

Second/foreign Language Literacy in Content integrated Instructions across Contexts

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Learning a language cannot be isolated from involving any type of content information because “language mediates ideas, thoughts, and values to learn” (Bui & Truong, 2015, p. 91). Language is used to deliver one’s thoughts as a mediator to communicate with others. Many language learners are learning new content as a tool for introducing a new language and language learning is inseparable from the meanings (content) it conveys (Llinares, 2015). This paper contains a literature review on second/foreign language literacy and content integrated learning across various contexts. In this study, literacy development in a second/foreign language education field can be defined as developing an ability to use a second/foreign language, linguistic knowledge of the language, and the ability to interpret and evaluate a wide variety of discourse in written texts, symbols or signs (Leimbigler, 2014). In this respect, integrating a variety of content knowledge in second/foreign language literacy education result in improving meaningful content knowledge along with developing multiple components of language and literacy skills to use as a vehicle of communication.

Key Words : Content-based instruction (CBI), Content and language integrated learning (CLIL), Language literacy development across context

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I. Introduction

Second/foreign language literacy development requires not only reading comprehension, writing, speaking, various dimensions of linguistic knowledge of lexis (e.g. vocabulary), understanding of grammatical structure, but also pragmatic competence, cultural awareness, social issues and meaningful content (Hartman, Morsink, & Zheng, 2010).

Second/foreign language literacy education in many countries is referred to as a significant subject constructed with linguistic elements such as grammar, reading, and writing. However, many language literacy lessons are designed around structure, grammar, and forms that are insufficient for mastering a second/foreign language. Besides understanding the linguistic aspects of developing a foreign or second language literacy skill, good language literacy education may occur through meaningful content through the class. Moreover, the actual practices (unclear) should be there for second/foreign language literacy development.

The content integrated language learning (hereafter CLIL) is one of the most effective instructions that teachers can adopt for second/foreign language literacy development. For successful language learning to occur, integrating meaningful content needs to be connected to positive influence in second/foreign language literacy such as increasing motivation and giving opportunities to read, listen, speak, and write in the language that students are learning (Brinton, Snow, & Wesche, 2003). Due to the success of second/foreign language literacy development through CLIL instruction, the attempt has become widely spread across North

American, European, and Asian countries. Nevertheless, the implementation is slightly different and has been applied with different names in different contexts.

In Northern American context, there are various approaches that allow for teaching content knowledge and second/foreign language literacy simultaneously. Content-Based Instruction (CBI), Sheltered Instruction, and Content Language Integrated Learning (CLIL) are major methods that are commonly facilitated. Under these methods, other models have been established as well. Many countries in North America implement different forms (e.g. CBI, sheltered Instruction, CLIL) because the instruction needs to meet the goal of second/foreign language literacy from considering the characteristics of each country. It is worthwhile to take a deep look at each instruction; how CBI, sheltered instruction, and adjunct instruction help one understand second/foreign language literacy in a broad way prior to investigating CLIL and how CLIL would benefit students in second/foreign language literacy development. Therefore, the next section has described various types and implementations of teaching instructions (CBI, Sheltered instruction, adjunct instruction) of educating content knowledge and second/foreign language literacy skills.

II. Content knowledge integrated language learning instructions

Content-Based Instruction (CBI) is an approach in which subject matter such as mathematics, geography and history are taught to students in second/foreign language. CBI is designed to integrate subjects and second/foreign language literacy skills together in one lesson unit. Brinton, Snow, and Wesche (1989) define CBI as “The concurrent study of language and subject matter, with the form and sequence of language presentation dictated by content material” (p. vii). Using CBI, both content and second/foreign language literacy skills can be developed. Moreover, CBI also invites learners to develop cognition from linguistic and literacy practices (Lyster, 2011). It provides many opportunities to be exposed to a considerable amount of comprehensible second/foreign language content while learning. Many researchers (e.g. Brinton, Snow, & Wesche, 1989; Lyster, 2011) and practitioners proposed that CBI is beneficial for motivating learners to engage and interact with second/foreign language literacy. More compelling evidence that CBI is an advantageous instruction method comes from research in second language acquisition (e.g. Krashen, 1985; Swain, 1985; Cummins, 1989).

