

JJCLIL

The Journal of

the Japan CLIL Pedagogy Association (J-CLIL)

VOLUME 3. MARCH 2021

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The Journal of the Japan CLIL Pedagogy Association (J-CLIL): JJCLIL Vol. 3

ISSN (electronic): 2434-7620

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Publisher: **The Japan CLIL Pedagogy Association (J-CLIL)**

The J-CLIL Office c/o Shigeru Sasajima

32 Miho, Midori-ku, Yokohama 226-0015, Japan

Toyo Eiwa University

Cover design: **Mark Kavanagh**

Publication Frequency: **Annually**

Publication Medium: **Electronic only**

Publication Website: **The J-CLIL Website (<https://www.j-clil.com>)**

Published Date: **March, 2021**

All research articles in this Journal have undergone rigorous peer review, based on initial editor screening and anonymized refereeing by two anonymous referees.

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Foreword

I believe that CLIL can improve education quality even during the pandemic

On March 3rd, 2021, UNICEF announced that “Schools for more than 168 million children globally have been completely closed for almost an entire year due to COVID-19 lockdowns, according to new data released today by UNICEF. Furthermore, around 214 million children globally – or 1 in 7 – have missed more than three-quarters of their in-person learning.” Transforming our world is part of the 2030 Agenda for Sustainable Development which was adopted by all of the United Nations Member States in 2015. Among its 17 SDGs (Sustainable Development Goals), the SDG 4 (quality education) aims to ‘Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all,’ and reports that enrollment in primary education in developing countries reached 91 percent in 2015 (cf. The Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA)). However, the COVID-19 pandemic has affected the quality of education not only in developing countries but also in developed countries including Japan.

J-CLIL primarily considers the development of integrated learning which focuses on both content and language. Since the onset of the pandemic, most teachers have made efforts to create a better learning atmosphere in online as well as in-person or face-to-face learning. I believe that CLIL approaches in Japan can be more diverse and flexible than European CLIL because CLIL in Japan is still developing and dynamically changing its learning activities. I have gradually realized that online classrooms using ZOOM, Google classroom and other devices such as SNSs and websites are very interesting for me to learn lots of things, although initially I didn’t like having to teach online talk. Accordingly, I have fortunately learned how to use ICT effectively in the classroom, thanks to creating teaching online activities during the pandemic.

Online learning has many benefits including studying via the internet and remote communication, while in-person classes also give students a lot more knowledge, skills and experiences. The pandemic situation has enabled me to be familiar with online teaching for the past one year, and at the same time I understand that in-person meeting or face-to-face communication is fundamentally essential in learning and teaching. It is a great pity that one in 7 children in developing countries has missed more than three-quarters of their in-person learning due to the pandemic in developing countries. The fact is, the world has been suffering from coronaviruses and subsequently many children have been losing the opportunity to get an education. If the pandemic does not settle down within the next few years, we will not be able to maintain the good quality of education for children. In addition,

it may not be easy to change from normal face-to-face communication into a remote virtual classroom. In-person or face-to-face interactions are important in interactive and collaborative learning, which can be closely related to CLIL pedagogies.

When applying CLIL approaches to my online classes at university during the coronavirus pandemic in this academic year, I tried to use both English and Japanese through online communication and interact with students in my classrooms, but I couldn't feel satisfied with online teaching. To be honest, it was actually uncomfortable for me, though it was very easy to teach while using some texts, websites, audio and visual materials as well as giving assignments to the students. I was just sitting at the desk and watching the computer screen and didn't need to travel anywhere. I could invite some guests from other countries easily. Of course, I realized online teaching is very convenient and effective. However, I eventually came to the conclusion that I don't like to teach online. Many students appeared to enjoy learning online and talking in pairs or in groups, but it was somewhat hard for them to share ideas with the whole class by giving opinions or chatting with their classmates or asking the teacher questions. In a way, I am afraid online classrooms cannot take the place of in-person interaction.

Although I like in-person or face-to-face classrooms, blended learning, which can create a combination between offline and online learning, will have potential to cope with a variety of learning contexts as well as different types of students. That is because sociocultural theory suggests that cognitive development varies across societies and cultures and can be influenced by them (Vygotsky, 1978), which is different from Piaget's constructivism that cognitive development is mostly universal across cultures (Piaget, 1964). As you see, CLIL theory depends on sociocultural theory or social constructivism. Although online learning, through which I tried to teach my students, did not work well due to my lack of knowledge and skills of online technology, my students and I could have better learning activities than ever before if we became familiar with online learning. Furthermore, through blended learning or hybrid learning, which is a way of integrating multiple learning contexts using a variety of digital technologies in addition to physical learning contexts, we will be able to develop a more powerful and appropriate community of learning for students. These learning contexts can provide synchronous classrooms that are taught live and remotely at the same time, which will help develop effective CLIL practices.

Regardless of the pandemic, we need to look forward to the future of learning. I believe CLIL is a necessary pedagogy of integrated learning to help young people be globally competent (cf. Boix Mansilla & Jackson, 2011). J-CLIL aims to develop CLIL to be contextualized or adapted to the Japanese context, so the first step is to understand what is happening with CLIL implementation in Japan. To do this, we have created the CLIL research team in 2020 and started to conduct surveys of CLIL implementation in Japan: e.g.,

CLIL curriculum development, CLIL materials development, CLIL studies and research, CLIL pedagogies, and CLIL awareness. We will give an interim report at the 2021 annual CLIL bilingual conference.

The members of J-CLIL has been gradually growing in the past 5 years. Now it has more than 400 members including primary teachers, secondary teachers, university and college teachers and researchers, honorary oversea members, amongst others. Most members are committed to English education, but some members are engaged in teaching other subjects, such as social studies, science, and P.E., and other languages including Japanese, German and Spanish. They are all interested in better language teaching methods which should focus on content learning or sharing meaning, but they do not just insist on teaching language forms such as pronunciation, vocabulary, and grammar. Many of them do want to know more about CLIL pedagogy, especially practical methods and techniques, practical classroom ideas, and materials. They need teacher education programs for CLIL teaching.

Implementation of CLIL teacher education has been my big concern since starting J-CLIL with my CLIL colleagues. There are a number of teacher education programs or courses in Europe or Australia, which I assume are provided for their specific needs and local contexts. However, I am afraid they are not quite so appropriate for Japanese educational needs and contexts. Compared to language, culture and education needs in Europe, these needs in Japan can be quite distinct in terms of history, geography, society, and philosophy. The contents in the programs do not necessarily satisfy most teachers or teacher trainees who teach students that learn under the national curriculum in Japan. So far J-CLIL had two one-week CLIL seminars in Scotland and the Netherlands, both of which were very successful to understand what CLIL is and how it is taught in European contexts (see the JJCLIL Special Issues: Proceedings from the J-CLIL TE Seminar). However, it seemed that they are not helpful for their CLIL teaching practices, although they are useful for their research.

Now J-CLIL is planning to start a CLIL Teacher Education Program for teachers and teacher trainees who can make good use of CLIL approaches for their classroom contexts. CLIL is a diverse, flexible and complex integrated learning of languages including English, Japanese and other languages as well as some topics or themes, which are not necessarily Japanese school subjects like CLIL in Europe. In Japan, I assume that CLIL is part of language learning and CLIL pedagogies are necessary for language teachers. However, CLIL is not always traditional CBI or CBLT because CLIL awareness among teachers and students might be distinct when they are working in the classroom. And CLIL may sometimes be a form of bilingual education or immersion, but it does not always need to be like that. CLIL is, as you already know, the abbreviation of ‘content and language integrated learning,’ which can be just defined as ‘situations where subjects, or parts of subjects, are taught through a foreign language with dual-focussed aims, namely the learning of content, and the simultaneous

learning of a foreign language' (Marsh, 1994). CLIL is a very simple primitive concept in this way. It means it can be very dynamic indeed. Therefore, J-CLIL will create the original CLIL teacher education program which should be contextualized in the Japanese educational context. It is my hope that we will start this project in 2022 when the pandemic settles down. It will hopefully help develop another form of hybrid CLIL pedagogy outside Europe.

JJCLIL vol.3 has seven papers, which generally cover the following topics: teacher collaboration, utilizing social media, students and teachers' perceptions, and the COVID-19 pandemic. Nate Olson suggests that CLIL could help clarify team teacher roles and revitalize the team-teaching situation in junior and senior high school contexts. Narumi Yokono reports on the practice of using project-based learning (PBL) combined with CLIL approaches in the junior college seminar classroom. Barry Kavanagh argues how a CLIL framework can be used to enhance students' awareness of the media and how they can improve their English communication skills through CLIL classroom activities. Kiyu Itoi shows her CLIL practices to employ translanguaging pedagogies. Takashi Uemura et al. describes the implementation of CLIL for manufacturing in an English course for postgraduate engineering students and discuss their reactions. Michael Griffiths clarifies CLIL varieties on a range of areas in Japanese universities: teacher demographics, language teaching experience, teacher viewpoints on CLIL, CLIL experience, and CLIL course profiles. Brian J. Birdsell considers a remote learning CLIL course and reflects on the challenges and future possibilities of using a CLIL approach in the times of COVID-19. I am really thankful to all the authors who have written about CLIL in Japan and hope CLIL practitioners in other countries will be more interested in our activities. In 2021 J-CLIL will also have online seminars and annual conferences so as to share ideas globally.

Shigeru Sasajima
President of J-CLIL

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Editorial

Conflict and controversy are prevalent in society today. Even at this moment we are editing this volume, many things are happening in the world. The violence in Myanmar is one of them. We are facing the situation where we ask ourselves, “What can we do and how?”, all the time. Literally, we live in a “liquid” society (Bauman, 2000), where we cannot be anchored to anything. In such situations, we need to position ourselves in relation to others/social issues and continue dialogues with others who may – or often - have different opinions. In this situation, one thing we can do as CLIL practitioners/researchers is to get our students (and ourselves) prepared for contributing to these dialogues through CLIL pedagogies, and we have been doing so in individual local settings.

As an indicator of this, approximately 2,890 CLIL articles/books were published in 2020 in English or Japanese, which is about 3.5 times more than the amount ten years ago (Google Scholar). One of the key CLIL publications in Japan is *CLIL Pedagogy in Japan* (Sasajima, 2020), which updates CLIL theories, elaborates on CLIL practices in Japan, Europe and beyond, and ends with highlighting CLIL teacher education as one of the areas for further exploration. Another book which might interest readers is *Assessment and Learning in Content and Language Integrated Learning (CLIL) Classrooms* (deBoer & Leontjev 2020). The edited volume describes the shift towards learning-oriented assessment, involving learners and peers as agents of assessment, and focusing more on process rather than product in learning. JJCLIL welcomes manuscripts on teacher education, assessment for learning, and many other current themes in CLIL practices and research.

Seven articles in this volume provide insights into four themes in CLIL. In the first theme, ‘Teacher Collaboration for CLIL in Secondary Education’, the article by Nate Olson explores how CLIL may be used to clarify team teacher roles between Japanese teachers of English (JTEs) and English-speaking assistant language teachers (ALTs) and how to revitalize the team-teaching situation in junior and senior high school contexts. The author reviewed some of the salient challenges of the current team-teaching situation in Japan such as the lack of collaboration and unclear roles between team teachers.

The second theme focuses on ‘Utilising Social Media for CLIL’. The research article by Narumi Yokono reports on a collaborative working project at a junior college, that aimed to help foreigners understand a particular aspect of Japanese culture by using social media. This paper recommends incorporating elements of Project-based Learning (PBL) methodology into the CLIL approach to ensure that students achieve the best possible outcomes such as real-life knowledge, technology and social media savviness, and practical language skills. Barry Kavanagh’s article provides a detailed description of his CLIL course

for enhancing students' media and digital literacy at the tertiary level. Drawing on authentic examples of TV commercials with controversial themes, the author effectively incorporated medial literacy learning into CLIL.

The third theme, 'Students and Teachers' Perceptions of CLIL', includes three articles. Kiyu Itoi shares her autoethnographic research, as a CLIL teacher/researcher, by reflecting on her own journal entries before and through the development/implementation of a translanguaging CLIL course for multilingual students at a Japanese university. Takashi Uemura, Mayumi Tanaka, Katsumi Ichimura, Naritoshi Aoyagi, and Makoto Ikeda discuss reactions of postgraduate engineering students to CLIL instruction. The study showed the participants' positive responses to CLIL through a questionnaire, focus group, and individual interviews. Michael Griffiths demonstrates CLIL practices in Japanese universities by conducting an online survey. The study aims to explore who is using CLIL, how they view CLIL, what their experiences are with CLIL, and how their CLIL courses can be profiled.

The last article contributes to the theme of 'CLIL during the COVID19 Pandemic'. Brian J. Birdsell's article on the adaptation of CLIL classrooms with ICT in the pandemic is timely. By utilising various web-based applications, this article demonstrates how CLIL enables learners to engage in collaborative dialogue and produce creative solutions for social problems in online environments.

The year 2021 is the 10th anniversary of two important volumes in the field of CLIL in Japan: *CLIL: Content and Language Integrated Learning* (Sasajima, 2011) and *CLIL: New Challenges in Foreign Language Education at Sophia University, Volume 1* (Watanabe, Ikeda, & Izumi, 2011). These should be in your bookshelves and have been an invaluable guide during the journey of your CLIL implementation. One more book to be added to your bookshelf this year must be: *Soft CLIL and English Language Teaching: Understanding Japanese Policy, Practice and Implications* (Ikeda, Izumi, Watanabe, Pinner, & Davis, in press), and more publications will follow. The knowledge and practice of CLIL found in these articles and publications has been a force to empower people to collaborate for a better future.

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Teacher Collaboration for CLIL in Secondary Education

Tools for Team-Taught CLIL Implementation

Nate Olson

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Abstract

The purpose of this paper is to provide guidelines for how teachers can collaborate to implement CLIL into their team-taught lessons. Although team teaching between Japanese teachers of English (JTEs) and English-speaking assistant language teachers (ALTs) has been a regular feature of Japanese English education for more than three decades, recent studies show an alarming lack of collaboration between team teachers (Walter & Sponseller, 2020; Yoshida et al., 2017). In some cases, JTEs act as mere “interpreters” for ALTs, and ALTs are used to read scripts as “human tape recorders” or facilitate games as “entertainers” in the classroom. This paper explores how CLIL may be used to clarify team teacher roles and revitalize the team-teaching situation in junior and senior high school contexts. A theory of practice is described based on the author’s collaboration with a JTE to implement a CLIL approach at a senior high school. After negotiating teacher roles, team teachers follow a collaborative CLIL teacher development model based on Sasajima (2013) which includes the five stages of planning, simulating, executing, reflecting, and revising. A series of templates based on recommendations from Ikeda (2016, 2012) and Izumi (2011, 2009) is used to streamline the collaborative process. Explanations and examples of how these templates can be used are provided to inform other teachers interested in collaborating to implement CLIL.

Keywords: Team teaching, CLIL, teacher collaboration, teacher development

1. Introduction

As Japan continues to adapt to the demands of a globalized society, Content and Language Integrated Learning (CLIL) has recently received a considerable amount of attention. Some scholars and educators within Japan are now promoting CLIL as a means to reform conventional approaches to language teaching at all levels of the Japanese EFL context (Morton, 2019; Kavanagh, 2018). CLIL is a radical departure from traditional form-focused approaches such as the grammar-translation method (GTM); its emphasis on content also sets it apart from more recent approaches such as communicative language teaching (CLT). For these reasons, CLIL in the Japanese context has been called “a transformative pedagogy

for better education” (Tsuchiya & Perez-Murillo, 2019, p. 406). However, if CLIL is to be promoted as a viable alternative to current teaching approaches, it first needs to be narrowed down and contextualized for educational settings specific to Japan. In this paper, I will explore how CLIL may help improve the team-teaching situation in Japan. After reviewing the critical literature on team teaching and contextualizing it for CLIL, I describe a set of guidelines and templates which can be used collaboratively to bring CLIL into team-taught classrooms. I also provide my reflections on using these tools and developing as a CLIL practitioner so that they may resonate with other team teachers interested in implementing the approach.

2. Literature review

2.1 Contextualizing CLIL for team teaching

“CLIL” can mean different things in different parts of the world, and there are several important ways in which CLIL in the Japanese context differs from CLIL in its original European context (Llinares, 2019; Kavanagh, 2018; Ikeda, 2013). In Japan, there is no international organization equivalent to the EU to plan language policies across Asian countries. Whereas CLIL in Europe is seen as “proactive (creating situations),” CLIL in Japan is seen as “reactive (responding to situations)” (Coyle et al., 2010, p. 6; Morton, 2019; Tsuchiya & Perez-Murillo, 2019). As Morton (2019) states, “In Japan, CLIL seems to be more of a bottom-up affair and has been left to practitioners at the local level to find their own ways to implement it.” (p. xi). It has been adopted as a kind of grassroots movement within English language education, and not within the framework of teaching content subjects; practitioners “are basically language teachers and not content specialists like in European countries” (Ohmori, 2014, p. 47). Some scholars see it as a response to the demands of globalization and an attempt to “reform the rather conservative and traditional approach to language teaching that Japan has been administering for years” (Kavanagh, 2018, p. 279; see also Sasajima, 2019, 2013; Ikeda, 2016, 2013). Unlike Europe, there are no top-down official CLIL curricula, teaching standards, or guidelines for any educational level in Japan, and “CLIL teacher education urgently needs to be provided for part of professional teacher development, including CLIL methodology, curriculum development, materials development, and practices” (Sasajima, 2019, p. 288).

The terms “soft” and “hard” CLIL (Ball, Kelly, & Clegg, 2015) are often used to distinguish between language-led programs, where language is taught with a content-oriented approach (soft CLIL), and content-led programs, where language is attended to in subject classes taught through an additional language (hard CLIL) (Llinares, 2019). In the EFL context of Japan, hard CLIL where subject lessons are taught by Japanese content teachers is viewed as unrealistic (Ikeda, 2013; Morton, 2019; Kavanagh, 2018). Most Japanese content teachers are not considered to be in a position to teach through the target language, “at least until sufficient linguistic training, appropriate teaching materials and language assistants are

available to compensate for limited teacher language skills” (Ikeda, 2013, p. 33). As CLIL continues to expand beyond its European roots and into Japan, soft CLIL where trained language teachers teach English and content using CLIL is thought to be more realistic as it can be implemented relatively easily (Tsuchiya & Perez-Murillo, 2019; Ikeda, 2013; Ohmori, 2014; Kavanagh, 2018). Morton (2019) argues that Japan should be cautious and firmly establish a soft CLIL approach before considering taking further steps towards hard CLIL: “if CLIL is seized upon by policy-makers at national or supranational levels, it may lead to unrealistic expectations about what can be achieved. If these expectations are not met, this may lead to a backlash, which will ultimately damage aspirations for a more multilingual society and the creation of more opportunities for more citizens” (p. xi). In this way, soft CLIL is thought to offer safer grounds for small-scale tinkering and experimentation. A full survey of the soft CLIL territory will require a review of the potentials and realities of a situation which, although uncommon in Europe, has become an integral part of English language education at the junior and senior high school contexts in Japan: team teaching.

2.2 The potentials of team teaching

The term “team teaching” refers to the act of two or more teachers collaborating for a shared educational goal. In theory, team teaching has a lot of potentials. The old saying “Two heads are better than one” is true if teams are set up properly and each member knows their roles within the team (Richards, 2005). The effectiveness of team teaching has been shown in developing teachers’ teaching skills (Weimer, 1993; Buckley, 2000; Goetz, 2000; Richards & Schmidt, 2010) and having a positive effect on teachers’ ongoing professional development (Bailey, Curtis, & Nunan, 2001; Eisen, 2000; Murata, 2002; Orlander et al., 2000; Robinson & Schaible, 1995). According to Buckley (2000), team teaching allows for the development of new teaching approaches, and team members have the opportunity for professional improvement at three points: 1) while planning, teachers can share ideas and polish materials before class presentation; 2) during the lesson, teachers can learn new perspectives from watching one another teach; and 3) after the lesson, teachers can be critiqued and improved by other team members. Robinson and Schaible (1995) claim that team teaching gives the participating members a supportive environment and describe each team member as a sounding board for sharing the joys and the disappointments of particular class sessions. In this way, team teaching can create a kind of “community of practice” (Lave & Wenger, 1991) that helps teachers to overcome academic isolation and allows them to continually develop as professional educators.

2.3 The realities of team teaching in Japan

In the Japanese context, one early definition of team teaching is that it is “a concerted endeavor made jointly by the Japanese teacher of English and the assistant English teacher in which the students, the JTE, and the ALT are engaged in communicative activities” (Brumby & Wada, 1990, p. 38). Although team teaching is purported to be a “concerted

endeavor” and done “jointly,” recent studies have shown that this is not always the case. A large-scale survey of 1,410 ALTs by Sophia University found that 34% of elementary school ALTs reported teaching by themselves; 28% of junior high school ALTs and 29% of senior high school ALTs reported either teaching by themselves or team teaching separately (Yoshida et al., 2017, p. 13). This may be understandable in the case of elementary school ALTs, as the homeroom teachers they are supposed to work with may not be proficient in English. However, even for junior and senior high school ALTs working with licensed Japanese English teachers, it is sometimes the case that ALTs may do some or all of the teaching by themselves. A more recent survey by Walter and Sponseller (2020) of 272 ALTs and 611 JTEs working at junior and senior high schools revealed that “there is a strong perception *as was found in 41% of responses* that despite being designated as team teachers there is no actual team teaching happening in their situations” (p. 29, emphasis added).

Numerous studies have shown major challenges to team teaching due to confusion over teacher roles and a lack of formal guidelines (see Brown, 2013; Johannes, 2012; Miyazato, 2009; Fujimoto-Adamson, 2010; Gorusch, 2002; Mahoney, 2004; Tajino, 2002). Some researchers emphasize the importance of ALTs’ role as language consultants and cultural informants (Brown, 2013; Miyazato, 2009; Tajino, 2002). However, based on the assumption that ALTs are assistants, it is often observed that some JTEs use ALTs as so-called “human tape recorders” (Yoshida et al., 2017; Hiramatsu, 2005). This ineffective use of ALTs results in frustration and uncooperative attitudes among ALTs, a concern that has been raised by some JTEs (Brown, 2013; Kachi & Lee, 2001). The criticism of ALTs’ role as assistant indicates that ALTs should take a more active role if CLT is to be realized in Japanese EFL education. This has led to its own unique set of challenges, however, as many ALTs become “entertainers” or “game-machines” in the classroom, while JTEs take a more passive role, acting as mere “interpreters” (Miyazato, 2009; Kachi & Lee, 2001). Despite MEXT’s policy that ALTs are “supposed to work along with school teachers for team teaching” (cited in Reed, 2016, p. 84), how CLT is to be integrated into the classrooms and the roles of ALTs have never been satisfactorily described. Ultimately, there are no guidelines or models to follow because “every situation is different” (Ussher, 2017). This has left many teachers confused, conflicted, and with a less-than-favorable opinion of team teaching.

3. Tools for team-taught CLIL implementation

3.1 Background

According to Coyle et al. (2010), it is important that teachers articulate a theory of practice that consolidates their knowledge and beliefs based on evidence from their own teaching experiences. The guidelines and templates discussed in this paper are based on my experiences working with a JTE at a senior high school in Japan. The JTE, Mr. Tanaka (pseudonym), had explicit knowledge of CLIL principles and prior experience of team teaching CLIL lessons. At the time of the study, I was a CLIL novice but had experience

working as an ALT for several years. Data were collected over six weeks for a total of around 12 hours of team-taught lessons. Several instruments were used to capture the collaborative process, including recordings of in-person meetings and classroom activities, written memos, email exchanges, and reflective journals from both teachers.

Although there is no “one-size-fits-all” way of implementing CLIL into team-taught lessons, the following sections are a compilation of methods and models to maximize teacher collaboration for CLIL.

3.2 *Negotiating roles*

Early on, it is important for teachers to discuss and decide on their roles and responsibilities in the collaboration. The **planner** needs to know the content topic well enough to teach it. This may be best coupled with the **content leader** role as it is unlikely that both teachers will know the content to the same extent. The ALT may be best suited for these roles as he or she may already have studied a content topic (e.g., science, history, art) in university and be more capable of finding “authentic” resources for materials intended for native speakers. As noted in Tajino and Tajino (2000), “the 'A' for 'assistant' does not always reflect the reality of many of the team-taught classes. It is often the case that JTEs hand over the class to the ALTs, who then play the leading role” (p. 10). The ALT may also have relatively more free time for planning, as Japanese teachers are well known for their heavy workloads (Nakata & Ito, 2020; Kano et al., 2016; Reed, 2016).

The **feedback provider** needs to give advice on the lesson plans and classroom materials. He or she will have the final decision as to what is feasible for the students. He or she may also be in charge of assessment and creating an examination for the lessons. The **classroom manager** helps facilitate the lessons by making sure students are engaged and following instructions. The JTE may be best suited for these roles as he or she is culturally and linguistically closer to students and has a better understanding of students’ needs in terms of content and language. The example roles and responsibilities discussed here are summarized in Table 1.

Table 1. Example roles and responsibilities

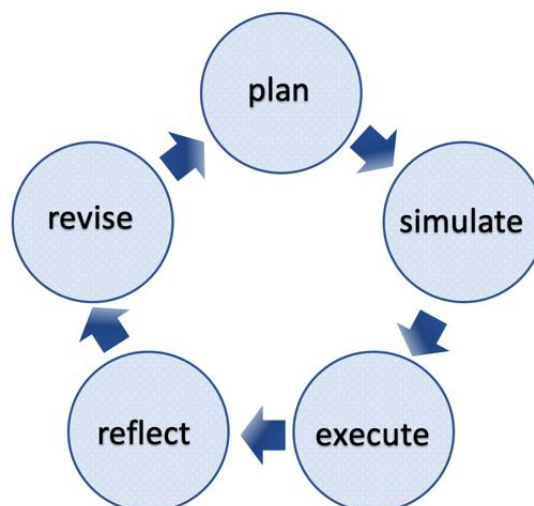
Role	Responsibilities	Recommended
Planner	Preparing lesson plans and class materials.	ALT
Content leader	Leading content instruction in class.	ALT
Feedback provider	Feedback on lesson plans and materials.	JTE
Classroom manager	Keeping students on task.	JTE

At the beginning of our collaboration, the JTE (Mr. Tanaka) and I had a preliminary meeting to negotiate our roles. In my previous experiences with CLT-style classes, where I was urged to get students to communicate in English as much as possible, teacher roles could be decided in an ad-hoc manner, often impromptu in class, as they fit the lesson plans. With CLIL, however, the methodology itself required us to distribute the labor with specific goals in mind. If neither of us was a “content teacher,” who would be responsible for knowing the content? Mr. Tanaka had a full workload, including teaching other classes and attending administrative meetings, so it was decided that I would fulfill the role of planner and leader. Mr. Tanaka would then be a co-learner of the content with students and serve as a model for cooperative learning. Knowing students’ strengths and weaknesses, he would also be able to provide valuable feedback on lesson plans and materials and make suggestions for scaffolding. In this way, CLIL brought a level of intention and clarity to our roles that may have been lacking in a traditional CLT approach.

3.3 Following the collaborative teacher development model

Team teaching has the potential to foster not only professional development but also the development of CLIL practices. Sasajima (2013) used team teaching as part of a trial-and-error process of training new teachers (and himself) in the practice of CLIL methodologies at a Japanese medical university. He found that “CLIL 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” (p. 55). When CLIL is done in collaboration, teachers can experience shifts in their teaching perspectives, increase their efficacy, and develop an ability to overcome challenges. The *collaborative CLIL teacher development model* (see Figure 1) is an action-based process that puts human agency at the center of attention and enables teachers to “collaboratively develop their own CLIL teaching knowledge and skills” (Sasajima, 2013, p. 60).

Figure 1. The collaborative CLIL teacher development model (adapted from Sasajima, 2013)



The aim is to explore “what works” with teachers: how to develop and support collaborative partnerships and practices that use and develop language as a learning tool, build mutually beneficial “bridges” to articulate language and content-subject teaching, and provide a means of realistic, co-constructive professional development. The five steps—plan, simulate, execute, reflect, and revise—are cyclical and may be repeated for each lesson.

The JTE and I were intentional about following this model throughout our collaboration. The specific steps offered us structure without being overly prescriptive. As Ito and Nakata (2019) point out, CLIL practitioners in Japan are continuing to refine their teaching skills while facing many challenges. The model provided us a guideline to explore a CLIL approach as a team and take ownership over our team learning. It promoted sustained engagement in professional development, as it is an ongoing cycle rather than a one-shot deal. Although it may look neat and systematic, in practice it tended to be rather messy and unpredictable. The steps occurred whenever they were possible within the practical constraints of the school and other demands on our time. Compromises were necessary but we both benefited from having an established routine for each lesson. In the following sections, I will outline the procedures of the five steps and provide templates and examples of how they can be used to streamline the collaborative process.

3.3.1 Planning

Planning includes the creation of the lesson plan and materials, as well as a discussion of the details of the lesson such as task procedures, teacher roles, teacher talk, and how to best scaffold for language and content. The planner may find it helpful to use a ***CLIL Lesson Planning Sheet*** (Ikeda, 2016) to keep lessons within the 4Cs framework (see Coyle et al., 2010). The feedback provider will also make sure the lesson is within the CLIL framework by filling out a ***Feedback Sheet*** which includes “a simplified checklist for good CLIL practices” (Ikeda, 2012). Additionally, the planner may find the ***Lesson Plan Template*** useful for allotting time and roles for tasks. Support slides (created using PowerPoint, Google Slides, etc.) may also be helpful to add visual elements to the lessons and scaffold students’ language and content needs. The templates discussed in this section are provided in Appendix A.

In our initial planning meeting, the JTE requested that I provide the content for the lessons. Recent studies have found this to be a common team configuration: JTEs initiate the process, ALTs prepare the materials, and JTEs then approve, edit, or scrap what the ALT prepared (Hougham et al., 2017; Sponseller, 2017). There is a limited number of ready-made CLIL materials in Japan (Nakata & Ito, 2020; Griffiths, 2018), so I decided to design a short CLIL unit from scratch. For the unit theme, I chose the content topic of “human happiness” because I thought it would engage students’ higher-order thinking skills and be relevant to their lives. Although I had no formal education in psychology or philosophy, I was familiar

with various concepts related to human happiness through reading books and articles as well as watching TED talks and documentary films. I attempted to draw upon these “authentic” resources as much as possible for making materials.

Figure 2 shows the *CLIL Lesson Planning Sheet* (based on Ikeda, 2016) used to create the first lesson. As a CLIL novice, I relied on this sheet to ensure I was accomplishing specific objectives within the CLIL framework. Each category of the 4Cs consists of two checkpoints. For example, the ‘Content’ component includes both declarative and procedural knowledge. In Lesson One, this set a goal for students to be able to state the different measurements of happiness (declarative knowledge) and explain the differences between fact and subjective opinion in their understanding of how happiness is measured (procedural knowledge). The ‘Communication’ component requires planning for goals related to language knowledge and skills. In this lesson, for instance, students should be able to notice the differences in English register (casual versus formal) in a text (language knowledge), and the tasks should integrate the four skills (reading, listening, speaking, and writing). The ‘Cognition’ component incorporates goals related to Bloom’s revised taxonomy (Anderson & Krathwohl, 2001): both lower-order thinking skills (LOTS) and higher-order thinking skills (HOTS). Students in this lesson would not only understand and apply a concept they encountered, but also analyze and evaluate it against other concepts. Finally, the ‘Culture’ component includes cooperative learning whereby students collaborate to accomplish lesson tasks in a variety of social configurations (pair work, group work, whole-class discussion), as well as global awareness which strives to connect lesson content to a larger community. In this lesson, students compared the happiness of Japan with different countries according to a Gallup Poll.

Figure 2. Example CLIL Lesson Planning Sheet (based on Ikeda, 2016)

Content 内容	Communication 言語	Cognition 思考	Culture 文化
Declarative knowledge 教科知識 - Happiness categories - Happiness measurements and their statistics	Language knowledge 言語知識 - Casual vs formal English - Reading vocab	LOTS 低次思考力 - Understanding - Applying	Cooperative learning 共同学習 - Pair work - Group work - Class discussion
Procedural knowledge 活用知識 - Categorization - Relationship between happiness and life conditions - Difference between fact and subjective opinion	Language skills 言語技能 - Reading - Listening - Speaking - Writing	HOTS 高次思考力 - Analyzing - Evaluating	Global awareness 国際意識 - World happiness report

The materials were also held accountable to specific CLIL practices by having the JTE fill out a **Feedback Sheet** for each lesson (see Figure 3). In addition to asking for comments on the lesson plan, dialogues and handouts, this sheet includes a “simplified checklist for good CLIL practices” (Ikeda, 2012). The checklist consists of 10 checkpoints, each of which the JTE would fill in either “Yes” or “No” as to whether the lesson accomplished the CLIL practice. A space for observation notes is also provided for each checkpoint, which the JTE was free to fill in where he found the practice and whether or not it was sufficient.

Figure 3. Example Feedback Sheet (JTE’s comments in red; ALT’s comments in blue)

	Checkpoints	Yes/No	Observation notes
1	Equal emphasis is placed on content learning and language learning.	Yes	Casual vs formal English Vocabulary for reading Repetition of grammar
2	Authentic materials are used (e.g. webpages, articles).	Yes	TIME magazine article
3	Multimodal input is given (e.g. texts, graphics, statistics, videos).	Yes	Text, Map, Figure
4	Various levels of thinking skills are cultivated (i.e. LOTS and HOTS).	Yes	Applying, Understanding, Analyzing, Evaluating
5	Diverse tasks are assigned.	Yes	Ranking, Categorizing, Rating, Summarizing, Analyzing
6	Teacher-student and student-student interactions are abundant.	Yes	Pair work, Group work, Class discussion
7	Cooperative learning is encouraged (e.g. pair work, group work).	Yes	Pair work, Group work
8	Scaffolding in content and language is provided.	Yes	Tasks are put in an appropriate order.
9	Elements of cross-cultural understanding or global issues are incorporated.	Yes	World happiness report
10	The four skills are integrated.	Yes	The four skills are covered in the tasks.

