

Bridging to English-Medium Instruction Through CLIL: Student Feedback Based on University Pilot Courses

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Abstract

This study focused on pilot research conducted prior to launching a content and language integrated learning (CLIL) course in 2024 at Rikkyo University in Japan—an “English as a foreign language” learning environment. Despite the growing popularity of CLIL, the number of Japanese universities implementing this approach as part of a university-wide curriculum remains limited, a gap that the current study aimed to address. The researcher conducted quantitative and qualitative analyses using a mixed methods approach to explore learners’ feedback on the introduction of the new curriculum. The sample comprised 171 university students who participated in pilot CLIL classes as elective courses. They were asked to respond to a 17-item questionnaire that included 13 items rated on a five-point Likert scale and four open-ended questions. The data from the quantitative survey were examined through correlational and descriptive analyses using the SPSS software. The results showed that students had generally positive views about the CLIL courses, despite their being quite unfamiliar with them, particularly appreciating the frequent opportunities for collaborative learning with peers and exposure to diverse perspectives on the learning content. Additionally, satisfaction with the course content and teaching methods was high. However, in comparison, satisfaction with the development of critical thinking skills was slightly lower. The results point to potential areas that should be strengthened in future CLIL implementation.

Keywords: *Content and language integrated learning (CLIL), English-medium instruction (EMI), Facilitation, Critical thinking, Language scaffolding*

Introduction

Rikkyo University launched content and language integrated learning (CLIL) elective courses as part of the university-wide elective curriculum from the academic year 2024 and implemented curriculum reform to change all the existing elective courses to CLIL. The CLIL program has two main purposes. First, it aims to serve as a foundation or introductory course to facilitate English-medium instruction (EMI) classes conducted in various faculties. This

initiative will not only provide students with the essential skills to engage deeply with content in English but also familiarize them with cooperative learning and different styles of presentation prior to learning specialized knowledge at the undergraduate level. Rikkyo University offers a wide range of CLIL courses taught by faculty members who are not always content experts; as such, careful preparation is necessary to deliver these courses effectively. The second purpose is to encourage continuous learning by transforming students' perceptions of English as one among the subjects they learn to an important communication tool they acquire. In this respect, it is essential for university students to be able to continue language learning beyond the traditional assessment-driven context, especially for those with lower intermediate English proficiency. Continuous learning is key to language learning, but traditional teaching styles tend to create unnecessary anxiety and fear in students who are less proficient. CLIL courses can help students continue language learning by supporting the emotional aspects of the learning process and reminding learners that English is a communicative tool.

In light of this extensive curriculum reform, the Center for Foreign Language Education and Research (FLER) and the Center for the University-Wide Curriculum have been developing and implementing CLIL courses—efforts spanning several years—for the 2024 academic year. To refine our new CLIL curriculum, pilot studies have been conducted, and the university-wide curriculum and committees responsible for CLIL courses have provided teachers with guidelines, workshops, seminars, and teaching resources to help them better understand CLIL instructional methods.

Against this background, this study explores the characteristics of CLIL at Rikkyo University and its potential as a bridge to EMI. As part of a pilot study, this research mainly aimed to gather insights to enhance CLIL pedagogy and facilitate a smoother transition to EMI. A questionnaire was administered to students and teachers; however, this study focused only on student responses to assess their experiences and perceptions of CLIL. As the majority of students encountered the CLIL pedagogical approach for the first time at our university, a valuable aspect of this research constituted reflections on their perceptions following this direct experience vis-à-vis future curricular designs. The study findings are expected to guide current CLIL implementations at Rikkyo University and improve continuous language learning by offering deeper learning opportunities. CLIL integrates subject matter with language learning and helps students apply their language skills to content learning. This pedagogical approach is essential for students to develop the language skills necessary during CLIL courses, since EMI classes usually lack the element of linguistic support. Ultimately, the content and language skills taught in CLIL are intended to enrich students' educational experiences and prepare them holistically to express their opinions openly in a global society.

Literature Review

CLIL: Fundamental Concepts

In recent times, CLIL has gained global popularity as a pedagogical approach to foreign language education. Indeed, it is an effective approach that enables students to acquire both content knowledge and language skills simultaneously (Coyle et al., 2010). Researchers have also referred to the fact that CLIL courses are designed to improve learners' language proficiency and intercultural competence through learning related content. (Brinton et al., 1989; Marsh, 2002). Additionally, CLIL can enhance learners' motivation and engagement during courses (Lasagabaster & Doiz, 2016; Nikula et al., 2016) CLIL is not a completely new approach; it has evolved from traditional language teaching styles (Pérez-Cañado, 2012). CLIL, which originated in Europe, was proposed by Coyle et al. (2010), and it encapsulates four fundamental concepts: Content, cognition, communication, and culture (4Cs). Mastering and integrating them into practice is the key to teachers' successful implementation of CLIL.