Within the second language acquisition (SLA) research area, Content-Based Instruction (CBI) is derived from three theories: Comprehensible Input Hypothesis (Krashen, 1985), Output Hypothesis (Swain, 1985), and Cognitive Academic Language Proficiency (Cummins, 1989). First, comprehensible input hypothesis by Krashen supports CBI because students are exposed to extensive literacy input by being taught in the second/foreign language. Krashen (1985) claims that second/foreign language literacy development occurs incidentally from the comprehensible input.

In addition to the input, the output is also a crucial component for the literacy development. The traditional lesson, such as a teacher-centered classroom, is limited in that students do not have much opportunity to produce output as much as they receive input. The hypothesis by Swain (1985) overcomes that limitation through CBI because it requires more explicit attention to the output of the second/foreign language to develop the literacy skills. It also supports the content-learning activities in the classroom through focusing on the language literacy that is relevant and contextual for students. Another theory, cognitive academic language proficiency by Cummins (1989) provides strong support to the CBI. Since CBI is an instruction that integrates both the content knowledge and the second/foreign language literacy, it invites learners to acquire academic language literacy skills in addition to basic interpersonal communication skills.

Content-Based Instruction (CBI) in second/foreign language education is also favored from the educational and cognitive psychology perspectives, particularly cognitive learning theory, depth-of-processing research, and learning motivation (Grabe & Stoller, 1997). For instance, the cognitive theory of learning is practiced in CBI because it entails great amounts of cognition in order to process content information not in students' first language. In this respect, cognitive learning theory influenced much of CBI classroom lessons to acquire both content knowledge and second/foreign language literacy cognition as cognitive learning theory supported.

Moreover, CBI allows learners to develop critical thinking skills by cognitively challenging their knowledge with the content materials (Butler, 2005). In brief, CBI has been supported by many theories from different academic disciplines. The ultimate goal of CBI is to develop literacy in a second/foreign language and content knowledge by providing students opportunities to pay attention (cognitive practices) to the content and apply proactive language literacy skills simultaneously.

Despite the fact that CBI has one grand goal, it is implemented in various ways from responding to the features of context. In this regard, CBI has many different prototypes, which will be discussed in the following section. In reality, there is no single way to implement an effective learning strategy across educational settings. A number of forms are facilitated after reflecting respective educational characteristics and conditions.

1. Content knowledge integrated instruction prototype

Stoller (2008) stated that Content-Based Instruction (CBI) is “An umbrella term” that accounts for a number of other approaches rather being one instruction (p. 59). In one category, three CBI models are considered within this instruction: a *content-driven* and *language-driven model* (Met, 2012). These hinge on diverse second/foreign language literacy education settings, as some countries focus more on content knowledge and less on second/foreign language literacy or vice versa.

The *content-driven model* in a CBI classroom prioritizes understanding the content knowledge. This model is focused less on second/foreign language literacy but views it as a medium of comprehending the content or subject knowledge. The second/foreign language literacy development has to occur incidentally for this model. Opposed to the aforementioned model, the *language literacy driven model* becomes a course in which second/foreign language literacy development takes the highest priority. The class driven by this model pays less attention to the content objectives but more attention to the second/foreign language literacy objectives. Moreover, content knowledge is used as a vehicle for second/foreign language literacy with authentic topics for students to be motivated and engaged in the class.

Within one CBI classroom, these models approach different goals of content and second/foreign language literacy education. As much literature shows, CBI is one of the major instructions that deals both with content knowledge and second/foreign language literacy development. Besides CBI, there are a few more instructions that aim to develop as CBI does. As shown so far, instead of drawing a line among the different instructions that aim to teach content knowledge and second/foreign language literacy, the hybrid idea exists in such instructions. It aims for both content and language learning to be successful. For this approach, teachers of contents and languages have to collaborate together for the class.