Comments on lesson plan (e.g. teacher roles, tasks, class management):

- This is the first lesson after the mid-term exam, so at the beginning of the class I need to return the test and it takes about 5-10 minutes.
- I don't understand how to use slides pp. 9, 10, 11, 13.

Slides 9, 10, and 11 are examples to get students to think of different kinds of happiness for Task 2. This fits in with slide 13, which (in one person's view) is pleasure, passion, purpose.

Comments on dialogues or class handouts:

- As for the Teacher talk, I would like to talk about my son. He belongs to the soccer team at his junior high school, and I like to watch his soccer games. I will attach a photo, so please add it to the Powerpoint.

The lessons were created with these checkpoints in mind, and the JTE’s feedback was taken into account to make further alterations to the lesson plan and materials. Having the JTE’s input on whether there is equal emphasis on content and language, or whether and how to scaffold for content and language issues, was also an important element of checking for

CLIL practices. Although it was not possible to check every box for every lesson, the feedback sheet helped to keep our lessons accountable to a CLIL approach.

3.3.2 *Simulating*

Before executing the lesson, teachers may find it helpful to simulate teacher talk or activities such as skits. According to Izumi (2011), “For CLIL classes to be successful, it will be necessary for teachers to maximize and take advantage of teacher talk” (p. 43, translation mine). A ***Teacher Talk Template*** is provided for planning a conversation (small talk) that introduces a new topic or concept in class (see Appendix B). Although the dialogues may be centered around a conversation between teachers, efforts should be made to include students whenever possible through personalization, asking questions, and soliciting reactions (Izumi, 2009). Teacher talk may also incorporate opportunities for the repetition of target vocabulary and grammar, paraphrasing concepts, and other CLIL practices such as translanguaging (see Ikeda, 2016; García & Wei, 2014).

The JTE and I frequently skipped over the simulating stage. As the planner, I prepared at least one teacher talk for each lesson which I sent to the JTE in advance along with the lesson plan and other class materials. Due to time constraints, however, we were rarely able to do a full simulation of the planned teacher talks. Understanding task procedures and teacher roles in our lesson plans always took precedent. Additionally, we found that simulation carried with it the danger of making our teacher talks feel “prepared,” “unnatural,” and “inauthentic.” Although rehearsing a script or skit may have, in some cases, made us feel more confident and secure, it also may have prevented us from attending to the dynamic situation of the classroom, to read students’ reactions and respond on a moment-by-moment basis. Understanding the key concepts to cover and then refraining from simulation, on the other hand, may have allowed for our responses in class to be more genuine. If we restricted the planned portion of the talk to personalization (for example, showing a personal picture on the support slides or bringing a personal item to class), it seemed to not only elicit more student engagement but also felt more “authentic” when performing the talk. The following is an excerpt from a teacher talk which used personalization to introduce the concept of “the paradox of choice.”

Teacher talk example:

ALT: [...] As countries get richer, we consume more goods and have more choices.

JTE: We have a lot of choices in Japan.

ALT: Really? Where do you have a lot of choices?

JTE: What about cup noodles? [Show picture of cup noodles in convenience store]

ALT: That’s a good point. There are many different kinds of cup noodles. I recently visited the Cup Noodle Museum in Yokohama. [Show picture of ALT in front of Cup Noodle Museum]

JTE: Has anyone been there? [Talk with students]

ALT: I met Mr. Ando. [Show picture of ALT with a statue of Momofuku Ando]

JTE: It's a cup noodle *museum*? What did you learn about cup noodles?

ALT: Well, in the past, there were not so many choices. Back in 1958, there were only a few different kinds. [Show picture of the few original kinds of cup noodles]

ALT: Look at how many there are now! [Show picture of large variety of flavors]

JTE: Every year there seem to be more and more choices. What about in America?

ALT: Well, in American supermarkets, we have many different kinds of salad dressing. There are more than 50 different kinds of salad dressing at most American supermarkets. And cereal. [Show pictures of American supermarket salad dressing and cereal aisles]

ALT: I love cereal. I was so unhappy when I moved to Japan 10 years ago because there were not many choices of cereal. Recently, Japan has been adding more cereal choices. I'm so happy that I can try different kinds of cereal now.

JTE: How many choices of cereal do you need to be happy?

ALT: The more the better! I like having the freedom to choose. The more choices I have, the more freedom. The more freedom I have, the happier I am.

JTE: Really? [To students] What do you think? Does having more choices make you happier? Why or why not?

ALT: Let's think about the good and bad points about having more choices.

3.3.3 Executing

The executing stage includes anything that happens during the scheduled class time. Initially, there may be a “feeling-out process” where teachers learn how to navigate and negotiate their assigned roles. Teachers will need to work hard to read each other in class. Compromises may be necessary depending on the task at hand, and it will be important to be flexible and learn to play to each other's strengths. It will also be important to exercise caution with regard to the amount of teacher talking time during class. Teachers must remember to keep students at the center of the classroom activities. Attempts to maximize the team-teaching aspects of the lessons can work against the CLIL principle of giving students agency and autonomy over their learning. Tajino and Tajino (2000) advocate that “team teaching may be most effective when it is ‘team learning,’ in which all participants, teachers as well as students, are encouraged to learn from one another by exchanging ideas or cultural values” (p. 3). This extends the notion of “cooperative learning,” a key concept in the Culture component of the 4Cs, to not only the students but also the teachers.

Figure 4 shows an example of how the *Lesson Plan Template* was used to outline a lesson on the topic of happiness and minimalism. Although the lesson plans helped clarify our roles for each activity, the lessons themselves did not always go according to plan. This was a

reflection of the realities of the classroom as a living, dynamic situation—not everything can be controlled for. According to Ito and Nakata (2019), “In student-centered classes, there are many cases where a class goes in a different direction than the teacher expected, but those should be embraced as learning opportunities” (p. 172). Tasks that required students to use HOTS were particularly challenging. We were liable to get stuck in the weeds (perhaps another more formal expression might be better?) if students were not given enough time and language needs were ignored for HOTS tasks. We eventually learned that “less is more” with regards to class activities; students usually benefited from taking more time for tasks even if it meant not covering as many topics.

Figure 4. Example lesson plan

Time	Activities	Roles	Notes
0-15	Warm-up: Mindmap [activating; applying, processing, output]	JTE and ALT introduce mindmap activity; Ss discuss Materialism and Minimalism in groups and think of definitions and examples; JTE calls on groups to present their idea; ALT writes and connects ideas on board	Review with Power Point slides (PPS) 1-15
15-30	Task 4: Packing party [applying, evaluating, processing, output]	JTE and ALT introduce idea of a packing party, Ss evaluate what things need and don't need and compare with partner; JTE puts Ss into pairs, calls on Ss to present their ideas, ALT walks around to scaffold, writes Need/Don't need on board	PPS 16-18
30-40	Teacher talk [activating, understanding, input]	JTE and ALT talk about minimalism and digital minimalism in a planned conversation, occasionally ask Ss questions. Ss listen and respond to questions.	PPS 19-29 Minimalist Clutter Declutter Essential Physical/Digital
40-55	Task 5: Discussion [activating, input, analyzing, evaluating, processing, output]	ALT reads questions, JTE puts students into groups, Ss discuss their ideas in groups; ALT chooses groups to present ideas, JTE writes ideas on board.	PPS 30 (if time) Netflix documentary "Minimalism" 53:00-54:00 (if time) PPS 31-35 Social media and depression statistics

3.3.4 Reflecting and revising

Reflecting and revising are not necessarily discrete stages, nor do final reflections and revisions happen immediately after each lesson. However, it is recommended that teachers make a routine of reflecting together after each lesson. According to Walsh and Mann (2015), “Developing experiential knowledge is best supported by collaborative discussion where thoughts and ideas about classroom practice are first articulated and then reformulated in a progression towards enhanced understanding” (p. 356). Collaborative reflection offers a much-needed opportunity for sharing the excitements as well as the perplexities and disappointments of what happens in the classroom. This can be done in-person or through

exchanging written reflections. A *Reflective Journal Template* is provided to help guide teachers' reflections on the preparation and execution of each lesson (see Appendix C). It may also be helpful to consider the CLIL and team-teaching aspects of lessons; write down the episodes that went well, as well as ideas for improvement. Especially at the beginning, this will be a beneficial way for teachers to understand each other and improve on collaborative efforts.

The JTE and I wrote and exchanged reflections via email after each lesson. Some of the major issues continued over email exchanges, while others were eventually addressed in-person during a preparation meeting. We were able to make revisions as a result of repeating this cycle and our teamwork and ability to implement CLIL practices improved. As the initial dissonance between us harmonized, there may have been less need for reflection and revision. What began as major points of contention in the early lessons turned into minor incidents over time. The excerpts below are examples from our reflective journals; the JTE from Lesson One and the ALT from Lesson Five.

Reflective journal examples

JTE: [...] What teachers wanted to do might have been too much for 55 minutes, so we should think more about how much we will be able to cover in one lesson. I think teachers should be flexible about this. Teachers should be able to guess how the lesson will go and what students' reactions will be like. When students work on tasks that require cognition, they should be given enough time to think about the questions. After students get some ideas, they may have some difficulty in expressing the ideas in English. Therefore, some scaffolding in terms of language will be needed.

ALT: For this lesson, the teacher talk felt more comfortable and less awkward compared to previous lessons. The students also seemed more engaged. They particularly enjoyed the JTE's inclusion of a personal picture of his desk in the faculty room and the pictures I included of my desk and room. Personalizing the concepts and sharing our own experiences with students makes these talks much more interesting. I also believe that we have settled comfortably into our roles in the classroom. The JTE is normally in the classroom management role. He calls on students and prompts them for answers. I am normally in the discussion leader role. I help to rephrase the students' English, provide vocabulary, and write paraphrased answers on the board. However, there is still some ambiguity around who should introduce tasks. In some classes, the JTE takes the lead to set up the tasks, and in others, such as this lesson, it seems that I take the lead to introduce tasks. For future lessons, it would probably be best to be more explicit about roles for task introductions.

4. Conclusion

To further contextualize CLIL for the EFL context of Japan, it is important to reflect and consider ways in which it may be adapted to existing teaching situations. Team teaching holds much promise, but only if team teachers can learn to become better collaborators. In this paper, I reviewed some of the salient challenges of the current team-teaching situation in Japan such as the general lack of collaboration between team teachers and unclear teacher roles. I then articulated a theory of practice (Coyle et al., 2010) for a team-taught CLIL approach based on my experiences working with a JTE to implement CLIL. Following a collaborative teacher development model (based on Sasajima, 2013), which repeated a cycle of planning, simulating, executing, reflecting, and revising; as well as using a variety of templates (based on Ikeda, 2016; Ikeda, 2012; Izumi, 2011; Izumi, 2009) which held teachers accountable to CLIL practices, team teachers were able to clarify their roles and responsibilities in the collaboration and streamline their collaborative efforts to implement CLIL. Rather than simply reading scripts as a “human tape recorder” or facilitating communicative games as an “entertainer,” the ALT had the opportunity to become a more fully-fledged content teacher in charge of planning and leading lessons. The JTE also had the opportunity to downplay his lack of time due to other school responsibilities and play to his strengths as a classroom manager and feedback provider in scaffolding for students’ content and language needs.

Although I hope this paper may help inform other team teachers interested in CLIL, the theory of practice and collaborative planning tools described here need to be tested and further refined through research on other teachers conducting team-taught CLIL lessons. This should include not only junior and senior high school contexts where JTEs and ALTs regularly team teach together, but also elementary school contexts where homeroom teachers increasingly team teach with ALTs. Ideally, teacher collaboration for CLIL should also involve Japanese subject teachers. Further research into the combined collaborative efforts of teachers will be necessary to understand how team teaching can be optimized for CLIL, and CLIL for team teaching, in the Japanese EFL context.

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Appendix A

Lesson _____

Class date: _____

CLIL Lesson Planning Sheet

Content 内容	Communication 言語	Cognition 思考	Culture 文化
Declarative knowledge 教科知識	Language knowledge 言語知識	LOTS 低次思考力	Cooperative learning 共同学習
Procedural knowledge 活用知識	Language skills 言語技能	HOTS 高次思考力	Global awareness 国際意識

(Ikeda 2016)

Lesson Plan

Time	Activities	Roles	Notes

Lesson _____

Class date: _____

Feedback Sheet

Please fill out this sheet to ensure the lesson is within the CLIL framework.

Simplified checklist for good CLIL practices (Ikeda 2012):

	Checkpoints	Yes/No	Observation notes
1	Equal emphasis is placed on content learning and language learning.		
2	Authentic materials are used (e.g. webpages, articles).		
3	Multimodal input is given (e.g. texts, graphics, statistics, videos).		
4	Various levels of thinking skills are cultivated (i.e. LOTS and HOTS).		
5	Diverse tasks are assigned.		
6	Teacher-student and student-student interactions are abundant.		
7	Cooperative learning is encouraged (e.g. pair work, group work).		
8	Scaffolding in content and language is provided.		
9	Elements of cross-cultural understanding or global issues are incorporated.		
10	The four skills are integrated.		

Will any additional scaffolding be necessary in terms of CONTENT?

Will any additional scaffolding be necessary in terms of LANGUAGE?

Other comments:

Appendix B

Lesson _____

Class date: _____

Teacher Talk

Plan a conversation (small talk) that introduces the main topic or concept of the lesson. You may want to start by finding out what students know about the topic. After briefly introducing the topic, consider asking students to talk in pairs to activate their prior knowledge. Include opportunities for students to join in the conversation. For the dialogue, consider using repetition and rephrasing for the target vocabulary and/or grammar. Gestures, props, and personalization may also aid in student engagement.

ALT: _____

JTE: _____

ALT: _____

JTE: _____

ALT: _____

JTE: _____

ALT: _____

JTE: _____

ALT: _____

JTE: _____

ALT: _____

JTE: _____

Appendix C

Lesson _____

Class date: _____

Reflective Journal

To be completed after the class. You do not need to answer all or any of the listed questions. They are only for your reference. Please be open and honest in your reflections.

Preparation

What was your role in preparation?

Did you feel you were able to fulfill your role?

What (if anything) needs improvement for next time?

Execution

What was your role in class?

Did you feel you were able to fulfill your role?

What (if anything) needs improvement for next time?

CLIL

What went well with this lesson?

What (if anything) needs improvement?

Team teaching

What went well with this lesson?

What (if anything) needs improvement?

General comments:

CLIL and the Social Media

Using Project-Based CLIL and Social Media to Contribute to Local Tourism: Integrating Content, Language, and Technology

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Abstract

Project-based learning (PBL) is an overall approach to the design of learning environments. In project-based learning, students engage in real, meaningful problems that are important to them (Krajcik & Blumenfeld, 2006, p.318). PBL is receiving a great deal of attention in the world of education as an alternative to passive learning and rote memorization. In PBL classrooms, students are provided with problems that they must solve together in groups. Given that Content and Language Integrated Learning (CLIL) is not just concerned with teaching content in a target language but also with students' active and cognitive engagement, PBL can be suitably matched with CLIL. This teaching method has students engaged in projects in which they must solve authentic problems and produce results that matter in real life. This paper reports on a collaborative working project that took place in a seminar class at a junior college in Kanazawa, Japan. The project aimed to help foreigners understand a particular aspect of Japanese culture, namely how to worship at shrines. Because young students today are digital natives and social media is ubiquitous in society, these services—including Facebook, Instagram, and YouTube—have been used as platforms to disseminate information. Their skills at using these platforms were useful in realizing the goals of this project. The project ended with shrine tours for the foreign visitors in which the local students worked as guides. Through the project, the students gained in-depth practical experiences and technological competencies that gave them confidence in achieving future goals.

Keywords: Project-Based Language Learning (PBL), global mindset, collaborative working project, social media, authenticity

1. Introduction

The wave of globalization over the past few decades has made it possible to easily connect with people on the other side of the world. In the subsequent promotion of cultural exchange, education has been inevitably affected as well. In Europe, language education has become a vital tool in both uniting people and making them more competitive in the job market. In Asia, there is growing interest in lingua francas such as English and Chinese (Sasajima, 2011).

With a decline in its birthrate and an aging population, however, the domestic demand is not expected to grow in Japan. The development of "global jinzai (global human resources)" has been an urgent task in the field of pedagogy, especially in higher education. What does it mean to be "global human resources"? According to Shibata (2015), the development of global human resources was initially requested by the industrial sector in Japan. Thereafter, it gradually shifted to universities when both parties entered into a partnership in 2007. The Ministry of Economy, Trade and Industry handed over the initiative to the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Project for Establishing University Network for Internationalization (the Global 30 Project). This collaboration strengthened the global expansion capabilities of universities and the Top Global University Project was subsequently developed.

MEXT (2012) defines global human resources as constituting "various elements such as not only language skills, but also mutual understanding, value creation, and social contribution awareness" (p.2). The Ministry of Internal Affairs and Communications (2017) defines them as "human resources who can play an active role in various fields with rich language skills, communication skills, independence and positivity, and a spirit of cross-cultural understanding, based on their identity as a Japanese and a deep understanding of Japanese culture" (p.13). Chaired by the Chief Cabinet Secretary and with the Minister of Foreign Affairs; the Minister of Education, Culture, Sports, Science and Technology; the Minister of Health, Labor and Welfare; the Minister of Economy, Trade and Industry; and the Minister for National Strategy as members, the Global Human Resource Development Promotion Council was established in 2011. The Council (2011, p7) noted that in order to live in the era of globalization, it is necessary that global human resources be developed with the following three elements.

1. Language and communication skills.
2. Independence and positivity, a courageous spirit, cooperation and flexibility, and a sense of responsibility and purpose.
3. Cross-cultural understanding and a deep sense of one's Japanese identity.

Having an education across a wide variety of fields, deep expertise, problem discovery skills, teamwork abilities, leadership potential (i.e., being able to bring together a group of different people), an understanding of public nature and ethics, and media literacy are also important elements necessary for living in a globalized world (Global Human Resource Development Promotion Council, 2011, p. 7).

This project aims to cultivate these qualities by having students engage in hands-on tasks using English. This is an opportunity that few students have access to in their daily life in Japan. In the next section, it is posited that Project-Based Learning (PBL) is an ideal vehicle for achieving this goal.

2. The rationale behind PBL

PBL is a student-centered pedagogy that focuses on active learning. In project-based learning, students engage in real, meaningful problems that are important to them (Krajcik & Blumenfeld, 2006, p.318). John Dewey (1938) initially promoted the idea of PBL based on the principle of “Experiential Learning.” Mohan (1986) later defined it as the integration of content and language through participation in social practices. Gaining experience in social settings is a key feature of PBL and it is suited to a mode of education intended to foster the aforementioned global mindset. Encountering and experiencing other cultures in some way or another is vital in the process of this project. The household phrase, “Tell me and I forget. Teach me and I remember. Involve me and I learn,” allegedly attributed to Benjamin Franklin, is a clear illustration of the upsides to PBL. It endorses the fact that people learn best when they are engaged in hands-on experiences.

Today, the importance of PBL is gaining more recognition and attention in the world of education as an alternative to passive learning. The world we live in is changing at a remarkable speed. No longer is just the acquisition of knowledge enough for academic success; students need to know how to use their knowledge and skills by thinking critically, applying their knowledge to new situations, analyzing information, comprehending new ideas, communicating, collaborating, solving problems, and making decisions. In addition, soft skills are said to have become the new hard skills. Without collaboration skills or a spirit of teamwork, it seems that no one can succeed in the real world. Buck Institute for Education (2015) notes the following as essential project design elements necessary for a successful project that maximizes student learning and engagement.

1. Key knowledge, understanding, and success skills: The project is focused on teaching students key knowledge and understanding derived from standards, and success skills including critical thinking/problem solving, collaboration, and self-management.
2. A challenging problem or question: The project is based on a meaningful problem that must be solved or a question that must be answered at the appropriate level of challenge for the students. It is operationalized by an open-ended and engaging question.
3. Sustained inquiry: The project involves an active, in-depth process over time in which students generate questions, find and use resources, ask further questions, and develop their own answers.
4. Authenticity: The project has a real-world context and uses real-world processes, tools, and quality standards. It makes a real impact and is connected to students' own concerns, interests, and identities.
5. Student voice and choice: The project allows students to make choices about the products they create, how they work, and how they use their time. The process is guided by the teacher, depending on their age and PBL experience.
6. Reflection: The project provides opportunities for students to reflect on what and

how they are learning, and on the project's design and implementation.

7. Critique and revision: The project includes processes for students to give and receive feedback on their work, in order to revise their ideas and products or conduct further inquiry.
8. Public product: The project requires students to demonstrate what they learn by creating a product that is presented or offered to people beyond the classroom.
(Buck Institute for Education, 2015, Essential Project Design Checklist)

The integration of language into PBL is called Project-Based Language Learning (PBLL). Beckett (2006, p5) noted that PBLL was developed as an extension and continuation of various concepts in L2 learning, namely “experiential learning, learner autonomy, cooperative learning, and critical thinking.” Stroller (2009, p. 24) notes the following conditions that make PBLL classes successful: (a) an orientation toward both the product and the process, (b) at least to a certain extent be defined by students, (c) classes last longer than one period, (d) all language skills are integrated, (e) content and language learning are integrated, (f) group and individual work are involved, (g) students are given the responsibility for their own learning, (h) the end result is product-based, and (i) students are allowed to reflect on the process and the product.

We observe that these definitions coincide with the aims of Content and Language Integrated Learning (CLIL). Beckett (2006) regards content-based second language education as one of the language-related areas in which PBLL is especially valuable. Surmont et al. (2014, p. 58) list the benefits of CLIL as follows. It allows students to:

1. Develop intercultural communication skills.
2. Prepare for internationalization.
3. Provide opportunities to study content from different perspectives.
4. Access subject-specific target language terminology.
5. Improve overall target language competence.
6. Develop oral communication skills.
7. Diversify methods and forms of classroom practice.
8. Increase learner motivation.

CLIL can be expected to foster not only English skills but also a diverse set of skills and abilities required for a global-minded person. It is “an approach corresponding to a new society that effectively provides learners with knowledge and skills suitable for a global society” (Sasajima, 2011, p. 13). The objectives of English education at every level should increasingly be aligned with the development of communicative competence skills, which will prepare learners for various fields in the global community.

The section below presents an outline of a project in which students worked as a team in an

authentic environment to help a local community. The project thus produced results that matter in real life.

3. The project

This section provides the specifics of the class, the project schedule, and its goals.

3.1 Participants

The participants engaged in the project were second-year students in the Business Administration Department of a junior college located in Kanazawa, Japan. They were part of a seminar course that had the objective of deepening intercultural understanding and promoting intercultural communicative competence. The 19 students of the 2019 seminar course were divided into four groups across different projects related to the above objectives. The group in this study consisted of five women. Their English proficiency level was the pre-second grade of “the EIKEN test in Practical English Proficiency” in Japan (approximately equivalent to CEFR A2 level). Business English is a compulsory subject in the first semester of their first year, and most of them continue to take English classes (e.g., Business English, English Conversation, TOEIC) in their second year.

3.2 Objectives

As mentioned above, each group was requested to come up with a cross-cultural-themed project idea. One of the students in the group in question worked part-time as a maiden at a shrine. She noticed that foreign visitors did not understand some of the unwritten rules and manners that are to be followed when worshipping at shrines. She thought it would be useful to develop a tourism opportunity for foreign visitors to acquaint themselves with how to worship at a Japanese shrine. Instead of merely enjoying the beautiful shrines as a sightseeing experience, tourists would be able to understand Japanese culture on a deeper level. In recent years, collecting “Goshuin” (red ink seals) and beautiful handwritten calligraphy from Shinto shrines has been in vogue; the student thus reasoned that incorporating this activity into the tour would add an appeal to visiting the shrines.

The University Consortium Ishikawa (UCI) (established in 2006 as an association of tertiary education institutions with a view to improving higher education and contributing to the development of academics, culture, and industry in Ishikawa) invited students to apply for the “Inbound Tourism Promotion 2019 Challenge Project.” The Ishikawa prefecture had put much effort into further increasing the number of inbound visitors. According to UCI (2019, p2), the number had grown 2.7 times to nearly one million a year since the opening of the Hokuriku Shinkansen bullet trains between Tokyo and Kanazawa in 2015. Tourists from China or other Asian countries used to account for a large portion of the total number of inbound tourists to Ishikawa; however, during these five years, the ratio of tourists from Western countries to the total number of tourists from overseas increased from 20% to 30%.

The “Challenge Project” was intended to tap into the free-thinking ideas of students as well as to support practical learning initiatives from the planning to the operational stages. The project ultimately wanted to further increase the number of inbound tourists and increase their satisfaction.

The objective of the above-mentioned project was to conduct tours for inbound tourists in a bid to give them the opportunity to learn how to pray properly in Japanese Shinto shrines and collect *Goshuin*. Concomitantly, they also planned to produce promotional materials for the tours as well as an instruction video and leaflets for non-Japanese viewers by drawing on a variety of social media.

3.3 The start of the project

The project started in the spring semester of 2019 with interviews with the staff of four shrines and foreign visitors in order to grasp the current situation. First, the students asked the shrine staff how they felt about foreign tourists’ visiting the sites and what problems they experienced with them. The responses were that they welcomed foreign tourists and felt grateful for their visits. On the other hand, they did experience some problems, such as the bad manners of some tourists (e.g., littering, not taking their shoes off, etc.). The students also found that, despite these problems they were not willing to put up English signs in the precinct as it might spoil the shrines’ atmosphere. The students then interviewed several foreign tourists and discovered that they found it difficult to visit shrines because they did not know the rules and manners they ought to follow. Even when they tried to find out these rules for themselves online, there was no Wi-Fi available nearby. After conducting these interviews, the students felt that they should bridge these two conflicting points of view, thereby benefiting both sides. It could be said that this process gave the students a real-world intrinsic motivation.

3.4 The project activities

The predominant feature of this project was handing over autonomy to the students. They decided which shrines to select, where to shoot the film, and the roles they would play in it according to their strengths and talents. These roles included directing, acting, and operating the camera. The shooting was carried out on a hot summer day at a shrine selected as one of the four destinations of the tour. Filming was done according to a script they had prepared beforehand. They then edited and created two different videos with subtitles: a shorter one for the promotion of the tour and a longer one that included instructions on how to pray at a Shinto shrine. The former was uploaded onto Instagram and the latter onto YouTube (see Appendix A) respectively. In addition, the tour details were uploaded to Facebook in order to recruit participants. In addition, offline materials to share the information, such as posters (see Appendix B) and leaflets (see Appendix C) were also made. The posters were distributed across various locations including stations, tourist information centers, guesthouses, and

hotels. Leaflets illustrating how to worship in a shrine were distributed to all four shrines so that it was not only the tour participants who would benefit and other foreign tourists could also obtain information on the spot.

As a try-out, a familiarization tour was conducted prior to the official start on October 6, 2019, with the participation of seven international students studying at the university (Taiwanese, Chinese, and Indonesian) and three Australians who were staying in the city to study the Japanese language. The Japanese students operated as guides and demonstrated some of the rules, including how to ritually cleanse one's hands and mouth with water when visiting shrines, how to clap hands and bow in front of the main hall, and how to draw an oracle after praying. The tour was successfully completed, and the participants were all pleased to obtain hands-on knowledge and experience a new aspect of Japanese culture. "I felt so happy to see so many beautiful shrines and also learned much about Japanese culture," wrote a Taiwanese participant, and an Australian commended the tour, saying "It was wonderful to learn about the tradition of *Gosyuin* and temple and shrine rules. I really love the writings and stamps inside the *Gosyuin*. I did not expect them to be so beautiful."

The actual tour was held on October 14, 2019. Although some people had applied for the tour via Facebook, there was growing concern that the turnout would be very small. The students did their best to encourage tourists to join the tour with a poster they held up at the station as well as near the venue. As a result, a total of 14 foreigners joined. They were from Australia, India, the Netherlands, Britain, Vietnam, and France. Based on the opinions from the questionnaire respondents of the previous tour, a more detailed explanation of the history and features of each shrine was added. An actual *Goshuin* was shown to the participants before the start of the tour to give them an idea of what it looked like. At the end of the tour, a second questionnaire was conducted. It revealed that the tour was a great success and the respondents called for more tours like this in the future (see Appendix D for the result).

4. Project outcome: What students learned

It is difficult to properly assess a student's performance in PBL because their learning is multimodal and any assessment is formative. There may be some end-products, but the evaluation should not be based on those alone; instead, every activity that students are engaged in should be included in the assessment. To discuss how to best assess the outcome of PBL, however, lies outside the scope of this paper and comprises the subject of another study. In this case, all that can be said is that the project met the following standards of Stroller (2009) given above.

The following section examines how the students' learning was developed, focusing on the following three elements: language skills, the use of social media, and students' autonomy and collaboration.

4.1 Language skills

In the project, the students had many opportunities to use English in an authentic situation. Creating publicity materials such as videos, posters, and leaflets required them to deal with authentic materials, which were distributed and put to use both online and offline. They were also exposed to the authentic use of English through interviewing inbound tourists and working with them as guides. In addition, they had the exclusive opportunity of listening to a priest explaining Shintoism to the participants of the tour. Table 1 shows how English was used across the three different phases of the project. In the preparation stage, most of the activities involved writing except for the interviews with the tourists. During the tours, however, the activities were centered on speaking and listening. The only limitation was that the three presentations made both inside and outside the university to report on the project were given in Japanese due to particular circumstances.

Table1: Activities in which English was used in authentic contexts.

	Activities in which English was used in authentic contexts	Writing/ reading activities	Speaking/ listening activities
pre- tour	Interviewing tourists	✓	✓
	Making closed captions for the instructional video	✓	
	Making instruction leaflets	✓	
	Making posters	✓	
	Making and editing a promotion video	✓	
	Promotion through Instagram	✓	
	Promotion through Facebook	✓	
	Writing the history and features of the shrines	✓	
	Making a questionnaire	✓	
during the tour	Monitor tour: Explanation of each shrine		✓
	Explanation of how to worship		✓
	Responding to questions from the participants		✓
	Tour: Explanation of each shrine		✓
	Explanation of how to worship		✓
	Responding to questions from the participants		✓
	Listening to the priest's explanation about Shinto		✓
post- tour	Giving presentations		✓ (Japanese)
	Writing a report	✓ (partly in English)	

The vocabulary they learned throughout the course of the project can be divided into two categories: (a) general-purpose vocabulary for practical use (i.e., language used for “announcements and invitations to the tour” or “asking participants’ opinions” etc.), and (b) content-specific vocabulary related to the shrine and Shintoism, such as “offertory box,” “priest,” “precinct,” “rinse mouth,” “worship,” etc. The former was mainly used in the form of writing during the preparation stage. The latter was used while preparing the materials and during the tours, and students used it across all their writing, speaking, and listening activities. Students learn best when they are actively involved in situations where they are required to use words and expressions out of necessity. One of the reasons that Japanese students lack English speaking skills can be due to having few or no opportunities of using the language in their daily lives. Creating such opportunities is the least a teacher can do. People tend to wait until they are good enough to use a certain language to avoid awkward moments arising from their poor command of it, but as Marsh (2000) notes, we cannot wait until we are good enough. Instead, we should use the language as a tool for communication at the earliest opportunity. In PBL, students are put in situations wherein they need to use language to fulfill their objectives. Using language to learn is as important as learning to use a language and thus they are able to learn from their mistakes. Experiencing real-world situations in which the right words do not come out naturally could be very motivational.

4.2 The use of technology and social media

A factor that undoubtedly led to the success of the project was the use of social media. Condliffe et al. (2017) consider the capacity of technology to enhance the effectiveness of PBL implementation. The world in which today’s students live is inseparable from social media. In educational contexts, videos are often used in class. Students, however, rarely have the opportunity of creating them. For the students who participated in this project, it was their first experience in creating a video. They began by planning, then acting, shooting, and editing the final footage using Adobe Creative Cloud software. Slater and Beckett (2019) note that students are given natural contexts for learning appropriate technology for authentic purposes in PBL and go on to say that “technology can explicitly facilitate the learning of content while developing the language needed for the various tasks.” (Slater & Beckett, 2019, p. 2).

In the project, two videos were created: one video for promotional purposes and the other for instructional purposes of teaching how to worship at Japanese Shinto shrines. The former was uploaded to Instagram and the latter to YouTube. In addition, the tour was promoted via Facebook. Although they also made posters and distributed them across various places in the city, it was later found that more participants applied to join the tour through Facebook. By using social media, students realized that their activities had real-world effects that actually mattered. From this point of view, the use of social media should be integrated more into education, particularly language education. Pitura and Berlinska-Kopec (2018) note that

“Teachers should not resist something that has already become a fact—it is worth giving students the freedom to acquire and consolidate knowledge with technology, at the same time teaching them how to use it effectively and wisely” (p.49). Lastly, the impact of social media on the tourism industry is huge; it is now all too common for people to do research online before deciding on their travel destinations. In addition, tourism is an experiential market: tourists want to participate in activities, not merely watching them (Kim, 2000; Robson 2020). It is hoped that the short videos created in this project attract tourists’ attention and arouse interest in Japanese culture.

4.3 Students’ autonomy and collaboration

By having to think and act on their own accord, the students were able to learn and grow from their experience. It was the teacher’s pleasure to see them quickly acquire the necessary skills in each phase and perform their full potential in fields in which each had a unique strength. One student in particular quickly learned the ropes in handling the editing software. It was very time-consuming, and it took many days to edit and add music and subtitles to the videos, but the result was very good. One student learned how to upload the videos to Facebook, Instagram, and YouTube. Another student was a good communicator; during the tours, she took the initiative to explain how the tourists should wash their hands and rinse their mouths at the *chozuya* (purification trough) and worship in the main halls. Each student knew what they excelled in, voluntarily showed leadership in each task, and contributed to the team.

