The Effects and Challenges of Adopting the CLIL Approach at a Japanese University: Exploring Ways to Provide Language Support Effectively

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Abstract
This study investigated the effects and challenges of implementing the hard CLIL (Content and Language Integrated Learning) approach in an all-English lecture course at a Japanese university, with the focus on language support to facilitate the students’ understanding and learning. The theme of the course was English as an international language, which aimed to have students study how and why English is used as a means of communication across countries based on geographical-historical and socio-cultural factors. This study was conducted in the form of action research over the course of the semester, with the researcher as the dual-qualified instructor to teach language classes and content classes. There were 19 students in the class, and their English level was from intermediate to upper intermediate. Throughout the semester, six types of language support were integrated into this course: vocabulary building, note-taking check, writing check, reading exercises, communicative activities, and pair or group discussion. Based on the instructor’s observation and the feedback from the students, this study showed that concise and explicit language instruction at the beginning of the class enabled the students to understand the following lecture better and that group activities which had clear goals relevant to the students’ experience were the most engaging and effective forms of in-class language support. The biggest challenge was maintaining a balance between content teaching and language support. The students demonstrated a satisfactory understanding of both the contents and the language, indicating that the hard CLIL approach was highly effective.

Keywords: CLIL, Japan, University Education, Language Support
Introduction

In teaching academic subject courses in English at Japanese universities, it can be necessary to provide language support for students whose English level is not high enough to understand the contents fully in English. One way to address this issue is to adopt the content and language integrated learning (CLIL) approach. CLIL is defined as “a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language” (Mehisto et al., 2008, p. 9). In other words, using the CLIL approach can provide students with the opportunity to learn about academic subjects while obtaining necessary language skills to understand the contents better.

One of the guiding frameworks of CLIL has been the 4Cs framework. The framework consists of four dimensions, which are content, cognition, communication, and culture, and emphasizes the inter-relationship and integration of these four dimensions in implementing the CLIL approach (Coyle, 1999, 2007; Coyle et al., 2009). For Coyle et al. (2009), the cultural dimension is the most important element in this framework because it is a “key to deeper learning and promoting social cohesion” (p. 12). Mehisto et al. (2008), in providing another framework, identified 30 features integral to the CLIL methodology and classified them into six categories of multiple focus, safe and enriching learning environment, authenticity, active learning, scaffolding, and co-operation (pp. 29-30). For Mehisto et al. (2008), the driving principles of CLIL are cognition, community, content, and communication, with cognition being the central element of an effective implementation of CLIL (pp. 30-31).

The term CLIL was first developed in Europe in the 1990s (Coyle, 2007, p. 545). This approach has since “spread widely in Europe in the past few decades” with varying implementation “across and even within countries” (Roiha & Mäntylä, 2019, p. 1). As such, the CLIL approach has been adopted at different stages of education for various subjects, and research findings have been accumulating. At the level of primary education, Pladevall-Ballester (2018), for instance, compared the motivation of learning English over two years between the Spanish students who experienced CLIL classes and those who did not. The study pointed out that the students who were in the CLIL group tended to show more positive attitudes toward the foreign language learning experience than those who were in the non-CLIL group although both groups showed and retained high intrinsic and instrumental motivation (p. 781). In addition, the study compared arts and crafts classes and science classes and showed that the CLIL approach had a more positive impact in arts and crafts classes (p. 782).

Longitudinal studies have also been conducted in order to analyze the long-term effects of CLIL on primary and secondary school students. For example, Roiha & Mäntylä (2019) conducted semi-structured retrospective interviews with Finnish adults who used to be in the English-medium CLIL program in primary and secondary schools to investigate their English language self-concept. The results indicated that CLIL is beneficial in developing and retaining a positive self-concept in a foreign language (p. 11). Martínez Agudo (2020) also focused on primary and secondary education and compared the impact of CLIL on the development of English language competence of students in eight public schools (CLIL and non-CLIL) and two charter schools (non-CLIL) in Spain. The study showed that the students in the CLIL program in public schools demonstrated a higher English competency than those in the non-
CLIL program in public schools. However, such significant differences were not observed between the students in CLIL programs in public schools and those in non-CLIL programs in charter schools. As such, the author concluded that the CLIL approach seems to be the more advantageous approach at least in public schools (p. 44). Moreover, Hughes and Madrid (2020) investigated the impact of CLIL on the development of content knowledge in science also in Spain. Their study showed that the effect of CLIL was not obvious in primary education but that the CLIL approach had a positive impact on the performance of students in secondary schools.