2. Other instructions for developing content knowledge and second/foreign language literacy in the U.S.

In addition to CBI, there are also additive bilingual programs in which teaching second/foreign language literacy and content knowledge of the major subject matters frequently adapted to K-12 U.S. public schools. *Sheltered Instruction* is similar to CBI. It is a targeted instruction mainly for ESL (English as a Second Language) students to develop academic literacy in English in the U.S. Within this instruction, the content teachers teach the subjects entirely in English so that students can develop the literacy skills in second/foreign language (Echevarria, Vogt, & Short, 2013). Sheltered instruction is “A way of teaching that makes lessons meaningful and understandable for second language learners” (Kareva & Echevarria, 2013, p. 239). The sheltered instruction is also fulfilled as a transitional program for ESL students as they work towards the mainstream classes. For the content specialists in a sheltered classroom, ideally, they should receive some assistance from language specialists because development of second/foreign language literacy is important in this instruction as well as the content learning (Lyster, 2011).

Although Sheltered Instruction has been implemented in many classrooms, there is a lack of a clear operational approach, which causes inconsistent and ineffective practices. Thus, Echevarria, Vogt, and Short (2000, 2013) developed the model Sheltered Instruction Observation Protocol (SIOP) as a tool to measure and design the sheltered classroom lessons. SIOP encourages teachers to have an equal focus on both content and second/foreign language literacy objectives but the implementation in reality is mismatched to the intention and emphasis in one or the other. Furthermore, SIOP supports meaningful interactions for students to use second/foreign language literacy development. There is a lack of practice for students for sufficient development of second/foreign language literacy. There are other instructions that focus much on second/foreign language literacy but also include content knowledge addition to the CBI and sheltered instruction.

Theme-based instruction and *adjunct instruction* are also practiced in U.S. K-12 public schools for both content knowledge and second/foreign language literacy learning. These two instructions are implemented mainly with English as a foreign language (EFL) learners in higher education such as universities, community colleges, and language institutes. *Theme-based instruction* adapts a number of

themes that could possibly be interesting to students in a second/foreign language course. The class is designed mainly by language teachers and it can also be one of the appropriate CBI models to teach beginning and intermediate level second/foreign language learners (Dupuy, 2000). There is a large space for this instruction to be more efficient in the future by teaching meaningful content knowledge using themes and the literacy skills in a second/foreign language.

Adjunct instruction is teaching with coordinating two linked courses to make sure that students are successful with both content knowledge and second/foreign language literacy focusing on one school subject. Similar to the theme-based instruction, this model also frequently shares in higher education context (e.g. Song, 2006). Nevertheless, this model is still less implemented; the reason for this scarcity can be attributed to the fact that it requires ample amounts of collaborative work for teachers and curriculum coordination is challenging. In addition to this, course designers/teachers may face challenges to meet institutional commitments and adjustments.

Enriched education is another instruction that is used equivalent to content and language integrated learning by Cloud, Genesee, and Hamayan (2000) and is used in school programs that combine developing bilingual competency along with other subject knowledge. However, enriched education is implemented less today because it does not have practical lesson plans or curriculums that teachers can adopt.

Consequently, Content-Based Instruction (CBI) is still the mainstream among those instructions of dual-focused of content knowledge and second/foreign language literacy development. As shown, various instructions and models exist and have been implemented in many educational settings in distinguished ways. The following section will discuss the empirical research to observe how the models are practiced in the actual classrooms particularly in North America.

