

How CLIL Can Impact on EFL Teachers' Mindsets about Teaching and Learning: An Exploratory Study on Teacher Cognition

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Abstract

EFL (English as a Foreign Language) teaching methods have been the object of persistent criticism, which has led to English-medium Instruction (EMI) being encouraged in Japan. Immersion and Content-based Instruction (CBI) are also regarded as emerging types of language teaching in Japan. Although English for Specific Purposes (ESP) is now popular in tertiary education, it has not always been effective in some contexts. It seems that these approaches have not generally led EFL teachers to change their mindsets. By contrast, CLIL may have the potential to support a progression in teacher cognition regarding language teaching. This article argues that CLIL in the EFL context can help change EFL teachers' cognition if teachers are involved in collaborative action-based professional development consisting of workshops, materials development, team-teaching, and teacher reflection. While implementing the CLIL curriculum at a medical university, we established a contextualised CLIL framework and developed CLIL methods and approaches based on action-based teaching (van Lier, 2007). By researching how EFL teachers change their cognition, the paper explores CLIL methodology in the EFL context.

Key words: English-medium Instruction (EMI), teacher cognition, action-based teaching, contextualised CLIL framework

1. Introduction

EFL teaching methods in Japan have been the object of persistent criticism because a substantial number of university graduates cannot use English adequately in their working fields (Ministry of Education, Culture, Sports, Science and Technology [MEXT], 2003). As part of the response to this criticism, the 2009 National Course of Study (the national curriculum) calls for EMI in upper secondary schools. Japan started to teach English in state primary schools in 2011 which in the long run should support EMI in upper secondary schools. However, it would be difficult to change the current language teaching approach which most EFL teachers have been engaged in, so long as they are not consciously aware of their own beliefs or assumptions about teaching and learning.

In Japan, there are a substantial number of native speakers of English (NS) teaching English. According to a survey by the Ministry of Health, Labour and Welfare, 44,531 non-Japanese workers are engaged in education-related work. They not only teach English, but act as English language advisors and resource persons to non-native speakers of English (NNS) who teach EFL. NS teachers traditionally use teaching practices that are distinct from those used by NNS teachers. Most NS teachers or instructors do not use a CBI approach. They are instead primarily engaged in teaching English language communication skills needed for greeting, shopping, traveling, business meetings, debates, discussions and presentations. ESP, including English for Academic Purposes (EAP), English for Business Purposes (EBP) and English for Medical Purposes (EMP), is widely taught in tertiary education. They are not, however, always effectively taught and can be too focused on academic or professional terminology or discourse. These approaches may help refocus and rejuvenate classroom activities, but it seems that they have not yet led to a change in the mindsets of either NS or NNS teachers regarding what and how to teach English in the EFL context.

This article argues that CLIL can support NS and NNS teachers in changing the way they think about teaching. In addition, the concept of CLIL seems to have the potential to revitalise and expand EFL teaching in Japan. Still, CLIL remains a rather new concept for Japanese EFL teachers, although CBI may be somewhat familiar to them.

This article first describes the current study of EFL teachers' cognition and CLIL methodology followed by an on-going process of CLIL curriculum implementation at Saitama Medical University. While implementing the CLIL curriculum, we have concurrently conducted collaborative teacher education, especially focusing on teacher reflection on CLIL lessons. I will show qualitative data on teachers' cognition in reference to CLIL teaching and finally discuss CLIL's potential to help change mindsets about language teaching.

2. EFL teachers' cognition regarding teaching

The problem with EFL teaching in Japan is not only caused by the curriculum or the language education policy, but it is also due to EFL teachers' cognition. Teacher cognition refers to what teachers think, know and believe (Borg, 2003). According to Borg, it is regarded 'as an inclusive term to embrace the complexity of teachers' mental lives' (2003: 86). He specifically focuses on language teacher cognition because he assumes that language teachers work in complex classroom contexts. Although considerable disagreement still exists on how to define terminology regarding teacher beliefs and teacher knowledge (Calderhead, 1996; Kagan, 1992; Pajares, 1992), I use the term 'teacher cognition' in this paper as an umbrella term to include issues pertaining to teachers' mental and emotional worlds.