Research more specifically targeting secondary school students has also been accumulating in Europe. For example, Castellano-Risco et al. (2020) investigated whether differences in instructional approaches influenced the lexical development and found that the CLIL approach promoted the students’ development of receptive vocabulary. Hurajova (2019) looked into a bilingual English program in a secondary vocational school in Slovakia and claimed that the CLIL approach seemed to be one of the factors enhancing the students’ competence in English. The same tendency was observed in Denman et al. (2013), with a vocational school in Netherlands.

The CLIL approach has been adopted at the university level as well (e.g., Hellekjær, 2010; Martín de Lama, 2015). However, as observed in Macaro et al. (2019) with the examples from Italy, the EMI (English medium instruction) approach seems to be a more widespread approach at universities in Europe. EMI in a strict sense is defined as “[t]he use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English” (Macaro, 2018, p. 1, as cited in Macaro et al., 2019, p. 4) and can be interpreted as an approach which mostly focuses on the content instruction without language support.

In Japan, where the current study took place, CLIL has been gaining popularity especially in English education (Brown, 2015, p. 1). There has been an increasing amount of research and publications particularly in university bulletins over the past several years. The number of articles containing the keyword CLIL on CiNii (https://ci.nii.ac.jp/), which is a database of publications in Japan, more than doubled between 2013 and 2019. This search on CiNii also revealed that CLIL in Japan, when the approach is adopted, has mainly been in English language classes unlike in Europe. CLIL was originally developed as “a set of methods that could help subject teachers support the language needs of their students” (Ball et al., 2015, p. 27), and this content-led approach is now referred to as hard CLIL. On the other hand, the language-led CLIL approach, which puts more emphasis on the development of the target language skills than the content knowledge, is referred to as soft CLIL (Ikeda, 2013, p. 32). This means that soft CLIL has been the more mainstream CLIL approach in Japan, not hard CLIL. This is partly because Japan is in an English as a foreign language (EFL) context, where English is not widely used outside of the classroom. Therefore, it is necessary to investigate the applicability of the hard CLIL approach to academic subject courses offered in English at Japanese universities.

Content-related classes taught in English at Japanese universities can be classified along the continuum from soft CLIL to EMI as illustrated in Figure 1. This figure only aims to show the relation of CLIL and EMI, so other approaches containing content instruction are not included. If EMI courses are defined as lectures and seminars
taught by subject instructors without language support, then the hard CLIL can be considered as EMI courses with systematic language support. Ball (2018) emphasizes that “the axis of hard CLIL is language support” (p. 225). As language support is the essential aspect of hard CLIL, previous studies have identified effective strategies for providing language support in hard CLIL courses including teacher talk (Coxhead, 2017), repeated exposure to related language in activities (Turner & Fielding, 2020), use of textbooks (Coxhead & Boutorwick, 2018), scaffolding (Mahan, 2020; Yakaeva et al., 2017), and development of materials designed specifically for hard CLIL (Ball, 2018).

![Figure 1: Content-Related Classes Taught in English at Japanese Universities](image)

The present study is a case study on the implementation of a hard CLIL course at a Japanese university for one semester in order to explore its effects and challenges with a focus on language support. This study was conducted in the form of action research, which took place in the course the researcher was teaching. In the following sections, the context of the study will be first explained in the methodology section. Each stage of the action research, that is, the planning phase, the implementation phase, and the reflection phase will then be described, followed by the discussion and implications of the hard CLIL approach.

**Methodology**

**Context of the Study**

The present study took place in the department of foreign languages at a private university in Japan in the academic year 2019 (AY2019). In Japan, the academic year starts in April, and all the courses in AY2019 at the university were held on campus. The university follows the semester system, and the study was conducted in the spring semester, which lasted for 15 weeks excluding the final examination weeks. Most of the courses at the university only meet for 90 minutes per week, and it was the case as well for this course. It was an elective course for third year English majors who had just returned from a study abroad program of six months or one year in the United States of America, Canada, Australia, New Zealand, or Malaysia.

The course was labelled as an “English lecture” course. It was a course in the English language curriculum, and the instructor was responsible for deciding its structure and the contents as long as the main focus was on the content instruction. In other words, the course was in an ideal environment to implement a hard CLIL approach. The instructor was dual-qualified to teach English language courses and content courses related to applied linguistics and English education.

**Participants**

There were 19 students in the course. As mentioned above, they were in a program which required them to participate in a study abroad program. Most of them belonged
to the English language program in their respective university when they studied abroad, and as such, it was their first time to take a semester-long academic subject course fully in English. The students’ English level was from intermediate to upper intermediate.