III. Content-Based Instruction (CBI) in North America

From the previous section, CBI is the most frequently used for teaching second/foreign language literacy and content knowledge. However, prior to CBI, Canada initiated a similar approach called the immersion programs of English and French for language literacy development in the early 1990s. Attributed to the characteristics of the Canadian context, which is a bilingual setting, immersion

programs are more often applied than CBI in Canada. In reality, the immersion programs had limitations: learners improved their comprehensible input of a second/foreign language, but there was less promotion of output for developing literacy skills. To cultivate literate students in a second/foreign language, only understanding the second/foreign language is insufficient; the ability to use the language is also crucial to develop. For instance, through the immersion program, Swain (1995, 1998) claimed that students made many errors in a second/foreign language writing and speaking. As a result, cognitive attention to the balanced literacy development such as production of the second/foreign language is required in immersion programs.

Corresponding to the Canadian context, second/foreign language literacy development and content knowledge learning together are widely spread in the U.S. In the U.S. context, many schools have ESL students across the country. Much research explores how CBI is implemented and whether it is effective for teaching content knowledge and second/foreign language literacy skills.

1. CBI and its focus

A number of researchers proposed that CBI does not play a major role in developing second/foreign language literacy per se. The design of lessons should carefully focus on both content knowledge and second/foreign language literacy practices in order to develop both. For instance, Short (1997) observed that students were not able to improve in certain elements to which the teacher paid less attention. Students were able to gain the content knowledge; however, second/foreign language literacy was not successfully developed. The teacher did not carefully emphasize second/foreign language literacy such as grammar, vocabulary, and strategies for developing second/foreign language literacy. From this study, we can understand that cognitive focus on specific second/foreign language literacy skills is crucial as is emphasis of content knowledge, because CBI cannot naturally support learners to improve second/foreign language literacy. Rodgers (2006) actually conducted a study to see whether CBI classes are beneficial in promoting form-function abilities as well as the content knowledge. Form-function abilities are one of the important elements that enhance literacy development in terms of grammar or sentence structures (Rodgers, 2006). He concluded that there is more possible space for supporting the improvement of second/foreign language literacy ability beyond the scope of this

study. These two studies shown that although both content knowledge and language abilities could be developed through CBI, without the salient emphasis of both content and second/foreign language literacy, it is difficult to develop both. Since CBI is a dual-focused instruction, both should be equally emphasized. Second/foreign language literacy does not naturally develop from mere exposure to the language.

2. CBI and academic literacy development

CBI classrooms not only target the content knowledge and the second/foreign language literacy, but there is also a plethora of other studies in the U.S. which aimed to specifically develop academic literacy of second/foreign language. One of the benefits of CBI in contrast to other methods of second/foreign language literacy development is that it allows learners to enhance not only the targeted second/foreign language but also academic language literacy skills such as the particular phrases, words, and sentences that are frequently used in academic development and settings. Accordingly, a number of projects in terms of CBI intend to enhance academic language competency for second/foreign language learners.

Scheleppegrell, Achugar, and Oteiza (2004) applied CBI to middle school English language learners in a history class. Their study is based on identifying and analyzing the history textbook that was used in the CBI classroom closely to grasp the use of academic literacy. From analyzing the textbook content, students were able to enhance content knowledge such as the chronological events of the history as well as academic literacy (e.g. the action verbs such as manifest, explore, establish, derive, and investigate, that are frequently used in academic context).

Moreover, many researchers have found that CBI has been effective for teaching academic literacy to ESL students who are going to join mainstream college classes. For instance, Song (2006) implemented CBI classes as an adjunct instruction in a college for ESL students. His study showed the explanation of CBI with the mainstream college, which can be an important setting to investigate CBI and academic literacy further in a college setting. Adjunct instruction is constructed so that students were taught by two different integrated instructions: one focused more on content knowledge and the other focused more on a second/foreign literacy, but every lesson includes both components. The attempt here is to separate the main focus as well as including two components in one lesson to enhance students' academic knowledge, language literacy skills, and particularly academic literacy in

second/foreign language education. As shown in Song's study, the content-linked ESL program invited students to have a positive impact on academic literacy development. Students who were registered in the content-linked classes performed better on the whole than others who took regular second/foreign language courses. To be specific, they had higher pass rates on language exams and higher GPAs. He also argued that content-linked classes encouraged students to be more successful in academics long-term. In the earlier period, a study by Kasper (1995, 1997) had already manifested in the same vein as research implementing adjusted CBI as Song (2006) did.