According to the notion of the 'apprenticeships of observation' (Lortie, 1975), teachers teach as they were taught and they cannot easily change their cognition. However, EFL teachers could possibly change their thinking about teaching if they were aware of different perspectives on teaching methodology, which do not originate from the traditional teaching method such as the Grammar Translation Method (GTM) or Communicative Language Teaching (CLT). These methods often place emphasis on declarative knowledge and teach language through explicitly examining linguistic forms. By and large, most EFL teachers, whether they are NS or NNS, focus on teaching English knowledge and skills and try to help their students develop English proficiency, and they may not realise that they teach some content items related to their knowledge or textbook topics. Most teachers accordingly follow the 'situated' approach, based on their 'situated' teacher cognition. The term 'situated' means that the context can be strongly related to what to teach and how to teach English. Many teachers thus tend to insist on their own teaching styles and beliefs in association with each context.

3. CLIL methodology

Compared to several other language teaching methods and approaches, CLIL seems to be rather distinct in terms of a) its 'dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language' (Coyle *et al.*, 2010:1); b) its flexibility and its 'range of situational and contextual variables' (Coyle, 2008: 3). CLIL, which can include a diverse and broad range of perspectives and activities in different education contexts, seems not to be a fixed method or approach. In other words, CLIL methodology can take account of diverse learning contexts where subject content and language learning are integrated. CLIL could suggest to EFL teachers the possibility of a different way of viewing language teaching and learning and help them to move away from the assumption that it is difficult to teach English through English.

In the EFL context, CLIL is not exclusively related to EMI, which is focused more on English language use in the classroom. In such contexts, English teachers may give special attention to enabling their students to produce English, particularly through speaking. However, the

implementation of EMI may in some contexts be broadly speaking considered a failure such as was the widespread teaching of mathematics and science through English in Malaysia (Sopia *et al.*, 2009). The primary cause of failure has been identified as insufficient teacher in-service training. Many maths and science teachers used English mechanically and were unable to create a meaningful learning environment (*ibid.*).

In other contexts immersion programmes have been successful (Genesee, 2004; Johnstone, 2002). Awareness of the value of immersion as a means for achieving bilingualism, and the need for improved English language skills continues to grow. CLIL, which has its origins in Europe in the 1990s, is a European response to the need to improve language learning opportunities. The principles of CLIL are simple and diverse: e.g., 4C's - Content, Communication, Cognition and Culture/Community- (Coyle *et al.*, 2010; Mehisto *et al.*, 2008). In addition, there are core features of CLIL methodology: e.g. lower and higher order thinking skills, scaffolding, and portfolio assessment. These features can be important when implementing CLIL, but are not specific to CLIL. This article therefore argues that an important issue in CLIL methodology is how EFL teachers can change their cognition regarding teaching and to what extent CLIL is applicable in the EFL context of Japan. The article also explores the case of how the cognition of both NS and NNS teachers regarding EFL teaching changes, and discusses the potential of CLIL in the EFL context.

4. The contextualised CLIL framework

CLIL was initiated at Saitama Medical University after this author, as a NNS teacher-researcher, discussed the idea with two NS teachers. We agreed on a CLIL curriculum that took into account the Japanese context. The CLIL principles were contextualised or localised. Table 1 describes the backgrounds and CLIL teaching careers of the seven EFL teachers who agreed to take part in the CLIL project. I am one of the seven teachers.