One disadvantage—if any—of this type of project is that even though teachers give a lot of autonomy to students, there still remains plenty of work for them in organizing and supervising each stage. Particularly in Japan, where students are not accustomed to being given full autonomy from the beginning, reactive autonomy might be a good starting point. In reactive autonomy, “learners do not create their own direction, but once a direction has been initiated, they will be able to organize their resources autonomously in order to reach their goal” (Johnston et al., 2014, p. 209). This project had a duration of three to four months, but by shortening the period and limiting the scope, this kind of project would be easier to manage.

5. Self-reflection of students

After the project, the self-reflection questionnaire (see Appendix E for the detailed results) was administered to the students to reflect on the project. This is a vital part of PBL. For Question 1 (“Do you feel that you have learned or gained new awareness through the activities?”), four out of five students answered “I strongly feel this way” with the remaining one choosing “I feel this way.” In the answers to Question 2, in which they selected the abilities they acquired through the project, the average score of only two items was lower than four (average 4.26). They included (5) “Planning ability” and (7) “Communication

ability.” Item (12), “Global mindset (the ability to understand the thoughts and positionalities of foreigners)” had an outstandingly high average score of 4.8, showing that the project helped them achieve a global perspective, even if it was only in a small way. One of the students said, “I realized that what we take for granted was not taken for granted by foreigners, and it was not enough for us to give a pre-planned explanation but to rather answer their questions one after another as required.” Another said, “The scenery, buildings, and customs of the shrines are commonplace from our own point of view, but they are extraordinary and surprising for foreigners.” This shows that PBL could be a good vehicle for developing a global perspective. The following are other comments made by the students: “I learned a lot of things that I would not have been able to learn easily in our daily life. I think the abilities we acquired through the project, such as talking to strangers when recruiting participants without being shy and the desire for constant improvement will be useful in my future work life.” Another student suggested, “I think I learned the importance of planning and carrying out the project systematically. There were a lot of things to do and I honestly did not know where to start, but it was good that we were able to consult with everyone and carried it through.” One of Stroller’s (2009) criteria for PBL is that it should “result in a product,” and that the tangible outcomes give the students pleasure and confidence. With the use of technology, students were able to create end-products such as videos and leaflets. One student noted, “I was very happy to see the posters and activities we worked on taking shape.” Another said, “When the things I had wanted and planned to do actually took form and succeeded, I felt very happy.”

6. Conclusion

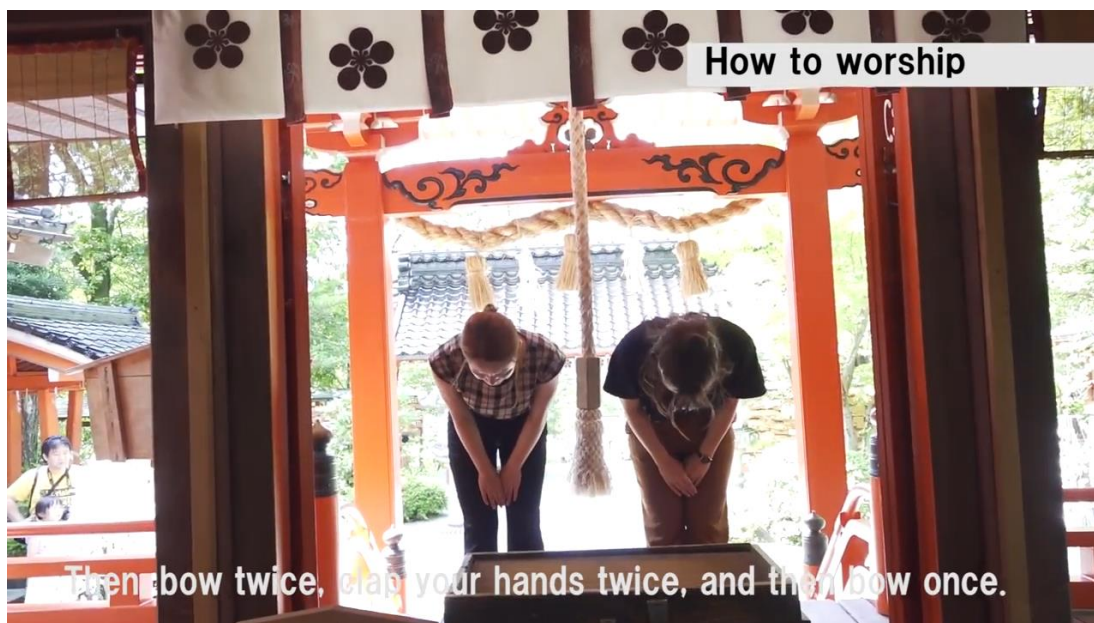
This paper recommends incorporating the elements of project-based learning methodology into the CLIL approach to ensure that students achieve the best possible outcomes at the same time. They include language skills, real life knowledge, technology and social media savviness, planning ability, spontaneity, the ability to accomplish goals, and a global mindset. This project proved to be an educational and growing opportunity for the students. In the process, not only did they learn how to plan and cope with various tasks systematically, but they also gained confidence and a sense of achievement by seeing their efforts taking shape as visible results. The project outcomes contributed to local tourism, and the tangible output such as YouTube videos and leaflets were shared with a wider community. Students have the capabilities of taking initiative and tailoring their own learning so that it best benefits them. Although this was a small venture, it is hoped that it shows the potential of PBL for developing the learning possibilities of students and transforming them into active learners. If more case studies are documented, reported, and analyzed, it should be easier for teachers to align their pedagogical practices with the principles of Project-based CLIL. It is further hoped that language teachers at the tertiary level will take more interest in these principles.

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Appendix A: The URLs of the YouTube video, Instagram and Facebook



YouTube: “How to pray at a Japanese Shinto shrine”

Instagram: www.instagram.com/omotenashi_komusume

YouTube: <https://www.youtube.com/watch?v=AhSK0hnrwsk>

Facebook: www.facebook.com/omotenashikomusume

Appendix B. Event announcement poster

Participation free!

Kanazawa Goshuin
Red Seal Tour at four shrines
2019 **10.14** mon
13:00 - 16:00
Meet at the foot of the stairs at the front entrance of Oyama Shrine.

VISIT
Starting with Oyama Shrine, visit four shrines on foot.
Four shrines
1 Oyama shrine 2 Ishiura shrine
3 Kanazawa shrine 4 Gokoku shrine

LEARN
Learn how to purify your hands and mouth, draw a fortune slip, and get a Goshuin as well as learn how to pray.

GET
Get a Goshuin-cho notebook and four Goshuin red seals for free!
What is a Goshuin notebook?
It is a notebook for a seal given as proof that you visited a shrine or a temple.

GUIDE
Student guides will accompany you. Hello!

APPLY FROM
Facebook: <https://www.facebook.com/omotenashikomusume>
Instagram: @omotenashi_komusume

! ● You will walk to all the shrines. Please come in comfortable clothes and footwear.
● A money offering is at your own expense. Please bring some small change.
● No postponement for rain.

Contact omotenashikomusume@gmail.com
This tour is supported by the University Consortium Ishikawa and the Ishikawa Prefectural Government.
Omotenashi-komusume Kanazawa Seiryō Women's Junior College

How to purify your hands and mouth

- 1 . Fill the ladle with water with your right hand, and wash your left hand with it.
- 2 . Hold the ladle with your left hand and wash your right hand with it.
- 3 . Hold the ladle with your right hand again, and put some of the remaining water into your cupped left hand, and rinse your mouth.
- 4 . After you have finished rinsing, hold the ladle vertically and rinse it by pouring some water over its shaft.



Omotenashi-komusume, Kanazawa Seiryō Women's Junior College

This leaflet was created with support from the University Consortium Ishikawa and the Ishikawa Prefectural Government.

How to worship

- 1 . Ring the bells.
- 2 . Throw money into the offertory box.
- 3 . Bow twice.
- 4 . Clap your hands twice
- 5 . And then bow once.



Omotenashi-komusume, Kanazawa Seiryō Women's Junior College

This leaflet was created with support from the University Consortium Ishikawa and the Ishikawa Prefectural Government.

Appendix D. Questionnaire to participants of the tour and Results

Questionnaire

Where are you from?

- | | |
|--|----------|
| 1. Did you enjoy the tour? | Yes / No |
| 2. Did you understand the rules of visiting shrines? | Yes / No |
| 3. Did you become interested in shrines? | Yes / No |
| 4. Do you want to know more about Japanese culture? | Yes / No |
| 5. Do you want to collect <i>GOSYUIN</i> yourself? | Yes / No |
| 6. Please tell us what you think about today's tour. | |
| 7. What do you think can be improved to make today's tour even better? | |

Results

	Q 1	Q2	Q3	Q4	Q5	Q6
Yes	14	14	14	14	14	14
No	0	0	0	0	0	0

Excerpts of answers to Q6

- I thought it was great and I learned a lot about shrines and kami. Hope I would join more. Thank you so much.
- I loved it. It was very informative and I'm glad I participated. It was very interesting to get a clear lesson in the shrine etiquettes and the Shinto religion.
- I thought it was great, and I learned a lot. I have visited a lot of shrines in my trips to Japan, but this is the first time I've learned all the customs and I'm really happy I know now.
- Indeed it was an amazing opportunity & experience to know about Japanese culture & tradition. Lot of insights were provided by the group organizers as well from the priest to understand about Buddhist & Shintoist concept. A very well organized & planned tour. Must congratulate the organizers for successful events.

Excerpts of answers to Q7

- Perhaps more information on each specific shrine, for example, their date of construction, main Shinto deities, or reason why people pray at them.
- I would like to request kindly organize similar or other kind of tours for people (foreigners).

Appendix E. Self-reflection questionnaire to students and Results

Self-Reflection Questionnaire (Translated excerpts of the questionnaire made by the University Consortium Ishikawa)

Q1. Do you feel that you have learned or gained new awareness through the activities? Please fill in one of the appropriate ones in the answer column [].

(1) I strongly feel this way (2) I feel this way (3) I can't say either (4) I don't feel this way (5) I don't feel this way at all (6) I don't know

Q2. Please tell us about the ability (1) to (12) that you feel you have acquired through this project. Please fill in one of the corresponding numbers 1-5 in the answer column [] according to [Evaluation criteria] below.

5: I've learned a lot 4: I've learned somewhat 3: I've learned a little 2: No apparent improvement 1: I do not know
--

- (1) Spontaneity (the ability to be willing to work on things) []
- (2) Assertiveness (the ability to reach out and involve others) []
- (3) Ability to get things done (the ability to set the purpose and act steadily) []
- (4) Ability to discover issues (the ability to analyze the current situation and clarify objectives and issues) []
- (5) Planning ability (the ability to clarify and prepare processes for solving problems) []
- (6) Imagination (the ability to think up new and good ideas and solutions) []
- (7) Communication ability (the ability to convey one's opinion in an easy-to-understand manner) []
- (8) Listening to opinions of others (the ability to listen carefully to the opinions of the other parties) []
- (9) Flexibility (the ability to understand differences of opinions and positions) []
- (10) Ability to grasp the situation (the ability to understand the relationship between yourself and the people around you) []
- (11) Discipline (the ability to keep social rules and promises to people) []
- (12) Global mindset (the ability to understand the thoughts and positionalities of foreigners) []

Q3. Please write some comments.

- (1) What is a particularly impressive episode?
- (2) What awareness did you gain through the activities?
- (3) How would you like to make use of your experience of the activities in the future?

Q4. Please feel free to write your impressions after the project. What was good? What trouble did you have? What were you dissatisfied with?

Results

Q1	1	2	3	4	5
Number of respondents	4	1	0	0	0

Q2	1	2	3	4	5	6	7	8	9	10	11	12
Average score	4.4	4.6	4.4	4.2	3.6	4.0	3.6	4.4	4.4	4.4	4.4	4.8

Excerpts of answers to Question 3

- (1) I was very happy to see the posters and activities we worked on taking shape.
- (2) a) I realized that what we take for granted was not taken for granted by foreigners, and it was not enough for us to give a pre-planned explanation but to rather answer their questions one after another as required.
- b) I think I learned the importance of planning and carrying out the project systematically. There were a lot of things to do and I honestly did not know where to start, but it was good that we were able to consult with everyone and carried it through.
- c) The scenery, buildings, and customs of the shrines are commonplace from our own point of view, but they are extraordinary and surprising for foreigners.
- (3) I learned a lot of things that I would not have been able to learn easily in our daily life. I think the abilities we acquired through the project, such as talking to strangers when recruiting participants without being shy and the desire for constant improvement will be useful in my future work life.

Excerpts of answers to Question 4

- a) Everything was new and we had to start from scratch. We had a lot of worries, but we were able to get them over.
- b) I felt my personal growth when I understood my role and responsibilities, and fulfilled them.

Understanding Culture, the Media and Language Usage through a CLIL Media Literacy course for EFL students

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Abstract

Media literacy is the ability to identify different types of media and understand the messages that are being sent, who created them, and why. Although university students are digital natives who grew up with the internet and social media, they are not necessarily equipped with the skills to critically analyze and understand the messages that they receive in a variety of media outlets from television to the internet. This paper aims to show how a CLIL framework can be used to enhance students' awareness of the media that surrounds them and how they can improve their English communication skills through a series of scaffolded lessons that allow them to take part in discussions, debate, problem-solving tasks, and the creation of their own media that centers on building their digital literacy and understanding.

Keywords: CLIL, Media Literacy, SNS, Media, Culture

1. Introduction

Media literacy is the ability to identify different types of media and understand the messages students are being sent, and by whom, and why. University students are digital natives who grew up with the internet and social media. They are bombarded on an everyday basis with media content and messages so understanding this kind of media is an important and relevant part of their lives.

As a teaching tool within the EFL classroom, exposing students to various forms of media can be utilized to teach culture, media literacy skills, and specific aspects of language use such as wordplay, as in punning, and idiomatic language use. The teaching of media literacy can fit in very well with CLIL's concept of the 4 "Cs" in that it provides students with critical thinking skills that can be applied to a variety of media resources. It also exposes them to differing cultures and points of view through the medium of English. Employing a multimodal analytical approach, the university students within this CLIL course learned how to critically evaluate media texts such as TV commercials, PSAs (public service announcements), memes, social media publications, fake news, and advertisements through an examination of their depiction of language, humor, music, sound effects, gender roles, and political stance. This led to students being able to better interpret, evaluate, and understand the social, cultural and political implications and nuances contained within such media content.

This paper will show how a CLIL framework can be used to enhance a student's awareness of the media that surrounds them and how they can improve their English communication skills. This can be done through a series of scaffolded lessons that allow students to take part in discussions, debate, problem-solving tasks, and the creation of their own media that centered on building their digital literacy and understanding.

1. What is Media Literacy?

Media literacy can be described as a multidisciplinary subject that is global in scope and is one of the fastest growing fields of applied communications (Hobbs and Mihaildis, 2019). Through this digital age we have access to a tremendous amount of information. We can also produce, interpret and disseminate it. With this abundance of information, there is, of course, the opportunity for falsehoods through fake news' and the pushing of certain political agendas and bias. This is often seen in SNS platforms such as Twitter and Facebook, where users can share stories and even create online content, which remains unedited, unverified, and unproven before publication. This can potentially be dangerous and is a prevalent topic within contemporary media. We are also exposed to media through television and newspapers and the need to be able to understand, interpret, and chose what and what not to believe, rather than be a passive consumer of media, is an important skill for university students to have.

Badke (2009) suggests that media literacy started with television and movies and then expanded into the world of the internet and that its emphasis was to help students evaluate the role and influence the media has in their lives. This literacy aims to guide students into being able to assess the message and purpose of the content they consume, whether it be a TV commercial, a news item, or an article on the internet that has gone viral. Media literacy can also incorporate the notion of media creation, which many among the younger generation are enthusiastically taking part in. They engage in such platforms such as YouTube, TikTok, Instagram, and Facebook.

Ng (2012) states that most of the current younger generation of computer and media consumption users "embrace information and communication technologies (ICT), in particular the use of mobile phones and social media technology, which means they possess a certain level of digital literacy" (p.1066). This kind of literacy refers to the ability to use the tools that the technology provides us with. These types of skills and knowledge can be developed outside of formal education (Ito et al., 2008). The scene of a toddler using their parents' smart phone to watch YouTube or play games is a regular occurrence. However, this does not mean university students and the younger generation are consciously aware of the messages they are receiving on a daily basis and can also analyze and critically interpret them. Terms such as ICT, digital literacy, and media literacy can overlap in terms of

definition. Within this paper and the media literacy course it describes, media literacy is defined as having the ability to culturally interpret and critically evaluate information and communication within media from television to the Internet and SNS.

2. Are Our Students Digital Natives?

There has been some discussion within the literature on the notion of the digital native. The term was originally coined by Prensky (2001), who uses it to define people born after 1980 because they have grown up with this new media. He even suggests that this generation learns differently. They possess certain characteristics and attributes that no other generation has had, such as their visual orientation, an ability to multi-task, be active learners, and move from one subject to the next with smooth accuracy (Schulmeister, 2013). However, the problem with such statements is that there is a lack of empirical evidence to support these claims (Ng, 2012). The notion that our students have grown up with the internet is most certainly true, but the ability to analyze, understand, and interpret media messages does not merely materialize with the constant use of internet usage or television watching. Kvikvik and Caruso (2005) state firmly that no transfer of skills are taking place from leisure media use to learning.

To have a sense of media literacy is the ability to culturally interpret and critically evaluate the information we receive. Rather than being passive consumers of the media, being literate means being able to critically engage with it. The news, for example, is often loaded with misinformation, especially newsfeeds from social media platforms. Therefore, being able to interpret, dismantle, and evaluate such media is an important skill for our students to have and is valuable across the curriculum.

3. CLIL and Media Literacy: A literature review

Garcia-Esteban (2015) writes that “despite the growing interest in digital literacy within educational policy, guidance for educators in terms of how digital literacy translates into the CLIL classroom is lacking. As a result, many teachers feel ill-prepared to support and engage their net generation learners in using technology effectively in a CLIL context” (p.47).

In practical terms, CLIL methodology needs authentic tasks that can be done in a cooperative way by using ICT purposefully. Media and its digital variants can provide teachers with this authentic material. As we are now dealing with a net generation, we have also entered a new phase of language teaching. Therefore, language teaching should go hand in hand with technology and CLIL can be perceived as an alternative, yet complimentary approach that contrasts with traditional language teaching methods and approaches. Dudeney and Hockly (2007) state that since technology is a big part of our students’ lives and an understanding of that technology and the messages it gives us must be integrated into the education.

There is some research on how the CLIL approach is used in ICT classes. Dourda et al. (2013) found that CLIL students used a digital detective game to learn geography and English. However, there has been no research or documentation on how CLIL can be used to increase digital and media literacy and awareness. We know that our students can understand and use the media technology, but as we have seen there remains a question over whether or not they understand the messages they encounter every day from the media. Lander (2018) states that “most of the information our students see online has a motive – trying to persuade them to buy something or think something or believe something. But students struggle to recognize these diverse agendas”. She suggests that as educators, and across the whole curriculum and within all subjects we should cultivate “students into thoughtful, discerning, and critical digital thinkers” and that is one of the most important responsibilities educators now have.

This paper will show how a CLIL framework can be used to enhance a student’s recognition of the media’s diverse agendas in addition to improving these English communication skills. The paper will initially describe the content of the media literacy course through two 90-minute classes and conclude with a section on why CLIL is a suitable methodology for the teaching of media literacy.

4. The media literacy course

The CLIL media literacy class is a second year class and is taught within the English education curriculum at Tohoku university and was created and implemented by the author. The course looked specifically at media literacy as opposed to ICT and other variations that stem from or are related to this field. Therefore, the themes studied within the course examined how people interpret and decipher messages within the media and also how media is used to disseminate information and project bias. This was also done in relation to current events and issues such as ‘fake news,’ which is an area that is often discussed and analyzed within the media, especially in relation to this year’s coronavirus and the American election. Of the themes that were taught above the following sections examine the theme of TV commercial analysis and aims to offer some insight into how this CLIL course on media literacy was conducted.

Table 1 Modules covered within the media literacy course

Theme	Content
Key concepts in media literacy	An introduction to the subject of media literacy
How to analyze TV commercials	Humor, puns and cultural differences between Japanese and foreign commercials – the use of music, celebrities, the message of the Commercial etc.
Public Service Announcements (PSA)	Impact hitting foreign PSAs (Reckless driving) vs Japanese AC PSA's.
Media literacy and movements	MeToo (On a global basis). Toxic masculinity. Kutoo movement (In Japan).
Fake news	How to spot and identify fake news? The coronavirus and the spread of fake news. Politics and fake news / American election coverage.
SNS and mental health	Digital media – the advantages and disadvantages. SNS addiction. Student SNS habits.
Language usage online	The use of extralinguistic signs: Emoji / kaomoji / Line stamps. The use of language creativity online by young people online.
Media literacy and bias	Deciphering the news and political stance. Fox vs. CNN.
Film analysis and analyzing short film	(Looking at specific film clips) - film openings / genre / cinematography / editing / the role of music. Controversial elements – political message / agenda, language usage / the portrayal of race, gender and sexuality.

5. TV commercial analysis

TV commercials mimic the surrounding culture and society in which they are made and aim to elicit a variety of emotional responses in viewers in a bid to attract their attention and focus them on the product being sold. Bieberly (2013) writes that “a cultures [sic] predominant language is essential in communicating and maintaining its collectively held values, and the mass media is further able to standardize these beliefs” (p.2589). He comments further by suggesting that an understanding of culture can give the learner a reason to become fluent and addresses the fundamental question of why words and terms are used the way they are.

Students’ interest and motivation in learning English can be heightened through the combination of a moving picture and audio and can present language more comprehensively than any other language medium (Stempleski and Tomalin, 1990). As a teaching tool within the ESL classroom, it can be utilized in the teaching of culture, media literacy skills, syntax, phonology, morphology, intonation, and specific aspects of language use such as wordplay as in punning and idiomatic language use. TV commercials within a media and digital literacy course also lends itself to the inclusion of the four Cs of CLIL. The four Cs of culture, cognition, content, and communication can be considered the cornerstones of CLIL that allow for a classroom setting that engages the learner in an environment with clear content and linguistic objectives. The four Cs begin with the content, in this case media literacy. Content is then focused upon in relation to communication (language), culture (awareness of self and others) and cognition (critical thinking). The four Cs build upon the collaboration of integrating learning (content and cognition) and language learning (communication and culture). The teaching of TV commercials can aid students in both their linguistic and cultural understanding and can be used to give examples of visual humor and wordplay and how these devices reflect, along with the commercial content, the culture and society in which they were made.

Understanding humor and jokes can also help students lower their affective filter. A low affective filter has been shown to aid successful language learning (Krashen, 1982). Jokes based on wordplay can also build metalinguistic awareness (Lems, 2011). Puns are sometimes nicknamed “the lowest form of humor” and often greeted with disdain, however, the language knowledge needed to understand a pun is very sophisticated (Pollack, 2011). Teaching puns can also help students understand the structure of their own language and culture better and in how it relates to others.

35% of Japanese words belong to one of the groups of homonyms (Nishimura et al., 2008). 駄洒落(ダジャレ) *dajare* can be described as Japanese puns that take advantage of these homonyms or words which have the same sounds but different meanings. Take for instance the example below:

Figure 1. Dajare



This is an example of a homonymic pun, where the words are the same but have different meanings. The sentences both read ‘*arumikannoueniarumikan*’ but have different meanings as illustrated in Figure 1.

English puns, however, can be created in the same way but are usually created by exchanging a word in a sentence with something similar and may be challenging to understand even for native speakers of English. Take for instance, the examples below:

- When a clock is hungry it goes back four seconds.
- She had a photographic memory but never developed it.

Lems (2013) suggests that puns require processing the sound and meaning of words twice and can also demand considerable language agility. She describes four categories of English puns:

Soundalike puns

Two peanuts were walking down the street, and one was a salted (assaulted).

Lookalike puns

Barry: What travels faster, hot or cold?

Mary: Hot. You can always catch cold.

Close-sounding Puns

A skunk fell in a river and stank to the bottom.

Texting Puns

Why is number 6 scared of number 7? Because 7 8 9.

If students are aware of what puns are, then when they encounter them in the media that they are exposed to, especially in short bursts as in 30 second commercials, they will be equipped to understand them better. In addition to culture and communication, analyzing TV commercials can also reflect the C for cognition within the CLIL framework. Although commercials tend to be short, and usually have little dialogue, they are a doorway into the culture that produced them and by their very nature can encourage critical thinking. A

typical commercial will consistently have a who? – a target audience, a what? – the content and message and a how? – the hook or how the attention of the viewer is maintained. The process of analyzing, evaluating, and interpreting commercials in addition to students creating their own encourages higher order thinking skills (HOTS), which is often cited as one of the underpinnings within the CLIL methodology. Commercials can also be used in the practice of predicting what is going to happen next.

The lessons within this media literacy course that dealt with visual media were usually broken down into the following three categories:

Previewing activities

Viewing activities

Post viewing activities

The following sections illustrate the lesson flow of two 90-minute lessons.

Lesson 1

The first class was created to solely look at Japanese TV commercials and to introduce students to the methodology used in breaking them down for analysis.

Previewing activities

Before exposing the students to TV commercials, previewing activities usually entailed a series of brainstorming activities.

Students were asked the following three questions:

1. What are the characteristics of typical Japanese TV commercials?
2. What's your favorite Japanese commercial and why?
3. What methods do Japanese commercial makers use to get our attention?

For question 1, students were given a glossary of adjectives that could possibly describe the characteristics of Japanese commercials and asked to choose those they thought were applicable to Japanese commercials. The list below highlights some of the answers that students typically gave.

- Catchy
- Cute
- Cute girls / handsome boys
- Involve celebrities
- Light and cheery
- Upbeat
- Short
- Persuasive

Students were then asked to describe their favorite TV commercial and define the methods Japanese TV commercial makers use to get our attention. Many students mentioned that they like the AU mobile phone commercials and below are some of the techniques students mentioned that commercial makers use to get our attention.

- Use celebrity endorsements
- Use music / songs
- Incorporate catchy phrases / lines
- Use vibrant color
- Use CGI / animation / graphics
- Have occasional elements of surprise / shock
- Employ a story telling technique as in the AU commercials
- Use humor and jokes

Viewing activities

Students were asked to reflect on and make notes on a series of questions that were given to them. Multiple viewings were allowed. These questions aimed to help students think about the use of humor, visuals, camera editing, music and catch phrases used within the commercials.

Post viewing activities

Students were given a set of generic questions to use to discuss the content of each TV commercial they watched. They are listed below.

Generic questions

- What product is the commercial advertising?
- What is the general mood of the commercial?
- How does / did the soundtrack change / influence your mood?
- How do the actors influence your interpretation of the commercial?
- How does the commercial get your attention?
- How is language used? Orally or visually
- What is the message of the commercial?
- Who is the commercial targeted at?
- What kind of editing and camera angles were used? How are they used to tell the story?
- What time and when do you think would be the best time for this TV commercial to air on TV?
- Do you think this TV commercial had a large budget?
- How does the TV commercial persuade you to buy something or appeal to your emotions?

After the above discussion students were then asked how they thought a foreign audience would perceive some Japanese TV commercials. To look deeper into this idea there is a series of YouTube videos called ‘YouTubers react to best Japanese commercials, which can be shown to students. Most of the commercials, however, tend to be old, and may not necessarily be representative of all Japanese TV commercials, but they are an insight into how foreigners view Japanese commercials. This can also be done in reverse and you can show YouTube videos where Japanese react to American TV commercials. It is an interesting example of media content created by differing cultures. For homework, students were asked to find their favorite Japanese commercial on YouTube or on another platform of their choosing. They were then asked to analyze it in a similar way as taught in the lesson and give a presentation on it within small groups of four. Students were also asked to prepare a set of generic questions to ask other students after they gave their presentation. This homework was optional depending on the student’s needs and time allocation.

The second class

The second class aimed to focus on foreign TV commercials and use the methodology adopted in the first class.

Previewing activities

As in the first class students were asked to brainstorm their ideas on what they thought foreign TV commercials would be like and how they might compare to the Japanese TV commercials they watched in the previous lesson. This activity was quite challenging for students as most had never seen foreign TV commercials. The teacher then explained the types of humor found in English speaking countries and how it can contrast with the humor in Japan. Puns were also introduced to the class in a similar way as illustrated in the previous sections of this paper.

Students were then given a viewing worksheet handout, which was different according to the TV commercial shown. The following sections outline three TV commercial examples to illustrate what was done in this second class.

6.1 Nolan’s cheddar cheese commercial

The commercial below can be found on YouTube if you type in ‘Mouse trap – cheese advertisement.’ It is a Canadian commercial and runs for nearly one and a half minutes. The opening of the commercial sees a mouse leave his home which is in a skirting board of the house he resides in. The background music is the Carpenters ‘Top of the world’, which in itself provides a cheerful backdrop and narrative to the story. The mouse then finds a mousetrap with a piece of cheese placed on it. As the mouse climbs onto the mouse trap to eat the cheese, the commercial fades to black and we hear the snap of the mousetrap. The commercial then changes music to a darker tone and we hear the song by the Doors called

‘The End.’ We now see the mouse on its back trapped in the mousetrap. It doesn’t appear to be dead and is breathing. The lyrics of the song suggest that this could be ‘the end’ for this mouse. After shocking the audience in this way, moments later the music changes to Survivor’s ‘Eye of the Tiger’ and we see the mouse push up the bar of the mouse trap, which is choreographed to the beats of the music. The commercial then fades away to the last scene, which is shown in Figure 2 below. As you can see the commercial uses the phrase ‘Seriously strong’. This is a pun and has two meanings within the context of the commercial. The first meaning concerns how the mouse becomes ‘Seriously strong’ when it eats the cheese and manages to push up the bar of the mouse trap and free itself. The other meaning refers to the cheese as being strong in flavor.

Figure 2. Nolan’s cheddar cheese



Viewing activities

Students were given a Nolan’s cheddar cheese commercial worksheet with a set of questions as listed below.

- **What is the role of the music?**

Students were shown the opening of the commercial without the Carpenters ‘Top of the World’ song and were asked to note down their emotional reaction to it. This usually produced a negative response but turned to a positive one when it was shown again with the Carpenters song playing in the background.

- **What will happen next?**

Students were asked to predict what would happen in the commercial at key moments. For example, as in what happened just before the mouse gets caught in the trap.

- **What is the commercial for?**

The video clip was paused just before the final scene of the commercial. The students were then asked to guess what the commercial was selling. Students usually suggested a gym, gym equipment, or protein milkshakes.

- **What pun or wordplay is used?**

The commercial was paused on the last scene and students were left to brainstorm their ideas.

Post viewing activities

The generic questions sheet as illustrated in lesson 1 was given to students and they were allowed to watch the video numerous times whilst dissecting and analyzing the commercial based on these questions. Additional questions such as would this kind of commercial be acceptable in Japan? Would the humor work? And, would people buy cheese as a result of this commercial, were also included.

6.2 Heineken beer commercial

For this commercial the post viewing activities included a discussion on Japanese beer commercials and some were shown to the class. Students were asked to predict what a typical foreign beer commercial would be like. The students were then told that they were about to watch two Heineken beer commercials, which were hugely popular at the time they were aired. Both of these commercials can be found on YouTube.

The opening of the commercial shows a young lady showing her lady friends around her new apartment and she proudly introduces her walk-in closet. As she opens the closet, and her friends walk into it, they all burst out into screams of euphoria when they see that the closet is full of bags and shoes. See Figure 3.

Figure 3. The ladies walk-in closet



However, this euphoria is short-lived when they hear similar screams from the other side of the apartment. When they go to investigate, we see men hugging each other in hysteria because the man's walk-in closet (we assume the man is a partner of the women who

introduced her walk-in closet) is in fact a walk-in fridge filled with bottles of Heineken beer. See Figure 4 below.

Figure 4. The gentleman's walk-in closet



Viewing activities

Students were asked to make notes based on the following questions and share their ideas within their groups. Again, multiple viewings were allowed.

- Gender roles – How are gender roles portrayed?
- Stereotypes – What stereotypes are shown here?
- Message of the commercial – What is the basic message of the commercial?
- Would this commercial ‘work’ in Japan? Would it be culturally relevant? Would Japanese understand it?

The basic message of the commercial, which the students found very amusing, was that it was parodying the stereotype that all men love beer and that all women love bags and shoes.

As this commercial was so successful some sequels were made. The follow up to this commercial shows a man instructing a carpenter on the work he wants done to his house. He asks for a walk-in closet just like the one in the that ‘Heineken beer commercial’ as discussed above. The carpenter complies to his wishes and a few days later the man comes to inspect the work done to his home. However, when he opens the walk-in closet he merely sees a small fridge in the corner and looks disappointed. A few days later his friends are at his house sitting on his sofa. They are surprised when they see a walking fridge come towards them. As illustrated in Figure 5 the fridge stops in front of them. It then opens automatically, and the man’s friends burst into joy when they see that the fridge is full of Heineken beer. The joke or pun is a play on words. In the first commercial, the walk-in fridge was used but in the sequel the term walking fridge was employed, and this is the center of the joke.

Figure 5. A walking fridge



Other commercials that were shown that used puns as a form of humor included the Berlitz English school commercial. A German costal guide trainee is seen working when he receives a mayday distress call that announces ‘We are sinking! We are sinking!’ The German costal guide then responds with ‘What are you thinking about?’ The commercial then cuts to the Berlitz English language school logo. Students found this TV commercial particularly entertaining, especially the dark humor, and the fact that if you cannot understand English things could go disastrously wrong.

The post viewing activities carried out mirrored what was done with the Nolan’s cheese commercial as discussed above with a series of generic questions.

When looking for commercials to use it is not often easy to find commercials that are currently on air because of copyright issues. However, a search of specific terms in platforms such as YouTube can give you a wide range of useful and interesting commercials from a variety of countries and languages. Also, your decision-making process when searching for commercials may be influenced depending on the age of your students. Beer commercials used in a CLIL class for Junior high school students may not be appropriate.