Distinguishing EMI, Content-Based Instruction, and CLIL

In the broad research field of bilingual education in second language acquisition, methodologies such as EMI, content-based instruction (CBI), and CLIL play distinct roles. EMI focuses primarily on delivering academic content in English, typically in higher education settings where the language of instruction is English, without specific language learning objectives or scaffolding (Dearden, 2014). This approach is content driven and assumes that linguistic proficiency develops incidentally through exposure.

In contrast, CBI involves using subject matter as a means of teaching language, yet it does not always incorporate the systematic language development found in CLIL settings (Brinton et al., 1989). CBI, which emerged in North America in the 1980s, is frequently compared to CLIL, since CBI is primarily an immersion- or semi-immersion-style teaching method for learning through content. Snow (2001) stated that CBI content was interpreted as subject matter to be used for second/foreign language teaching purposes (p. 303). The goal of CBI is to develop language proficiency, and the content is the teaching material for this purpose. Therefore, while CBI does not strictly integrate content and language learning, CLIL emphasizes the integration of the two. The clear difference between CLIL and CBI is that the former is based on the 4Cs and aims to implement dual-focus learning.

CBI explicitly prioritizes language acquisition over EMI, but focuses primarily on content as the medium rather than the overall goal. In this regard, CLIL uniquely blends the goals of language and content learning, assigning equal importance to both. CLIL distinguishes itself by promoting the active development of language skills as well as content acquisition, and by providing language scaffolding that supports a dual focus (Coyle et al., 2010). Language scaffolding is an important characteristic of CLIL. Without language scaffolding, CLIL course implementation would not be successful because the learner's language proficiency is not

yet sufficient to understand the content deeply. Thus, elaboration of lesson preparation with language scaffolding is crucial for CLIL courses. The intentional use of translanguageing in class as a means of language scaffolding is meaningful (Lin, 2020). This scaffolding helps learners engage deeply with academic material and understand the content, which in turn allows them to further develop their language skills, showing how CLIL uniquely combines language learning and content mastery.

Previous CLIL Studies in Japan

Reflecting on global trends, the CLIL approach has been gaining traction in Japan, influencing English education. It has also been referenced in a document issued by the Ministry of Education, Culture, Sports, Science, and Technology (MEXT, 2014), wherein experts mentioned that it is necessary to view English as a part of language education rather than a special skill. It has also been suggested that adopting approaches such as CLIL or immersion education, as in Europe, could be effective. The recommendation to incorporate CLIL in English classes in Japan is rooted in the objective of fostering active English language usage among Japanese learners. Unlike conventional approaches that focus primarily on language acquisition, vocabulary, and grammar, CLIL emphasizes the integration of new knowledge in English through a subject. This approach demonstrates the crucial role of language as a tool for communication and learning. Here, the context of Japan must be taken into account, with an English as a foreign language (EFL) environment with few output opportunities and contexts; nonetheless, this perspective presents a model of practice in which learners essentially use language to deepen their learning, making it vital in contemporary English education in Japan. CLIL practice goes beyond language-centric objectives and includes various activities such as acquiring new knowledge, engaging in discussions, sharing perspectives, and appreciating diverse viewpoints. While implementing CLIL practices in the EFL context in Japan may present challenges compared with English as a second language (ESL) environments, it is precisely this difficulty that underscores their necessity.

Prior research has explored CLIL practice in Japanese higher education institutions. For instance, MacGregor (2016) provided thoughtful insights regarding university teachers' perspectives; the study participants (two Japanese participants and 11 participants from the U.K., Canada, and the U.S.) were teachers engaged in CLIL or EMI programs at universities. Although the survey was conducted with a relatively small sample ($n = 13$), the results revealed a general understanding of the many features of CLIL. However, there is some confusion regarding the differences between the related methodologies (CBI, EMI, etc.) and CLIL. The study underscores the need to strengthen educator training. In addition, it emphasizes that teachers must be adequately trained in both content- and language-teaching skills. MacGregor's (2016) relatively greater emphasis on the importance of teacher readiness and support systems is compelling because it aligns closely with our concerns in this study and underscores the idea that the success of CLIL in Japan is deeply dependent on educators effectively addressing the

challenges they face.

Yoshihara et al. (2015) conducted an in-depth investigation of students' perceptions of soft CLIL in EFL classrooms at Japanese universities. CLIL can be classified as soft CLIL and hard CLIL based on the purpose of the lesson. Soft CLIL is used when language learning is the main focus, whereas hard CLIL is used when content learning is the main focus (Izumi, 2019). Although soft CLIL places greater emphasis on language learning than hard CLIL, unlike EMI, both are focused on language learning as well as content learning. This prior study involved 194 students who completed an itemized and descriptive questionnaire over two years. The results showed that students responded positively to learning about global social issues in a CLIL format and highly valued English language instruction, which differed from the traditional high school approach. Moreover, the study highlights the need for specialized teacher training pertaining to the CLIL methodology. The study highlights the important role of educators' experience and expertise in the successful implementation of CLIL.