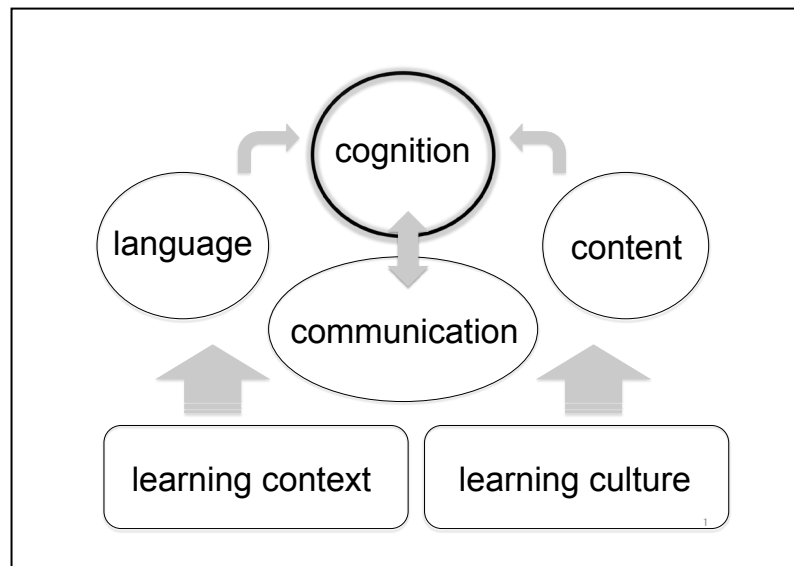
Table 1: Teachers' CLIL teaching careers

Teachers	Backgrounds before participating in the project	CLIL teaching careers			
		2009	2010	2011	2012
A	Male NNS; 35 years of teaching experience in secondary and tertiary education; researcher	1st	2nd	3rd	4th
B	Male NS; 7 years of teaching experience in teaching English communication skills at university	1st	2nd	3rd	4th
C	Male NS; 5 years of teaching experience in teaching English communication skills at university	1st	2nd	3rd	4th
D	Male NS; no teaching experience at university	1st			
E	Male NS; 5 years of teaching experience in teaching English communication skills at university; ex-elementary teacher in the US		1st	2nd	3rd
F	Female NS; no teaching experience in teaching English communication skills at university		1st	2nd	3rd
G	Male NS; no teaching experience in teaching English communication skills at university		1st	2nd	3rd

All of the teachers except for me were NS. The NS teachers did not have any training in CLIL prior to beginning the CLIL project. A framework was provided to the six NS teachers to explain the principles of CLIL and to indicate how CLIL differed from the English language classrooms that use an English language teaching (ELT) textbook. The framework was created based on the 4C's framework while giving consideration to the EFL context. We then assumed that studying linguistic aspects, such as grammar and vocabulary, should also be taken into account in CLIL

teaching, because the English language proficiency of most Japanese medical students' falls short of that of medical students in those Asian countries where students are required to study medicine in English, such as Hong Kong or Taiwan. We thus developed a contextualised CLIL framework (Figure 1).

Figure 1. The contextualised CLIL framework



As shown in Figure 1, we decided to highlight cognition and communication. Content and language surround cognition and communication. Learning context and learning culture are at the foundation of the 4 principles. The framework shows how the various constituent elements are related to each other. Most importantly cognition and communication are emphasised in order to help teachers and students to change their mindsets. In addition, language and content must be specifically taken into account whilst also building on the learning context and the learning culture.

This framework features two additional points: 1) Cognition is situated in the centre, since it is important for teachers as well as students to think about their teaching, studying and learning (Harjanne and Tella, 2007); 2) The learning context and the learning culture can be so essential and influential that teachers should consider them in each phase of classroom activities, such as pair work and group work. The learning context should be flexible and the learning culture must be, to some extent, stable. Both are important and indispensable principles for the implementation of CLIL in the EFL context. It means that we should not necessarily draw only on those CLIL methods and approaches which are familiar in Europe.

5. The process to help change EFL teachers' cognition

When deciding to start the CLIL curriculum, I thought it was important to support NS teachers in changing their mindsets and to create an action plan for CLIL teacher development and CLIL implementation concurrently. In the first place, we agreed that teachers should select the topics related to health sciences that they were able to teach. The five NS teachers (one teacher dropped out) were all interested in CLIL and gradually developed CLIL teaching knowledge and skills. Table 1 shows one initial CLIL syllabus made by Teacher F, who has substantial health sciences knowledge. Teacher-created syllabi helped deepen understanding of how the teachers actually teach.