6.3 Group Task (Using storyboards)

Students were given storyboards and asked to design their own TV commercial. They had a choice of designing a commercial for a western or Japanese audience that would help sell the product it was advertising. This activity was usually finished for homework and the groups presented their commercials to each other in the following lesson. A lot of the storyboards presented were very creative, in terms of the English used and the ideas presented. The students commented that they enjoyed this creative process of applying the knowledge they had learned about TV commercial analysis to the creation of their own commercial.

Other TV commercials explored within the class also overlapped with other themes in the class. We examined online media movements such as MeToo and the commercials that were

inspired from that, including the controversial Gillette ‘Toxic Masculinity’ commercial. Such media analysis introduced students to a variety of current trending themes, which opened up the students to new perspectives and outlooks on certain issues. The MeToo movement was contrasted, for example, with the KuToo movement that gained recent attention in Japan. The #KuToo campaign, a play on words from the Japanese word *kutsu* - meaning ‘shoes’ - and *kutsuu* - meaning ‘pain’ started in 2019 when an actress named Yumi Ishikawa petitioned for the right of women not to wear high heels in the workplace.

6.4 Feedback (with regards to TV commercials)

Students were asked to give feedback about the studying and analyses of TV commercials, and the following list is a summary of what they wrote.

- Students enjoyed the experience of learning about another culture through the eyes of its media.
- Found some commercials difficult to understand – not compatible with Japanese culture.
- Gained an understanding of the language of TV commercials.
- Learned how the use of wordplay and humor play an important part in commercials.
- Raised their cultural awareness and understanding foreign cultures.
- Learned some jokes.

Like the Media literacy course itself, these commercials highlight how this part of the course covered the 4 Cs of CLIL through an analysis of media content in terms of culture (Japan and other cultures), communication (through a discussion of the themes and the learning of new vocabulary, accents, etc.) and cognition (students were asked to critically evaluate these commercials and also encouraged to apply the knowledge they learned into making their own TV commercials through storyboards).

6. Why is CLIL a good fit for teaching media and digital literacy?

Coyle et al. (2010) suggest that an effective CLIL course challenges learners to think independently and is not just about the transfer of knowledge but also about helping students to construct their own understanding and to be academically challenged within the CLIL classroom. From a theoretical perspective CLIL borrows from some of the aspects of Vygotsky’s (1978) socio-cultural theory. The concept of scaffolding for example, stems from the intermediate stage of learning development that Vygotsky’s (1978) describes as ‘the Zone of Proximal Development’ (ZPD). The metaphor describes how learners are helped to achieve things they are not ready to accomplish by themselves. Like real scaffolding the process is temporary and provides the platform from which learners can construct the next level of knowledge and understanding. Throughout this course students were provided with

the vocabulary, grammar and ideas to help them negotiate through all of the tasks done within class and for homework. From a constructivist approach, this course aimed to encourage students to be involved in five key elements of constructivism, 1) Engage, 2) Explore, 3) Explain, 4) Elaborate and 5) Evaluate. These are labelled as the 5 E's by Bybee et al. (2006) and overlap with the ideas within Bloom's (1955) Taxonomy of Higher Order Thinking Skills (HOTS) that consist of analyzing, evaluating and creating.

Pinner (2013) states that “authenticity asserts itself as not just an important feature of CLIL practice, but actually as a defining aspect of the entire approach and one of its greatest strengths over other foreign language instruction pedagogies such as CLT or TBL” (p.46). Within a CLIL media literacy class the teacher has an abundance of authentic material to choose from. According to the level and needs of the students, the teacher can make these materials challenging for the students without going beyond comprehensible input. This input, however, is only effective if it is processed for understanding through teacher-created tasks that can help students negotiate meaning. Language ‘awareness-raising’ activities that focus on language form or specific features of language can also be used as in the usage of puns in TV commercials. As communication and critical thinking are fundamental to the CLIL approach, the CLIL media literacy teacher can encourage interaction and facilitate discussion on the topics and themes learned in the class. In short, in terms of language development media literacy “can be integrated into the CLIL classroom to facilitate effective L2 pedagogy in CLIL by enabling language input, meaning-focused processing, form-focused processing and output production” (Garcia-Esteban, 2015, p.58).

7. Conclusion

Media literacy is the ability to identify different types of media and understand the messages that are being sent, by whom and why. As educators, our students have all grown up with the internet and social media. On a daily basis they are exposed to a wide variety of media from advertisements, commercials, websites, online bulletin boards, SNS and news outlets. Some of this media is reliable, some of it is ‘fake’ and some of it expresses a political narrative. The ability, therefore, to be able to read and understand the messages that students are receiving is an important and relevant part of their lives.

This paper has argued that the CLIL approach with its emphasis on authentic material and the 4 Cs dovetails well with the aims and objectives of a media literacy course. The course goals were to create critical thinkers rather than passive observers and consumers of media content and also to improve their English communication skills through a series of scaffolded lessons. Although this is just a glimpse into how CLIL is a good pedagogical approach for media literacy content, it is hoped that more empirical work can be done in this area.

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CLIL Teachers and Students' Perceptions

Creating and Conducting a Translanguaging CLIL course for Linguistically Diverse Students: A Teacher's Autoethnography

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Abstract

While use of translanguaging in CLIL classrooms has been found to have positive impacts on students' co-construction of meaning and knowledge, the research is most often situated within classrooms where teachers and students share first languages (Lin, 2019), or classrooms in which one particular language is used pedagogically dominantly. The aim of this research was to investigate whether translanguaging in CLIL classroom could enhance CLIL learning by opening up spaces for diversity of linguistic repertoire in the process of meaning making and knowledge production within the singular CLIL course. A dual language translanguaging CLIL course, where students with diverse first languages learn English and Japanese through the simultaneous use of the L1s, was developed in a Japanese university. The aims of this paper therefore, are, through autoethnography, (1) to explore the experiences of an English learner and a non-native English teacher and how these experiences informed the planning and implementation of a new translanguaging CLIL course, and (2) to reflect on the challenges and dilemmas faced in developing and teaching a translanguaging CLIL course to offer implications for more educationally empowering pedagogy. This paper concludes by suggesting that new styles of the CLIL approach, which employ translanguaging pedagogy and accommodate students' linguistic and cultural diversity, should be further developed and explored.

Keywords: CLIL, translanguaging, NNEST, autoethnography

1. Introduction

Content and Language Integrated Learning (CLIL), which will be defined later in this paper, is a method rapidly growing in many countries especially in Europe and Asia, including Japan. Not only does CLIL help students with the development of the target language, but it also offers opportunities for them to develop real-life communication skills that help them work effectively in intercultural contexts. In today's globalizing world where different cultures, languages, and communication styles come together, it is important that people communicate and co-create meaning using various semiotic resources including multiple languages (Lemke, 2016). While use of translanguaging in CLIL classrooms has been found to have positive impacts on students' co-construction of meaning and knowledge, the

research is most often situated within classrooms where teachers and students share familiar first languages (Lin, 2019), or classrooms in which one particular language is used pedagogically dominantly. Thus, in order to investigate whether translanguaging in CLIL classroom could enhance CLIL learning by opening up spaces for diversity of linguistic repertoire in the process of meaning making and knowledge production within the singular CLIL course, a translanguaging CLIL course where students with diverse first languages (L1s) learn English and Japanese through the simultaneous use of the L1s, was developed in a Japanese university.

Using autoethnography (e.g., Canagarajah, 2012), I will explore my experiences as an English learner and a non-native English teacher and how these experiences informed the planning and implementation of this innovative translanguaging CLIL course. The goals of this paper are to also reflect on the challenges and dilemmas I faced in developing and teaching the translanguaging CLIL course, and to offer implications for more educationally empowering pedagogy regardless of the first languages of the teachers or students in any CLIL classrooms.

2. Method

In this paper, I will use autoethnography to explore my experience as an English learner, a non-native English teacher and a curriculum developer. Autoethnography is “an autobiographical genre of writing that displays multiple layers of consciousness, connecting the personal to the cultural” (Ellis & Bochner, 2000, p.739). In his autoethnography, Canagarajah (2012) states that “this narrative is not solely about me. There are transferable implications for teacher identities for members of other professional communities, both in the center and the periphery” (p.262). Therefore, I chose autoethnography as a method to explore multiple layers of the challenges and dilemmas I have faced in learning English firsthand, which have led me to the development and teaching of this innovative translanguaging CLIL course through the theoretical lens of translanguaging. For the autoethnographic pieces, writings that I have written in the past, which show my perspectives towards English learning and teaching, and a journal entry on a personal research website that I wrote based on the field notes that I took in class, while teaching the translanguaging CLIL course for one semester, are used. I will also use issues surrounding CLIL and translanguaging (e.g., Lin, 2013) as theoretical framing to make sense of and understand the reflective process I am going through in this autoethnography.

3. Research context

The Japanese university in which the translanguaging CLIL course was based is an international university offering bilingual education in English and Japanese. Upon enrollment, regardless of whether the students are Japanese or English L1, or domestic or

international, all students must choose between English or Japanese as the medium of instruction. Depending on the language they choose for the medium of instruction, they are either called Japanese basis stream or English basis stream students. The Japanese basis stream means that students are required to take most of their content classes in Japanese but are required to take standard track language classes in English. Although many of the Japanese basis students are domestic Japanese students, there are some international students as students self-identify which stream they wish to be enrolled in, as long as they meet the language requirement. Conversely, students in the English basis are students who chose English as a medium of instruction for most of their content courses and are required to take standard track language classes in Japanese. Therefore, there is already an inherently cultural and linguistic diversity in any given stream.¹ The language courses that students are required to take in their language basis program constitute their standard language education. However, once they complete their required language classes, they are allowed to be enrolled in any advanced language elective courses within the university.

Four English language teachers and two Japanese language teachers developed an elective translanguaging CLIL course, which was informed specifically by translanguaging pedagogy, and myself and a Japanese language teacher co-taught the course. It distinguishes itself from other elective advanced language courses as the curriculum draws from translingual practices for all of the students across the entire class. Also, this is the only dual-language based class in the language curriculum, as all of the other elective advanced level courses are taught either in Japanese or English.

In order to explore and understand my experience in developing and teaching this new translanguaging CLIL course, I will first critically reflect on my beliefs about learning and teaching English as they have a strong impact on why I developed this course and the way I have been planning and teaching this course. Thus, I shall begin by reflecting on my experiences as an English learner, which has shaped my beliefs about teaching English.

4. Reflection

4.1 My experiences as an English learner

My favorite subject when I was in school was always English. Maybe I liked it because I was good at learning languages, or maybe I liked it because I was able to communicate with people from different countries. My grades for English classes were always good, but I always had this idea that my English was not good because I did not think I sounded like a native English speaker. Therefore, I hated it when my friends asked me to speak in

¹ For the remainder of the paper, I will refer students as either English or Japanese basis for the clarity of distinction. However, I would like to emphasize that within each basis, there is a diversity of culture, language, and ethnicity.

English or when my English-speaking friends complimented my English as I knew I did not sound as “native” as I “should” have. Looking back, I was strongly affected by the ideology of English in Japan, such as that the “proper” English is the one spoken by “native” speakers from countries in the inner circle (Kachru, 1982) or that English is a must-have skill to be able to successfully communicate with people in the globalized world (Kubota, 2018). This is presented clearly in part of the statement of intent that I wrote for college application when I was in high school:

Autoethnographic piece #1

I believe that English is one of many necessary tools that people need in order to live in our world. During our First Annual Japan Super Science Fair (JSSF), as a buddy to the team from Hawaii, I realized the importance of the English rhetoric and I felt the inferiority of the English capability of the Japanese people. JSSF was a gathering of 19 different nations, but amongst these nations, I felt as if the English rhetoric level of Japanese people, regardless of age, was significantly lower than that of any other country. The lack of English knowledge by the Japanese prohibits us from expressing our opinions and often, this language barrier was very frustrating. Then I became curious about the inability of communication amongst native English speakers and non-native English speakers. I am already in my third and last year of high school and presumably, we have learned at least 6 years of English. Nevertheless, amongst the foreign students, many students, including those younger than us could speak better English than us third year high school students in Japan.

It is obvious that even as a high school student, I felt that Japanese people were “inferior” compared to people from other countries who were able to speak English fluently, and that we were lacking the “necessary tool” that we needed to be successful in the globalizing world. Aside from the fact that my parents are teachers and I had so much respect for this occupation, the frustration that I felt at that time was the reason why I decided to be an English teacher in the future. I wanted to change the English education in Japan so that more people would be able to speak English (I was thinking of “native-like” English back then) and more Japanese people would be able to communicate with people from other countries and be more competitive in the global world.

During my undergraduate studies, I attended an international university in Japan, and took the majority of the content courses in English and made friends with people who spoke English. I also studied abroad in Finland and took all the courses there in English. While I was able to understand academic lectures in English and communicate with my friends using English by the time I graduated from university, I never felt confident with my English because I constantly felt that my English was not “native” enough, in terms of pronunciation, using and understanding slang, and even a sense of humor that “native”

English speakers might have, which I lacked. What I felt when I was applying for university did not change, even after four years of learning and using English in variety of contexts and becoming more proficient in it. This is evident in the statement of intent that I wrote to apply for my master's program in Canada:

Autoethnographic piece #2

In this era of globalization, Japan needs to be capable to expressing themselves through English. Whether to share our culture, promote Japanese businesses, or travel internationally, English has become an essential component needed to be a productive member of global society. I would like to become the person who can help facilitate the development of students' English skills as well as their understanding of the world.

This shows that I was deeply affected by the ideology of English in Japan, which is what Kubota (2018) calls *genso*--that the goal of learning English is to be able to speak it as it is the essential skill to have in order to be successful in the global world and to learn about the "world", which actually implies English speaking countries such as the U.S. and Canada. Additionally, I believed that I would be able to gain the native-like English competence that I always longed to acquire by studying in Canada, a phenomenon Kubota (2016) calls *study abroad imaginary*. This, too, is evident in my master's program statement of intent:

Autoethnographic piece #3

Moreover, simply put, by studying in an English-speaking country I can simultaneously improve my own English fluency while learning how to improve my teaching methods. I am sure this experience will become one of my major strengths as an educator, as I will be a non-native English instructor myself.

It is also clear that I believed that I would be able to learn the "superior" teaching method by studying in a Canadian university, and that I went to Canada to learn those best practices as well as the native-like English proficiency that I would need to be a legitimate English teacher. However, these ideologies were challenged during my graduate studies.

4. 2 Learning new theories on language education

Despite my expectations about Canadian graduate programs in TESOL, I learned many theories about language education which challenged the perspectives I had about learning and teaching English. Among many concepts and theories that have completely changed my views on English education, the one that struck me the most was the concept of translanguaging (e.g., García & Wei, 2018). During my teacher training in university and student teaching in Japan, I learned a lot of "advanced" and effective methods of improving students' English skills, especially their speaking skills. These methods, of course, included "all-English" classes (MEXT, 2014), and I was trained to conduct

English classes entirely in English, which included speaking back to students in English when they ask me questions in Japanese, telling them to speak in English when they speak Japanese during discussions, and explaining in easier English when students do not understand what I explain in English. These methods echoed what I believed would be effective in learning English as a learner and teaching as a teacher as many Japanese people believe “more exposure to English in the classroom is important for the improvement of English skills” (Iida, 2014, p.3).

However, the concept of translanguaging, which refers to the “act performed by bilinguals of accessing different linguistic features or various modes of what are described as autonomous language, in order to maximize communicative potential” (García, 2009, p.140) in language teaching completely changed my view on L1 use in English classroom. What really resonated with me was that the use of translanguaging “gives back the voice that had been taken away by ideologies of monoglot standards” (García & Wei, 2014, p.105). For example, when I hesitated to say what I really wanted to say in English conversations or discussions, I felt as if my voice was taken away because I was unable to express myself fully in English or, even if I could, I was unable to do so in a “native” like way. Thus, maybe I, too, was taking away students’ voices when I told them to rephrase the questions they asked in Japanese in English, thereby regulating monolingual language policies in the classroom. Moreover, I certainly have developed a negative L2 identity by not being able to communicate with people with my full communicative potential and translingual repertoire, as I could not be as funny as I was when speaking in Japanese with *kansai* dialect.

Another concept that I learned during my graduate studies that prohibited me from developing my voice and a positive L2 identity is native-speakerism, which has been defined as “a pervasive ideology within ELT, characterized by the belief that ‘native-speaker’ teachers represent a ‘Western culture’ from which spring the ideals both of the English language and of English language teaching methodology” (Holliday, 2006, p.385). Like many other Japanese learners of English, I, too, showed positive attitudes toward American and British accents and negative attitudes toward non-native varieties of English accents (Chiba et al., 1995). This belief not only had a long-term effect on my identity as a non-native English teacher, but also as an English learner. As I learned more about the concept of native-speakerism, however, I realized that reproducing students who sound--or want to sound--like a native speaker of English will reinforce the hegemonic ideology of English. Since the reality is that the majority of speakers of English around the world are non-native English speakers, it is more likely that my students will be communicating with people who also speak English as their L2 or even L3.

4.3 Bringing the theories to the classroom

After I became aware of the ideologies that I was influenced by, I wanted to bring in the concept of translanguaging to my own teaching context in Japanese university and challenge the monolingual ideology. Thus, not only did I start using Japanese--the L1 of the majority of the students--to communicate with my students and explain skills and concepts, but I also encouraged students to use their L1 (e.g., Korean, Chinese, and Japanese) to maximize their communication and deepen their understanding in discussions. Supporting students not only in English but also through Japanese and other L1s enabled me to use my full communicative potential and certainly had a positive influence on me as a teacher. I was able to develop a more positive identity as an English teacher and also felt that this was something that I need to let my students experience as English language students, instead of having them develop a negative L2 identity, like I did, as someone who is “inferior” in English competence compared to native English speakers. As the university that I work for offers Japanese classes to international students, I also tried to join the required English standard language classes with the required Japanese standard language classes as much as possible so that my Japanese basis students could use English with students from various backgrounds. During those joint classes, I developed collaborative activities and encouraged students to translanguage. Although some English basis students wanted the teacher to tell them to only use the target language, so that they could practice more of their target language, many of my Japanese basis students viewed these joint collaborative classes positively. Japanese basis students appreciated the opportunities to communicate with the English basis students without worrying about making mistakes when they could not explain themselves fully in English like they previously did, and that they enjoyed the experience of working collaboratively with English basis students with some freedom to choose the language of communication within the classroom. For me as a teacher, this felt like a small step towards changing the Japanese basis students’ perspectives about working with people from different cultural and linguistic backgrounds in that they do not necessarily have to communicate with them only in English, but by using their full communicative potential depending on their interlocutors.

4.4 The journey towards a new language course

While I brought the concept of translanguaging into my own classrooms, I also wanted to share translanguaging as a pedagogy with more of my colleagues, so I offered faculty development (FD) workshops. However, just like it was for me, the concept of translanguaging is very new to many of my colleagues, and it seemed hard to be understood. For example, when students share the same L1, the use of the L1 can be effective in terms of comparing and internalizing differences between the L1 and L2 (Holliday, 2006). It can also be used as a scaffolding tool when completing cognitively challenging tasks (Yukawa, 2016), and can be helpful in creating a collaborative environment for group work (Leeming, 2011). These positive effects of bringing L1 into English classrooms can be understood

easily by many of the colleagues; however, the dynamic and fluid nature of translanguaging could be difficult to explain. Wei (2011) argues that:

Translanguaging creates a social space for the multilingual language user by bringing together different dimensions of their personal history, experience and environment, their attitude, belief and ideology, their cognitive and physical capacity into one coordinated and meaningful performance and making it into a lived experience (p.1223).

Therefore, translanguaging is not just simply using L1 in English classrooms to enhance students' English learning outcome, but rather, it is a pedagogy that educators can use to help students learn about and make meaning of their world using their full communicative potentials and diverse linguistic repertoire, taking each student's experience into account. That is why I thought language teachers need to offer students more opportunities to experience such communication. This was the beginning of my journey to developing a new language course. I was fortunate to find some teachers who became interested in the concept of translanguaging, and we began this journey together.

4.5 Frameworks for the new course

In developing a new course, I thought a lot about what framework would fit the kind of skills that I would like students to learn and develop, such as ability to work collaboratively with others, ability to communicate using various linguistic resources, and engage with the world, and one framework that I felt fit was Content and Language Integrated Learning (CLIL). According to Coyle et al (2010), CLIL refers to “a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language” (p.1). Cognitive engagement is crucial in effective learning, and collaborative group work can be helpful for students to learn the process of “constructing knowledge which is built on their interaction with the world” (p.28). In order to engage students with such learning, four components of CLIL, which are called the 4Cs-- cognition, culture, content and communication (Coyle, 2008)—should be considered. CLIL's components seemed to fit the kind of course that I would like to offer to students, especially because they emphasize collaborative group work and communication among students.

In addition to the 4Cs framework, I thought I could utilize the translanguaging pedagogy as well as the pedagogy of multiliteracies (New London Group, 1996). The pedagogy of multiliteracies was developed by ten academics who formed the New London Group in 1994 in the U.S., to replace the monolingual and monocultural pedagogy with a pedagogy that accommodates multiple modes of meaning making. The multiple modes of meaning making include various semiotic resources such as images, sound and gestures, as well as different forms and styles of languages, and the pedagogy of multiliteracies encourages this wide range of multimodalities to prepare students for the rapidly growing globalized world. I thought that the pedagogy of multiliteracies would work well with the course I was

developing as it focuses on multiplicity of communications platforms, cultural and linguistic diversity, and the meaning making process between the students, rather than mastery of one form of language.

4.6 Challenges and dilemmas in developing the course

Normally, in the development of a new course, language teachers develop the course within the language curriculum (e.g., when a new English course is developed, only English language teachers are involved), and there is no collaboration across varying languages. However, in the case of the translanguaging CLIL course, it was a collaborative effort by four English language teachers and two Japanese language teachers. All the teachers were very enthusiastic about this new course, and all of us volunteered to be a part of the development of this new course from scratch. However, while I felt very fortunate to work with such dedicated teachers, there were some challenges and dilemmas we faced in the development of this course.

In Japan, CLIL has been gaining popularity in the last few years, and the majority of CLIL courses fall into two categories: courses that focus more on the language learning through content teaching--often taught by language teachers--and courses that focus more on the content learning through foreign language teaching (e.g., English used as a medium) – often taught by content instructors (Barry, 2018). As my colleagues and I are all language teachers, however, I thought we were expected by the English program to offer a course like the former. Therefore, some of us wanted to prepare a lot of language-learning-focused materials for students, such as reading materials for the topics and vocabulary sheets. On the other hand, some of us thought more flexibility would be necessary to allow students' autonomous learning of the content and to take into account the fact that students will have different interests and levels of proficiency in the target language. In the end, we managed to compromise and prepare suggested reading for students who prefer to have their materials more teacher-led, and vocabulary sheets containing only initial words identified by teachers followed by blank spaces allowing students to add new words that they encountered while learning about the topic. The excerpt below shows my frustration while developing the course:

Autoethnographic piece #4

I am very thankful that I got this opportunity to be involved in this project, but there are some things that have bothered me, and I would like to leave it here before I forget.

(1) The focus on language:

I understand that this course is offered in the English program, so we need to ensure that students "improve" their English skills. But if only advanced students can take this course, do we really need to be caught up with CEFR and whatever measurable?

Like do we need to provide students with vocabulary to learn and not necessarily so authentic phrases to use? I think what they need as a next step is probably the ability to use language and semiotic resources freely and communicate well in any settings. They can learn vocabulary while reading authentic texts for example, instead of us providing them with words to "learn".

(2) Grading:

I really want students to learn how to collaborate and work well with people from different backgrounds while learning how to contribute one's own strengths and utilizing others' strengths. Of course, they will develop English skills in the process of completing the tasks given. Like if they have to make a presentation about an eco-friendly product they create, then in order to find the environmental issues to tackle, they need to do some research, and use the language to communicate the findings with the group members, and create a product and present it to class. There is a lot of language use/learning involved and I think that's good.

I think it's more important that students reflect on their own learning and improve their language skills as well as other skills (e.g., ability to work well and communicate with people from different backgrounds, do research using authentic materials, how to present in effective ways using various resources). If they can learn from those things, I think it's valuable. But it was suggested that we should have vocabulary tests to ensure that students are "learning" or have them write journals using the new vocabulary. I feel like it'd be more for us to say that we are ensuring students' learning. Oh well I guess that's what it means to teach in university? Do we always have to measure students learning by such ways?

As demonstrated in my reflective journal, I had many questions about what counts as a good CLIL course, such as how much focus should be placed on explicit language instruction, how much should be placed on communication, and what the grading scale should look like. Because I, myself, was learning about these innovative approaches, I felt it was difficult to explain them to my colleagues who were completely new to those theories and approaches, and I felt frustrated that I was not able to introduce those concepts in a more persuasive and appealing way. However, I learned the importance of respecting everyone's opinions and putting all the good ideas together while also making compromises. Every teacher has their own experience as a learner and a teacher, and all those experiences are important and should be taken into consideration as we cannot separate our identities from our teaching.

4.7 Challenges and dilemmas in teaching the course

I, as an English language teacher, co-taught this course with a Japanese language teacher, and we taught this brand-new course with a lot of excitement and some concerns, especially

with regard to how much teacher direction would be appropriate, and how students would perceive it. In addition, regarding concerns about the language of instruction, my colleague and I had discussed the language use in class and decided to borrow ideas from the two-way dual language program, employing the Multimodalities-Entextualization Cycle (MEC) (Lin, 2015), to ensure students' development of their target language while also allowing space for meaning making. The MEC cycle consists of three stages, and in the first two stages where students learn about the topic, students are encouraged to use multimodalities such as visuals, YouTube videos, and diagrams, and translanguage to engage with the topic and make meanings. On the other hand, in stage three, when students produce a spoken and/or written text, they are expected to do it in their target language. In terms of the contents of the course, unlike the other advanced track courses, which focused on one topic that instructors had chosen for the entire course, what was unique about this course was that the topics were decided based on the survey that was conducted. Based on students' interests, education, environment, AI, big data, and social issues were chosen for the topics covered in the course.

The translanguaging CLIL classes took place twice a week with one of the days conducted in Japanese by the Japanese language teacher and the second day conducted in English by me, the English teacher. However, while activities were prepared in the language of instruction of the day, students were allowed and encouraged to use different languages freely. Recounting my own experience developing a negative L2 identity and the feeling of my voice being taken away, I believed that it would be crucial to allow students flexibility in their language use so that they could let their voices be heard using their full communicative potential. However, my colleague and I were worried that the students themselves would self-regulate monolingual language use (either English or Japanese) because when I conducted joint classes across English basis and Japanese basis language classes occasionally prior to developing this course, some students preferred a strict language policy that forced them to practice the target language.

We were, thus, pleasantly surprised to see and hear students using both languages fluidly in their group work to make meaning. For example, although students were required to give presentations in their target language and were provided with a phrase sheet to assist with presentation preparation in their target language, we observed students across different language basis streams working together to add phrases that they would use, making the presentation more authentic. Below is an excerpt from one of the research journal entries that I wrote for the course:

Autoethnographic piece #5

Students worked in groups and prepared for presentation today. I visited different breakout rooms, and realized that translanguaging really is a natural, fluid and dynamic phenomenon.

Students were discussing their presentation and they just naturally go back and force

between Japanese and English. And most of them are neither a native speaker of Japanese nor English. But they would say something in English and say *だから* and go back to English, or speak in English and say what about the *割合, ありがとう, ごめんなさい*, just mixing languages.

Even on the google doc that they work on the presentation script together, there are a lot of translanguaging use. I realized again that translanguaging really is a fluid and dynamic phenomenon that occur in communication among multilingual students and it is a necessary tool in a course like this. They use language fluidly for communication and meaning making process, and us restricting the language use would mean us limiting their communication and knowledge construction.

As I observed, it seems rather unnatural and unreasonable to restrict the language use of students in class during discussions when the focus is for them to work collaboratively, make meaning, and learn together and from each other. Also, although teachers prepared readings for the topics, students were encouraged in their autonomous learning to choose their own learning primarily, and most of the students chose their own articles, and they were very responsible for their own learning. For example, an assignment for each topic was to read an article related to the topic given, summarize it, look up and add new words to the vocabulary list in their target language, and share their work with their group members. They looked excited to share what they had read as it was something they were interested in, and they were also adding new words that they learned from listening to other group members' summaries in English and Japanese. Even when English basis learners who were studying Japanese listened to English summaries, if they were not familiar with the word used in Japanese, they asked the English basis presenter who was learning English what they meant in Japanese. It really demonstrated that students could learn from each other and through multiple linguistic repertoires. This is demonstrated in another reflective journal that I wrote as well:

Autoethnographic piece #6

What was interesting to me was how freely students switched between languages. One group I observed/joined was working on the Japanese part first. Everything was in Japanese, like from reading the question to discussing the ideas to writing down the ideas. International students were explaining something in Japanese, and the Japanese student was writing down what she says in Japanese, but it was translated to a natural Japanese. And naturally, the Japanese student asked other students 「口調ってわかる？」 and one student didn't understand, but another international student said 「トーンオブボイスっていうのかな」. So she was trying to explain to the other international student the meaning in English word with Japanese pronunciation.

Another thing that was interesting to me was that when the Japanese student wrote

down 「見下すような態度を取らない」 from what they have talked about, one international student said 「見下すは何ですか」 so I made a gesture, like hand going down from my eye level, and she was like ahh and she understood and she wrote it down in her notes as it was a new expression for her. I witnessed the moment of learning through a natural interaction using multimodality. It was very interesting.

Also, after they finished the Japanese part, they moved on to the English part and they switched to English. They read the questions in English, discussed in English, thought of appropriate phrases in English and wrote down ideas in English.

Maybe with this dynamic of the class, we should apply dual language bilingual education? It was planned in a way that students in English class (Japanese students) can help students in the Japanese class with Japanese and vice versa, but the class is so diverse that it probably won't work like that. In my class, there is an American student who is half Japanese and is very fluent in Japanese, and in Japanese class, there are some Japanese students who grew up abroad.

What I noticed in my journal is how this nature of the diverse student body was helping the students' learning. Regardless of their L1, they use their full linguistic repertoire to help each other's learning. Like Lin (2019) argues, we need to recognize the crucial role that translanguaging and trans-semiotizing plays in language classrooms as it is evident in my reflective journal that I felt that it plays a central role in students' meaning making process. In addition, another important thing to notice from the reflective journal is that with classrooms that are becoming more and more diverse, labels such as L1 speaker of Japanese, or L2 speaker of English, do not necessarily represent students' proficiency in one language or the other, and thus, are not helpful in a modern language classroom. Moreover, as is evident in the reflective journal, I, as a teacher, was not the central part of students' learning. But rather, I was a part of students' learning, adding to their learning by using my semiotic resources (teaching a Japanese word with gestures).

Not only did the translanguaging CLIL course have a positive impact on students' language learning, it also had an impact on their learning of the content. As described above, topics were selected based on students' interests, and students were required to work in groups every class and were given tasks to complete as a group. To give an example, for the education unit, after learning about education around the world and different methods of education (e.g., online and face-to-face), students were asked to make a presentation on the ideal education. In this project, students were asked to come up with the skills that they think should be learned at university as well as the reason, and what kinds of courses should be taught in order to learn those skills. Some groups presented the evaluation methods as

well and this is demonstrated in my reflective journal:

Autoethnographic piece #7

Their ideas about the ideal education were really interesting and impressive, and I was especially impressed with how much they really think about their education. Some group said that there should not be any grades in courses that aim to develop students' skills to work collaboratively with others so that students can really focus on learning. I couldn't agree with the idea more.

It was also interesting that a lot of the groups thought communication skills as well as leadership skills are important to learn in university, and that they did not look at communication just as ability to speak well, but more like understanding others and communicating their own ideas and opinions well as well.

I was also happy to see that students asked a lot of thought-provoking questions even though there were no points given for asking questions. I think that they really are engaged with the course.

As it is evident in the journal entry, students are more capable of conducting their own learning than teachers sometimes assume. New London Group (1996) argues that “there is ample evidence that people do not learn anything well unless they are both motivated to learn and believe that they will be able to use and function with what they are learning in some way that is in their interest” (p.85). In this view, the translanguaging CLIL course was able to provide topics and tasks that students find meaningful in their own lives. They also argue that there must be a space where “all the learners are secure in taking risks and trusting the guidance of others — peers and teachers”, and evaluation should be used to “guide learners to the experiences and the assistance they need to develop further”, and never should be used to judge (p.86). What is evident from the classroom interaction reported in this journal entry is that some students do see the need for such learning and space.

5. Discussion and conclusion

The translanguaging CLIL course may not necessarily be viewed as a “traditional” CLIL course as CLIL courses often entail more explicit teacher language instructions. In the translanguaging CLIL course, however, there was more student-led learning. Also, in “traditional” CLIL courses, teachers’ roles are typically either language expert teachers or teachers with content expertise. However, in this new translanguaging CLIL course that we developed, what was more important was that teachers were facilitators rather than taking a top-down approach, like many language teachers engaged in CLIL currently may be as well. As stated in the pedagogy of multiliteracies, participants of the classroom bring in their unique experiences and resources with them, and they constantly negotiate and create meaning together (New London Group, 1996). Especially in the 21st century where a lot of communication occurs in multicultural settings and there are so many resources available to

the students, it has become more important than ever that students can communicate with people from different backgrounds in culturally sensitive ways, learn actively and make meaning together with others independently. In this view, not just top-down, but also bottom-up approaches should be taken, and as demonstrated in this paper, students are more than capable of such learning, at least in an advanced-level university course.

I hope my autoethnography showcased the complex process of identity negotiation of an English learner, and how the negotiation affected my teaching, which led me to creating a new translanguaging CLIL course—a course in which students learned from one another through multiple linguistic and cultural repertoires. With the classrooms becoming linguistically and culturally more diverse, new styles of CLIL that employ translanguaging pedagogy and accommodate students' linguistic and cultural diversity need to be further developed and explored.