Another study by Ikeda (2013), one of the most important CLIL researchers in Japan, focused on high school students, and it is particularly significant for revealing the potential benefits of CLIL practices in Japan. This study examined the effectiveness of CLIL for younger learners in a secondary educational setting. Specifically, writing tests and course evaluation questionnaires were administered to 16- and 17-year-old students with lower-intermediate English proficiency, and the results showed that CLIL was effective in improving their essay writing skills. It also confirmed the effectiveness of a "soft" version of CLIL in Japanese education.

Despite notable previous studies conducted in Japan, the number of Japanese universities implementing CLIL as part of a university-wide curriculum remains limited. Therefore, the current study aimed to provide substantial insights for expanding and enhancing CLIL practices in higher education. As we examined the effects and strategies of CLIL at the tertiary level, the findings are expected to significantly inform future implementations and contribute valuable insights for the transition from CLIL to EMI, aiming for effective integration of language learning and content in Japanese universities.

Methodology

Research Questions

A semi-structured questionnaire was used in this study to evaluate the effectiveness and impact of a CLIL program implemented at Rikkyo University, offered as pilot classes as part of new elective courses and conducted during the 2022–2023 academic year. The main objective was to explore students' perceptions and experiences related to understanding the course content and acquiring language skills in CLIL courses. The following research questions guided this study:

(1) What are the perceptions and reactions of students who participated in CLIL pilot courses at the tertiary level in Japanese educational settings?

(2) What types of facilitation skills and strategies are necessary for educators to effectively deliver CLIL lessons to tertiary-level students in Japan?

Participants

The questionnaire was administered to 171 students enrolled in 14 different CLIL pilot classes: Introduction to Global Studies A (Humanities), Introduction to Global Studies B (Social Science), Introduction to Global Studies C (Natural Science), Current News through English Media, Multimodal Communication in English, Self-Directed and Reflective Language Learning, Intercultural Studies, Sustainable Development Goals (SDGs), Movies, Japanology, Art, Health and Wellness, Globalization and Business, and Business Speaking. Eligibility to enroll in CLIL subjects begins in the second year; therefore, the participants were students from their second to fourth years. Although the questionnaire did not specifically address faculties, in 2023, the year the pilot study data were analyzed, students enrolled in the CLIL courses came from 11 different faculties: Arts, Intercultural Communication, Economics, Business, Science, Tourism, Community and Human Sciences, Sociology, Law and Politics, Contemporary Psychology, and Sport and Wellness. CLIL courses implemented as part of a university-wide curriculum were not confined to any specific department. This diverse group of participants provided a meaningful dataset for analyzing student engagement with CLIL methodologies and their educational outcomes.

Questionnaire Design

The questionnaire was designed to gather comprehensive feedback on various aspects of the CLIL courses, focusing on both qualitative and quantitative data. It was devised over six months through discussions between two teachers, including the author, and subsequently refined through feedback from all the full-time English teachers in our organization. The questionnaire was initially created in English, but at the time of the survey, a Japanese version was developed so that the students could easily answer it in Japanese. The questionnaire included 17 items, divided into two main sections:

1. Multiple-choice items: This section comprised 13 items based on a five-point Likert scale, ranging from “Strongly Disagree” to “Strongly Agree.” The questions aimed to quantify students’ satisfaction with learning outcomes, understanding of course content, acquisition of relevant English language skills, and overall engagement and interest in the courses.
2. Descriptive questions: This section included four open-ended questions that allowed students to express in detail their perspectives on what was most interesting,

challenging, and different about the CLIL classes compared to other language courses. It also provided a space for additional comments on the texts and materials used.

Questionnaire Content

The specific items included in the questionnaire (Appendix) were carefully developed to align with the learning objectives stated in the course syllabi, aiming to determine whether these objectives were met and understood clearly. The items covered various domains, such as:

- Achievement of learning outcomes.
- Clarity in understanding the learning goals of the subject.
- Development of critical thinking skills and relevant vocabulary.
- Impact of the teaching style on student involvement and interest.
- Usefulness of instructor feedback.
- Opportunity for reflection on learning.
- Appropriateness and clarity of instructional materials.
- Frequency and quality of communication with peers.
- Exposure to different perspectives through interactions.

The questionnaire also sought subjective feedback on the most engaging aspects of the CLIL classes, differences noted in comparison with other language classes, and specific challenges faced during the semester. Such feedback was deemed valuable to guide future enhancements in the design and delivery of CLIL courses.