One of the ultimate goals for using CBI in the classroom in the U.S. context is to prepare students for higher education in most cases. Thus, in early research, Kasper implemented CBI classes for ESL college students and concluded that CBI enhanced their performance to transition to mainstream college classes. Since CBI allows students to learn the content knowledge along with a dedicated second/foreign language literacy instruction, they were able to improve academic knowledge and academic literacy simultaneously. This can be seen as a preparation for mainstream college courses.

As shown from the empirical studies in the U.S., CBI needs to be implemented for the purpose of learning such that it aims for content knowledge, language literacy competence, and academic literacy development. However, not all contexts would benefit from implementing CBI because of various circumstances. Therefore, more than one type of CBI, or other instructions that cultivate both students' content knowledge and second/foreign language ability, should be considered carefully and prepared differently for use in specific contexts. As a consequence, European countries facilitate something slightly different from CBI called Content Language Integrated Learning (CLIL).

IV. Content-Language Integrated Learning (CLIL)

In the same fashion as CBI, which is an integrated learning instruction of the proactive content knowledge and a second/foreign language literacy development in the U.S., another approach known as *Content Language Integrated Learning* (CLIL) has been initiated since the 1990's in many European countries. Coyle, Hood, and Marsh (2010) defined CLIL as "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and

language” (p.1). CLIL has been implemented in that English is placed as a medium of communication or professional exchange tool in many European contexts (Dalton-Puffer, Nikula, & Smit, 2010). CLIL curriculum is similar to CBI but it uses any foreign or second languages as well as English to teach content. Before exploring the literature on CLIL and its uses, there is a necessity to look closely at how those two instructions are different in order to legitimately observe the actual empirical studies.

1. CBI vs. CLIL

Many debates are still present among researchers to clarify and differentiate CBI and CLIL. For instance, Lasagabaster and Sierra (2010) claimed that CBI and CLIL tend to appear as generic terms covering any kind of teaching which combined a second/foreign language literacy and content knowledge development. On the one hand, Stoller (2008) proposed that both CBI and CLIL are under the same umbrella, and both cover a number of instructions such as bilingual, multilingual, language showers and enriched language programs (Mehisto, March, & Frigols, 2008). On the other hand, some researchers refer to CLIL as a distinguished approach from other types of CBI. A number of researchers have attempted to conduct research to examine the differences of CBI and CLIL. Cenoz, Genesee, and Gorter (2014) conducted research to see the relationship between CBI and CLIL by analyzing the goals of each instruction, the balance between content knowledge and a second/foreign language literacy instruction, and other pedagogical issues. The conclusion of the article by Cenoz, Genesee, and Gorter (2014) manifested that there is no distinction between CBI and CLIL. In the same vein, Paran (2013) proposed that the differences are contextual rather than instructional. That is, each program that adopts either CBI or CLIL takes in parts of a diverse education context in a number of different ways.

Accordingly, CBI is often implemented in the U.S. and Canada, but as mentioned before, CLIL is generally used in Europe. Each program of CLIL is distinguished across European contexts; some programs include different languages, focus more on content than others, or only teach specific content instead of teaching the content of general subject. One of the most salient distinctions is the target languages in CBI is a second language, mainly English, and CLIL is taught in foreign languages. What is more, despite the fact that CBI has been taught by native

speakers of English, many classes of CLIL have been taught by non-native teachers (Dalton-Puffer & Smit, 2013).

In essence, CBI and CLIL are similar in many ways but the context determines the method of implementation and the models. A number of empirical studies of CLIL were explored to establish how European countries applied content knowledge and foreign language literacy together.