Table 1. Teacher F’s CLIL course outline in 2010

Objectives:
<ul style="list-style-type: none"> • To answer the question: e.g. “What is complementary/alternative medicine?” • To talk about different complementary therapies • To describe some anatomical regions in the body • To be more comfortable interacting in English
Topics:
Different kinds of complementary/alternative medicine as well as related aspects of anatomy: e.g. yoga, acupuncture, herbalism, aromatherapy, homeopathy, and tactile therapies.

This syllabus was rather general but shows the dual aims relating to content and language. Teacher F used some authentic materials, such as magazines and anatomical models, but her topics were sometimes too difficult for students to understand, in spite of her efforts. However, such CLIL approaches gave us good opportunities to reflect on how to teach CLIL: e.g. the balance between subject content and language, the relationships between teacher and students, language learning skills and strategies, study skills, thinking skills, and scaffolding.

We developed our CLIL teaching knowledge and skills collaboratively on a step-by-step basis, and have tried to share ideas about what to teach and how to teach through CLIL. In order to save time in preparing for lesson plans and materials, we agreed to publish an in-house textbook and have collaborative on-the-job teacher education consisting of regular meetings, discussions, and observations of videotaped lessons. Also, we have regularly obtained feedback from the students about CLIL classes.

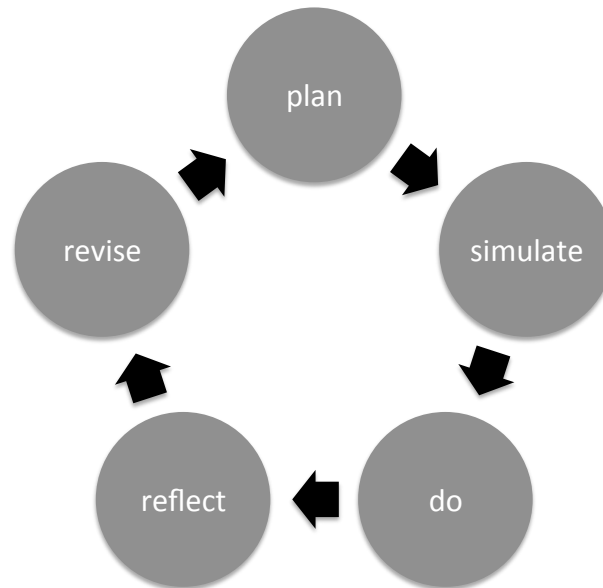
I originally planned and coordinated the CLIL curriculum based on the above-mentioned contextualised CLIL framework, and then began to regularly team-teach with all of the five NS teachers. CLIL at the first and second stages was considered as a trial-and-error partial CLIL-type approach. And CLIL at the third and fourth stages is still also considered as a partial CLIL approach that is still under development and being contextualised. It thus should be called ‘a contextualised CLIL approach’ that we aim to develop. The following table shows how we have thus far developed the CLIL curriculum in the EFL context.

Table 2. CLIL curriculum: developmental stages

Stages	CLIL curriculum
1st stage	Partial CLIL; topics related to health sciences
2nd stage	Partial CLIL; topics related to health sciences; CLIL principles
3rd stage	Contextualised CLIL; topics related to health sciences; CLIL principles
4th stage	Contextualised CLIL; topics related to health sciences; CLIL principles; using a self-made textbook

In this contextualised CLIL approach, we have not fixed the syllabus in detail but conducted action-based teaching (van Lier, 2007). Action-based teaching is ‘an approach to teaching that puts human agency in the centre of attention’ (van Lier, 2007: 46). Collaborative action-based CLIL teacher development is described below.

Figure 2. The collaborative action-based CLIL teacher development



We initially thought that CLIL should be flexible and contextual, and that it needed to include meaningful activities. It was also necessary for teachers to collaboratively develop their own CLIL teaching knowledge and skills so as to understand how students engage in language learning and meaningful activities. Figure 2 shows the cyclical process of how teachers conduct their teacher development collaboratively through using an action-based perspective, which includes 'a growing emphasis on the processes of learning, particularly those that combine social-interactive and cognitive-reflective work in the classroom' (van Lier, 2007: 47). Teachers plan a CLIL lesson, simulate it with colleagues, teach, reflect on lessons with colleagues or by themselves, revise lessons while discussing with colleagues, and then plan another lesson. This process is conducted on an informal basis because we took account of 'communities of practice' or groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger, 1998). The collaborative teacher development is still an on-going project and the process has been or is being conducted cyclically or spirally. We discuss and share ideas with each other. Collaborative CLIL teacher professional development is essential for our implementation of CLIL and for helping us to make progress in our thinking about teaching in general.