Data Collection and Analysis

The survey was administered to students enrolled in classes offered during the academic year 2022–2023, coinciding with the implementation of the pilot classes. Data were collected through an online survey after the final class day to ensure that the students' responses fully reflected their entire course experience. Quantitative data from the five-point Likert scale items were analyzed using descriptive statistics (mean and standard deviation) to determine overall trends and levels of agreement or disagreement with the statements provided. Qualitative responses were analyzed thematically to identify common patterns and derive distinctive insights regarding students' subjective experiences and perceptions. To deepen the analysis, SPSS was used for correlation analysis with non-parametric tests. This analysis was performed to examine the relationships between the different variables in the dataset and identify specific factors that significantly affected student outcomes in CLIL courses. In addition, integrating the results from both the correlational analysis and the qualitative analysis conducted based on the open-ended responses provided a richer understanding and contributed to a more comprehensive discussion of the findings. Pérez-Cañado (2012), a leading researcher in the CLIL field, has recommended a mixed-methods research approach that combines quantitative and qualitative

methodologies to address the most significant deficiencies and errors found in previous studies (p. 331). Accordingly, the integrated findings from the current analyses further clarify the interactions between course content comprehension, language skill acquisition, and student engagement.

Ethical Considerations

All participants were fully informed of the purpose of the survey and assured of the confidentiality and anonymity of their responses; subsequently, their written consent was obtained. Additionally, the author of this study submitted the required documents to the Ethics Review Subcommittee of the Journal and Research Committee of the Center for Foreign Language Education and Research and received approval to use these data for research purposes. Special measures were taken to safeguard personal data and all the data were stored securely to prevent unauthorized access. Following these ethical procedures was obligatory to carry out this educational research, aligning with current ethical standards.

Results and Discussion

This section presents the findings from a comprehensive evaluation of students' experiences in CLIL classes, using both quantitative and qualitative methods. The results are presented based on an analysis that unfolded in three parts: a descriptive analysis of the structured questionnaire items (items 1–13), a correlation analysis to identify relationships between different aspects of the learning experience, and a qualitative analysis of the open-ended responses (items 14–17) to gain deeper insights.

Reliability Analysis

Cronbach's alpha coefficients were calculated to evaluate the reliability of the questionnaire. The questionnaire consisted of 13 items, each assessed on a standardized scale. The analysis revealed that the Cronbach's alpha based on the raw scores was .888, while that based on the standardized items was .893. These values indicate a high level of internal consistency within the questionnaire, supporting its appropriateness as a measurement tool for this study.

Table 1

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
.888	.893	13

Descriptive Analysis

Table 2 displays the mean scores and standard deviations for each questionnaire item, reflecting the students' evaluations of their learning experiences. These ratings were based on a five-point Likert scale, with higher scores indicating more positive perceptions.

Table 2

Descriptive Statistics of Student Responses

Questionnaire items	Mean	SD
All learning outcomes were achieved	4.36	0.583
Learning outcomes were clearly understood	4.43	0.563
Relevant English language skills were acquired	4.24	0.602
Learned as expected from the subject matter	4.40	0.619
Learned critical thinking	3.95	0.841
Learned a wide range of vocabulary	4.31	0.653
Instructor's teaching style was engaging	4.48	0.608
Instructor provided useful comments	4.53	0.588
Subject allowed reflection on learning	4.40	0.691
Materials were easy to understand	4.39	0.636
Materials were appropriate for the subject	4.46	0.596
Frequent communication with classmates	4.53	0.688
Learned from classmates' perspectives	4.53	0.653

Note. SD = Standard deviation. All ratings are based on a five-point Likert scale.

Correlation Analysis

After the descriptive analysis, a correlation analysis was conducted using SPSS to explore the significant relationships among the various metrics. This analysis focused on correlations between students' perceptions of teaching methods, learning outcomes, and engagement with course content, and assessed their influence on overall student satisfaction and learning effectiveness. Spearman's correlation coefficient, along with a two-tailed test, was deemed appropriate due to the data not requiring the assumptions of normality and linear relationships between the variables. This non-parametric method was chosen to measure the strength and direction of the association between two ranked variables. However, item 5 (I learned how to think critically) was omitted because it did not show a significant correlation with any other item. All analyses were conducted using SPSS version 28, which was the latest version available at the time of analysis. The correlation analysis covered all the survey items, as detailed in Table 3. The data presented in Table 3 show that the correlation coefficients are highly significant, with all p -values noted to be 0.000. This significance level indicates that the

relationships between the survey items are statistically significant at the 1% level, supporting the reliability of these correlations in the context of the survey. By presenting an analysis of the correlations with clear statistical significance, this study highlights the most relevant findings that contribute to improving our understanding of students' perceptions of teaching methods, learning outcomes, and engagement with course content, and how these in turn impact overall student satisfaction and learning effectiveness.