2. Content-Language Integrated Learning (CLIL) in Europe

Research interests have predominantly concentrated on the outcome of foreign language literacy development in CLIL in European contexts, unlike CBI in the U.S. and Canadian contexts. Research on CLIL has expanded substantially in the last 10 years. Among the countries in Europe particularly, there are a great number of studies in Spanish contexts. Like with CBI in the U.S., a plethora of empirical studies investigated the effectiveness on students' performance in CLIL classrooms. To illustrate, Heras and Lasagabaster (2015) examined students have greater motivation in CLIL classes compared to non-CLIL classes. However, there was a lack of close observation of the major features which reflect on students' motivations. Similarly, Llinares and Pastrana (2013) investigated Spain in the same context. The researchers specifically observed students' performance and the second/foreign language literacy particularly focused on communication in the CLIL classroom. This study investigated the communicative literacy functions of a whole class and group work discussion of primary and secondary students in CLIL classrooms. They found in terms of two types of communicative literacy that students were more engaged in group work discussion in a second/foreign language, but the pre-school level students had a richer whole class interaction in a second/foreign language (Llinares, 2007 a, b). This study represents the importance that CLIL teachers need to organize various types of activities that encourage students to develop second/foreign language literacy ability. This study was beneficial to realize the challenges as well as the necessity of adopting hands-on practices. Through this study, it is clear how CLIL classrooms influence students' behaviors and attitudes on their learning.

Besides the students' behaviors, some other studies were exploring the learning competency from implementing CLIL which is another area that is commonly investigated in European contexts. As an illustration, Aguilar and Munoz

(2014) examined post graduate engineering students' listening and grammar literacy skills using pre and post-tests in CLIL classrooms. Pre and post-tests of listening skill were statistically significantly different, yet grammar skill did not show the same difference between pre- and post-test. Identically, a study of CLIL project in Greece scrutinized the development of the reading literacy skill in tertiary education (Chostelidou & Griva, 2013). The outcome was that experimental group of students who were taught with the CLIL instruction outperformed compared to the control group of students who were taught with the regular classroom instruction (the same instruction that students were taught in the previous classes). Also, the students who were in the CLIL classroom had more positive attitudes on the class project than the control group. Uniformly, another study by Korosidou and Griva (2013) also established similar outcomes from implementing CLIL in Geography classes in Greece, which had the same optimistic effects on 5th graders' oral and written literacy skills. Similar to the Chostelidou and Griva's study in 2013, this study also revealed that students have equally positive attitudes toward second/foreign language literacy from being taught with CLIL instruction.

In addition to the major studies that investigate students' second/foreign language literacy performances and the effectiveness of CLIL, there is some literature that explored a slightly different dimension: the students' teachers' perception of implementing CLIL instruction. This is often under-emphasized but it is greatly essential to observe for a successful implementation. Pladevall-Ballester (2015) investigated the perception of CLIL program from students, teachers and parents. Interestingly, the students were generally satisfied with the CLIL program but teachers addressed various concerns about the lack of students' second/foreign language literacy improvement, development of content knowledge, and institutional support. The teachers also claimed the time-consuming preparation for the CLIL instruction was another burden for them. In the same fashion, parents pointed out some threats that CLIL should not be the only solution or method for second/foreign language literacy development and content knowledge learning because either one cannot come naturally. They were concerned that focusing on two components may inhibit learning for students. In other words, neither of the objectives would be achieved when emphasizing two instead of one. They also mentioned CLIL could threaten students' first language literacy improvement.

In essence, the instruction for integration of content knowledge and second/

foreign language literacy development in Europe has been actively utilized and there are a number of research studies that explore the students' behaviors, attitudes, the performance in terms of the content knowledge and second/foreign language literacy ability, the effect of the CLIL instruction, and the perspectives toward CLIL classrooms. As a number of literature represented in this section, the research in CLIL instruction proposed numerous prominent outcomes about teaching both content knowledge and second/foreign language literacy simultaneously by implementing and researching in the context of Europe. As CBI is popularly facilitated in North America, it is clear that CLIL is the major instruction in European countries to grasp the most out of teaching students both second/foreign language literacy and content knowledge. Two instructions, CBI and CLIL, have the same goals but they are designed slightly differently in order to accustom respective culture and circumstances for appropriate implementation and successful results through the instruction. Therefore, careful consideration and preparation are crucial as "tailor-made" instruction for each country's educational contexts. In addition to North American and European countries, it is worthwhile to explore in Asian countries because many Asian contexts highlight the second/foreign language literacy development in a great matter.