6. Collaborative CLIL teacher education

We developed the CLIL curriculum based on the concept of action-based teaching. The first-year medical students we teach need practical opportunities to use English in their chosen professional fields. We set a CEFR (Common European Framework of Reference) level of B1 (intermediate) as an English proficiency target. As the students still do not have substantial medical knowledge, the CLIL curriculum aims to motivate them to learn English and to raise their awareness of how to learn English for medical sciences. Also, in order to understand the students' needs and develop CLIL teaching methods, we undertook the following collaborative CLIL teacher education programme:

- Regular workshops about CLIL methodology – based on the reading of books and articles, conducting research, and attending seminars, we regularly discussed ways to develop contextualised CLIL activities.

- Materials development – we collected CLIL resources to create CLIL textbooks and make hands-on materials for CLIL classrooms.
- Team-teaching – I participated in all the teachers' classrooms so we could undertake collaborative teaching, and so I could give them ideas, and support their teaching and their students' learning.
- Lesson observations – I videotaped all of the teachers' classroom activities, shared ideas with them, and helped them reflect on their CLIL teaching.
- Reflective feedback – Based on discussion, lesson observations, and materials development, we had regular reflection time to develop better CLIL teaching and activities.

We have one basic agreement about CLIL teaching: teachers will not attempt to force students to speak English. Each teacher thus tries to create a natural context for using English and focusing on learning content, such as health sciences topics. The goal is to support students in learning health sciences through English.

7. Teacher reflection about CLIL teaching

As part of the collaborative CLIL teacher education, we have conducted a teacher reflection programme through discussion, informal talk and lesson observations. This programme may be regarded as action research. During the programme, we have usually had informal talks about CLIL activities in the classroom. The present CLIL project needs to be revised based on each teacher's decision-making and the students' feedback. As the teacher-researcher I decided to research teacher cognition and how CLIL teaching can change or influence teacher cognition about teaching. Teacher cognition about CLIL can play an important role in the successful implementation of CLIL. Collaborative reflection is essential and useful in the process for the teachers to change their cognition.

7.1 Students' feedback

At the end of each term, the CLIL students answer a questionnaire about CLIL teaching. Most students report being satisfied with CLIL classes. For example, in 2011, 76.6% out of 124 students answered 'yes' to the question: Did you like your CLIL class?. This is a possible indicator of the success of the CLIL classes. In order to further explore students' satisfaction additional questions were added to the questionnaire at the end of the first term in 2012 regarding: 1) content learning, 2) language learning and communication, 3) culture or community, and 4) cognition or thinking. Each item was answered using a 7-point Likert scale (7 = satisfied; 1 = not satisfied). The mean scores of the 129 respondents were respectively 5.0 for 1) content learning, 4.9 for 2) language learning and communication, 5.2 for 3) community, and 5.0 for 4) cognition and thinking. Apart from the effectiveness of CLIL teaching, the following student comments to the open-ended survey question suggested that CLIL can provide students with a better community of learning and showed that many students probably have learned useful things through CLIL activities:

- I learned some biological knowledge in this class.
- I thought about nutrition, health, body and so on. It was good.
- I used English and tried to express my feelings.
- I discussed several topics with classmates in English.
- Group work activities were fun for me.

Each teacher's teaching methods as well as class activities have been different and contextualised. The students' feedback is therefore essential for collaborative reflection which consists of discussion, informal talk and lesson observations. Collaborative reflection is not just aimed at analysing the effectiveness of CLIL teaching but understanding how the students think about CLIL lessons.