Table 3

Correlation Coefficients Between the Survey Items Indicating Statistical Significance

	Item	<i>n</i>	<i>r</i>	<i>p</i>
No. 1	No. 2	170	.699**	0.000
	No. 11	170	.508**	0.000
No. 2	No. 1	170	.699**	0.000
	No. 4	170	.535**	0.000
No. 3	No. 4	167	.520**	0.000
No. 4	No. 2	170	.535**	0.000
	No. 3	167	.520**	0.000
	No. 7	169	.553**	0.000
No. 6	No. 7	170	.543**	0.000
	No. 8	170	.536**	0.000
No. 7	No. 4	169	.553**	0.000
	No. 6	170	.543**	0.000
	No. 8	170	.610**	0.000
	No. 9	170	.530**	0.000
	No. 10	169	.556**	0.000
	No. 11	170	.558**	0.000
No. 8	No. 6	170	.536**	0.000
	No. 7	170	.610**	0.000
	No. 9	170	.612**	0.000
No. 9	No. 7	170	.530**	0.000
	No. 8	170	.612**	0.000
No. 10	No. 7	169	.556**	0.000
	No. 11	170	.786**	0.000
No. 11	No. 1	170	.508**	0.000
	No. 7	170	.558**	0.000
	No. 10	170	.786**	0.000
No. 12	No. 13	171	.594**	0.000
No. 13	No. 12	171	.594**	0.000

** . Correlation coefficients are significant at the 1% level (two-tailed).

Total respondents: *N* = 171

Correlation with Students' Positive Reactions

Specifically, items 1 and 4, presented below, were examined because they focused on students' positive reactions to the course.

- Item 1: All of the learning outcomes (objectives stated in the syllabus) for the subject were achieved.
- Item 4: I learned what I expected to learn from the subject matter.

Item 1 assessed the achievement of the overall learning objectives as delineated by the educational program, requiring students to evaluate their learning based on objective criteria and indicators. In contrast, item 4 pertained to the extent to which the students felt that their personal expectations and goals were met, soliciting a more subjective evaluation of their satisfaction with the course. Correlation analysis revealed significant relationships, as follows: Item 1 showed significant correlations with item 2 (The learning outcomes/objectives of the subject stated in the syllabus were clearly understood; $r = .699, p < .01$) and item 11 (The materials used were appropriate for learning this subject; $r = .508, p < .01$), both of which pertain to specific aspects of the educational outcomes. Meanwhile, item 4, which focused on students' subjective satisfaction, was found to correlate significantly with item 2 (The learning outcomes/objectives of the subject stated in the syllabus were clearly understood; $r = .535, p < .01$), item 3 (To understand the content of the subject, relevant English language skills were acquired; $r = .520, p < .01$), and item 7 (The teaching style of the instructor allowed me to be actively involved in the class and to develop an interest in the subject matter; $r = .553, p < .01$). These items relate to students' perceptions of their understanding of the learning outcomes, their acquisition of English skills, and the effectiveness of the teacher's instructional style.

These findings highlight the importance of both objective and subjective measures for evaluating the efficacy of CLIL courses. The correlations indicate that students' subjective satisfaction aligns with their perceptions of learning outcomes and instructional methods, suggesting that both dimensions are crucial for understanding the overall impact of CLIL educational strategies.

Analysis of the Most Correlated Survey Item: Teachers' Teaching Style

Next, we focus on the correlations associated with item 7, which evaluated the instructor's teaching style in terms of its ability to actively involve students and maintain their interest in the subject matter. This item exhibited significant correlations with the largest number of items within the analysis: Item 4, where students assessed if they learned what they expected from the subject matter ($r = .553, p < .01$); item 6, regarding the acquisition of a wide range of vocabulary and phrases ($r = .543, p < .01$); item 8, which involves the instructor providing useful comments to aid learning ($r = .610, p < .01$); item 9, concerning the course's ability to encourage careful reflection on learning ($r = .530, p < .01$); item 10, evaluating if

the materials used were easy to understand ($r = .556, p < .01$); and item 11, assessing the appropriateness of the materials for learning the subject ($r = .558, p < .01$). These results underscore the critical role of the teacher's teaching style in CLIL environments. An effective teaching style not only fosters active student participation but also significantly improves learning outcomes. Additionally, there is a large and significant correlation between a positive teaching style and the provision of useful comments and feedback by teachers, which support student learning. Although the correlation coefficients represent mere associations and do not establish causal relationships between items, the results of the correlation analysis suggest that the influence of the teacher's teaching style is likely associated with numerous aspects of the learning experience. This indicates that students are likely to perceive the teaching style as significantly related to various educational outcomes.

Instructor Feedback and Reflective Learning

There was a significant correlation between the usefulness of the teacher's comments and the opportunity for students to reflect on their learning. This suggests that insightful and constructive feedback from the instructor is important for encouraging students to think critically about their learning experiences, aiding in deeper understanding and continuous improvement.

Item 9 (The course allowed students to reflect carefully on their learning) showed significant correlations with item 7 (The lecturer's teaching style allowed students to actively participate in the class and become interested in the subject matter; $r < .530, p < .01$) and item 8 (The lecturer provided useful comments for learning; $r < .612, p < .01$). These findings underscore that while the lecturer's teaching style is crucial for engaging students, appropriate comments significantly enhance learners' deeper learning. The relatively higher correlation coefficient for item 8 compared with item 7 suggests that teachers should equally prioritize crafting feedback and comments alongside general teaching practices. Considering that lesson planning and preparation are standard practices, the distinct impact of well-considered and contextually appropriate comments must be noted; they could serve as an effective tool for promoting deep cognitive engagement among students. Additionally, while the primary language used in CLIL courses is the target language, comments made outside class in the students' first language can also be beneficial, aligning with a recommendation under CLIL for language scaffolding using the first language (L1). This insight regarding the influence of teacher language emphasizes a critical aspect of effective CLIL course facilitation.