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CLIL for Manufacturing: Japanese and International Postgraduate Students' Perceptions of its Instruction

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Abstract

This paper discusses reactions of postgraduate engineering students ($N=22$) at a Japanese graduate school to CLIL instruction developed through discussion with engineers. The study participants were 17 Japanese students and five international students from China and Malaysia who were taking a 15-week elective English course for postgraduate engineering students. We implemented CLIL for manufacturing in the last five classes of the course using materials developed through discussions with Japanese and Malaysian engineers. The content was built around a framework comprising four types of expressions (simple, detailed, logical, appropriate and accurate expressions) necessary for communication in the manufacturing industry (Tanaka, 2017; Tanaka et al., 2017; Uemura et al., 2019) and the "4Cs framework" (Coyle et al., 2010, p. 41). The quantitative results based on a five-point Likert-scale questionnaire showed positive responses to cooperatively learning English and manufacturing business practice as content. The qualitative results from a post-course open-ended questionnaire and both focus group and individual interviews upon concluding the course demonstrated (1) learners' perceived improvement of speaking, (2) learners' increased need for lessons highlighting speaking, pair and group work, and preparation/review materials, and (3) an apparent contrast between Japanese and international students' respective emphasis on output and input in class.

Keywords: CLIL, CLIL for postgraduate engineering education, CLIL for manufacturing, Japanese and international students

1. Introduction

Globalization has led to increasing industrial demand for higher education in order to develop human resources capable of prospering in a highly competitive global society. Manufacturers are expanding their businesses worldwide and thus are in dire need of competent global engineers. Against this backdrop, Content and Language Integrated Learning (CLIL) has recently been gaining momentum and popularity in search for appropriate and effective educational approaches for engineering students.

Due to its theoretically grounded faculty of the 4Cs framework (content, communication, cognition, and culture/community) (Coyle et al., 2010; Mehisto et al., 2008), CLIL is considered to not only develop contextual knowledge and linguistic competencies, but also enhance communicative skills for smooth interactions with those who hold culturally and/or individually different values. Therefore, CLIL is generally regarded as an effective way of cultivating learners' competencies for succeeding in global businesses.

Some studies on CLIL for engineering in higher education have been reported recently, especially in the context of universities, colleges, and national institutes of technology in Japan, known as KOSEN (Aguilar & Muñoz, 2014; Aoyagi et al., 2016a; Aoyagi et al., 2016b; Iijima, 2017; Venkateswara & John, 2017). However, the effectiveness of CLIL for postgraduate engineering students is still under-researched. Moreover, the appropriateness and effectiveness of CLIL for postgraduate engineering students in an international classroom setting where Japanese and international students learn together is yet to be explored.

The present study is inspired by previous theoretical research on CLIL for manufacturing conducted by Tanaka (2017), Tanaka et al. (2017), and Uemura et al. (2019), in which a language model of the four types of expressions (simple, detailed, logical, appropriate and accurate expressions) necessary for communication in the manufacturing industry was developed. The lessons for the present study were designed based on the 4Cs framework of CLIL (Coyle et al., 2010).

This study aims to explore the appropriateness and effectiveness of CLIL-based English for manufacturing classes at a Japanese graduate school by investigating Japanese and Asian international students' responses to teaching methods, content, perceived learning achievements, and motivation. This exploratory study is also aimed at observing possible similarities and/or differences between Japanese and Asian international students' responses to the CLIL teaching method in order to gain insights into designing appropriate CLIL teaching methods in the future.

2. Literature Review

2.1 *The 4Cs of CLIL*

The theoretical concept of CLIL is underpinned by the 4Cs framework: content, communication, cognition, and culture/community (Coyle et al., 2010; Mehisto et al., 2008). This section summarizes the 4Cs model elaborated by Coyle et al. (2010).

The content targeted in a CLIL classroom is diverse, ranging from subject matters taught in a regular curriculum to thematic topics across or beyond a curriculum. Content learning is not the transmission of knowledge from teachers to learners – called a banking model of education (Freire, 1996) – but cognitive engagement facilitated by scaffolding, which is guidance and support given by an expert, such as the teacher or expert learners, to the novice (Vygotsky, 1978).

Cognitive engagement involves metacognition of learning in interactive classrooms and through thinking skills. The former is an awareness of learning through interactions, often created by collaborative learning, such as problem-solving tasks in groups. The latter comprises lower-order thinking skills (remembering, understanding, applying) and higher-order thinking skills (analyzing, evaluating, creating), from the updated version of Bloom's taxonomy (Anderson et al., 2001).

Language learning and content learning take place in the CLIL classroom. Language has three roles in CLIL: language *of* learning, language *for* learning, and language *through* learning (Coyle et al., 2010, p. 37, emphasis in the original). Language *of* learning refers to the language used in a genre specific to the content. Language *for* learning is language teachers and learners use as a tool for teaching and learning both language and content. Scaffolding for dialogic activities, such as debates or collaborative learning, helps learners use language *for* learning. Language *through* learning is language that newly, and sometimes unpredictably, emerges during the learning process of new content knowledge. Thus, teachers must grasp the linguistic demands *in situ* during lessons.

Understanding their own culture and that of others is promoted through dialogic interactions. Intercultural interactions include those in learners' learning communities and larger communities beyond the classroom. Intercultural dialogue helps promote learners' awareness and understanding of cultural diversity and prepares them for global citizenship.

2.2 *CLIL for engineering in higher education*

CLIL has been implemented in engineering education. For example, Aguilar and Muñoz (2014) examined the effects of CLIL on the English listening and grammar skills of bilingual postgraduate engineering students at a Spanish University, reporting that less proficient students obtained higher gains in listening and grammar than more proficient students.

Aguilar and Muñoz discuss that high proficiency students did not gain input rich enough to develop their language proficiency during class because of the lecturers' limited English proficiency.

Venkateswara and John (2017) combined CLIL and CLT to develop English speaking skills in engineering classes at a college in India. The classes were conducted with “scaffolding, a support system that helps students develop their language proficiency by their interactions in the classroom” (p. 44). The study shows that students' speaking skills improved through teacher-led discussions and lively exchange with other students. The appropriate scaffolding helped heighten their confidence levels and enhance their communication skills.

In Japan, there are several studies on CLIL practices at KOSEN, a national institute of technology. Iijima (2017) reported three types of pilot CLIL lessons. One type of lesson was taught by an English teacher as an ESP subject. Another was conducted by the same English teacher, but the content was the same as what students had already learned in their information and communication systems engineering class. The third type of lesson was taught by an engineering teacher and two English teachers using a team-teaching style. The findings from class observation, questionnaires, interviews with the teachers and students, and the achievement tests showed the effectiveness of CLIL for learning technical lexis and in increasing students' motivation to learn both content and language.

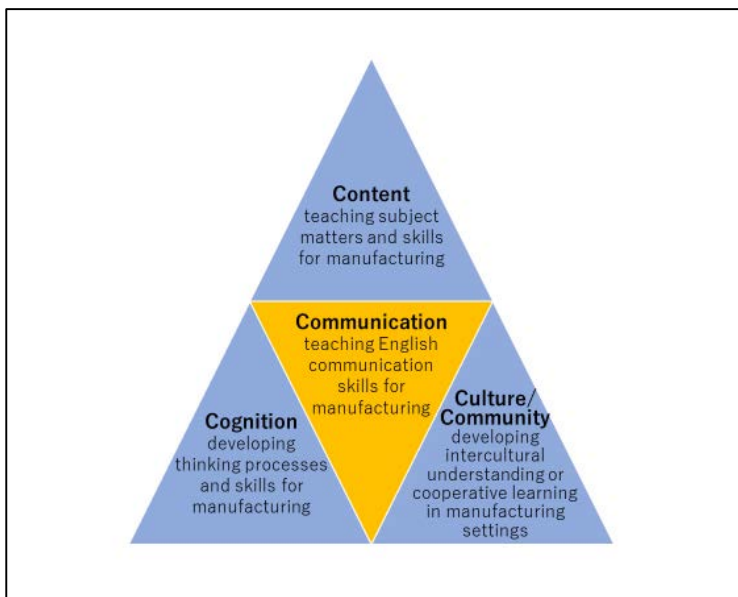
Aoyagi et al. (2016a) conducted a series of CLIL lessons to teach English writing for science and engineering to fifth-year mechanical engineering students at KOSEN. The lessons were planned in collaboration with a mechanical engineering teacher at KOSEN and two English language teachers working at other universities. The students were asked to write an assembly instruction in groups of four. The results of a student questionnaire on the lessons gained, indicated that they found CLIL effective and necessary for learning both English and engineering content. Although the students' responses were generally positive, the authors pointed to the implementation of the CLIL writing task without its rubric as a limitation. They argued the importance of a rubric to assessing students' writing performances, sharing a learning goal in class, encouraging students to plan what learning strategies to use, and proposing a rubric for their instruction writing task.

Aoyagi et al. (2016b) conducted another series of CLIL lessons for fifth-year mechanical engineering students at KOSEN. The students were asked to make a presentation in groups of four about the vegetable-harvesting robot they had created in their third year. The lessons were conducted by a mechanical engineering teacher, and evaluative feedback for the students' presentations were given by English teachers. A questionnaire on the lessons was given to the students. Most of the students positively evaluated their understanding of the lesson content, their use of English grammar and vocabulary for the content, their thinking

skills for effective presentations, and their engagement in the group work. They also positively answered the question on whether the integration of the engineering subject they studied in the past and English education could be helpful for their future careers. The students' written feedback suggested the meaningfulness of English education based on CLIL in terms of language acquisition, understanding the content, and increased motivation for learning.

There is also theoretical research on CLIL for engineering. Tanaka (2017), Tanaka et al. (2017), and Uemura et al. (2019) developed a CLIL model for engineering students (Figure 1). The model is based on the 4Cs model of CLIL: “content (teaching subject matters and skills for manufacturing), communication (teaching English communication skills for manufacturing), cognition (developing thinking processes and skills for manufacturing), and culture/community (developing intercultural understanding or cooperative learning in manufacturing settings)” (Uemura et al., 2019, p. 31). Since findings from the interviews suggest that acquiring communication in English is important for Japanese engineers (Tanaka, 2017), communication is placed in the middle of the model.

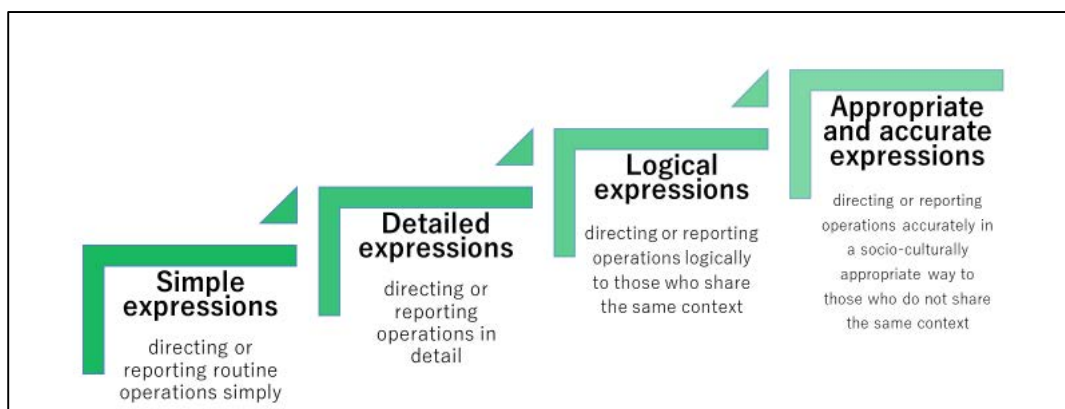
Figure 1. A CLIL model for manufacturing education



Note. From “Pedagogical Innovation and Materials Development in English Education: Applying CLIL for Postgraduate Engineering Students,” by T. Uemura, M. Tanaka, K. Ichimura, N. Aoyagi, and M. Ikeda, 2019, *Stress Brain and Behavior - Regional “Stress and Behavior” ISBS Conference, 1*, p. 31 (<https://doi.org/10.34417/sbb.1.1.28>). Copyright 2020 by Stress Brain and Behavior - Regional “Stress and Behavior” ISBS Conference. Reprinted with permission.

Tanaka (2017), Tanaka et al. (2017), and Uemura et al. (2019) also developed a language model necessary for communication in manufacturing settings (Figure 2). This model consists of four levels: simple expressions (Level 1), detailed expressions (Level 2), logical expressions (Level 3), and appropriate and accurate expressions (Level 4). Simple expressions are phrases or sentences used for “directing or reporting routine operations simply,” and detailed expressions are those used for “directing or reporting operations in detail” (Uemura et al., 2019, p. 31). Logical expressions are used for “directing or reporting operations logically to those who share the same context,” and appropriate and accurate expressions are used for “directing or reporting operations accurately in a socio-culturally appropriate way to those who do not share the same context.” (Uemura et al., 2019, p. 31).

Figure 2. Four types of expressions



Note. From “Pedagogical Innovation and Materials Development in English Education: Applying CLIL for Postgraduate Engineering Students,” by T. Uemura, M. Tanaka, K. Ichimura, N. Aoyagi, and M. Ikeda, 2019, *Stress Brain and Behavior - Regional “Stress and Behavior” ISBS Conference, 1*, p. 32 (<https://doi.org/10.34417/sbb.1.1.28>). Copyright 2020 by Stress Brain and Behavior - Regional “Stress and Behavior” ISBS Conference. Reprinted with permission.

As discussed, some of the previous studies on CLIL for university or KOSEN engineering students show that CLIL helps them acquire English, especially technical vocabulary, improves their speaking skills, contributes to enhancing their sense of achievement, motivates them for learning, and possibly supports their future career (Aguila & Muñoz, 2014; Aoyagi et al., 2016a; Aoyagi et al., 2016b; Iijima, 2017; Venkateswara & John, 2017). Studies also suggest that collaboration with content teachers and language teachers is key to success in CLIL for engineering (Aoyagi et al., 2016a; Aoyagi et al., 2016b; Iijima, 2017). Although these studies suggest positive CLIL results, it is not clear whether these findings can be applied to CLIL for postgraduate engineering students in Japan. Moreover, though there are both regular and international students in many engineering departments in Japan,

CLIL in the international engineering classroom has been under-researched. Accordingly, in order to develop an appropriate English course based on the CLIL model for postgraduate engineering students, this study addresses the following four research questions:

RQ1: What teaching methods would be appropriate for postgraduate engineering students in a CLIL-based English course?

RQ2: What teaching content would be appropriate for postgraduate engineering students in a CLIL-based English course?

RQ3: What effect would the CLIL teaching method have on postgraduate engineering students' perceptions of their learning achievements and motivation?

RQ4: What are the similarities and/or differences between Asian international students and Japanese students' responses to the CLIL teaching method in a Japanese postgraduate engineering course?

3. Methodology

3.1 Lesson content and structure

In the last five classes of a 15-week elective English course designed for engineering master's students in the spring semester in 2019, we implemented English for manufacturing lessons based on CLIL instruction. The remaining classes included course orientation, academic essay writing, and CLIL-based lessons using general topics on technology and science. The five CLIL for manufacturing classes were taught using materials that were collaboratively developed through consultation with Japanese and Malaysian engineers. These also included preparation/review materials, mainly consisting of linguistic exercises and technical articles and dialogues designed to enhance learners' academic journal reading skills. Lessons progressed assuming students' adequate learning through the preparation materials. The content was built around a framework comprising four types of expressions (simple, detailed, logical, appropriate and accurate expressions) necessary for communication in the manufacturing industry (Tanaka, 2017; Tanaka et al., 2017; Uemura et al., 2019) and the 4Cs framework of CLIL (Coyle et al., 2010). The typical lesson structure is described as follows: The students were instructed to watch a video of engineers conversing, which was followed by gap-filling exercises for the engineers' conversation, teacher's explanations about the technical terms appearing in the conversation, comprehension questions designed to encourage content learning, and peer teaching activities to solidify learners' understanding of the content. The second half of the lesson generally centered on analytical learning of linguistic features and situationally appropriate expressions in the manufacturing industry, followed by peer teaching activities to cement learners' understanding of the linguistic features and target expressions, and the

personalization of information applying these linguistic features. Two-time individual speaking tasks were also conducted to provide students with opportunities to gain the teacher's immediate verbal feedback and to reflect on their spoken performances. In the speaking tasks, students were expected to introduce and promote a new product using accurate and appropriate expressions.

3.2 Participants

The study participants were 17 Japanese master's students and five international master's students from China and Malaysia. We obtained their agreement to participate in this study based on a voluntary manner and permission to use relevant data for this study. There was one female student, and the remaining students were male. The Japanese students' English proficiency ranged from beginner to upper-intermediate levels, while the international students' English proficiency ranged from upper-intermediate to advanced. These levels are based on the authors' opinion. They majored in various engineering disciplines such as electrical, electronic, and information engineering (13 students), mechanical engineering (6 students), civil and environmental engineering (2 students), and chemical engineering (1 student).

3.3 Data collection and measurement

Quantitative data were obtained by administering a five-point Likert-scale questionnaire, initially consisting of 17 items. We focused on 12 items, however, that fit the purpose and scope of the present study. Of the excluded items, four focused on materials development, which requires more investigation and separate discussions; thus, their inclusion may cause confusion. Another item was also excluded whose statement contained a negative connotation which may bias the participants towards a negative response. The full list of items in the questionnaire is available in the Appendix. We also collected qualitative data using an open-ended questionnaire, focus group, and individual interviews. Moreover, the two-time individual speaking tasks were digitally recorded. The data was not used for this research but was used for student reflections on their spoken performances.

3.4 Procedures

We conducted the first individual speaking task after teaching simple and detailed expressions, but before teaching logical expressions (i.e., between the second and third lessons during the five CLIL for manufacturing classes). We then conducted the second individual speaking task upon concluding the last lesson. The teacher provided each student with verbal feedback immediately after each speaking task. Students' recorded speeches were returned to them after the tasks for their autonomous reflective learning. We administered the post-course questionnaire and open-ended questionnaire at the end of the final class. All responses to the former were then anonymized and visualized in bar graphs using a spreadsheet to identify positive reactions to each item. The anonymized data was

further divided into two separate datasets: Japanese students and Asian international students' responses. By visualizing them in bar graphs, we compared the percentage of positive responses to each item and identified similarities and differences. Next, responses to the open-ended questionnaire were also anonymized and classified into similar categories. After reviewing all the quantitative and qualitative results obtained thus far, voluntary participants for the focus group and individual interviews were recruited to gain further insights into the results. The following interviews were conducted upon concluding the course: individual interviews with two international students, a focus group interview with four Japanese students, and another focus group interview with an international student and four Japanese students. The interview content was digitally recorded and transcribed anonymously. The transcribed data were summarized into similar categories. Finally, the research question themes were discussed based on the quantitative and qualitative results.

4. Results

The Japanese and international students' comments in the tables and extracts, which were originally obtained in Japanese, were translated by the authors into English and were discussed for their appropriateness. The international students' comments in English are presented as it is.

4.1 Quantitative results

Figure 3 shows the postgraduate engineering students' reactions to CLIL instruction in the English for Manufacturing classes. Their reactions to the teaching method are represented first, in items 1 to 4. Notably, 46% of the students provided negative responses to item 1 while 37% of their responses were positive. However, positive responses to items 2 to 4 were over 90%. The students' reactions to the teaching content are displayed next, from items 5 to 9. Overall, more than 80% of the responses were positive. Nevertheless, negative responses to item 8, at 19%, is relatively higher than for other items in this category. Items 10 and 11 show students' reactions to the next category, regarding the four types of expressions necessary for communication in the manufacturing industry (Tanaka, 2017; Tanaka et al., 2017; Uemura et al., 2019). Despite a majority of positive reactions, positive responses to both items were comparatively lower than those in other categories at 64% and 69%. Item 12 presents the last category, concerning learning motivation for the 4Cs in CLIL, with largely positive responses at 91%.

Figure 3. Postgraduate engineering students' responses to the post-course questionnaire

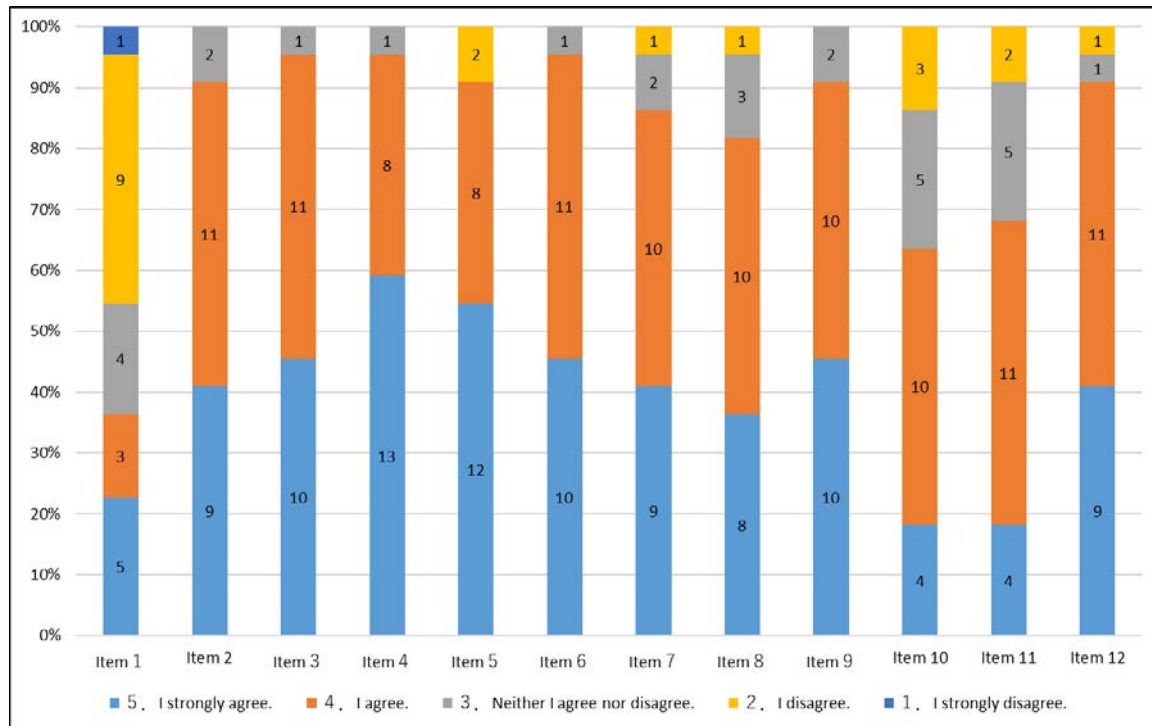
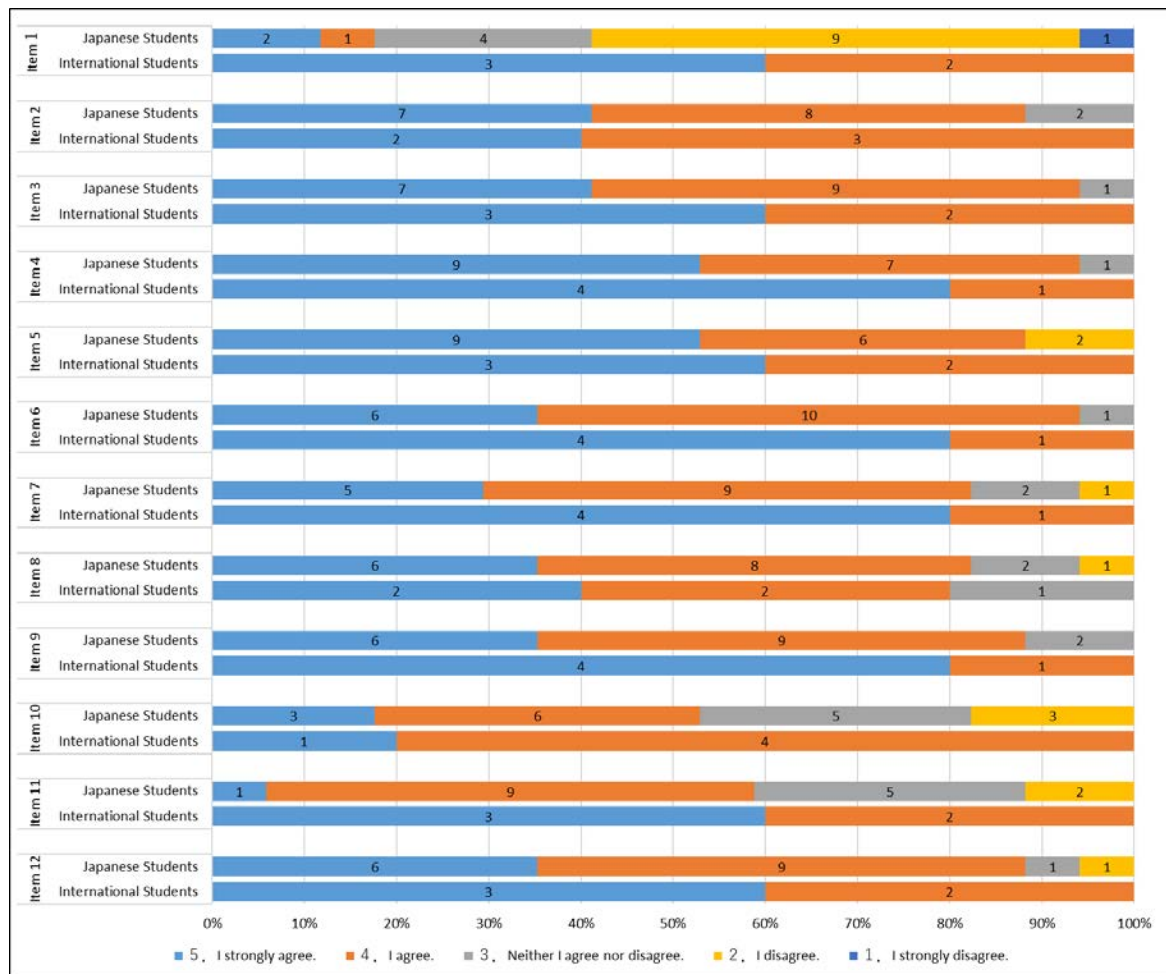


Figure 4 shows the comparative ratio of the Japanese and international postgraduate engineering students' reactions to CLIL instruction in the English for Manufacturing classes. There were remarkable differences between Japanese and international students' reactions to items 1, 10, and 11. In contrast, the remainder of items recorded over 80% positive reactions by both Japanese and international students.

Figure 4. Comparative ratio of the Japanese and international postgraduate engineering students' responses to the post-course questionnaire



4.2 Qualitative results from the open-ended questionnaire

This section summarizes the results obtained from the following four questions in the open-ended questionnaire.

- 1) What was/were the skill/skills that you think improved the most by taking this course?
- 2) What skills did you become motivated to improve or learn more about by taking this course? Please write your thoughts.
- 3) What kind of lessons are considered to be preferable for postgraduate engineering students? Please write your thoughts about things such as content, lesson style, activities, preparation and review, tests, and so on.
- 4) Were there any differences in learning engineering and manufacturing business content in English compared to learning them in Japanese? If so, please explain what engineering and manufacturing business content you felt was different.

Twenty students' responses to the first question were divided into eight categories: speaking, engineering elements, metalinguistic ability, multiple linguistic skills, expression range, reading, and writing (see Table 1). In particular, most students specified speaking as the skill they thought improved the most.

Table 1. Skills that the students thought improved the most ($N=20$)

Category	Example comment	Frequency, n (%)
Speaking	"Because there were a lot of opportunities to speak in group work and pair work, I thought that I was able to improve my speaking skills the most."	6 (30)
Engineering elements	"Engineering technical terms, phrases, and their appropriate use"	3 (15)
Metalinguistic ability	"Abilities to communicate what I want to say in more detail using the relative clauses <i>that</i> and <i>which</i> especially in group discussions"	3 (15)
Multiple linguistic skills	"I was able to not only understand what my interlocutor said completely but also convey my thoughts fully. "	3 (15)
Expression range	"I think that I was able to learn English conversation skills for business communication although I still cannot express fluently."	3 (15)
Reading	"Reading skills for understanding English sentences"	1 (5)
Writing	"how to write English theses"	1 (5)

Table 2. Skills that the students became motivated to improve or learn more ($N=16$)

Category	Example comment	Frequency, n (%)
Communicative skills using simple expressions	"I became motivated to acquire smooth communication skills at manufacturing sites even though my expressions are simple."	4 (25)
Fluency	"Abilities to quickly form contextually appropriate sentences in English"	3 (18.8)
Multiple linguistic skills	"I want to acquire chatting, speaking, and listening skills rather than reading and writing skills."	3 (18.8)
English communication skills for business	"Abilities to work globally"	2 (12.5)
Speaking	"I thought that I want to improve my speaking skills much more."	2 (12.5)
Academic and technical English skills	"Technical terms and grammar"	2 (12.5)

For the second question, 16 students' responses were categorized into six types: communicative skills using simple expressions, fluency, multiple linguistic skills, English communication skills for business, speaking, and academic and technical English skills (see Table 2). The first three categories had overwhelmingly positive responses by a majority of the respondents.

Table 3. Preferable types of lessons suggested by postgraduate engineering students ($N=16$)

Category	Example comment	Frequency, n (%)
Teaching and learning methods that emphasize pair work and group work	<p>“I thought the classroom activities were favorable because it was exciting for me to do pair work while visualizing possible situations.”</p> <p>“I prefer lessons that center on speaking through abundant group discussions”</p>	5 (31.3)
Positive responses to and suggestions for learning materials	<p>“Thanks to the preparation and review materials provided in this course, I was able to understand the lesson content. So, I recognized the importance of preparation and review.”</p> <p>“Preparation materials would have been better if they had included assistance in more Japanese.”</p>	5 (31.3)
Classes that emphasize speaking	<p>“I thought that the lessons were good because a group of students gathered and generated chances to speak English actively.”</p> <p>“I was too busy for my research at graduate school to spare time to prepare for lessons, but I was able to learn while speaking through regular attendance to the lessons. So, I prefer this learning style.”</p>	3 (18.8)
Proactive classroom activities related to chosen academic fields	<p>“I thought that the lessons were good because they were designed for engineering major students to practice technical conversations.”</p>	2 (12.5)
Necessity of basic English conversation skill development opportunities	<p>“Classes to learn basic English conversation skills such as how to ask questions when encountering new vocabulary and ask for directions on the street”</p>	1 (6.3)

As with the second, 16 students responded to the third question. Their responses were classified into six categories: teaching and learning methods that emphasize pair work and group work, positive responses to and suggestions for learning materials, classes that emphasize speaking, proactive classroom activities related to chosen academic fields, and necessity of basic English conversation skill development opportunities (see Table 3). The

first two categories also had overwhelmingly positive responses from the students.

Finally, eight students responded to the fourth question. Their comments mainly concerned the benefits of learning in English, concise manner of English communication, the distinct nature of English logic used when giving explanations in business situations, and the importance of intercultural awareness in business communication (see Table 4). One of the noteworthy benefits of learning in English was reported to be its dimension of facilitating technical term acquisition.

Table 4. Differences in learning engineering and manufacturing business content in English compared to learning them in Japanese ($N=8$)

Category	Example comment	Frequency, n (%)
Benefits of learning in English	“I felt that it was easier to understand technical terms in English than in Japanese.”	3 (37.5)
Concise manner of English communication	“I felt that it is necessary to speak concisely in English.”	2 (25)
Distinct nature of English logic used when giving explanations in business situations	“I realized what I can do in Japanese communication and what I cannot do in English communication such as the use of logical expressions.”	2 (25)
Importance of intercultural awareness in business communication	“I learned the importance of appropriate word choice considering employees’ cultural differences”	1 (12.5)

4.3 Qualitative results from interviews

This section highlights both Japanese and international student responses to the following four focus group and individual interview questions thought to be necessary for further exploration considering their questionnaire results.

4.3.1 Why do you think international students tend to prioritize input through lectures while Japanese students are more inclined to emphasize output through communication in classroom activities?

Japanese student A: Technical terms are completely different according to the field of research, so they can be studied individually in each major. On the other hand, Japanese students, including me, want to practice outputting or speaking much more. That’s why the results came like this.

International student A: Maybe I think things are different. It's set to the development of the countries. I think, especially in some developing countries, they want to learn more from other countries, so maybe they agree with the input of knowledge, but for some developed countries, they do something really [*sic*] maybe with high quality. They think their own product is [*sic*] very outstanding. They don't need to get more things from other places. So, compared to the input, they prefer to outputting [*sic*]. That's one of the reasons.

International student B: I usually read English academic papers and encounter a lot of technical terms. If I don't study them, I will not be able to understand the content.

4.3.2 Why do you think the students with low confidence in their English competencies felt positive about the classroom activities of teaching and learning in pairs?

Japanese student A: I think that peer teaching was really good. Although I believed that my understanding was perfect, I failed to answer correctly. This told me that I had not reached full understanding yet, and this awareness helped deepen my understanding. My classmates also had a chance to listen to the same point in different expressions, so their understanding of what they learned was facilitated.

Japanese student C: Putting my English accuracy aside, whether or not I could actively speak helped me confirm if I understood the content. I could also confirm what were the expressions that I could use through my actual attempt to output.

International student B: I guess that teaching activities were fun because students may have felt a sense of a superior status.

4.3.3 To facilitate the understanding of content and English, how can the classroom activities of teaching and learning in pairs be improved for students with low confidence in their English competencies?

Japanese student A: Students' understanding and skill development will be facilitated if teachers' roles in peer teaching can be switched one more time, in a way that classmates can mutually give corrective feedback and strengthen learning.

Japanese student D: If the key points are explained by the teacher again, after peer teaching, that will prevent me from forgetting them easily. The chance to listen to the key points only once before the peer teaching tended to result in forgetting most of them.

Japanese student F: Before starting peer teaching, if the teacher could show the key points of his explanations that would facilitate the activities

4.3.4 What do you consider the cognitive skills and the capacity to accept different values to be that the students generally became motivated to develop through the lessons?

The first two comments are extracts from the interviews regarding cognitive skills from the Japanese and international students' viewpoints.