3. Integrated learning of content and language in Asia

According to Murphey (1997), "CBI in EFL context is an exciting endeavor well worth the doing and well worth improving" (p. 29.) Many Asian countries attempt to integrate content knowledge and second/foreign language literacy in the classroom by implementing Content-Based Instruction (CBI) or Content-Language Instructed Learning (CLIL). Among these Asian countries, China and Hong Kong are actively facilitating CBI the most and there are a handful studies about CBI in Japan.

Zhao (2014) investigated the effectiveness of CBI classes in Chinese middle schools by providing extensive readings for content knowledge learning in foreign language which is the English in this case for reading literacy development. The reactions of students to the extensive readings were positive and most of them gained the content knowledge, vocabulary competency, and motivation toward developing reading literacy in foreign language. Correspondingly, Chapple and Curtis (2000) conducted research on the CBI class, using films, in Hong Kong for

both content and foreign language literacy development. They specifically asked participants to evaluate and identify their own development of English literacy skills when they were taught by CBI. Most students rated that they improved their speaking and listening skills, which were attributed to the design of CBI with the film as a main material. Moreover, they felt more confident in their foreign language ability after the classes based on CBI.

Another study in Hong Kong focused on students' influence from facilitating a small-scale project of CBI (Lo, 2014). This study investigated content and language teachers' collaborative teaching and how beneficial it is for students' performance. Students in this project developed grammar competency which was one of the main goals for this class to improve in the content knowledge. The outcome of this study provided a fascinating additional strategy, which is the teachers' collaboration between content teacher and language teacher for more effective implementation of CBI. Furthermore, due to the nature of this process, teachers' collaborative instruction forced them to negotiate the goals in a greater range and was advantageous in that this allowed for teachers to scrutinize students' needs.

In like manner of Hong Kong, a handful of empirical research examines the effectiveness of implementing CBI in Japanese context. Lockley (2013) conducted a study to explore the reaction of students who were taught with CBI using self-reflection paper in a Japanese high school history class. The class was taught Japanese history by an English-speaking teacher. Even though the targeted content is Japanese history, overall, students develop foreign language literacy skills, particularly listening. Furthermore, students were able to improve their intercultural understanding of Japanese history. However, although the study was successful to develop foreign language literacy ability, the author observed that some students were confused why they needed to learn the Japanese history in a foreign language from the teacher who is a non-native speaker of Japanese. This study depicted that the fascinating outcome that the choice of content knowledge in CBI classroom creates should be done necessarily when designing the CBI class. Thus, Lockley (2015) conducted another study that had adjusted to the previous one. This time, he investigated whether international posture or attitude toward globalization could be developed through CBI classes. He concluded that students were able to build international posture and global thinking ability as well as the content knowledge and the foreign language literacy competence.

Slightly modified to Lockley's study that only the content teacher was teaching the CBI class, the study by Oi, Kato, and Kobayashi (2014) implemented CBI where both content and foreign language teachers were involved in teaching together in every class. In this study, they targeted middle school students' development and their performance. This experimental class with CBI sessions invited students to expand their content knowledge remarkably well, yet as far as foreign language development, not much took place. As a result, Oi, Kato, and Kobayashi (2014) claimed that it is crucial for foreign language teachers to require more interaction in a foreign language and emphasize the literacy aspects such as speaking, listening, reading, and writing incidentally and also saliently while teaching the content knowledge. This study by Oi, Kato, and Kobayashi (2014) established that in order to have a more positive outcome in terms of students' better performance, teachers require putting more effort in on revision and addition of the foreign language literacy development from language teachers who have more knowledge of the content. In this respect, teachers who have implemented CBI in their classes claimed that there is substantially more work compared to teaching in the traditional ways.