Critical Thinking

Paul and Elder (2007) define critical thinking as "the art of analyzing and evaluating thinking with a view to improve it" (p. 4). In this study, critical thinking was addressed by item 5 (I learned how to think critically), but none of the correlations for this item were statistically significant. Hence, it is not listed in Table 3. The results of the descriptive statistics also

indicated a clear trend of lower mean values for this item compared to the other items. The result suggests that students may not perceive a direct link between learning critical thinking skills and other aspects of their educational experience. For example, students may not see a clear link between critical thinking and the materials used in class or their communication with classmates. The absence of a significant correlation with item 13 (I learned different perspectives from other classmates' ideas), despite expectations to the contrary, suggests that many students may not yet fully understand the concept of critical thinking.

However, the development of students' critical thinking was a key goal of the CLIL course in our curriculum, which was strategically integrated from the outset of the curriculum design process, alongside the cultivation of higher-order thinking skills (HOTS) as delineated in the revised Bloom's taxonomy (Anderson & Krathwohl, 2001). Therefore, a particularly significant finding from this study is that critical thinking was not effectively established in the pilot study stage. Teachers may need to address this gap by, for example, explicitly defining what critical thinking entails during lessons and emphasizing to students that it is a central objective of CLIL courses. This finding underscores the need to enhance this aspect in future university-wide CLIL curricular practices.

Qualitative Analysis

The qualitative responses gathered from open-ended questions 14–17 confirmed the quantitative data presented earlier in this paper. With these questions, students were asked to provide their feedback about what interested them most about the CLIL course, how it differed from traditional language courses, the challenges they faced, and their thoughts on the course materials. Future in-depth qualitative analysis utilizing the NVivo software is planned as the next phase of ongoing research to further understand the themes that emerged from this initial study. Student comments from this pilot study provided a deeper understanding of the CLIL experience and highlighted both the challenges and benefits from the learner's perspective. These insights are crucial for improving the CLIL curricula. Overall, many students expressed satisfaction with the integrated learning style, which combines content learning with foreign language acquisition, responding that this teaching method employing CLIL principles helps them to understand the content deeper with peers and improve their language skills.

Below, a selection of representative student opinions are shown, extracted from the descriptive responses to question 14 (What was the most interesting aspect of the CLIL class?), question 15 (What was different about the CLIL class compared to other language classes?), question 16 (What was the most challenging part of your CLIL class this semester?), and question 17 (Please write any comments you may have about the textbooks and materials.). These students valued the interactive learning environment with their peers and found the diversity of perspectives highly informative. Many other students provided similar responses to these questions, although their responses had subtle differences in phrasing. The trend observed in the quantitative survey results concerning the development of critical thinking was also

evident in the qualitative data. The questionnaire responses were originally written in Japanese and were translated into English by the author.

Student A: Not just learning English, but also learning about various social issues.

Student B: There were many people who had traveled abroad or who spoke English, so it was very interesting to be exposed to ideas I had never been exposed to before when talking to people in discussions.

Student C: In CLIL, we had a lot of discussions, and it was good to learn a lot of knowledge in English not only from the teachers but also from my classmates.

However, in reviewing student feedback provided in response to questions 15 and 16, a significant point emerged: the intricate balance required between language proficiency and engagement in higher-order thinking tasks within CLIL settings. Some examples are as follows:

Student D: The difference between this class and other language classes was that it focused more on critical thinking in English rather than on learning English. However, many of my classmates lacked the basic English skills to do this, so I did not feel that I gained much practical learning out of the class.

Student E: It took a lot of time to cover unfamiliar words because I had to perform the analysis in English, which was difficult even if I tried to understand it in Japanese.

Student F: Themes were often a bit difficult.

Student G: Conveying my opinions logically was challenging.

Student D pointed out a crucial issue with regard to classmates, which underscores the essential need for basic language skills to fully engage in critical thinking tasks. Student E's response underscored the need for additional support for students who may not have the necessary English language skills to keep up with the coursework. With respect to language scaffolding, this includes vocabulary instruction, complementary background knowledge in the mother tongue, and other forms of assistance to bridge the language gap. According to concise feedback from students F and G, the themes or topics covered in the CLIL course may be too advanced or complex for the current proficiency level of the students. Even though we covered the same themes in the course, it would perhaps be more advantageous to choose more familiar topics related to the themes to enhance students' interest in and engagement with the course. This suggests a need to assess and possibly adjust the difficulty of the course content to better match

students' abilities. Making the topics and introduction familiar is not the same as making the lesson content simple. For students to learn deeply, it is a prerequisite that they first understand the topic and develop an interest in it—only then can higher-order thinking can take place.