Japanese student C: It is natural that I am supposed to learn new content and English expressions in this course. The additional element, enhancing cognitive skills, may be related to the questionnaire results that output through speaking and writing is essential. I have to consider various things when trying to output using my current abilities. I think that many students regard enhancing cognitive skills similarly to what I understand. I think in order to output. More specifically, I consider what vocabulary or expressions should be used for appropriate communication. In addition to new learning, I want to output what I know at the moment. To achieve this, I have to think, and thus become willing to enhance such skills through this course. There should be a lot of students who regard such skills as cognitive skills.

International student A: I have already taken the [sic] English test from England, so I think that grammar [sic] and logic of articles are very different from Asian countries. For example, the debate. The logic of debate is really special and may be strange first [sic]. I think, thinking skills, if we use the grammar or logic of Asia, especially Japan, or [sic] Korea, or China, maybe the debate way [sic] logic is different. I finished one article. It's a test of English. I used the logic of Chinese [sic]. I get [sic] a very low degree because English imagination and thinking way of British [sic] is really special, so I think skill should be really concentrated.

The second two comments are extracts from the interviews regarding the capacity to accept different values.

Japanese student C: When talking about a picture in the group discussion, each classmate's answer was different regardless of their cultural background. Because of many opportunities for group discussions in this class, there may have been a lot of students who realized such differences after the classes.

Japanese student D: The capacity to accept different values may involve face-to-face focused communication while keeping openness to others. Through pair work, I feel that I was able to enhance this capacity because I was physically the only person who could listen to my classmate and could not miss any of their comments.

5. Discussions

5.1 *What teaching methods would be appropriate for postgraduate engineering students in a CLIL-based English course?*

Items 1 to 4 in the questionnaire were designed to explore the first research question. The quantitative results of item 1 were noteworthy and debatable, but the following is suggested to reflect the findings of this research only. Japanese students typically prioritize learning via output through communication in classroom activities, while international students emphasize learning via input through lectures on vocabulary, technical terms, concepts of terminology, and grammar. This dichotomy is further explored in the discussion of the fourth research question. This section discusses appropriate teaching methods considering the results. Although lessons should cater to every student in class, neither setting two polar opposite objectives in one course nor splitting the course depending on course objectives is practical. Hence, changes are necessary in classroom activity design. Students should be provided with more opportunities to learn technical terms. In this respect, as reviewed in Section 2.2, CLIL-based teaching would be helpful for engineering students to learn technical terms (Aoyagi et. al., 2016b; Iijima, 2017).

Considering our multicultural CLIL classroom with the above dilemmatic dichotomy, we suggest the following pedagogical ideas to harmonize the distinct needs of Japanese and international students. First, more technical terms from each engineering discipline should be selected. Second, as a part of dialogue practice, personalization of some information should be incorporated using model dialogues. The information can be chosen from answer options that should include engineering technical terms. When modeling personalized dialogue practice, the teacher should go over the answer options and give explanations about the terms. Finally, students should also create mutual learning opportunities via input and output in pairs and groups, as shown in Table 2, as their most preferable classroom learning style. As reviewed in Section 2.1, content learning should be dialogic with scaffolding provided by peers or teachers (Freire, 1996; Vygotsky, 1978). Teachers can help students create these opportunities by designing collaborative learning activities in which students share their ideas involving technical terms from their engineering discipline. To foster a learner-centered classroom, activities should be designed in such a way that knowledge does not always need to be imparted by teachers. When using technical terms, students also need to explain their definitions to classmates.

The postgraduate engineering students' perceptions of analytical approach to learning linguistic features, peer teaching for improving learners' understanding, and the students' opportunities to reflect on their performance and progress through speaking tasks were found to be positive according to the quantitative results of items 2 to 4.

The analytical approach to learning linguistic features is designed to develop learners'

abilities to identify situationally appropriate expressions based on the framework of four types of expressions (simple, detailed, logical, appropriate and accurate expressions) necessary for communication in the manufacturing industry (Tanaka, 2017; Tanaka et al., 2017; Uemura et al., 2019). Analyzing is one of the higher-order thinking skills (Anderson et al., 2001), which should be developed in CLIL-based teaching (Coyle et al., 2010). Each expression involves key grammar points and functions, which are elaborated by the teacher. The traditional approach to grammar and functions does not seem to be analytical enough but combining it with the above novel approach to identify four kinds of situationally appropriate expressions may engage students' analytical learning process. This cognitively demanding learning through the teacher's instruction and peer teaching is considered to be appropriate for postgraduate level of engineering students. Nevertheless, as suggested in Table 2, Japanese students with low English proficiency may need more assistance in Japanese with preparation materials so that their understanding can be facilitated.

The students' positive reactions to the analytical approach to learning linguistic features were probably supported by the implementation of peer teaching. Peer teaching was aimed at facilitating learners' understanding of content and English in this course, which accommodated students with differing English competencies. The following learners' metacognitive and emotional factors of peer teaching reported by the students in the interviews may have exerted a positive influence on students with low confidence in their English competencies. Learners' metacognitive factors can be summarized as follows: through learning by teaching in pairs, those speaking could confirm what expressions they could actually use, while those listening also had a chance to evaluate their own understanding of the points explained by their classmates using different expressions. Metacognition of learning through these two factors is considered to be promoted by peer teaching. As Coyle et al. (2010) stated, metacognition of learning (i.e., awareness of learning to learn) takes place through cooperative learning in CLIL lessons. Emotional factors can be represented by fun elements of enjoying a simulated superior status when taking on teaching roles. The following interview summary of the students' suggestions for improving peer teaching should also be noted: to facilitate and strengthen students' learning, the key points should be demonstrated and briefly explained by the teacher before and after the peer teaching activities, and teaching roles in one peer teaching activity should be experienced at least twice.

Positive reactions to speaking tasks also played an important role in considering appropriate teaching methods. Although the students generally looked nervous in the first task, they tended to demonstrate confidence and willingness to convey their learned expressions through this course in the second task. This was evident from their improved fluency and manner of giving speeches, and the frequent use of gestures and speaking while standing. The additional opportunities for speaking, reflective learning, and gaining the teacher's

immediate feedback may have led to positive reactions to the spoken tasks. Particularly, teacher's immediate feedback contributed to students' meaningful learning, which can be interpreted as a teacher's appropriate manner of scaffolding. This result resonates with Venkateswara and John (2017), who indicated that in engineering classes, teachers' scaffolding and student–student interactions help to enhance students' confidence and speaking skills.

5.2 What teaching content would be appropriate for postgraduate engineering students in a CLIL-based English course?

Positive responses to items 5 to 9 in the quantitative results demonstrated the appropriateness of the teaching content employed in this exploratory study. The content is typically characterized as a manufacturing business practice. Therefore, we could develop more lesson units based on the following teaching content: (1) content for future management level engineers who require appropriate English communicative skills, (2) interdepartmental collaboration within a company, (3) situations within and outside of a company where logical expressions and accurate and appropriate expressions are necessary, and (4) standard practices at international manufacturing sites and relevant business content that motivate learners to develop their competencies for working globally. We believe that the above teaching content will be appropriate. Table 2 demonstrates multiple linguistic skills as one of the skills students became motivated to improve after the course. It is anticipated that students could visualize their future careers through the above content and relevant dialogues, and also realized the importance of multiple linguistic skills through communication with international students, which might have created simulated international business situations. This qualitative result resonates with the previous findings reported by Aoyagi et al. (2016b) that engineering students who had made English presentations about their robots found that learning both content and language would be a great help for their future professional careers.

5.3 What effect would the CLIL teaching method have on postgraduate engineering students' perceptions of their learning achievement and motivation?

The qualitative results revealed that speaking was the skill that the students perceived to have improved the most due to increased opportunities for spoken communication through pair and group work. Peer-to-peer teaching activities implemented upon completing the teacher's explanations about linguistic features in engineers' dialogues such as salient grammar points and practical functions should have been one of the main reasons for specifying pair work. Group discussions on possible quality issues with products such as fuel tanks should also have been good opportunities for postgraduate engineering students to apply and share their differing expert knowledge. Stimulated by their interests in the content connected to their chosen field, the students are considered to have recognized an increased number of interactions with their classmates from different cultures and academic fields through these activities.

The results from the open-ended questionnaire also identified three types of students' major perceptions of their learning motivation after the course: (1) communicative skills using simple expressions, (2) fluency, and (3) multiple linguistic skills. The students appear to have been particularly impressed with engineers' frequent use of concise expressions in audio-visual materials and model dialogues that were developed in collaboration with current and former engineers. The multiple linguistic skills enumerated above generally include spoken competency. Along with fluency, these qualitative results revealed enhanced learners' motivation to further develop their spoken communicative competency through interactive CLIL-based lessons in an intercultural and interdisciplinary classroom.

Furthermore, positive quantitative results of item 12 indicate the students' increased interest in not only learning manufacturing business content and English expressions but also enhancing their cognitive skills and capacity to accept different values. As Japanese student C said in the interview, "It is natural that I am supposed to learn new content and English expressions in this course." However, thinking about cognition and culture in English learning classes may be a novel experience for students. Therefore, these elements may be interpreted differently. This assumption motivated us to further explore the cognitive skills and capacity to accept different values regarded by the students in the interviews. As shown in the qualitative results from the interviews, the cognitive skills that the students became motivated to learn can be summarized as skills to consider situationally appropriate vocabulary or expressions. Furthermore, the capacity to accept different values that the students became willing to learn, especially through pair and group work, can be categorized into two elements: (1) open but attentive attitude toward interlocutor's utterances, and (2) enhanced awareness of individuals' differing ways of thinking regardless of their cultural background. These results are compatible with Coyle et al. (2010), who stated that understanding and awareness of cultural and individual diversity should be promoted through interactions and cooperative work with other students in CLIL-based lessons.

The quantitative results also uncovered challenges, especially in the Japanese students' perceptions of their learning achievement regarding the judgment and use of situationally appropriate vocabulary and expressions based on the framework of the four types of expressions (Tanaka, 2017; Tanaka et al., 2017; Uemura et al., 2019). Although students' positive responses to items 10 and 11 ranged between 50% and 60%, these results were remarkably inferior to other results. "I learned the importance of appropriate word choice considering employees' cultural differences" was one of the Japanese students' responses in Table 4. This comment may imply that the use of situationally appropriate vocabulary and expressions would be one of the biggest challenges. "Abilities to quickly form contextually appropriate sentences in English" was another Japanese student's response to what skills the students became motivated to improve or learn more, as shown in Table 2. This may represent some Japanese students' struggles with their judgment of situationally appropriate

expressions based on the aforementioned framework.

5.4 What are the similarities and/or differences between Asian international students and Japanese students' responses to the CLIL teaching method in a Japanese postgraduate engineering course?

5.4.1 Similarities

Quantitative results of item 8 demonstrated that both Japanese and international students provided positive responses at approximately 80%, whereas all the international students showed positive responses to item 7. This can be interpreted as both Japanese and international students feeling that understanding typical manufacturing business situations was still difficult, particularly where accurate and appropriate expressions should be utilized. In this study, the international students' English competencies were generally higher than those of the Japanese students. One of the possible reasons for international students' perceived difficulty is challenges in grasping the English logic as stated by an international student in the qualitative results from the interviews.

5.4.2 Differences

As can be seen in the discussion of the first research question, Japanese students typically prioritize learning via output through communication in classroom activities, while international students emphasize learning via input through lectures on vocabulary, technical terms, concepts of terminology, and grammar. Qualitative results through interviews revealed more specific reasons for this dichotomy. The Japanese students' priority to learn via output is considered to be motivated by the willingness to develop their spoken communicative competency necessary for their future professional careers. It was also reported that English technical terms can be learned by themselves or through studies in their major. Conversely, the international students' emphasis on learning via input appears to be derived from their focus on smoother English academic journal reading skills by learning technical terms in class. Furthermore, the interview results suggest social and economic dimensions of the possible differences. Those from developing or emergent countries want to learn more from those in other countries and thus prioritize the input of knowledge. Alternatively, those from developed countries do not need to gain anything new immediately from different places, as their products are believed to be outstanding and thus emphasize the output of knowledge or disseminating new information. The students' learning priority in this course may resonate with these inclinations depending on where they are from.

6. Conclusion

In this exploratory study, we discussed the pedagogical applicability of CLIL for Japanese and Asian international postgraduate engineering students in English for manufacturing

classes at a Japanese graduate school from the following perspectives: appropriate teaching methods and content, effect on postgraduate engineering students' perceptions of their learning achievements and motivation, and similarities and/or differences between Asian international students and Japanese students' responses to the CLIL teaching method.

The postgraduate engineering students' positive reactions to the following teaching methods were found to be appropriate: analytical approach to learning linguistic features, peer teaching for improving learners' understanding, and students' opportunities to reflect on their performance and progress through speaking tasks. The teaching content of manufacturing business practice was also identified to be appropriate for postgraduate engineering students because of its usefulness in visualizing their own future careers. Through the CLIL teaching method, speaking was reported to be the skill that the students perceived to have improved the most due to increased opportunities for spoken communication during pair and group work. Conversely, challenges were also uncovered, especially in the Japanese students' reactions to their learning achievement regarding the judgment and use of situationally appropriate vocabulary and expressions based on the framework of the four types of expressions (Tanaka, 2017; Tanaka et al., 2017; Uemura et al., 2019). Upon concluding the course, the students' positive perceptions of their increased motivation to not only learn manufacturing business content and English expressions, but to also enhance their cognitive skills and capacity to accept different values were noteworthy. The former was typically characterized as skills to consider situationally appropriate vocabulary or expressions, and the latter was identified to be recognized in the following two ways mainly through pair and group work: (1) open but attentive attitude toward interlocutor's utterances, and (2) enhanced awareness of individuals' differing ways of thinking regardless of their cultural background. Last but not least, the differences and similarities between Asian international students and Japanese students' reactions to the CLIL teaching method were striking. Japanese students were reported to typically prioritize learning via output through communication in classroom activities because English technical terms can be learned by themselves. Alternatively, international students were reported to generally emphasize learning via input through lectures on vocabulary, technical terms, concepts of terminology, and grammar mainly because of their preference to improve their English academic journal reading skills. As for the similarities, Japanese students because of their comparatively lower English competencies and international students because of their perceived difficulty in grasping English logic felt that it was still difficult to understand typical manufacturing business situations, especially where accurate and appropriate expressions should be used.

This study also had some limitations. The study participants included only one female student, while the rest were male. Furthermore, the number of total participants was 22 postgraduate engineering students, of which five were international students. These numbers

were not adequate for the generalization of the results. In addition, it was not possible to form a focus group consisting of only international students. Instead, we conducted individual interviews with voluntary international students. The successful formation of this focus group could have generated more productive discussions and various feedback on international students' perceptions of their learning through CLIL. For future research, gaining more feedback on learning through CLIL from international students is essential since it has become increasingly common for Japanese and international postgraduate engineering students to learn together at the Japanese graduate school in which this study was conducted. We hope to suggest appropriately harmonized CLIL teaching methods that are underpinned by analyses through the collection of more international students' reactions to CLIL for Japanese and international postgraduate engineering students in our future research.

Acknowledgment

This work was supported by JSPS KAKENHI Grant Number JP18K00741 and fiscal 2016 budget requests to MEXT by Yamaguchi University entitled *Establishing New Model of Postgraduate School Education for Development of Innovative Human Resources*.

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Appendix.

Post-course questionnaire (translated into English)

Using a five-point Likert scale, students were asked to indicate to what extent they agreed or disagreed ("5" strongly agree, "4" agree, "3" neither agree nor disagree, "2" disagree, "1" strongly disagree.) with the following statements.

I. Items pertaining to teaching methods

Item 1. Regarding English learning at a postgraduate engineering school, I think that learning via input through lectures on vocabulary, technical terms, concepts of terminology, and grammar is more important than learning via output through communication in classroom activities.

Item 2. I believe that analytically studying linguistic features (function and grammar) of English expressions that are generally used in manufacturing sites and relevant business situations will help both students majoring in linguistics or language education, and postgraduate engineering students apply appropriate expressions.

Item 3. I believe that my understanding of both situational linguistic features and new content in manufacturing business improved through teaching what I learned to other classmates.

Item 4. By taking pre- and post-course individual speaking tasks in addition to the class, my English learning motivation was enhanced because I was able to visualize my progress and areas to improve.

II. Items pertaining to teaching content

Item 5. I think that at this postgraduate engineering school, the classes aimed at developing English communicative skills for management level professionals in the manufacturing industry are suitable in terms of both content and difficulty level regardless of major.

Item 6. I understand that different departments collaborate within a company and thus became more interested in English by visualizing myself inside a company while learning it.

Item 7. I understand what inter-departmental operations require advanced English communication skills (such as logical expressions) within a company.

Item 8. I understand the situations where advanced English communication skills (such as accurate and appropriate expressions) are necessary between companies.

Item 9. I became motivated to prosper as a global businessperson after studying English, standard practices at international manufacturing sites and relevant business content.

III. Items pertaining to the four types of expressions necessary for communication in the manufacturing industry

Item 10. I could give appropriate instructions and communicate using relevant vocabulary and expressions depending on the manufacturing site and for relevant business situations.

Item 11. I could speak by classifying the communication method into its appropriate category depending on the manufacturing sites and for relevant business situations upon determining if simple or more advanced communication methods should be used.

IV. Items pertaining to learner motivation towards the 4Cs of CLIL

Item 12. Through this English class, I became interested in not only learning manufacturing business content and English expressions, but also enhancing my cognitive skills and capacity to accept different values.

Item 13. I don't think that explanations about products and negotiations with clients are necessary therefore don't have to be emphasized even though the global manufacturing industry requires both engineering knowledge and English communication skills.

V. Items pertaining to lesson and preparation/review materials

Item 14. The reading assignments in the preparation materials completed before each class were helpful in improving my comprehension of English academic journal readings.

Item 15. Reflecting on the educational style of this class which assumes study before each lesson using the preparation materials, I think that the amount of preparation and the nature of content before class were appropriate for postgraduate engineering students.

Item 16. I became motivated to participate in learning activities due to the use of audio-visual recordings and effort to abstract the learning items through visuals such as images and illustrations on the lesson presentation slides and classroom materials.

Item 17. I became aware of the importance of English as an international language in class by watching videos in which Asian speakers of English, not native English speakers, are using English in a real manufacturing business.

Open-ended questions

1. What was/were the skill/skills that you think improved the most by taking this course?
2. What skills did you become motivated to improve or learn more about by taking this course? Please write your thoughts.
3. What kind of lessons are considered to be preferable for postgraduate engineering students? Please write your thoughts about things such as content, lesson style, activities, preparation and review, tests, and so on.
4. Were there any differences in learning engineering and manufacturing business content in English compared to learning them in Japanese? If so, please explain what engineering and manufacturing business content you felt was different.

Mapping the Terrain of Content and Language Integrated Learning in Japanese Universities

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Abstract

Although Content and Language Integrated Learning (CLIL) is found at various education levels in Japan, relatively little is known about it in Japanese universities. Survey studies in Europe and other contexts have elucidated the state and development of CLIL. They have identified CLIL commonalities and differences across and between contexts plus areas of need in CLIL research, design practices and teacher training. This is a pilot study of a larger project that aims to achieve similar for the Japanese university context. Teachers within this context answered an online survey informed by previous research (Birdsell, 2020; MacGregor, 2016; McDougald, 2015; Pérez Cañado, 2018). This study aims to clarify a range of areas namely: a) teacher demographics, b) language teaching experience, c) teacher viewpoints on CLIL, d) CLIL experience, and e) CLIL course profiles. The respondents (n=41) answered a 50-item survey of open and closed-response items which subsequently underwent mixed methods analysis. Results indicated variability in how respondents understand CLIL and some explanations on materials and evaluation. Courses described begin to profile extant CLIL practices found in Japanese universities.

Keywords: CLIL, university, teachers, courses

1. Introduction

Content and Language Integrated Learning (CLIL) has spread globally since its foundation in Europe. Embodying a proactive desire to increase plurilingualism and realized in mostly top-down implementations, numerous examples of university-level CLIL are operating in Europe (Eurydice, 2006; Ruiz de Zarobe & Jiménez Catalán, 2009). CLIL was introduced to the Japanese educational landscape in the late 2000s (Tsuchiya, 2019) and included in Ministry of Education, Culture, Sports, Science and Technology (MEXT) documents from 2010 (Hashimoto & Glasgow, 2019). CLIL in Japan is a reactive means to enhancing language proficiency and realized via a bottom-up approach (Tsuchiya & Murillo, 2019). Disparate instances of CLIL courses in Japanese universities and some examples of CLIL programs have been observed (Hashimoto & Glasgow, 2019).

Generally, CLIL in Europe entails the teaching and learning of content by content specialists and includes high stakes assessment (Llinares & Dalton-Puffer, 2015) while language learning is a key but not focal point (Jäppinen, 2005). The Spanish context illustrates

possible implementation issues. Initially, teacher knowledge and competences were essential as many Spanish teachers were content, not language, specialists (Aguilar, 2017; Aguilar & Rodríguez, 2012). Additionally, an understanding of CLIL pedagogy (Navés, 2009) and training gaps (Pérez Cañado, 2016) was needed. Currently, there is limited research on CLIL implementation and contextual issues in Japan, and the bottom-up development may pose issues for teacher knowledge.

The infancy of CLIL in Japan was noted less than a decade ago (Ikeda et al., 2013) but now tracking progress is crucial. Although interest in CLIL at Japanese elementary (Yamano, 2013) and high school levels (Ikeda, 2013) is observable, MEXT is yet to officially recognize CLIL (Hashimoto & Glasgow, 2019) but has encouraged integrating content and language (Cripps et al., 2018; MEXT, 2018). As such Japan has no CLIL policy or guidelines meaning ‘grassroots’ practitioners determine implementation. At university level, an increase in research publications on CLIL demonstrates growing interest (Tsuchiya, 2019) but a nuanced contextual understanding is desired. This study aims to explore CLIL in Japanese universities in terms of who is using CLIL, how they view CLIL, what their experiences are with CLIL, and how their CLIL courses can be profiled. Previous studies have only focused upon the first two of these (MacGregor, 2016) or on specific CLIL courses.

2. Background and Considerations

2.1 Defining CLIL

As interest in CLIL in Japan grows, implementation issues are likely encountered. Birdsell (2020) identifies one as defining CLIL with clarity, as identified in other contexts (Bruton, 2015; Cenoz et al., 2013). The predominant CLIL definition comes from Coyle et al. (2010) which states that CLIL is “a dual-focused educational approach in which an additional language is used for the learning and teaching of both content *and* language” (p. 1). Over time CLIL became an umbrella term encompassing a range of practices and overlaps with aspects of immersion, Content Based Instruction, and English Medium Instruction (EMI) (Coyle, 2018; Ioannou Georgiou, 2012; Lasagabaster & Sierra, 2009). This umbrella nature is realized in numerous CLIL varieties plotted across the CLIL continuum, ranging from hard (or content driven) to soft (or language driven) (Ball et al., 2016; Met, 1999). There have been calls in European contexts to chart a taxonomy of varieties (Cenoz et al., 2013). Birdsell (2020) argues understanding “the local contextual variations of CLIL in Japan” (p. 110) is essential for its development. Two contributions are of note in regards to contextualizing CLIL in Japan. Sasajima (2019) presents a contextualised CLIL framework that adds language learning and interculture to the 4Cs framework (Coyle et al., 2010) to highlight their importance in Japan. In addition, Ikeda (2013) found a soft CLIL approach was usable with a Japanese high school cohort as it views improving language competency as a primary aim.

2.2 Understanding CLIL implementation

Survey studies have made contributions to understanding CLIL implementation. The Eurydice report (2006) and two large-scale targeted surveys conducted in the Spanish secondary CLIL context identify implementation issues (Pérez Cañado, 2016, 2018). The findings of these surveys are summarized in Table 1.

Table 1 Summary of European based survey studies

	Survey context	Summary of findings
Eurydice (2006)	- 30 European Union countries	<ul style="list-style-type: none"> - Primary to upper secondary levels - Linguistic and sociocultural aims - Primary level allowed free choices of subjects - Secondary level subjects focused on science, social science, arts, physical education - Teacher qualifications included native speakers, previous formal studies in target language, standardized test scores - Pre-service training in half of countries - In-service training varied greatly - Lack of qualified teachers inhibited implementation in most countries
Pérez Cañado (2016)	<ul style="list-style-type: none"> - Spanish secondary CLIL - Over 700 pre- and in- service teachers and teacher trainers 	- All groups expressed concerns about theoretical understanding and ongoing professional development
Pérez Cañado (2018)	<ul style="list-style-type: none"> - Spanish secondary CLIL - Top-down implementation - Over 300 in-service teachers 	<ul style="list-style-type: none"> - CLIL methodologies realized in the classroom - More learner-centered, communicative environment created - Greater learner participation and collaboration noticed

Studies on CLIL implementation have been undertaken outside Europe. McDougald (2015) conducted a survey in Columbia involving 140 participants from fifteen cities. All participants were in-service teachers teaching content in a foreign language at pre-primary, primary, secondary, or university level. Most teachers felt CLIL benefited their learners and improved their learners' subject knowledge and language skills. However, only half reported positive experiences with CLIL. Further results showed teachers had minimal knowledge of

CLIL, needed more methodological and subject knowledge, and noted an increase in preparation time and materials development.

To the best of the author's knowledge, there have been no wide-scale survey studies conducted on CLIL in Japan. Regarding CLIL in Japanese university contexts, MacGregor's (2016) interview study of 13 teachers who self-identified as following CLIL or EMI gives some indications. The majority of participants were English speaking language teachers in undergraduate English language courses at Japanese universities. They were generally able to define CLIL but unable to identify pedagogical models they followed. Based around the 4Cs framework, they discussed content and communication elements but not cognitive and cultural ones. However, they demonstrated understanding of assisting cognitive development through content, tasks, and assessment but not scaffolding in materials. They also expressed a preference for using authentic materials. See Pinner (2013) for a discussion of authenticity.

The overall nature of the current study is exploratory and fits the journal aims as it examines CLIL implementation in Japan. This is a pilot study which is part of a larger project that seeks a better-informed understanding of CLIL in Japanese universities. In particular, within the stated context, this pilot study seeks to determine:

- What can be understood about teachers using CLIL?
- How do these teachers view CLIL?
- What are their experiences with CLIL?
- How can the CLIL courses they teach be understood?

3. Methodology and Instruments

3.1 Participants

Respondents (n=41) were required to indicate they taught content and language together at a Japanese university to complete the survey. For first languages 32 of the respondents stated English while 7 stated Japanese. Respondents were predominantly male (n=27) and mostly aged between 31 and 60 years old (n=37). 22 respondents reported employment on a tenure track, while 14 reported themselves as fixed contract and 3 as part time. 24 respondents reported working at a private university, while 12 reported working at a national university and 5 at a public university.

For teaching experience, respondents reported their total teaching experience in years ($M = 20.30$, $SD = 9.78$), total teaching experience in Japan ($M = 16.70$, $SD = 9.19$), total teaching experience in Japanese universities ($M = 10.60$, $SD = 7.64$), and total teaching experience in other countries ($M = 3.56$, $SD = 6.15$). 14 respondents reported work experience in the United States and 12 reported no experience in other countries. Only 3 respondents reported teaching experience in Europe. For CLIL experience, respondents reported their total CLIL

teaching experience in years ($M = 6.67$, $SD = 5.09$) and total number of CLIL courses taught ($M = 7.87$, $SD = 12.8$). 12 respondents reported they had received formal CLIL training or instruction while 26 respondents reported none. The most common types of training reported were master's degree components (5 responses) and professional development courses (5 responses).

3.2 Survey design

The current study used a self-administered questionnaire (Brown, 2001). After initial design was completed, a pilot procedure was conducted involving a selection of respondents ($n=4$) who shared attributes of target participants allowing final edits to items. Questionnaire design was informed by other CLIL survey designs and findings of Japan-based studies (Birdsell, 2020; MacGregor, 2016; McDougald, 2015; Pérez Cañado, 2018). The survey is shown in full in Appendix 1. There were five survey sections on teacher demographics (5 items), language teaching experience (6 items), teacher viewpoints on CLIL (18 items), CLIL experience (7 items), and CLIL course profiles (14 items, included in three instances allowing submissions of multiple courses). Items included a variety of open and closed-response questions. The former included fill-in and short answer questions while the latter included alternative-answer, 4-point Likert scale, and checklist questions. Likert scale items provide an orderly set of choices allowing responses that best match opinions. They were used to allow teachers to express their self-rating level or the extent to which they agree or disagree with a statement. 4-point Likert scales enable the avoidance of a central tendency bias whereby respondents skew towards neutral answers (Brown, 2001). The sections on teacher viewpoints on CLIL and CLIL experience included 17 Likert scale items. After survey responses were compiled, Cronbach's Alpha for these items was calculated using Jamovi (2020), which included accounting for two reverse scored items, and returned a good level of internal consistency ($\alpha = 0.86$).

3.3 Data collection and analysis

As the target cohort were English language teachers using CLIL in Japanese universities, the survey was distributed online via Google Forms to teaching associations whose membership matched this profile. Quantitative statistics for closed items were calculated using the Jamovi (2020) statistical package which runs on R. Qualitative analysis on open items was done via thematic analysis using the Taguette software (Rampkin et al., 2020). The combination of these two resulted in a broad yet detailed mixed methods analysis.

4. Major Findings

4.1 Teacher viewpoints

Respondents were asked to define CLIL ("Please define "Content and Language Integrated Learning (CLIL)" in your own words..."). Bryan (all participant names herein are

pseudonyms) provided the example below:

[1] *A focus on learning where language is learned through activities and tasks that focus not only on the content (topic) of the course materials, but also on language skill acquisition.* (Bryan)

Bryan presents learning content and language as occurring at a task level. In contrast, Adam gave a more detailed example:

[2] *CLIL is an educational approach in which the study of academic disciplines and second language skills are intertwined. Learners have the dual goals of gaining knowledge of a subject and improving their language skills. Class activities generally include both content and language learning elements and objectives.* (Adam)

Adam noted the *intertwined* goals of content and language as linked to pedagogical activities. Evan had a different perspective where the content or subject matter is the *focus* of CLIL:

[3] *CLIL is meant to be the teaching of subject material in the target language (TL) in order to improve target language skills without making target language learning the focus of the class. I believe it is supposed to be a curriculum-wide implementation, but I do see cases of it where language teacher[s] teach about their favourite subjects in the target language, rather than teach about the target language. I don't know if the latter really counts as CLIL, but a lot of people in Japan do the latter rather than the former.* (Evan)

Evan seems to follow that CLIL can be content *fronted* as opposed to language driven and it should be realized at a curriculum level. Joseph used the term *centred* to describe the same notion as well as viewing language being taught *indirectly*:

[4] *A combination of content and language education in which "content" (discipline or field-based education) is centred and "language" (grammar, vocab, 4 skills) is taught more indirectly. The difference between CLIL and language immersion to me is that a CLIL instructor must create affordances for language learning opportunities, whereas an instructor in an immersion context, e.g. of an exchange student among native students, does not.* (Joseph)

Joseph clarifies *indirectly* does not mean unaccounted for in the learning experience making it closer to implicit learning. In contrast, some respondents focused on the *dual* goals or aims of CLIL. This is shown in the examples from Henry and Trevor:

[5] *A dual focused approach where both content and language learning goals are worked towards and assessed.* (Henry)

[6] *An approach to teaching that has the dual aim of developing content and language skills.* (Trevor)

These examples align with the definition from Coyle et al. (2010). However, some respondents pointed to an *equal* focus on content and language as shown in the examples from Chris and Sylvia.

[7] *When the focus on learning the language and content is equal, not one is more domina[nt] than the other.* (Chris)

[8] *The teaching of language not always explicitly, but by teaching a particular subject in that language. It is a balance of language teaching and content teaching.* (Sylvia)

Striving for an equal focus has been seen as difficult to achieve (Cammarata & Tedick, 2012). Some respondents noted a *shiftable* focus on content and language. The examples from Flora, Stuart and Melissa included this:

[9] *An integrated system that can put more weight on language or content but develops both.* (Flora)

[10] *Where a teaching and learning has objectives for content learning and language learning. These objectives could be implicit or explicit. Where content and language learning (hopefully) reinforce each other, leading to greater achievement of both. This happening on a spectrum, with greater or equal or lesser emphasis on the importance of each factor.* (Stuart)

[11] *CLIL is a teaching mindset in which content has an important role in the language classroom. There are many ways to consider the balance between language and content, but in my implementation of "CLIL" as student's language level rises, the focus shifts to content to a greater degree with the end goal being EMI or using English for some purpose other than language study in and of itself.* (Melissa)

Flora notes CLIL may involve giving more weighting to content or language. Stuart notes the same resulting in different varieties of CLIL represented on a continuum. Melissa sees her own variety of CLIL including a shiftable focus that alters with learner development and connects with other aspects of the curriculum. In sum, the respondents had sizeable variation in how they defined CLIL mostly stemming from how content and language are dealt with. The extracts above show respondents viewed CLIL at a pedagogical or curricular level. Additionally, respondents chose to emphasize CLIL being content fronted with implicit language learning, dual-focused, or containing a shiftable focus.

The survey also asked about pedagogical models used (In my teaching context, I use the following CLIL pedagogical models...). The most common response was the 4Cs framework with two themes emerging. First, some respondents felt unsure about aspects of the 4Cs framework as Kristin and Trevor illustrate:

[12] *I mainly follow Coyle, which I am not sure is a framework.* (Kristin)

[13] *I haven't implemented a set framework, but did some reading before setting out the curriculum. The main one I remember was the 4Cs (i.e. that a lesson should focus on content, cognition, communication & culture). I didn't fully stick to that approach as it doesn't cover language skills per se, but that one sticks in my mind.* (Trevor)

Their concerns show that the 4Cs framework may have shortcomings or lack indications on how to deal with language. Second, other responses indicate how the 4Cs framework is used alongside other elements of CLIL. Kenzo and Melissa provide examples of this:

[14] *4Cs, HOTS/LOTS* (Kenzo)

[15] *4Cs, conversational classroom language, meaning focus, and open-ended project work where the topic of the project is the focus rather than specific language goals.* (Melissa)

Lower and higher order thinking skills and additional pedagogical elements are incorporated alongside the 4Cs. The second most common response was that no pedagogical models are used. Bryan and Joseph provide examples of this.