The Planning Phase

First of all, it was necessary to select the theme of the course. As the instructor of the course, I chose “English as an international language” as the theme. The academic reason behind this decision was that it was a suitable theme for English majors who had studied abroad. The practical reason was that it was one of the themes I was qualified to teach as a content instructor. The objective of the course was to have students study how and why English is used as a means of communication across countries and cultures with the focus on geographical-historical and socio-cultural factors. English as a Global Language by Crystal (2012) was assigned as the textbook because this was a well-known introductory book to the field of English as an international language. The Canto classics edition (Crystal, 2012) was the same as the 2nd edition (Crystal, 2003), so the statistics and data were somewhat getting outdated. As such, additional and updated materials were supplemented whenever necessary, and the students were also encouraged to read the textbook critically.

The weekly schedule was then developed loosely based on the topics covered in the textbook. Additional topics were included to make the course more relevant to the students’ own experience. Table 1 shows the list of the topics on the syllabus distributed to the students. The course started with the introduction to the concept of global languages along with their advantages and disadvantages. From the third week to the sixth week, the focus was on the geographical-historical factors behind the spread of English, looking at different areas of the world in turn. The course then moved on to the socio-cultural factors which contributed to the spread of English and covered topics such as the media, international relations, and international travel. Topics related to the future of English were covered after the in-class test. The evaluation consisted of both formative assessment and summative assessment. The participation score constituted 40% of the final grade, the in-class test was worth 30%, and the final essay accounted for 30%.

The materials for use during the classes were also prepared during the planning phase. They included PowerPoint slides, lecture notes, relevant video clips, handouts, exercises, discussion questions, and other relevant activities. The details will be explained in the implementation section. When preparing and developing materials, especially for language support, frameworks, principles, strategies, and previous studies on CLIL as well as insights from EFL classes were used for reference. More specifically, the 4Cs framework of CLIL (Coyle, 1999, 2007; Coyle et al., 2009) as well as the four principles of CLIL (Mehisto et al., 2008) were referred to as the frameworks when planning the contents of this course. In developing specific materials, the seven principles for designing CLIL materials were used as a frame of reference; they were, “the primacy of ‘task’,” “prioritizing the three dimensions of content,” “guiding input and supporting output,” “scaffolding and embedding,” “making key language salient,” “the concept of ‘difficulty’ in didactic materials,” and “thinking in sequences” (Ball et al., 2015, p. 176). In addition, examples of language support in CLIL classes in the literature as mentioned above and English activities and
exercises in EFL classes were utilized as reference. Even though the course was labeled as a lecture course, materials that would foster the environment of active learning were mainly adopted.

Table 1: Weekly Topics of the Course

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orientation, What is a global language?</td>
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<tr>
<td>2</td>
<td>Why do we need a global language?</td>
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<tr>
<td></td>
<td>What are the danger of a global language?</td>
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<tr>
<td>3</td>
<td>English varieties of the Inner Circle</td>
</tr>
<tr>
<td>4</td>
<td>English varieties of the Outer Circle</td>
</tr>
<tr>
<td>5</td>
<td>English varieties of the Expanding Circle</td>
</tr>
<tr>
<td>6</td>
<td>English in Japan</td>
</tr>
<tr>
<td>7</td>
<td>Political developments and access to knowledge</td>
</tr>
<tr>
<td>8</td>
<td>International relations and the media</td>
</tr>
<tr>
<td>9</td>
<td>International travel, international safety</td>
</tr>
<tr>
<td>10</td>
<td>Review and discussion</td>
</tr>
<tr>
<td>11</td>
<td>In-class test and feedback</td>
</tr>
<tr>
<td>12</td>
<td>Contrasting attitudes toward English</td>
</tr>
<tr>
<td>13</td>
<td>The linguistic character of new Englishes</td>
</tr>
<tr>
<td>14</td>
<td>The future of English as a world language</td>
</tr>
<tr>
<td>15</td>
<td>Summary of the course, feedback</td>
</tr>
</tbody>
</table>

The Implementation Phase

Typically, a 90-minute class began with a short and explicit language learning activity related to the content of the day. Then the instructor gave a lecture interspersed with short individual, pair, or group activities. A longer group activity or discussion followed the lecture, and the students were asked to review the content of the class by going over the materials and reading the assigned sections of the textbook after the class.

For example, the second week began with a vocabulary exercise on the geographical areas of the world to make sure the students know the English labels of each area and to set up the context for the lecture of the day. The lecture portion then covered the topics of the week, which were the advantages and disadvantages of a global language. Loosely based on the textbook, the instructor first talked about the function of global languages as a lingua franca of people from different areas and how global languages became more important with globalization. Pair discussion was included, for example, to have students think about how they would have visited or kept in touch with someone from another country in the early 1900’s and notice how things had changed in a short period of time. The instructor then asked students to think about possible disadvantages of global languages and introduced the concept of endangered languages and linguistic death. After the lecture, the students were divided into groups and worked on a group activity to gather information and prepare a short in-class presentation on an endangered language.