The descriptive responses from the students in this pilot study also provided candid insights regarding both the strengths and challenges of the CLIL course. This feedback is valuable and provides important guidance for future teaching plans and curriculum management. In CLIL courses, students encounter new knowledge or content in English for the first time, which they then assimilate. During this process, although the primary goal is not solely language acquisition, clear language support is provided to facilitate content comprehension. When certain aspects of the content remain unclear, students seek understanding through discussions with their peers or by conducting research in English. This method ensures that while students are primarily focused on grasping the content, they are also supported in developing their language skills through structured language support. This dual focus on content and language development is a core objective of CLIL courses, and emphasizes the interdependence of language learning and content mastery. Conducting a detailed qualitative analysis of student feedback, as well as analyzing quantitative data, together constitute a critical step in curriculum management as it allows for a deeper exploration of student perspectives and their implications for educational strategies within CLIL settings.

The combined findings from the descriptive and correlation analyses highlight the effectiveness of CLIL in achieving comprehensive learning outcomes and emphasize the importance of instructor engagement and the clear communication of learning goals. However, the lower ratings from the quantitative analysis and the feedback from the qualitative analysis regarding critical thinking skills indicate an area for pedagogical improvement. Future implementation of CLIL courses could benefit from incorporating explicit critical thinking activities and assessments to better meet this educational objective. This requires a clear explanation of what critical thinking is to students. Building on these insights, below, aspects that contribute to the perceived effectiveness of CLIL in university education are discussed.

First, concerning the effectiveness of CLIL in university education, the positive trend observed in the responses of university students participating in CLIL courses underscores a generally high level of satisfaction with the teaching practices. Students reported particularly high satisfaction with cooperative learning activities, highlighting the value of interactive and collaborative approaches in the CLIL context. This finding aligns with educational theories that emphasize active learning environments as catalysts for deeper understanding and increased student engagement (Smith & Ragan, 2004). In these settings, students are not merely recipients of knowledge but active participants in constructing meaning, which is crucial for the complex cognitive processes involved in learning both content and a new language.

Second, this study found some differences regarding language skills and the role of support in CLIL settings. While students were generally satisfied with the content they learned, they were less satisfied with the improvements in their language skills based on the qualitative

data. This implies that the CLIL model at the university level may not provide sufficient language support for students. To bridge this gap, scaffolding techniques could be introduced or enhanced to more effectively support language acquisition. Scaffolding, a concept borrowed from Vygotsky's (1978) theory of the zone of proximal development, includes specific support that gradually decreases as learners become more proficient (Walqui, 2006). In the context of CLIL, scaffolding could involve structured vocabulary exercises, contextual grammar usage, and the strategic use of L1 as a support to match the thinking skills needed for the content being taught.

Third, the findings on critical thinking are among the most important results of this study. Both quantitative and qualitative analyses indicated the need for a more deliberate integration of critical thinking skills into CLIL courses; critical thinking in CLIL is not simply an implicit expectation but should be clearly defined and systematically integrated into the curriculum. This is because the main purpose of implementing CLIL courses at Rikkyo University is to foster critical thinking to enhance learners' deep learning. Educational research has consistently emphasized the role of critical thinking in promoting deep learning and academic success (Bloom, 1956; Facione, 2015). To put this into practice in CLIL settings, teachers can use strategies such as project-based learning, discussions, and presentations, which require analytical thinking and the use of language skills in complex situations. In addition, the definition and significance of critical thinking should be explicitly taught in the class, and students should be provided with suggestions to critically question and analyze information. Given the feedback from this pilot study, it is essential to reflect on these findings and incorporate them in future implementation efforts to better meet the course objectives.

Finally, professional development for CLIL should focus on both content- and language-teaching skills. This is especially important because CLIL programs often require language teachers to teach subjects outside their main area of expertise. Teachers primarily trained in language education must spend considerable time and effort preparing for these courses. They need to learn and understand the content well enough to teach it effectively, an aspect that makes CLIL courses different from traditional language classes. Drawing from ongoing training, which includes workshops and seminars on new CLIL methods, teachers should consciously aim to apply teaching strategies that encourage students to investigate and learn deeply on their own, rather than just passively receiving knowledge from the teacher. This approach is expected to change how teachers prepare for their classes. To support professional development, teaching resources and advice on how to learn and understand the content should be provided so that teachers feel more confident and prepared. Additionally, creating a support network among teachers is important. This would allow them to share insights, challenges, and strategies for effective CLIL teaching. By working together, teachers can improve their teaching practices. These improvements are essential for the successful implementation of CLIL courses and to ensure that students have a rich and comprehensive educational experience, which we aim for.