7.2 How teachers are reflecting

We have used several approaches for reflecting on classroom practices: interviews, lesson observations, discussions and self-reflection reports. All the data has been stored. The topics were varied in the five teachers' reflections. Their attitudes towards teaching CLIL were positive as the following quote exemplifies, but key concerns were related to content knowledge and class activities.

Creating a variety of activities was difficult. Each week, I tried to offer something different, and that matched a student's learning style (whether that was art, math, conversation, music, etc.). On the downside, although I felt the activities were interesting, some of them needed to be fleshed out more; expanded. Preparing the materials was stressful in itself, because I had to both learn the content and create a lesson that would make learning the content engaging.

- Teacher E

Teacher E was especially concerned about lesson planning in terms of content and language. The other teachers had similar concerns. This dual focus should always be considered in reflective processes. In addition to materials preparation, all five teachers had to cope with the tasks or activities offered in class. The following quotes show what teachers thought about class activities.

The students seem to enjoy working as a group in class and having the opportunity to do their own individual work as homework too. Most of them made a very good effort.

- Teacher B

I incorporated different workstations with different tasks, for example, working with an anatomical model and observing a real image of the eye circulation. This worked quite well but I feel it could be improved with handouts that prompt responses.

- Teacher F

All the teachers stated that they liked to organise group work activities, and to have students share ideas with each other. Classroom observation seemed to be effective in helping them to understand how to conduct group work. They expressed giving special care with respect to the selection of topics.

My topics run along a theme, for example from the circulatory system to details of the makeup of blood, so there is a connection between each topic. I am wondering if I should continue to do that or have completely separate topics?

- Teacher G

These teachers' reflections about practical issues related to CLIL were conducted regularly, and were helpful in improving CLIL practice.

7.3 The estimated features of changing cognition

Teacher reflection data has been analysed based on qualitative data analysis (QDA) (Seidel, 1998), in which the data is elaborately processed in a cyclical way consisting of *noticing*, *collecting* and *thinking*. QDA is a simple but complex ethnographic research method resembling a jigsaw puzzle that primarily treats code words as heuristic tools (See Seidel, 1998 for a more detailed analysis of QDA). As Seidel (1998: 14) points out, "To paraphrase Shakespeare, the answers we look for are not in the codes, but in ourselves and our data," I followed the QDA and *noticed*, *collected* and *thought* about the data to analyse teachers' thinking about CLIL teaching. Table 3 summarises the current features of teacher cognition.

Table 3. The current features of teacher cognition

Teaching styles	Their teaching styles have not changed.
Teaching skills	Teaching skills have not greatly developed but become slightly learner-centred.
Class activities	Class activities have gradually changed to focus on content and collaboration.
Language use	Language use focuses on content or meaning and promotes student-to-student interactions.
Materials	A variety of hands-on materials are used in class activities.
Thinking	Teachers tend not to teach but enjoy studying with students.
Community	The relationships between teacher and students are gradually changing.
Communication	Teachers tend to have natural interactions with students in accordance with topics and activities.
Learning content	Health sciences knowledge and its related language are integrated in class activities.
Assessment	We have less clear criteria but try to assess students' understanding and use of knowledge by focusing on language activities.

As for teaching styles, not all the teachers have changed their own teaching styles and approaches, but their teaching skills seem to be changing slightly. When observing their lessons, language use, materials, and communication patterns gradually became more natural and meaningful, compared to their previous lessons. For example, most teachers spoke to individual students about health sciences topics, some of which were not directly related to learning content but included some other familiar topics, such as what they had studied in Anatomy and Cell Biology in Japanese. In such cases, many teachers did not insist on the IRF sequence (teacher initiation – student response – teacher feedback as found in Sinclair and Coulthard, 1975).

The five NS teachers' cognition (or thinking) has changed somewhat and they, generally speaking, highlighted learning content, because classroom culture or community seems to be somewhat different from conventional EFL classrooms. As shown in Table 3, all the teachers apparently enjoyed teaching and learning with their students in most cases. For example, when the students discussed some health sciences facts, such as food chains or nutrition, and did not know some fact, they tried themselves to search the Internet to find some knowledge without asking their teacher. Moreover, most teachers did not ask students any language specific questions, e.g. "What is the past participle of "to catch?"".