In this particular course with a hard CLIL approach, six types of activities related to language support were mainly utilized. As the focus of this action research was the language support in a hard CLIL course, the rest of this implementation section
describes these six types of language support activities. As shown in Figure 2, they were vocabulary building, note-taking check, writing check, reading exercises, communicative activities, and pair or group discussion. Among the six types, vocabulary building was the most language-oriented type of language support, whereas pair or group discussion was the most content-oriented type of language support in this course. Some activities were included before or after the lecture as independent activities related to the lecture, while others were integrated in the lecture portion itself.

![Figure 2: Six Types of Language Support Activities Utilized in the Course](image)

The first type of language support was vocabulary building. Explicit vocabulary building exercises such as identifying definitions were often included at the beginning of the class to cover the main technical terminology of the day. For instance, adjectives related to English as an international language such as linguistic, various, geographical, historical, and official were reviewed at the beginning of the third class. Similarly, sociolinguistic terminology such as pidgins, creoles, indigenous languages, and lingua franca was introduced at the beginning of the fourth class. The instructor also included definitions and explanation of challenging English words in the teacher talk so that students could understand them without looking up the dictionary during the lecture.

The second type of language support was note-taking check. The students were encouraged to take notes during the lecture portion as much as possible. The important information was highlighted on the slide to make it easy for the students to decide what to write down. The slides were not distributed in the form of handouts although it was allowed to take pictures of the slides whenever necessary. The students were sometimes asked to compare their notes with each other to check if they were following the lecture. The instructor also occasionally checked what they had written down.

Another type of language support related to writing was writing check. This third type of language support was mainly for the final essay. There were essay guidelines and rubrics provided by the English language committee of the department, so the students were asked to follow the guidelines. The guidelines outlined the expected structure of the essay with specific instructions on the elements of each paragraph. The students did not have prior experience with writing academic essays of this length, and all of them were taking a course on academic essay writing in the same semester.
as this course. The two courses were independent from each other, and the students were working on entirely different topics in their academic essay writing course. In order to assist the students with the topic selection, the instructor presented five possible topics for the final essay. The most popular topic was “English will remain as the international language at least for the next 100 years. Do you agree?” As they were struggling with writing, the instructor decided to use most of the class time in the 13th class for in-class writing time and provided short tutorials with each student, checking their draft and giving feedback. The students were also encouraged to read each other’s draft and provide peer feedback during this time.

The fourth type of language support was reading exercises. In order to make sure students read the textbook, reading exercises with graphic organizers, comprehension questions, or true/false questions were sometimes included during the class. For instance, for the topic covering the influence of political development in the spread of English, a handout was prepared with a list of famous quotes based on the textbook. The students were asked to identify which famous historical figure said what in which year in pairs, reading the textbook to find out the correct answer. In addition to reading exercises, the instructor quoted from the textbook whenever possible and ask the students to highlight the section together.

The fifth type of language support was communicative activities related to the concepts introduced in the class. For instance, in the class on the role of English in media, the students made a mock commercial in English in groups of three or four to think about cultural differences with Japanese commercials. For the class on the role of English in international travel, the students tried trivia questions on “maritime English” in a quiz show format. They also did a listening exercise on “airspeak” and tried out a conversation between the pilot and the air traffic controller.

Finally, the sixth type of language support was pair or group discussion. Although this was a language related activity in the sense the students needed to speak in English, the focus was heavily on the contents themselves. Some discussion questions asked the students to relate the content of the lecture with their own experience. For example, after learning about the spread of English to North America and Oceania, the students compared the countries they had studied abroad and identified differences in English and customs based on their own experience. Other discussion questions required the students to apply what they had learned in the lecture as in “Do you think that singers have to perform in English in order to reach an international audience?”

The Reflection Phase

Necessary modifications and adjustments were made throughout the semester whenever the need arose. This section describes the reflection of the course at the end of the semester based on the instructor’s observation and the feedback from the students. The feedback was obtained through open-ended interviews during the semester and the course survey at the end of the semester.

First of all, the theme, the topics, and the textbook were suitable for this group of students. They showed interest in the contents because they were able to connect the contents with their own experience. Moreover, the majority of the students expressed that the lecture was easy to follow and understand. However, there were students who
mentioned that a few lectures felt rather crammed and fast-paced, so the amount of content will have to be reduced for those classes in the future.