[16] *I don't consciously apply any frameworks.* (Bryan)

[17] *I do not use any specific CLIL frameworks or models. I generally teach with a heavy emphasis on constructivism and task-based learning.* (Joseph)

While Bryan gives no indications, Joseph refers to two pedagogical approaches commonly blended with CLIL.

Respondents were also asked about advantages (To me the advantages of CLIL are...) and disadvantages (To me the disadvantages of CLIL are...) of using CLIL. The respondents tended to list a range of advantages and themes as Stuart, Travis, Bryan and Henry illustrate:

[18] *It's generally more interesting for students. It's more transferable/less isolating than separating language from the other parts of the curriculum, and more contextual application of language.* (Stuart)

[19] *Motivation, engagement, swifter linguistic improvement outcomes. More interesting for teacher as well as students.* (Travis)

[20] *More engagement on the part of learners, real communication opportunities, promotion of use of language for more than artificial practice, help with intellectual development of learners, confidence building, more interesting for me as a teacher than skills-based lessons, suited to cooperative learning and project (or problem) based learning.* (Bryan)

[21] *Realism - CLIL offers a built-in need for language that is lacking in most language classes. CLIL also give students a chance to do something real with L2.* (Henry)

The most common advantage stated was improved learner motivation or engagement. Furthermore, as Travis and Bryan note, some responses mentioned increased teacher interest. Respondents also viewed improved linguistic and cognitive development as an advantage of CLIL. Reasons for this were connected to the realistic language learning opportunities offered by CLIL in the form of *contextual application* (Stuart) or *real communication* (Bryan) where there is a *need for language* (Henry). Another explanation was that CLIL requires active learners to *do something* (Henry) with language possibly via cooperative or collaborative learning (Bryan). The advantages mentioned here were also noted by MacGregor's (2016) participants.

Regarding disadvantages of CLIL, three themes emerged. First, some responses indicated concerns about the language level of learners as John describes:

[22] *Depending on the level of EFL ability not all students proceed at the same pace for either language or content.* (John)

MacGregor's (2016) participants also described difficulties from learner levels. However, some respondents in the current study clarified this stating the difficulty was mixed ability classrooms. The response from Matt below explains this:

[23] *No disadvantages per se but difficult to implement at universities with no criteria for enrolment or appropriate streaming. So the disadvantage is that it can end up wasting the time of students who should not be in the class and sometimes students who are at the right level, but have to deal with the fact that the teacher has to pitch it at a lower level for those who are not.* (Matt)

Matt shows administration of levels creates difficulties. Second, learner mindset or attitude towards CLIL was a concern. Melissa describes this below:

[24] *Some students (many students) don't want to make the investment in their learning, they just want a credit. For those students CLIL is difficult. CLIL teachers want to go deeper, not wider. Students sometimes don't want to go deep, they just want to get points and move on. Sometimes what we do in a CLIL classroom looks superficial because we cannot cover the breadth of other classes that focus on explaining many grammar points in Japanese. What we learn in a CLIL classroom is sometimes more difficult to measure.* (Melissa)

Melissa discusses the *deep* nature of CLIL which endeavours to be cognitively demanding (Coyle et al., 2010). However, due to low learner awareness in Japan, some may experience a disjuncture, mismatch, or possible rejection of CLIL (Mehisto, 2008). Third, another concern was increased preparation time as Henry expresses:

[25] *Preparation time. The necessity to learn about new content areas in order to teach them. Lack of appropriate materials (thus the prep time issue).* (Henry)

Henry describes the time needed for language teachers to research a content area as part of a CLIL course. Language teachers are unlikely to have sufficient content knowledge of all subjects. Henry also describes difficulty in finding published materials that match his learners and context resulting in additional time adapting or creating materials. Similar concerns were noted in MacGregor (2016) and McDougald (2015). A response from Douglas also explains specificity of a content field or curriculum requirements brings further complications.

[26] *Difficulty in sourcing CLIL teaching materials for courses which results in significant time preparing materials in the subject content field. This is especially so in universities in which required English language courses are often separated by skill (e.g., Speaking/Listening, Reading, or Writing) and the treatment of a specific field of subject content (e.g., international relations) is expected.* (Douglas)

Closed survey items on teacher viewpoints of CLIL give indications on opinions about materials, evaluation, learner levels and learner development. Table 2 gives overall means

and percentages of responses for these items. On materials, respondents showed some agreement for using adapted ("CLIL courses should use adapted materials.", $M = 2.87$, $SD = 0.92$) and authentic ("CLIL courses should use authentic materials.", $M = 2.79$, $SD = 1.00$) materials. However, the highest level of agreement was for using a range of materials ("CLIL courses should use a range of materials.", $M = 3.49$, $SD = 0.56$). This result differs to MacGregor's (2016) participants who highlighted using authentic materials. Furthermore, McDougald's (2015) survey indicated teachers were also adapting materials to meet their learners' needs. The current survey demonstrates that respondents are using a selection of material types.

Table 2 Teacher viewpoints on CLIL (n = 41)

Items	<i>M</i>	<i>SD</i>	Strong disagree	Disagree	Agree	Strongly agree
CLIL courses should use authentic materials.	2.79	1.00	5.41	16.22	56.76	21.62
CLIL courses should use adapted materials.	2.87	0.92		18.92	59.46	21.62
CLIL courses should use a range of materials.	3.49	0.56		2.56	46.15	51.28
Students in a CLIL course should be evaluated on content.	3.05	1.07		8.33	52.78	38.89
Students in a CLIL course should be evaluated on language.	2.92	0.93		24.32	59.46	16.22
Students in a CLIL course should be evaluated both content and language.	3.26	0.85		10.53	44.74	44.74
CLIL is a suitable approach to use with Japanese learners of English in general.	2.85	1.14	13.16	18.42	31.58	36.84

CLIL is a suitable approach to use with Japanese learners of English at an undergraduate level.	3.18	1.00		10.81	43.24	45.95
CLIL is a suitable approach to use with Japanese learners of English at any university level.	3.03	1.06	7.89	15.79	34.21	42.11
CLIL helps students develop only their language skills.	1.69	0.86	51.28	33.33	10.26	5.13
CLIL helps students develop only their subject knowledge.	1.69	0.86	51.28	33.33	10.26	5.13
CLIL helps students develop both their language skills and subject knowledge.	3.46	0.64		7.69	38.46	53.85
CLIL brings a range of benefits to students.	3.54	0.72		12.82	20.51	66.67
CLIL is possible with the level(s) of students I teach at a Japanese university.	3.41	0.64		7.69	43.59	48.72

Note. Response rates are reported as percentages.

On evaluation, respondents expressed highest agreement with evaluating both content and language ("Students in a CLIL course should be evaluated both on content and language.", $M = 3.26$, $SD = 0.85$) compared to content ("Students in a CLIL course should be evaluated on content.", $M = 3.05$, $SD = 1.07$) or language ("Students in a CLIL course should be evaluated on language.", $M = 2.92$, $SD = 0.93$) alone. MacGregor's (2016) participants also showed varying preferences with teachers evaluating both or focusing on one at different times. The current survey indicates a similar result but an overall preference for evaluating both.

Concerns about the suitability of CLIL with Japanese university learners were expressed by

MacGregor's (2016) participants who indicated learner level plays a substantial role in CLIL success. The current survey showed respondents largely view CLIL as suitable for undergraduates ("CLIL is a suitable approach to use with Japanese learners of English at an undergraduate level.", $M = 3.18$, $SD = 1.00$) and the levels of learners they teach ("CLIL is possible with the level(s) of students I teach at a Japanese university.", $M = 3.41$, $SD = 0.64$). In comparison, Japanese learners of English in general ("CLIL is a suitable approach to use with Japanese learners of English in general.", $M = 2.85$, $SD = 1.14$) and at any university level ("CLIL is a suitable approach to use with Japanese learners of English at any university level.", $M = 3.03$, $SD = 1.06$) were viewed less favourably. These results indicate respondents find CLIL suitable for learners in their context.

While MacGregor's (2016) participants noted the dual-focus of CLIL, it remained unclear if they felt this resulted in learner development. The current study indicates high levels of agreement that CLIL develops learners' language skills and subject knowledge ("CLIL helps students develop both their language skills and subject knowledge.", $M = 3.46$, $SD = 0.64$). This result differs greatly from items on developing only language ("CLIL helps students develop only their language skills.") and subject knowledge ("CLIL helps students develop only their subject knowledge.") (both items; $M = 1.69$, $SD = 0.86$) which showed high levels of disagreement. Moreover, respondents seem to hold the view that CLIL develops learners in areas beyond content and language ("CLIL brings a range of benefits to students.", $M = 3.41$, $SD = 0.64$). Respondents show an overall positive view of how CLIL aids learner development.

4.2 CLIL Experience

The survey asked respondents to rate their knowledge and understanding ("How would you rate your knowledge and understanding of CLIL?"), skills and abilities ("How would you rate your skills and abilities to teach CLIL?") and overall success in teaching CLIL ("How would you rate your overall success in teaching CLIL?"). Table 3 shows the results of these items. Previous surveys found CLIL teachers held concerns about their knowledge and understanding of CLIL (McDougald, 2015; Pérez Cañado, 2016). This concern is reflected in the current survey as it received the lowest ratings and had the highest variability compared to the other self-rating items. While respondents rated their skills and abilities high, responses showed a large amount of variability. Responses on overall success were the most positive and showed the lowest variability. The CLIL experience of respondents indicates that they are aware of their own shortcomings but feel they are achieving good outcomes. Other studies have also discussed how language teachers perceive CLIL settings (De Graaff et al., 2007; MacGregor, 2016).

Table 3 Teacher Self-ratings on CLIL Experience ($n = 41$)

Items	<i>M</i>	<i>SD</i>	Poor	Average	Good	Excellent
How would you rate your knowledge and understanding of CLIL?	2.56	0.94	5.41	29.73	54.05	10.81
How would you rate your skills and abilities to teach CLIL?	2.79	0.80	2.63	21.05	63.16	13.16
How would you rate your overall success in teaching CLIL?	2.85	0.54		23.08	69.23	7.69

Note. Response rates are reported as percentages.

4.3 CLIL course profiles

This survey also examined CLIL courses in Japanese universities. Respondents could enter up to three CLIL courses they currently teach or taught previously. They were asked about language level, year level, position in curriculum, course length, content focus, goals, assessment, materials and blending additional teaching approaches. In total 117 courses were reported with section respondents reporting on at least one course ($M = 1.95$, $SD = 0.94$).

Regarding language level (“What are your learners' L2 levels on the Common European Framework of Reference (CEFR)?”) and year level (“What is the university year level of the students in your CLIL context?”), the courses are generally around B1 level on the Common European Framework of Reference (CEFR) and in 2nd year undergraduate courses (see Figures 1 and 2). More specifically, most courses reported a range of levels ($M = 1.51$, $SD = 1.48$) and students spanning more than one-year level ($M = 1.44$, $SD = 1.54$). Ikeda (2013) identified an A2 to B2 range of Japanese high school learners when a soft CLIL approach was followed. All MacGregor's (2016) participants taught CLIL at an undergraduate level in Japan. The courses in the current study fit similar profiles .

Figure 1 CEFR levels reported in CLIL courses

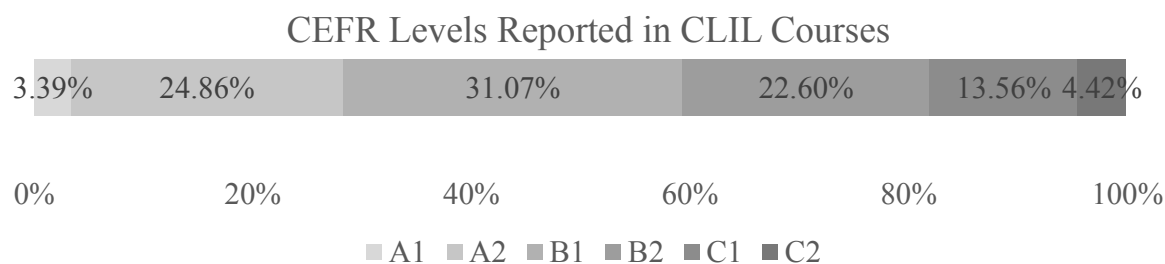
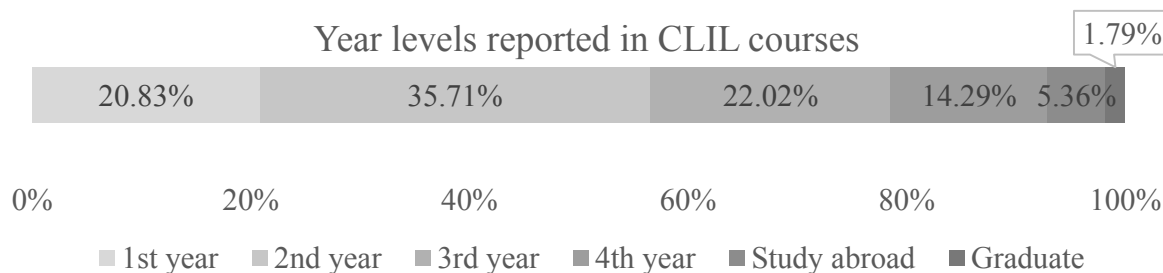


Figure 2 Year levels reported in CLIL courses



Respondents were also asked about the position of the course in the curriculum (“Is the CLIL course part of a program or a standalone course?”) and course lengths (“What is the length of the CLIL course in weeks?”). Slightly fewer courses within CLIL programs were reported compared to standalone courses, 46.70% and 53.30% respectively. Via promotional materials and websites, Hashimoto and Glasgow (2019) identified a small number of universities that offered CLIL as part of their curriculum. The current study seemingly indicates that the prevalence of CLIL programs may be higher. In terms of course lengths, 82.45% of courses were for one semester but the survey was not able to draw out details on longer courses.

The content foci of CLIL courses in Japanese universities are diverse, as shown by the range of papers in the first volume of this journal. In the current survey, respondents were asked to select between a subject or field compared to a theme or topic (“The content focus of the CLIL course is...”) as well as specifying the focus, with results showing 75.70% of the former and 24.30% of the latter. Respondents labelled their content foci under a range of labels that fell under ten general curriculum categories: global studies (23.44%), arts and humanities (18.75%), economics and business (14.06%), cultural studies (10.94%), literature (9.38%), history (9.38%), language studies (4.69%), science and engineering (3.13%), health (3.13%), and other (3.13%). Reasons for particular course designs were requested (“Why was the course design described chosen for this CLIL course?”). Some responses showed content focus was determined by a university program while others showed that teachers were given freedom to decide. These two response types are contrasted by Adam and Joel:

[27] *The theme matched one content stream in our department and the language skills matched the goals of our English program. (Adam)*

[28] *I was asked to teach a CLIL class for the department, but told I could teach it on anything I wanted. (Joel)*

Seeking some degree of balance between content and language is essential to CLIL. The survey asked respondents if courses were more content focused, language focused, or there was a balance (“The goals of the course are...”). The bulk of courses were reported to

attempt a balance. 68% of courses reported balanced goals, with 22.70% reporting content focused and 6.70% language focused goals. Respondents were also asked how often evaluation in the courses were balanced (“In the course, assessments, such as quizzes, assignments and projects, are balanced between content and language...”) showing a trend corresponding to the goals (*Never 0% Rarely 28.40%, Often 52.70%, Always 18.90%*). The question “Why was the course design described chosen for this CLIL course?” gives some insights into balancing goals and assessments:

[29] *It is a CLIL course, and as I understand that, it means a balance of both language and content goals, and proper pedagogy to assess according to the goals.* (Bryan)

[30] *A greater emphasis on one than the other would not be effective as student engagement would drop off. In addition, the expectations of the students to be 'learning' language requires that explicit attention to language is given - although that does not imply translation or chalk and talk explanations.* (Douglas)

[31] *My classes are language classes so language must be evaluated. But teaching content and then not evaluating it takes away from the reality of the situation and reinforces the image as English not being really important. I want to avoid students saying "The things we study in English don't really matter. Even our teacher doesn't care if we really learn it".* (Henry)

[32] *Both content and language are taught, it would be unfair to base assessment on only one of these.* (Stuart)

Bryan states balancing goals and assessments as inherent to CLIL. Douglas states it is beneficial for learner engagement. Henry and Stuart state it is imprudent to omit assessment of content or language. These responses indicate an understanding that CLIL should strive to balance content and language on a curriculum level.

Three types of materials have been noted as options for CLIL; authentic, adapted (from authentic sources to better fit with learner needs) or original (teacher created) (Moore & Lorenzo, 2007). The survey asked respondents to indicate how often they used different types of materials (“The CLIL course uses...Published/Authentic/Adapted/Original materials”). The teacher preference for a range of materials indicated earlier is also in the reported CLIL courses (see Figure 3). When asked for reasons on using an array of materials (“Why are the materials described in your responses appropriate for this CLIL course?”), responses state they are more accessible or meaningful in regard to learners’ language levels and engagement at different stages of their CLIL learning experience. This is illustrated in the following responses:

[33] *Some authentic materials (fewer in the beginning, more later on) and some adapted/original provide a balance that supports their language learning (i.e. adapted materials at $i+1$) but also gives them skills to work with authentic materials if necessary.* (Henry)

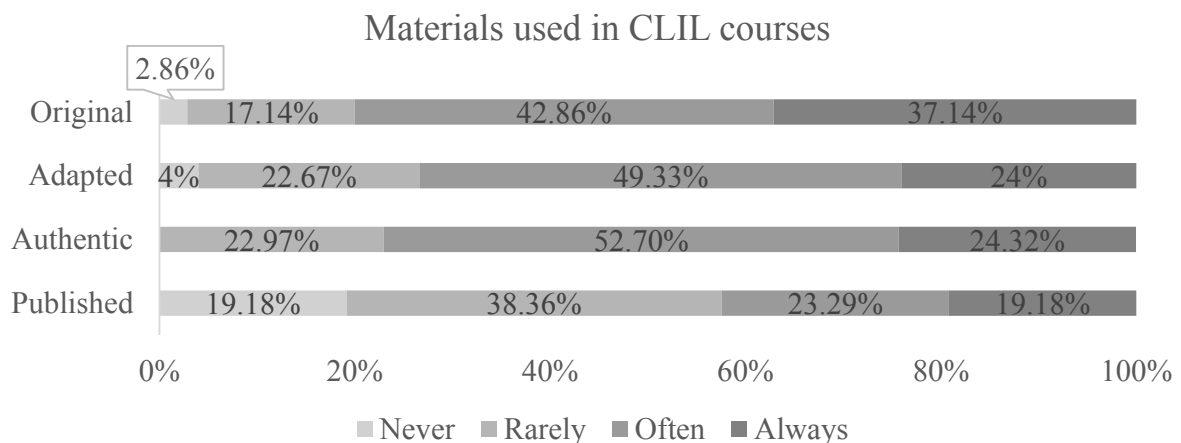
[34] *To provide a variety of exposure; both to stretch their language skills (in the case of authentic materials), or to ensure key concepts are delivered in an easily accessible format (in the case of graded materials).* (Trevor)

[35] *The adapted materials give learners a confidence boost. The carefully selected and scaffolded unadapted materials push the learners outside of their comfort zone, while setting them up for success through application of previously learned strategies and concepts.* (Richard)

These responses demonstrate respondents are using various types of materials in a manner they believe is most beneficial to learners’ understanding or development. Banegas (2018) noted CLIL coursebooks are used in conjunction with other types of materials, which some courses in the current survey reported to do. However, responses often stated that suitable materials on the content focus area were often not available, as explained in Douglas’ response.

[36] *Because there is nothing on the market in this field that treats the subject content matter in a meaningful way or identifies the language through which the content is communicated.* (Douglas)

Figure 3 Materials used in CLIL courses



CLIL holds the potential to blend with other teaching approaches (Díaz Pérez et al., 2018; Pérez Cañado, 2017). The survey asked if additional teaching approaches were blended with the CLIL courses (“What, if any, additional teaching approaches were incorporated into the CLIL course?”). A variety of approaches were reported (see Table 4) with most courses blending of one or more with CLIL ($M = 1.59, SD = 1.49$). Following previous literature, Task Based Learning (TBL) and Project Based Learning (PBL) were common (Moore & Lorenzo, 2015; Ortega, 2015).

Table 4 Teaching approaches reported in CLIL courses (n = 117)

	Frequency	Percentage of responses
TBL	51	27.42
Flipped classroom	42	22.58
PBL	40	21.51
Inquiry based	27	14.52
Lexical approach	18	9.68
Other	5	2.69
Phenomenon based	3	1.61
Total	186	100.00

The survey also asked: “Why are the additional teaching approaches described in your responses appropriate for this CLIL course?”. Reasons given for blending approaches often expressed they added or enhanced aspects of the learning process or experience. The following responses were obtained from Adam and Melody.

[37] *Projects add a social element that motivates the students. Tasks are an effective way to improve language ability. Inquiry-based learning is a common style in an academic context. Lexical approach is important for students to make progress towards greater language competence. Flipped classroom allows more time for discussion and other activities during class time.* (Adam)

[38] *The flipped classroom approach is used to allow the students to engage with the content and materials at their own pace, considering that this is new and often challenging content. Project-based learning is mostly used for capstone-type assignments to help the students apply knowledge.* (Melody)

Adam and Melody identify a range of approaches with specific reasoning. Both extracts mention PBL and the Flipped classroom but their reasons differ. For PBL, Adam notes interaction increases learner motivation while Melody sees it as a way to apply gained knowledge. San Isidro (2018) notes the benefits of blending CLIL and PBL include collaboration and meaningful learning. As for the Flipped classroom, Adam sees this approach as increasing time for interactive classroom tasks while Melody views it as accounting for differences in content engagement and understanding. Blending CLIL and the Flipped classroom has also been noted as opening up classroom time for different types of tasks (Leontjev & DeBoer, 2020) and accounting for variation in learner abilities (Birdsell, 2020). These extracts demonstrate variation in responses on blending teaching approaches with CLIL.

5. Discussion

Teachers in the survey can be broadly labelled as experienced language teachers who have implemented CLIL for the most part only in Japanese universities. The limited reports of training indicate teachers are implementing CLIL in a bottom-up manner through their own teaching practice. Although teachers appear positive about their overall CLIL experience, they are least positive about their knowledge and understanding, implying a need to address theory, pedagogy, and methodology for in-service teachers using CLIL at Japanese universities (Sasajima, 2019).

Broad definitions of CLIL may have contributed to difficulties in implementation (Sasajima, 2019). In the current study, teachers variously defined CLIL in pedagogical or curricular terms and highlighted several ways of framing content and language. Thus, variegated implementations of CLIL are likely present, aligning on the hard to soft CLIL continuum. Some teachers appear aware of this in referring to their own interpretations of CLIL relative to others (see extracts [11] and [29]). Furthermore, another possible confusion was pedagogical clarity with the model most mentioned by teachers; the 4Cs Framework. As found in MacGregor (2016), all four of the Cs were not mentioned, except in in passing (see extract [13]), with cognition and culture not mentioned by teachers at all. Preference for using a variety of materials was shown matching findings in other contexts (McDougald, 2015; Moore & Lorenzo, 2007). Teachers also expressed positive views on CLIL matching their Japanese undergraduate learners, assisting the learners' content knowledge and language skills development, and bringing a range of other benefits to the learners' experience.

The CLIL courses described in this study generally indicate they aim at undergraduates in an A2 to B2 level range, for one semester, as part of a single CLIL course or part of a larger program. However, it remains unclear how courses within programs fit with other parts of the curriculum such as regular language classes or EMI (see extract [11]). The courses illustrate the range of content areas covered under CLIL, but some concerns were mentioned about a lack of guidance in this area (see extracts [3] and [28]). Teacher viewpoints on employing a range of materials and attempting to balance content and language in goals and evaluation are also reflected in the courses. A range of additional teaching approaches are also blended with CLIL to enhance the learning experience.

6. Conclusion

In conclusion, the current study has examined teachers implementing CLIL at Japanese universities and the courses they are teaching. Varied teacher understandings and viewpoints portray a range of practices under the CLIL umbrella and contribute to Birdsell's (2020) call for describing CLIL varieties. A weakness in knowledge and understanding of CLIL is noted by teachers making it a desirable emphasis of teacher training. A possible strategy could

target their understanding of CLIL via materials design practices using the range of materials reported (Ball, 2018; Sasajima, 2019). Future research on training would assist bottom-up development of CLIL in Japanese universities and further implementations in the landscape. The courses profiled within this study highlight a number of trends and available options for teachers aiming to design CLIL courses for Japanese undergraduates, particularly in the areas of language level, content foci, goals, materials, and evaluation. However, some limitations due to design challenges in the current study should be noted. First, this study has not considered content specialists using CLIL at Japanese universities who may provide further perspectives on this context. Second, many courses were described to be part of programs but few details on these can be learnt from the survey. Third, the survey was not able to determine what proportions of material types are used across a lesson or unit as it focused on overall teacher preferences or courses. Lastly, the survey could not determine the extent other teaching approaches were blended. Each of these limitations present a possible avenue for future studies on CLIL in Japanese universities and deeper explorations of this context.

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Appendix 1

Survey Questions

Section 1 – Demographics

1. First language: *Japanese, English, Other*
2. Gender: *Male, Female*
3. Age: *21-30, 31-40, 41-50, 51-60, 61-70*
4. Type of teacher: *Part time, Fixed Contract, Tenure Track*
5. Type of university: *National, Public (city/prefecture), Private*

Section 2 – Teacher experience

6. How many years teaching experience do you have?
7. How many years teaching experience in Japan do you have?
8. How many years teaching experience in Japanese universities do you have?
9. How many years teaching experience in countries other than Japan do you have?
10. Please specify which countries other than Japan you have taught in.
11. Have you ever taught classes where subject matters (content) and language are integrated? *Yes, No*

Section 3 – Teacher viewpoints

12. Please define “Content and Language Integrated Learning (CLIL)” in your own words.
13. In my teaching context, I use the following CLIL pedagogical models...
14. To me the advantages of CLIL are...
15. To me the disadvantages of CLIL are...

[Respondents were required to mark the degree to which they agree or disagree with each statement in questions 16 to 29 on a 4-point Likert scale (Strongly disagree, Disagree, Agree, Strongly disagree).]

16. CLIL courses should use authentic materials.
17. CLIL courses should use adapted materials.
18. CLIL courses should use a range of materials.
19. Students in a CLIL course should be evaluated on content.
20. Students in a CLIL course should be evaluated on language.
21. Students in a CLIL course should be evaluated on both content and language.
22. CLIL is a suitable approach to use with Japanese learners of English in general.

23. CLIL is a suitable approach to use with Japanese learners of English at an undergraduate level.
24. CLIL is a suitable approach to use with Japanese learners of English at any university level.
25. CLIL helps students develop only their language skills.
26. CLIL helps students develop only their subject knowledge.
27. CLIL helps students develop both their language skills and subject knowledge.
28. CLIL brings a range of benefits to students.
29. CLIL is possible with the level(s) of students I teach at a Japanese university.

Section 4 – CLIL experience

30. How many years of CLIL teaching experience do you have?
31. How many CLIL courses have you taught in your teaching career?

[Respondents were required to give a self-rating on the questions 32 to 34 on a 4-point scale (Poor, Average, Good, Excellent).]

32. How would you rate your knowledge and understanding of CLIL?
33. How would you rate your skills and abilities to teach CLIL?
34. How would you rate your overall success in teaching CLIL?
35. Have you ever received formal instruction or training in how to design and implement CLIL classes? *Yes, No*
36. If you answered ‘Yes’ in Question 35, how and in what way did you receive the instruction or training? *PhD, Masters, External Course, Online Course, Internal Training, Other*

Section 5 – CLIL course profile

[This section was provided in three instances to allow for a respondent to provide details on more than one course.]

37. What are your learners' L2 levels on the Common European Framework of Reference (CEFR)? *A1, A2, B1, B2, C1, C2 [multiple responses allowed]*
38. What is the university year level of the students in your CLIL context? *Study abroad, 1st year, 2nd year, 3rd year, 4th year, Graduate [multiple responses allowed]*
39. Why is CLIL a good choice to use with the students described in your responses to questions 37 and 38?
40. Is the CLIL course part of a program or a standalone course? *CLIL program, standalone CLIL course*
41. What is the length of the CLIL course in weeks?
42. The content focus of the CLIL course is: *a specific subject or field of study, a general theme or topic*
43. Specify:
44. The goals of the course are: *Language focused, Balanced, Content focused*
45. In the course, assessments, such as quizzes, assignments and projects, are balanced between content and language: *Never, Rarely, Often, Always.*

46. Why was the course design described in your responses questions 44 to 45 chosen for this CLIL course?

47. The CLIL course uses:

[In this question respondents were required to mark Never, Rarely, Often, or Always for each material type.]

Published materials (e.g. textbooks)

Authentic materials (e.g. journal articles, newspaper articles, TED Talks)

Adapted materials (graded to the students' level and interest by the teacher)

Original materials (created by the teacher)

48. Why are the materials described in your responses to question 47 appropriate for this CLIL course?

49. What, if any, additional teaching approaches were incorporated into the CLIL course? *[multiple responses allowed]*

Project-based learning - Students work for an extended period of time to investigate and respond to a complex question, challenge, or problem.

Task-based learning - Students are asked to do meaningful tasks using the target language.

Inquiry-based learning - Questions are posed to the students with the aim that they identify and research issues to develop knowledge.

Lexical approach - Students are taught to be able to perceive patterns of language and produce lexical phrases as chunks.

Flipped classroom - Students engage with the 'content' outside the classroom, often as homework, leaving more classroom time to explore topics in greater depth and create meaningful learning opportunities.

Phenomenon-based learning - Students extensively study a topic or concept in a holistic approach instead of in a subject-based approach.

Other

50. Why are the additional teaching approaches described in your responses to Question 49 appropriate for this CLIL course?

CLIL during the COVID19 Pandemic

CLIL in the Times of COVID-19: Content, Communication, and Creative Cognition in Remote Learning

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Abstract

Universities in Japan and across the globe had to quickly adapt to the COVID-19 pandemic, resulting in the emergence of remote learning classrooms. In this paper, I discuss a remote learning CLIL course that integrates all four academic skills with the aim of developing learners' international communicative competence in English through discussing, presenting, and researching global issues. I divide this article into three sections that provide an overview of some of the obstacles and benefits of teaching CLIL in a remote learning environment. In the first section, I outline the design and implementation of this online course, which used Microsoft TEAMS. In the second section, I focus primarily on two teaching modules used during this course to illustrate how content can be integrated with developing learners' communication abilities and creative cognition in a remote learning classroom. The first module dealt with environmental issues and the second built upon this knowledge by examining an emerging field called biomimicry. Biomimicry looks towards nature for innovative ideas in order to solve design related problems in the world. Specifically, biomimicry encompasses three key cognitive abilities involved in creative thinking: conceptual blending, conceptual expansion, and problem solving. In addition, I explain how students collaborated online in order to maximize opportunities for communication. In the final section, I reflect on the challenges and future possibilities of using a CLIL approach in the times of COVID-19 or in other situations requiring remote learning.

Keywords: CLIL, COVID-19, creative cognition, EFL

1. Introduction

Japanese universities begin the academic school year in April, and as COVID-19 began to spread around the country in February and March of 2020, remote learning became the only viable option. As a result, students, teachers, and administrators had to promptly familiarize themselves with online learning platforms such as Moodle, Microsoft Teams, Google for Education, and/or Zoom. Special faculty development meetings and online student guidance

ensued, and the start of the academic year was postponed at many universities to allow everyone more time to learn how to utilize these platforms and restructure the courses' syllabi. This included CLIL (content and language integrated learning) designed courses.

CLIL is by no means a unified learning approach, but rather is a highly diverse and heterogeneous approach that aims to blend content instruction with a foreign language while maximizing opportunities for students to communicate and develop their creative cognition in the classroom (see Coyle, 2007 for more details). That said, shifting a CLIL-designed course from a traditional classroom setting to an online one produced many challenges, specifically regarding enhancing student interaction and doing group work activities. This article provides an overview of some of the obstacles and benefits of teaching CLIL remotely and is divided into three sections. Section one outlines a specific CLIL course and the online learning platform used to teach it. The second section then describes in detail two teaching modules used during this course to illustrate how content can be integrated with foreign language instruction to provide learners' opportunities to communicate as well as to develop their creative cognition. The third and final section reflects on some of the challenges and future possibilities of using a CLIL approach in the times of COVID-19 or in other situations requiring remote learning.

2. From chalk and desks to computers

In this first section, I outline the design of a specific CLIL course and then describe the online learning platform. Providing this background is both informative for teachers to compare with their own CLIL courses as well as useful in providing them insight into some of the features that online learning offers. This is important to consider as CLIL courses slowly return to the classrooms; there are still many benefits from online learning that can enhance and strengthen the CLIL approach.