QDA can provide evidence through the collaborative reflection process. According to the analysis of teacher cognition, it seems certain that more students came to participate in CLIL activities and that CLIL could contribute to building a positive learning environment. Most teachers have certainly come to enjoy teaching CLIL since the students became actively engaged.

The following positive feedback about CLIL that the teachers gave shows some evidence of their changing cognition:

- I first felt nervous but gradually shifted my mindset to focusing on teaching content from teaching language.
- Students had a more active response to learning in CLIL.
- CLIL changed students' learning style.
- I worked more as a facilitator.
- CLIL is my favourite course.
- Motivated students helped lead some of the tasks.
- Students had the opportunity to do their own individual work.
- Students participated in CLIL.
- I really enjoyed teaching CLIL.

These quotes show that the teachers came to think positively about teaching CLIL, although there are some rather less positive responses as follows:

- It was hard to prepare the materials.
- I wish I would get lots of new ideas in teaching CLIL.

Some teachers complained about the CLIL curriculum in terms of lack of CLIL resources and materials, and they also wanted to take easy ways out to teach English without developing creative classroom activities.

It can be concluded that CLIL has helped change to some extent teacher cognition through teacher reflection, although it is necessary to conduct further longitudinal research. As for my own teacher reflection as the teacher researcher who worked together with five other teachers, this collaborative CLIL teacher education project has influenced my thinking about CLIL in the EFL context. In particular, I have been made aware of different perspectives on teaching and learning in relation to classroom culture. The differences between NS and NNS teachers are not so significant, but more important is what students learn and how they learn content and language in CLIL classrooms. This article thus concludes that EFL teachers can change their thinking about what to teach, but they may not easily change their cognition about how to teach English, as further discussed in the final section.

8. Impact of CLIL on EFL teachers

When observing each teacher's classroom, I usually suggested to each of the five NS teachers that they should not teach everything but encourage or help students to communicate their knowledge to others in English. They agreed with this, but some teachers liked to go for easy tasks or simple topics because they thought their students just wanted to have an English conversation class. Others criticised most students saying that they do not speak English well or that they are shy and thus tended to think that activities should be easier. These assumptions or beliefs are persistent and hard to change. Although CLIL may not actually help change such persistent beliefs, the results partly showed that CLIL could have the potential to influence teacher mindsets.

In the EFL context in Japan, teaching CLIL and focusing on content may require a slightly different approach from what is common practice in Europe. The research results showed that not all the five NS teachers have changed their teaching styles. They still remain language teachers and have been teaching English to Japanese learners as EFL teachers. Moreover, it is not actually clear how they have changed their cognition about teaching English in the course of CLIL implementation, although their assumptions about what to teach have apparently changed. However, through qualitative data analysis based on the collaborative action-based CLIL teacher development consisting of discussion, informal talk and lesson observations, I have found some

qualitative evidence that CLIL has the potential to support EFL teachers in changing their mindsets in terms of teaching skills, class activities, language use, materials, cognition/thinking, community, communication, learning content, and assessment (see Table 3).

CLIL in the EFL context, especially in Japan, may have the potential to help change EFL teachers' conventional mindsets regarding language teaching methods or approaches. Given my own over-35-year teacher career, I have a deep-seated assumption that language learning and teaching in Japan has problems rooted in the education system and that most Japanese EFL teachers think it is difficult to teach English (Sasajima, 2011). Whether NS or NNS, or whether they use English or not in the classroom, CLIL can help change teachers' cognition to some extent: e.g. through creating a good classroom atmosphere; not insisting on using English only in the classroom; helping create language-use contexts; and helping students to think independently.

The notion of CLIL is diverse. As Coyle (2008: 3) argues, EFL teachers who use CLIL in their classrooms should take into account their context, and examine how CLIL can help change some part of EFL teachers' cognition about what to teach and how to teach English. Although it is difficult for teachers to change their beliefs about teaching, by reflecting on teaching and learning in CLIL contexts teachers may begin to change the way they think about teaching and learning, and improve their practice.

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