolding students by using their actual environment. There are three aspects of CELL. The first is to introduce the target structure(s) along with the students' actual situation. According to Cummins (1980), FL learning is maximized when linguistic or cognitive demand is high and heavily context-embedded. In CELL, we introduce "future tense," "present continuous" and "past" as a sequence. For example, the teacher will hold a piece of paper and scissors and say, "I will cut the paper." Then the teacher will further say, "I am cutting the paper," showing students while cutting the paper in the shape of a bird. When the teacher finishes cutting the paper, the teacher will say, "I cut the paper. It is a bird," showing the cut paper shaped like a bird. Then students will follow the same sequence of action, saying the three sentences in a sequence. The heavily embedded context fosters student learning of syntax without meta-grammatical language such as future, present continuous or past, thereby reducing the student burden of attention and allowing greater focus on concepts and forms of syntax.

The second aspect of CELL is in the reading material. With CELL, especially in terms of the "learning to read" level, teachers write reading materials based on students' real-life surroundings such as school events, school trips or even based on conversation among students at recess. The advantage to sharing authentic materials in the classroom is it not only motivates students to read the materials, but it also requires less cognitive burden when they engage in reading. Since students already know the content, they need to just be aware of differences in vocabulary and syntax. The materials also facilitate production of utterances in the classroom by students by adding incidents that are not described in the text, which leads other students to construct new knowledge about the events. The natural facilitation of classroom discussion also lets students prepare for CLIL classrooms.

The third aspect of CELL is that of reducing the context step-by-step. Nakayama et al. (2006) developed a series of textbooks based on this premise. The first year textbook is based on the context of the classroom. The second year book is based on school events. The third year book has two versions: one is about school history and Japan, while the other is very much context-reduced, about the world. This series of textbooks makes it possible for students to learn everything from very basic syntax to the level of complex structures as found in English.

CELL is one of the direct method approaches, where only the target language is used in the

classroom. Since context is heavily embedded, especially at the beginning, instructions in L1 or a translation is unnecessary, which familiarizes students with an L2 only atmosphere. It is an efficient way to promote pre-CLIL training as well.

11.2 Autonomous learning and sustainability in terms of grammatical competence.

The previous section discussed the efficacy of CELL in primary and secondary education. However, there are demands at the tertiary level with regard to the scaffolding method for students to continue to improve their grammatical competence outside the classroom. Regarding this, I would like to suggest the Grammarless Composition Method to improve grammatical competence outside the classroom. When we learn a foreign language, we basically encounter a new grammar structure for the target language as well as new vocabulary. Learning both syntax and vocabulary occupies our cognitive resources, which reduces student motivation to learn the target language. Therefore, there should be some scaffolding methodologies to minimize the cognitive demands. Grammarless Composition Method (GCM) allows students to focus solely on the vocabulary output to facilitate inductive learning of syntax. GCM is a very simple method. GCM provides learners with L1 vocabulary clues in the order of a sentence in the target language. For example, for the sentence, “I have a book,” the GCM displays a ruby on top of each word in L1 so that learners can produce the sentence in the target language using only their knowledge of the vocabulary. The learning rationale behind GCM is the expectancy theory, where learners build expectancy grammars by repeating production of the target sentences scaffolded by the L1 ruby. Based on the GCM method, Nakayama, Schnickel, Bulach & Yamauchi (2016) published a textbook that consists of three leveled questions and answers (A1 through B1) of 100 topics, based on Hashimoto, Kaneniwa, Tajiri & Yamauchi (2013).

11.3 English Campus Project

Dalton-Puffer (2008a) suggests that there is a limit to providing students with enough opportunities to promote pragmatic learning (sociolinguistic competence, discourse competence, and strategy competence) in both CLIL and non-CLIL FL classrooms, and there should be some alternative method to promote pragmatic learning. What I suggest here is English Campus to provide students with opportunities to learn natural input and output. As the name English Campus (EC) suggests, we will create situations where students need to use the target language (English, in this case) outside the classroom. Based on this framework, Jissen Women’s University has run a pilot project of EC since 2015. We created special situations where students and staff members other than teachers interact in English, such as in the cafeteria, administrative offices, and library. It is still a pilot project, but it accustoms students to situations where English is used not only for linguistic competence but also for pragmatic aspects. The outcome will be reported in a forthcoming article.

11.4 Pronunciation: Necessity to establish a local model

English is truly an international language, used for communication not only between native and non-native speakers of English, but also among non-native speakers. There has been an issue of strong native-speakerism in Japan, where people have an intuitive belief that English must be spoken like a native speaker, which reduces English use among Japanese. Derwing and Munro (2005) argue “we know of no study documenting a link between pronunciation instruction and the elimination of a foreign accent.” Furthermore, a study by Tsushima et al. (1994) pointed out that we lose the ability to acquire some aspects of an L2 (e.g., Japanese infants often cannot tell the differences between the L and R sounds by one-year-old). According to Nakayama et al. (2016), mora-timed English speech (i.e., heavily Japanese-accented English speech) is intelligible among non-native speakers and calls for creation of a local model of English. To sum up, improving pronunciation is not the current issue for classroom instruction but rather should await the outcomes of further research prior to pursuing this issue.

12. Discussion

The purpose of this article is two folds. On the one hand, it explores the rationale and practices of CLIL to determine the outcome of both content and language learning. On the other hand, it makes suggestions on how to implement CLIL in Japan. CLIL is an approach built upon a social constructivist model to promote both content and language learning while at the same time educating students with higher order thinking skills. The review of Dalton-Puffer (2008a) shows that CLIL classrooms facilitate students’ receptive skills, creative skills, and risk-taking skills but are weak in educating students on syntax, pragmatics, and pronunciation. Based on the findings of CLIL practice, I suggested two methodologies: CELL and GCM to promote students’ grammatical competence, and EC to promote students’ pragmatic competence. The suggestions made require empirical studies to prove effectiveness by showing not only improvement in learner proficiency, but also in CLIL content outcome. I hope a harmonious integration of CLIL and FL brings a better outcome for both content and foreign language learning.

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