Among the six main types of language support provided in this particular CLIL course, vocabulary building, communicative activities, and pair or group discussion were effective. The vocabulary exercises on the main technical terminology of the day at the beginning were in particular effective in helping students follow the lecture of the day. Their understanding of the technical terminology was demonstrated in the short-answer questions on the in-class test. Communicative activities and discussion enabled the students to think about and talk about the contents of the class in more depth together with their classmates in an interactive manner. Reading exercises were not very popular mainly because the students had to take some time to read by themselves. However, reading exercises are necessary to ensure that students actually read the textbook, so they will have to be included with some revision by adding more interactive elements.

On the other hand, note-taking check and writing check were not very effective in the course partly due to the time constraints. Twenty-two and a half hours was not long enough to cover the contents in detail, trying to provide a sufficient amount of language support at the same time. This indicated that for the types of language support which require extensive time and attention, it would be better to collaborate with another language class. In addition, for note-taking check, it might be helpful for the students if the lecture slides are uploaded on the learning management system after the class.

Overall, the students found pair and group activities more engaging and effective than individual activities, and this showed that the students preferred activities which involved peer collaboration during the class time. In other words, the environment of active learning seems to be one of the keys for successful language support in a hard CLIL course.

Based on this reflection of the action research, the course was supposed to be reimplemented in AY2020 with revisions and updates. However, all the courses in the spring semester of AY2020 suddenly had to be moved online. Real-time online classes were not encouraged by the university during this semester because not all the students had a stable access to the internet to attend synchronous online classes constantly. Therefore, the course had to be restructured into pre-recorded lectures with weekly assignments and feedback on the learning management system without group activities, and the reimplementation of the face-to-face version will have to wait until on-campus teaching is fully resumed.

**Discussion and Implications**

This study has shown that a hard CLIL approach is suitable for Japanese university students without much prior experience of taking academic subject courses in English. It seems to be especially beneficial for students whose English level is not high enough to participate in an EMI course for a semester without language support. In order to implement a hard CLIL course effectively at a Japanese university, this case study has suggested that it is necessary to provide a sufficient amount of concrete language support with clear goals based on CLIL and EFL principles. If implemented
carefully, students can demonstrate a satisfactory performance both in terms of content and language. Feedback from the students was overall positive, and a course with a hard CLIL approach could also be used as a transition course before students move on to EMI courses.

In a hard CLIL course, this research has indicated that concise and explicit language instruction at the beginning does not disturb the flow of the class and can help students understand the following contents better. It is also important for the instructor to deliver teacher talk more carefully than in regular EMI courses to make sure students can follow the lecture and the instructions. In addition, group activities with clear and relevant goals as well as those directly related to students’ experience can be highly engaging and effective forms of in-class language support.

On the other hand, the biggest challenge of a hard CLIL course at a Japanese university is to maintain the appropriate balance between the content instruction and the language support within the time constraints. It is important but difficult to identify whether students are experiencing difficulty with the contents or the language (or both) and find the areas where students require assistance. This can be especially challenging in a classroom where students of different English levels are taking the course together. In such a situation, the instructor has to make careful decisions on the amount of in-class language support. It may become necessary to provide extra language support for students with a lower English level during group activities or even outside of the class so that such students can keep up with the course. In addition, more emphasis may need to be placed on the formative assessment so that the final grade would not be affected too much by the initial differences in English language skills.

**Conclusion**

In conclusion, the present study was a case study of the implementation of a hard CLIL course at a Japanese university. As this action research has demonstrated, the hard CLIL approach should be encouraged at Japanese universities, especially when teaching a group of students whose English level is from intermediate to upper intermediate. For a hard CLIL course to work efficiently and effectively, it may be beneficial to offer a course taught by a dual-qualified instructor as a CLIL course. That way, the same instructor can oversee the entire process so that it is easier to manage the course and make adjustments as the course progresses. It is not always possible to find dual-qualified instructors for necessary subjects, and if team teaching is not possible either, one solution may be to ask an EFL instructor to provide occasional language support in EMI courses. As with all the courses, it is important to prepare for the course in detail in advance, but the CLIL instructor should also be open and flexible about adjusting and modifying the contents and the language support whenever the need arises.

This case study was in the form of action research, and quantitative data were not collected. In order to analyze the effects of hard CLIL in more detail, comparative studies with EMI courses should be conducted based on both quantitative and qualitative data. Now that some courses are likely to stay online or become hybrid, it would be necessary to further explore the possibility and application of hard CLIL courses in different teaching formats at Japanese universities.
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