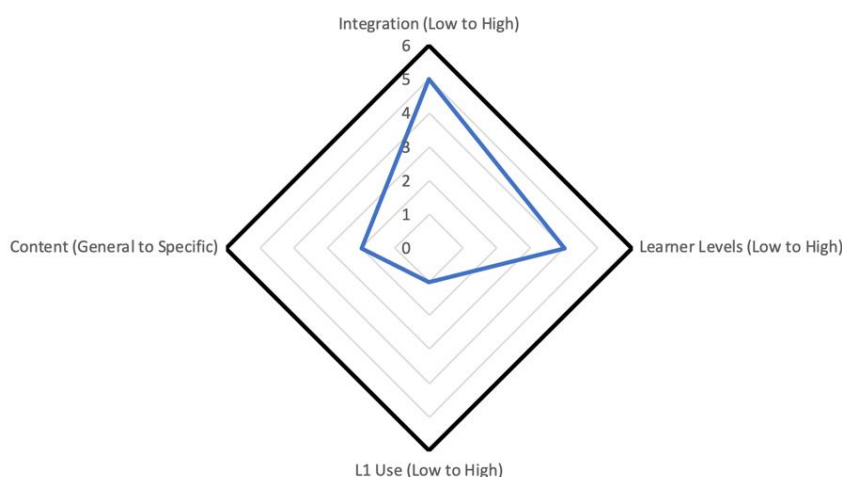
2.1 The design of the CLIL course

The diversity of CLIL is what makes it widely inclusive across many different institutional settings and national boundaries, but also causes some confusion (see Bruton, 2013; Cenoz, Genesee, & Gorter, 2013 for a critical analysis). Therefore, Birdsell (2020) recently argued for a CLIL taxonomy that has the potential to alleviate some of this confusion by specifying the CLIL approach on several dimensions such as content specificity, integration into the broader curriculum, L1 use, and L2 learner level. These are to be assessed on a 6-point scale. For example, learner level is based on the Common European Framework of Reference for Languages (CEFR), which ranges from the basic user (A) to an independent user (B) to a proficient user (C) and each of these three categories has two levels (i.e., A1 and A2), resulting in a 6-point scale.

The CLIL course, described in this paper, has the following dimensions for the four categories in this taxonomy (see Figure 1):

- The course is moderately to highly integrated into the curriculum. This means that the course is required for graduation for students in the faculty of Agriculture and Life Sciences, Department of International Horticulture, but any 2nd to 4th year students from any faculty can enroll.
- 19 students took this course with English levels roughly at CEFR B1-B2. Students from the Department of International Horticulture are divided into three classes based on English levels from an internal placement test conducted during their 1st year, and this course is for the highest-level students.
- L1 use is minimal and primarily only available in the video materials by way of subtitles.
- The content used in this course is moderately general and not specific to a particular academic field. Rather, it consists of four modules, and each module has a specific content focus.

Figure 1: Taxonomy of the CLIL course



In regards to the content, as previously mentioned, there were four teaching modules and for each module, there was a specific content focus. For instance, Module 1’s content focus was “Language and Culture”. This involved looking at the history of the English language, linguistic relativity, and culture from a multicultural/multilingual perspective. Module 2’s content focus was “Environmental Issues” and Module 3’s was “Biomimicry,” and these will be discussed further in section three of this paper. Finally, Module 4’s content focus was “Genetically Modified Organisms”. This involved looking at both the positive and negative sides of GM foods and then learning how to debate controversial issues.

2.2 The remote CLIL classroom

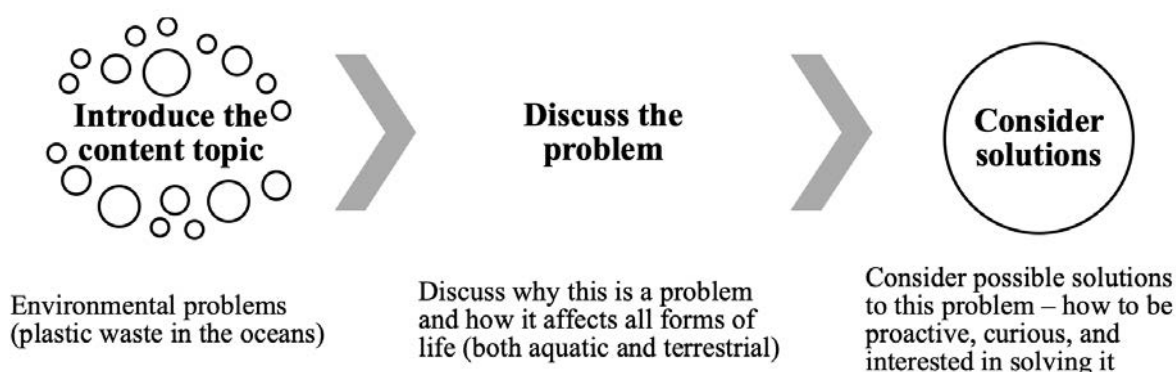
The online learning space was designed using Microsoft TEAMS since the university had

implemented this as the remote learning platform. In regards to the materials, the teacher provided the students both transcripts and video links to online videos on topics related to the four content modules. For each module, students were placed into groups of six students. This means that they saw in their TEAMS dashboard a private channel specific for their group. In this channel, they collaborated with other groups members by first doing an ice-breaking activity and then discussing the main themes of the videos and responding to a set of critical thinking questions posted to their channel by the teacher, and these corresponded to the content in the videos. Each module lasted three weeks and in the 3rd week, each group presented a summary that highlighted the key parts of their discussions to the whole class. Students were graded as a group for these summary group projects. They also had short quizzes at the end of each module, which were done individually and a final individual presentation where they chose a presentation topic related to one of the modules and researched it in more depth (e.g., Module 1 “Language and Culture” – one student presented on artificial languages such as Esperanto and another chose the same module but presented on non-verbal communication similarities and differences across cultures).

3. The CLIL tapestry: Content, communication, and creative cognition in a remote learning course

In this section, I discuss two modules in greater detail in order to outline ways to provide students opportunities to communicate in a remote learning environment and develop their creative potential. As previously mentioned, students watched a set of online videos relevant to a specific content topic (as well as having access to PDF files of the transcripts and supplementary online vocabulary activities) for each module. For example, the goals of Module 2 were to introduce the students to one specific environmental issue, plastic waste, and to develop their critical and creative thinking skills by discussing this topic, reflecting on their own lives and their interaction with plastics, and finally to consider some possible solutions to this environmental problem. To do this, five videos were chosen that address these themes. Specifically, video 1 (see Appendix A for the video links for Module 2) first introduces the topic of plastic waste through following the life of three PET bottles; video 2 then provides the students deeper insight into the plastic pollution problem from an artist’s perspective; next video 3 introduces the topic of plastic waste in the oceans and the Great Pacific Garbage Patch; after that, video 4 presents a possible solution to the problem of plastic waste in the oceans; and finally video 5 shows an example of a grassroots campaign movement initiated by two sisters to eliminate plastic bags on the island of Bali. In short, students were first introduced to the content topic and learned about an environmental issue; then in their private channel, they discussed this problem and how plastic has become ubiquitous in modern society and the problems this causes to the environment; and finally considered ways to solve this problem (see Figure 2).

Figure 2: Flow of the learning process (Module 2: Environmental Issues)



3.1 Communication and student interaction in an online learning environment

Knowledge is partial, fragmentary and is constantly being made relevant by interaction and, therefore, a lack of knowledge is the responsibility of the participants to jointly work together and construct this knowledge (Keevallik, 2011). This dynamic joint construction of knowledge through communication is one of the pillars of CLIL. Collaborative learning emerged from a constructivist pedagogy that encourages communication for learning, learner autonomy, purposeful learning, and critical thinking (see Swain & Watanabe, 2013; Vygotsky, 1978). This sense of autonomy, relatedness, competence, and purpose promotes learners' intrinsic motivation (Deci & Ryan, 2000). Furthermore, recently Lialikhova (2019) showed in a small study that mid- and high-achievers in English (the L2 of the participants) co-constructed content knowledge in the classroom through peer interaction while low-achievers required additional scaffolding from the teacher. In sum, peer interaction for intermediate and higher-level learners facilitates the joint construction of ideas and content knowledge in a learning environment. Yet, this is far less understood when education transitions from the classroom to an online setting. In this course, students had the chance to interact with each other in three different communicative mediums: text chatting in the group's private channel, video meeting in the group's private channel, and group summary presentations with the whole class.

In regards to text chatting, consider the following dialogue between a group of students working together in the text chatting space for Module 2 in their private channel. This knowledge-building and problem-solving interaction is what Swain (2000) has termed "collaborative dialogue".

Module 2 Environmental Issues: Video 4 (Solutions)

Set of question prompts for this video in the students' private channels:

1. David Katz created something called the Plastic Bank. What is this?

2. If you buy shampoo that includes social plastic packaging, what does he say you are contributing to?
3. So how would you summarize his solution to the plastic problem?

Student responses from one group to these question prompts:

Student 1: (1) The Plastic Bank is the world's largest chain of stores for the ultra-poor, where everything in the store is available to be purchased using plastic garbage. Thanks to this store, the poor earn money for their family by collecting plastic garbage. (2) We can indirectly contribute to the extraction of plastic from ocean-bound waterways and alleviating poverty at the same time. [6/6 1:39 AM]

Student 2: (1) Plastic bank is a business that collects and recycles used plastic and sells them to manufacture and major retailers. (2) It will prevent environmental pollution and contribute to poverty alleviation. (3) He eases plastic and poverty problem by launching "plastic bank". [6/6 10:45 AM]

Student 3: About video 4. Please tell me your thoughts. What do you think about the approach of the plastic bank? Good or bad? Why? Do you think this approach will solve problem the problem? [sic] Why? [6/6 1:49 PM]

Student 2: I think it's a good approach because it can help to prevent environmental pollution and contribute to poverty alleviation. I think this policy alone will not solve this problem, but I think it can be alleviated a little. [6/6 1:55 PM]

Student 3: Thank you, (Student name). Indeed...It may not be possible to solve it unless everyone has a sense of problem. How do you think what should we do to solve this problem? [6/6 2:12 PM]

Student 2: I think it is necessary for people to fully understand this issue and to cooperate with each other in order to solve this problem. it's important to start from the fact that we can. example: prohibit the use of plastic bags and plastic straws. [6/6 2:19 PM]

Student 3: Thank you! I think so too! [6/6 3:09 PM]

Student 4: This idea is good idea. It saves people in poverty from poverty. However, I think, this system come to act as the reason for to send plastic garbage. Maybe, I am thinking too much, but it is concern. [6/7 3:03 PM]

Student 1: I agree with all of you. This system can solve both waste and poverty problems at the same time. However, when the problem of this garbage is solved in the future, it is necessary to think about how people who suffer from poverty can make money instead of collecting plastic garbage. [6/7 3:11 PM]

As Students 1 and 2 responded to the question prompts, Student 3 [6/6 1:49 PM] instead aimed to start a collaborative dialogue with the other members by asking them their opinions of this solution and whether it is a positive solution to this problem. Another example of this collaborative dialogue also appears for Video 5, as shown below.

Module 2 Environmental Issues: Video 5 (Plastic in Bali)

Below is a question from the question prompts for this video in the students' private channels:

3. What are some things you think Japan could do to combat plastic pollution?

Student responses from one group to these question prompts:

Student 3: Prohibiting the use of plastic bags and plastic straws in various stores. Eliminating plastic bottles from vending machines. [6/6 10:52 AM]

Student 5: Now in Japan, many companies are trying to reduce the use of plastic bags. We, should keep appealing to using eco-bags or decline some plastic substance to help our society to make a trend of stop using too many plastics. [6/6 11:20 AM]

Student 3: Instead of refraining from using plastics, plastics that decompose naturally can be cited as a solution, but there seem to be various problems. So, I think we should start with things that we can do soon, such as prohibiting the use of plastic bags and plastic straws. [6/6 7:42 PM]

Student 5: My opinion from question 3, how about making a beverage-supply machine instead of the normal type, something just like the coffee maker which Hirodai have in their cafeteria? [6/7 2:44 PM]

Student 2: About question 3, Japan could teach developing countries techniques for recycling and separation. [6/7 7:00 PM]

Student 1: Do you know "Ooho!"? It covers water with a transparent gel film. The film is composed of substances extracted from plants and seaweed and is a material that returns to the soil. By covering the water with the film, you can carry the water without a plastic bottle. You can also eat the film. If you eat it, there will be no garbage. Since it is a material that returns to the soil even if you do not eat it, no garbage is eventually discharged. It needs further development to make it publicly available, but I think this is a very effective plastic reduction measure. [6/7 11:08 PM]

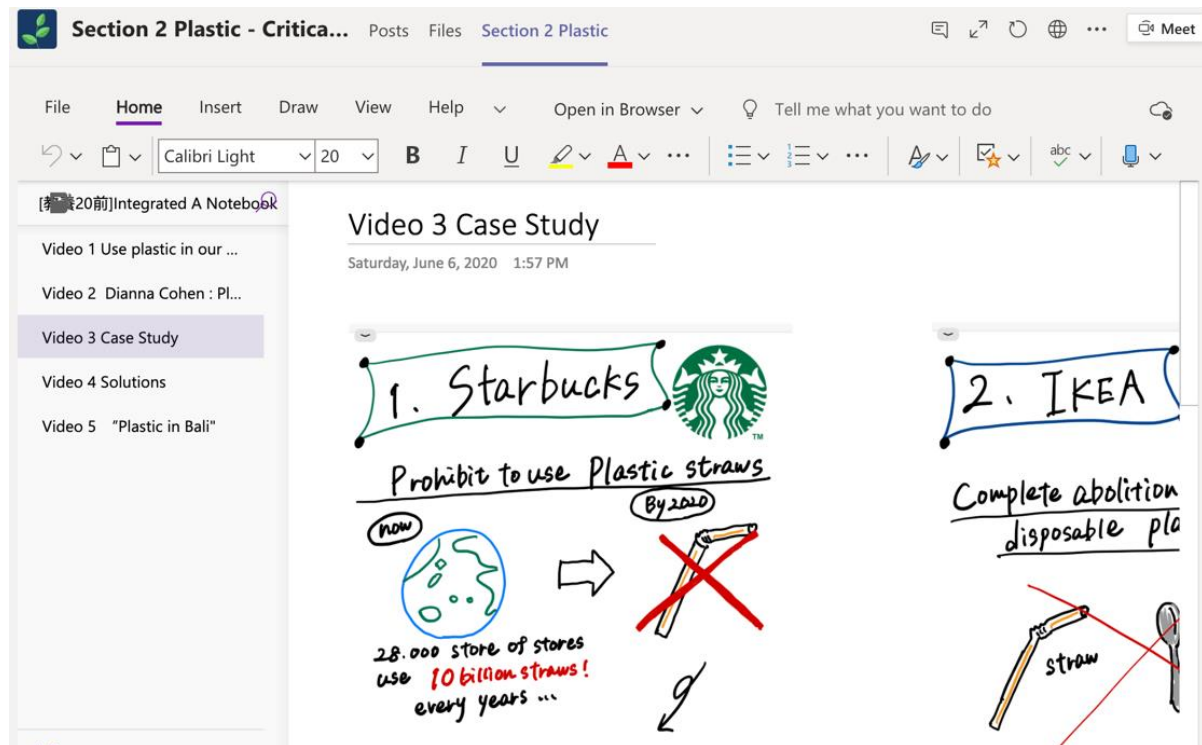
This collaborative dialogue began with common and typical responses to combatting plastic pollution, such as eliminating the widespread use of plastic bags and straws. Then, Student 5 [6/7 2:44 PM] considers this from a different angle. Vending machines in Japan are pervasive, but at this university, there is a coffee machine that dispenses coffee into a paper cup and this student considers extending this design to vending machines that serve other drinks like teas or sodas. In another example, Student 3 [6/6 7:42 PM] suggests the development of material that can naturally decompose and Student 1 [6/7 11:08 PM] follows this up with a specific example of this from a company called Ooho (see <https://www.notpla.com>). The interactive text chatting within the private channel of TEAMS illustrates how communication can occur within an online learning environment, which is really a kind of hybrid form of communication – in the written mode, but closer to spoken

language.

In addition to the text-chatting function in the group's private channel, students also collaborated through a live video chat. This video-chat function resembles doing group work in the physical classroom, as students discuss the video question prompts in real-time. Moreover, the teacher can move around to the different groups and briefly join the video chat to provide necessary feedback and check progress on the given task.

Finally, at the end of each module, each group prepared a group summary presentation that aimed to introduce some of the key points that they discussed in their private channels to the whole class. The goal was to both collaborate as a group to complete this task, and to develop important skills in order to make a final individual presentation. More specifically, for Modules 1 and 2, these group presentations used mind maps to learn how to organize ideas and structure a presentation, for Module 3 the presenters used PowerPoint, and finally for Module 4, the presenters learned how to record themselves while doing a pair debate on the advantages and disadvantages of GM foods. Figure 3 is an example of a mind map from Module 2 on Environmental Issues.

Figure 3: Example of a group summary presentation using mind maps (Module 2: Environmental Issues)



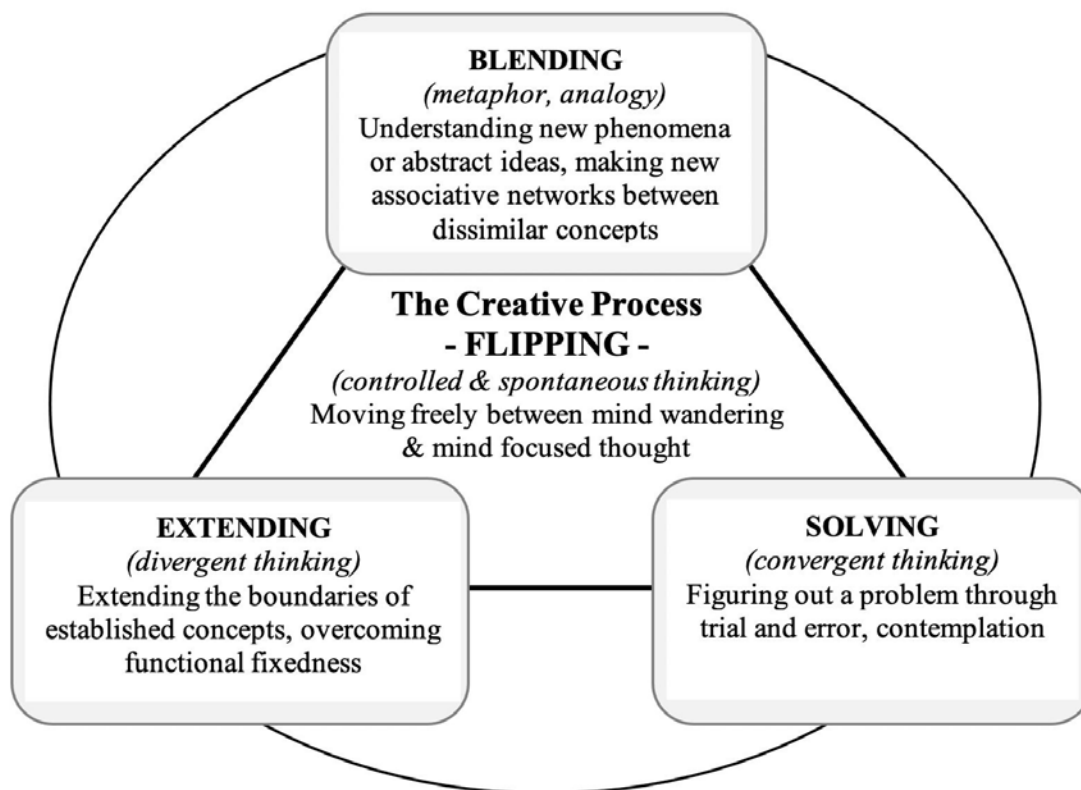
The questions for the videos were open-ended and exploratory and, therefore, this resulted in each group's summary presentation being unique, but at the same time reinforcing the

main themes of the module, thus increasing the comprehensibility of it by the other groups. In sum, students interacted with each other using different communicative modes from texting to participating in a video meeting to presenting to the whole class with the goal of enhancing the collaborative dialogue between the class members.

3.2 A framework for the cognitive processes of creative thinking

Creativity is a cornerstone for development, progress, and well-being in the individual and overall society. New ideas combine, extend, and break away from conventional and established patterns of thought. It has become widely accepted that the standard definition for creativity, which goes back to at least the early 1930s, typically involves the binary components of novelty (originality, uniqueness, unusualness) and usefulness (value, effectiveness, appropriateness) (see Runco & Jaeger, 2012 for a discussion on the historical development of a definition for creativity). Biomimicry is a good representation of creativity in action in the real world. Biomimicry looks towards nature for developing innovative forms of human design (e.g., burdock seed inspiring Velcro). In order to generate a creative idea, at a minimum, three different but overlapping cognitive processes are commonly recruited: *blending*, *extending*, and *solving* (see Figure 4).

Figure 4: Key cognitive processes for creative cognition



Blending distantly related concepts together allows one to understand abstract and often difficult to understand phenomena by connecting them to something more grounded in our

sensory and motor systems (e.g., the mind is a computer). It also has the power to build associative networks between two seemingly incongruous concepts and is widely exploited in visual advertisements (octopus – car tires; Toyo tires advertisement). Blending involves different mental frames (Birdsell, 2014; Fauconnier & Turner, 2008), which is similar to Koestler's (1964, p.45) bisociation, or when two independent matrices of perception or reason interact with each other, resulting in a collision (producing humor), confrontation (producing an aesthetic experience), or fusion (producing a new intellectual synthesis). In other words, combining distantly related matrices, or mental frames, in a novel way results in laughter, awe, or insight. In regards to biomimicry, two frames, for example, a yoghurt lid and a lotus leaf, are fused together, taking attributes from each, resulting in a new and emergent design form, a yoghurt lid that imitates a lotus leaf, whereby the yoghurt no longer sticks to the lid.

Extending concepts is the hallmark feature of divergent thinking (e.g., extending the customary function of a brick in unusual ways) and has been a standard measuring criterion for creative potential for many decades (see Runco & Acar, 2012). Furthermore, these two cognitive processes, *blending* and *extending*, have been shown to be two common cognitive strategies students use to creatively imagine an otherworldly creature (Birdsell, 2019).

The third cognitive process, *solving*, is a goal-directed process that seeks to answer some problem. Take, for example, Mednick's (1962) Remote Association Test (RAT). On this test, one needs to solve the puzzle of how three seemingly unrelated words are connected together by some unknown fourth word (e.g., cross, rain, tie). This is typically viewed as a classic example of convergent thinking where one recruits semantic knowledge of these three words and then looks for pathways to solve this problem by generating possible ideas (dress, boat, bow, etc.), then evaluating the appropriateness of these ideas, and finally selecting the best one (bow).

Again, in regards to biomimicry, designers often utilize all three of these cognitive processes as they are confronted with an ill-defined problem or a problem that has no clear solution. For instance, Eiji Nakatsu, a Japanese engineer for JR West, had to solve the problem of noise related to the shinkansen ("bullet train"), as it sped out of a tunnel (Kobayashi, 2005). Trying to solve this problem, he likely let his mind wander, recruited memories based on his knowledge as an avid bird watcher, and came up with using the streamlined beak of a kingfisher for the front design of the train. He had observed that kingfishers, as they descend downward, are able to silently and without a splash break through the water. This unlikely combination (that is to say, blending) of a warm-blooded egg-laying vertebrate with a human-made train moved by electrical locomotion seems highly incongruous. Yet at the same time, they both need to pass through a barrier (air – water; inside a tunnel – outside a tunnel) in a seamless way to be effective. This shows that the creative process involves a dual function

of (1) idea generation, such as mind wandering, exploring ideas, extending conceptual boundaries, blending distantly related concepts together, which is then followed by a top-down (2) evaluative process, such as judging the sensibility of this idea and considering its usefulness and whether it solves the problem. This dual coactivation requires what I have termed, *flipping*, as indicated in Figure 4. This *flipping* utilizes two dynamic networks: an executive control network and a default mode network (Jung, Mead, Carrasco, & Flores, 2013). This dual-thinking pattern involves both spontaneous mind-wandering and controlled, mind-focused thinking. In short, to develop students' creative potential through activities in the classroom it is important to provide opportunities for students to do this *flipping* (mind-wandering + mind-focused learning).

3.3 A window into the creative process: Biomimicry and CLIL

One of the central features of CLIL is not only the development of learners' communicative skills and content knowledge, but also the enhancement of their cognitive competencies, and this includes the abilities of *creating* and *evaluating*, as indicated in the revised Bloom's Taxonomy (Krathwohl, 2002). As indicated above, biomimicry provides a window into the creative processes of designers, engineers, and many others who use this technique. In addition, *creating* and *evaluating* coincide with the construct of *flipping*, as central features of the creative process.

In Module 3 on biomimicry, one task in their online group discussions was to research another example of biomimicry (besides the "bullet train" example, which we had already discussed) and describe it to the others. Below is an example of the interaction between the students in one of the groups.

Student 1: Another example is the aerodynamics and efficiency of the boxfish's shape; engineers have decided to apply these characteristics of the fish to a car. There are a lot of examples! [6/23/20 3:27 PM]

Student 2: Here is another example, a tile was inspired by a snail's shell. Its shell has fine grooves and they gather water, so the layer of water prevents the tile from getting dirty. [6/26/20 12:16 AM]

Student 3: [6/26/20 8:37 PM] Hey (Student 1) and (Student 2)! How are you? These ideas are very interesting for me. Especially, I didn't know that cutting low power display in mobile devices came from the butterfly. It's amazing. By the way, (Student 1) said about a car. Do you want to ride in a blowfish car? (lol)

Student 1: I want to make the car look like a blowfish, and try to ride it. By doing so, I think that many people can know about Biomimicry. [6/26/20 8:50 PM]

Student 4: Another example is that moth eyes have structure that don't reflect light to assimilate with others and protect themselves from natural enemies. People can make a TV screen, computer screen and glass window surface with less reflection. The moth-eye

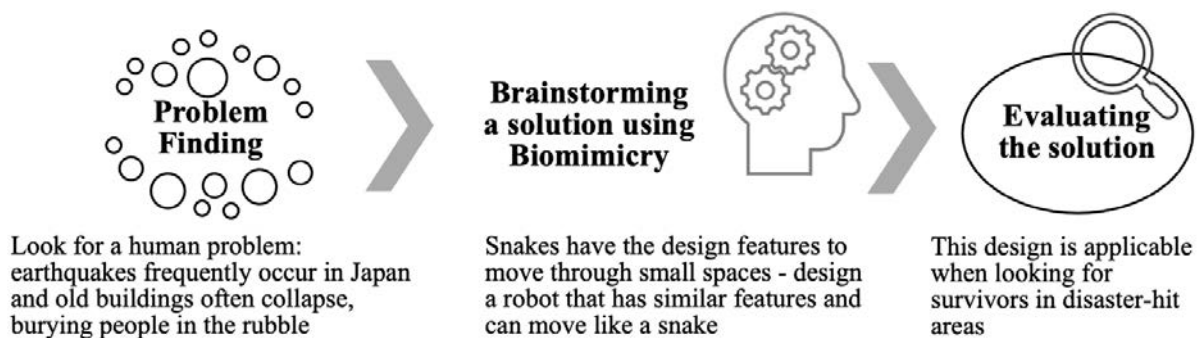
structure may also be used as an antireflection film because it increases the light absorption of the solar cell. [6/27/20 5:10 PM]

Student 5: Also the nest of termite, natural air conditioning was created in the building from this design. The nest of termite creates a comfortable environment by causing circulation of the underground cold air and the outside air through the chimney effect. [6/28/20 10:47 PM]

Student 1: Also, mosquito's needle has small protrusions, so the pain is softened by injection. They have used this for improving needles. [6/29/20 7:34 PM]

As can be viewed in the above conversation, this initial discussion provided them a window into biomimicry and many examples of it being applied to human innovations to tackle a design problem. In order to highlight the creative process of biomimicry, one task in their group summary report for Module 3 required them to first consider a human problem (problem finding) and then consider how biomimicry could be used to solve this (brainstorming). One group discussed the problem of earthquakes in Japan and how older buildings are susceptible to crumbling down when such a natural disaster occurs, resulting in the possibility that people may get buried under the rubble. Then, to solve this problem, they discussed different ideas that might facilitate the process of finding people buried in the rubble. After doing this, one student then researched how biomimicry has been developed to tackle this problem and then presented to the group the design of a mechanical robot that borrows the shape and locomotion of a snake. A snake is an exemplary creature and has an ideal form for maneuvering through small spaces. Then, they evaluated this design and concluded that the bio-ingenuity of snake locomotion is highly applicable for providing engineers a framework to design a snake-looking robot, which has the potential to find survivors in earthquake hit areas (see Figure 5 for a description of this process). As a result, they decided to include this example of biomimicry in their group summary presentation to which they presented to the whole class.

Figure 5: The creative process for applying biomimicry to solve a real-world problem



In short, biomimicry is a model example of interdisciplinary content. In other words, it incorporates academic content from biology, engineering, design, and creativity studies together for the students to think more deeply about problems in the real world, but also to appreciate the complex, functional, and efficient design structures found in the natural world.

4. Conclusion: Challenges and student feedback

In conclusion, this article examined the possibility of implementing a remote learning CLIL course at a university in Japan. Since CLIL courses are based on the pedagogical principles of collaboration and communication, teaching such a course online may seem implausible, yet, as discussed in this paper, this is indeed an option. For example, compared to face-to-face CLIL courses where group work, interaction, and active collaboration are facilitated and simplified by non-verbal communication strategies and spatial proximity, remote learning CLIL courses still can achieve such interactive *communication*. To accomplish this, other communicative styles are required such as using real-time video group discussions or online chats, along with a goal-directed activity in the form of a group summary presentation. Moreover, learners can enhance their creative *cognition* by making use of *content* that aims to solve a real-world problem through blending and extending existing concepts in new and unexplored ways and biomimicry is a good example of such content. The one C not discussed in this paper, but also has potential to be implemented within a remote CLIL course, is *culture* and recent research using a “virtual exchange” has begun to be explored within the CLIL paradigm (see O’Dowd, 2018).

However, this optimism should be taken with some caution, as there are still several challenges and drawbacks to teaching CLIL online. First, as CLIL is heavily focused on communication as a learning imperative, a couple problems emerged from teaching this course; (1) two students did not use the camera function due to internet connectivity problems, which impaired their ability to communicate effectively with other group members; (2) although the video is an effective way to communicate, allowing the students to read the facial expressions of the teacher and other students, it does not allow them to read body language and gestures, and these nonverbal forms of communication are important for meaning-making, especially for foreign-language learners. Secondly, communication within the private group channels was not always “interactive”, in terms of the joint construction of meaning and moving towards a “collaborative dialogue”, but instead, at times, it appeared like the individual was more interested in providing a quick response to the question prompt than engaging with other members in a dialogue. This could possibly be ameliorated by some explicit instruction at the start of the course in how to communicate online and how the class participation part of the grade is based on this interaction with their private group channels.

Despite some of before mentioned challenges, at the end of this course, the teacher prepared

an online form with an open-ended question for the students to provide feedback (see the bullet points below for student responses to this question). What stands out from these responses is how the students appreciated the dual-focus approach of CLIL. In sum, these responses support the assertions made by CLIL advocates that learning content through English motivates and increases students' interests.

- I think this class was the most interesting of my classes in this semester. It is because there were a lot of opportunity to learn various controversial problems in this world. The end of each sections, we could summarize them in different way. I never got tired!
- In this class, by exchanging opinions with others in English, I could develop my ability to speak English and assert my own opinions.
- I was not only able to learn English, but also learn about problems and events in areas other than my major and presentations.
- We can learn the history and problems of the world, and we can know what we did not know before.
- I could see videos of wide range of fields and expand my knowledge. I could exchange opinions with teammates. It was good experiences for me to learn English.
- I can get not only English but another knowledge.
- Because not only I can improve English skills by reading or discussing, but also, I could know many interesting things for the first time in various areas of study.
- I think my view of things has widened through this class. This was not the case in other classes. Even if I fail, the professor didn't blame me, so I'm motivated to try.
- Most Japanese English class is only writing not speaking. However, this class introduce speaking time. I like it. I have not been good at speaking English yet. But I will make an effort to study English!!
- Through this class, I could not only improve my English skill, but also improve my presentation skill. and I could think about some interesting topics.
- I could learn the various area and it was interested for me.
- We could learn widely about science and languages, by using free English communication.

CLIL has pushed education forward by focusing on content, communication, and cognition as central features for language learning. Although COVID-19 has forced many teachers to adjust and adapt to these changing times, it has also provided opportunities to reflect on ways to develop and evolve as a teacher, particularly in regards to incorporating more technology into CLIL courses. As these new technologies continue to develop, harnessing these innovations for purposeful language learning has the potential to increase classroom time for building collaborative dialogues and creative problem solving.

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Appendix A

Module 2: Environmental Issues Video Links

Video1:

(https://www.ted.com/talks/emma_bryce_what_really_happens_to_the_plastic_you_throw_away#t-223950)

Video2: (https://www.ted.com/talks/dianna_cohen_tough_truths_about_plastic_pollution)

Video3: (https://www.ted.com/talks/charles_moore_seas_of_plastic)

Video4: (https://www.ted.com/talks/david_katz_the_surprising_solution_to_ocean_plastic)

Video5: (https://www.ted.com/talks/melati_and_isabel_wijzen_our_campaign_to_ban_plastic_bags_in_bali)

Module 3: Biomimicry Video Links

Video1: (https://www.ted.com/talks/robert_full_learning_from_the_gecko_s_tail)

Video2: (https://www.ted.com/talks/janine_benyus_biomimicry_in_action)

Video3: (https://www.ted.com/talks/michael_pawlyn_using_nature_s_genius_in_architecture)

Video4: (<https://youtu.be/iMtXqTmfta0>)

Video5: (<https://youtu.be/r1CpzEGhs3c>)

The Journal of Japan CLIL Pedagogy Association (JJCLIL) Peer-review Policy

All submissions are peer-reviewed for the following purposes:

- To enhance the academic, educational and practical value of the study of CLIL pedagogy
- To reduce bias and error in research and practice
- To ensure the accuracy of the information

Submissions should be made primarily by teachers and researchers who have given presentations at J-CLIL conferences, research meetings and seminars.

Each submission is evaluated by two reviewers selected from among the J-CLIL members.

The reviewers make one of the following recommendations to the editorial board.

- A. Accept
- B. Accept after revision
- C. Do not accept (entitled to submit to the next version after revision)

*The editorial board hopes all reviewers will kindly give helpful suggestions and comments to the author(s) in order to help improve the quality of the paper.

(Peer-review after revision)

In the event that the reviewers' evaluations differ, the editorial board members make a final decision.