Limitations and Future Studies

This study investigating the effectiveness of CLIL in a university setting had a few limitations. First, as CLIL subjects are part of the elective courses, the motivation and English proficiency levels of students taking these subjects are considered to be rather high from the beginning. Therefore, this possible skew in the sample might affect the generalizability of the findings. Second, the results may also be influenced by variations in instructor capabilities. The effectiveness of CLIL often depends heavily on the instructors' proficiency in both the subject content and language used for instruction. Differences in teaching styles, expertise, and interactions with students could significantly affect outcomes; however, these instructor-related variables were not systematically evaluated in this study. Additionally, although we conducted a survey of instructors, this study did not include an analysis of these results.

A future research initiative is to analyze the instructor survey data and comparing them with the student data to identify the key factors related to instructor variability that contribute to successful CLIL implementation. Further, other sophisticated statistical models, such as factor analysis and path analysis, would enable a deeper exploration of the causal relationships and dynamics among the variables studied. Furthermore, there is a need for additional qualitative investigations, such as through interviews. Detailed analyses of students' open-ended responses would help us better understand their experiences and perceptions, providing detailed insights into the teaching strategies and methods used in CLIL.

Conclusion

This study critically examined the impact of CLIL programs at the tertiary level, specifically within the EFL context in Japan, providing answers to research questions regarding students' perceptions and necessary facilitation strategies. The data revealed a generally positive response from the students and underscored the potential of CLIL to enhance both language competence and content understanding. Students expressed high satisfaction with cooperative learning activities, indicating the value of interactive and collaborative learning environments for fostering engagement and deeper comprehension. This positive feedback aligns with the first research question, highlighting favorable student perceptions and reactions to the pilot CLIL courses, and suggesting that such programs effectively integrate language learning with subject matter education.

However, this study also highlighted critical areas that require improvement. Although content satisfaction was high, there was a discrepancy in the retention of language skills, suggesting a need for enhanced scaffolding and more robust language support mechanisms. Additionally, the integration of critical thinking within CLIL courses was identified as less effective than anticipated, emphasizing the need for more explicit instruction and strategic curriculum design to cultivate these essential skills. This directly addresses the second research

question regarding the types of facilitation skills and strategies necessary for educators. Moreover, these findings highlight several challenges for educators and emphasize the necessity for significant preparation given the dual demands of teaching content and language. Professional development and systemic support for instructors are crucial for the successful implementation of CLIL, and dedicated resources are needed to enhance teachers' competencies in both language and subject matter. These efforts are important for meeting the facilitation needs identified in this study as well.

In conclusion, the CLIL pilot study at Rikkyo University commenced well, with generally positive feedback from the students; however, as the program advanced, certain challenges were noted, such as the difficulty of developing critical thinking skills, the need for language support, and the burden on the teachers in charge. The current study offers suggestions for CLIL practice at the university level; as a next step, an extensive analysis of the data, as described above, has been planned.

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Appendix: Questionnaire for Students

1. 当該科目における学習成果（シラバス記載の目標事項）の全てを達成できた。
All of the learning outcomes (objectives stated in the syllabus) for the subject were achieved.
2. 当該科目の学習成果（シラバス記載の目標事項）は明確に理解できた。
The learning outcomes (objectives stated in the syllabus) of the subject were clearly understood.
3. 当該科目の内容を理解するために、関連する英語力が身についた。
To understand the content of the subject, relevant English language skills were acquired.
4. 当該科目から学べると期待していた内容を学べた。
I learned what I expected to learn from the subject matter.
5. 批判的思考の方法を学べた。
I learned how to think critically.
6. 内容に関連する語彙やフレーズなどを幅広く学べた。
I learned a wide range of vocabulary and phrases related to the content.
7. 担当教員の教え方によって授業に積極的に関わることが出来、当該科目に興味を持てた。
The teaching style of the instructor allowed me to be actively involved in the class and to develop an interest in the subject matter.
8. 担当教員は学習の手助けとなる有用なコメントを与えた。
The instructor provided useful comments for learning.
9. 当該科目は学生の学びについてじっくり振り返る機会を与えた。
The course allowed students to reflect carefully on their learning.
10. 使用された教材は分かりやすかった。
The materials used were easy to understand.
11. 使用された教材は当該科目の学びのうえで適切だった。
The materials used were appropriate for learning this subject.
12. クラスメートと頻繁にコミュニケーションを行った。
I communicated frequently with classmates.
13. 他のクラスメートの考え方から違う視点を学ぶことができた。
I learned different perspectives from other classmates' ideas.
14. CLIL クラスでもっとも興味深かった点は何ですか？（自由記述）
What was the most interesting aspect of the CLIL class? (open-ended response)
15. 他の言語クラスと比べて、どんな点が CLIL クラスでは違いましたか？（自由記述：良い点でも悪い点でも構いません。）
What was different about the CLIL class compared to other language classes? (open-ended response)
16. 今学期の CLIL クラスでもっとも大変だったことは何ですか？（自由記述）
What was the most challenging part of your CLIL class this semester?" (open-ended response)
17. テキストや教材について何かコメントがあれば書いてください。（自由記述）
Please provide any comments you may have about the texts or materials. (open-ended response)