Related to the previous study by Oi, Kato, and Kobayashi (2014), Yamano (2012) also observed the heavy workload of preparation of integrated learning of content knowledge and foreign language learning that teachers need to do. This study was looking at the feasibility and potential of CLIL, another similar instruction to CBI applied in Japanese elementary school. Yamano (2012) claimed that it is feasible for Japanese elementary students and has a positive influence. However, teachers' burden of preparation was revealed as a problematic issue from this research (Yamano, 2012). Furthermore, Yamano (2012) also observed that some teachers were anxious about their students' reaction to the CLIL because it has a quite innovative procedure such as teaching the content in foreign language for elementary level of students. In this regard, due to the significance of teachers' preparation and collaboration, many scholars proposed CBI and CLIL instruction as models that require collaborative teaching as predominant and it would be effective if teachers have adequate time to plan the programs (Nunan, 1992).

Despite the fact that there is more workload for teachers, teaching both content knowledge and foreign language literacy is beneficial in Japanese context. For instance, Ikeda (2012) conducted a study after teaching with CLIL instruction

and investigated students' performance of learning. The outcome from implementing CLIL brought an overall positive improvement of content knowledge and foreign language literacy skills. To be specific, Ikeda (2012) compared the pre and post writing tests in this study, and he observed that students were able to develop their writing skills significantly in terms of writing fluency and complexity. All students wrote more in their post-writing essays, and the sentences were more complex than pre-writing essays. In contrast, there was a slightly less development of accuracy of students' writing between the pre and post essay writing, but there was no statistically significant difference. On the whole, every study with CBI or CLIL instruction that was conducted in Japanese context established positive outcome by implementing CBI and CLIL in the Japanese classrooms. However, despite the fact that CBI and CLIL have been popularly implemented in a North American or European context, there are relatively few studies that have implemented CBI or CLIL instruction in a Japanese context. What is more, there is a strong voice of support among scholars who are in language literacy education, only a handful the empirical research that practically utilized CBI or CLIL instruction in Japanese context.

V. The Research Gap

As shown in this review of literature, CBI and CLIL have been popularly implemented across the world and yield positive outcomes in teaching content knowledge and second/foreign language literacy to develop both skills simultaneously. A plethora of the empirical studies on the experiences of CBI and CLIL has been investigated mainly in North America (e.g. Echevarria, Vogt, & Short, 2013; Kareva & Echevarria, 2013, p. 239, Rodgers, 2006; Song 2006) and in Europe (e.g. Llinares & Pastrana, 2013; Llinares, 2007 a, b; Aguilar & Munoz, 2014; Chostelidou & Griva, 2013; Pladevall-ballester, 2015). However, only a handful empirical studies are available in Asian countries (e.g. Chapple & Curtis, 2000; Lo, 2014; Lockley, 2013; Lockley, 2015; Oi, Kato, & Kobayasi, 2014; Zhao, 2014) even though CBI and CLIL have been successfully implemented in North America and Europe. What is more, there are only a few studies with the implementation of CBI and CLIL used in Japanese contexts. This is surprising since Japan is one of the popular countries where second/foreign language education is a significant goal for education and is a focus of the government, educational institutions, schools,

and educators. As a consequence, it is crucial to explore in-depth the educational situation in Japan and how the second/foreign language literacy education has been preceded. Moreover, it is also important to investigate why CBI or CLIL have not been implemented unlike in other contexts across the world.

1. Japanese second/foreign language education and CBI/CLIL

Among Asian countries, Japanese education has not been attempted such innovative instruction for integrating content knowledge and second/foreign language literacy development together. This is surprising since second/foreign language education, particularly English education is one of the core subject areas that students require to focus and study from elementary school to higher education. Hence, there is a great endeavor from the educational board and other private institutions for students to be successful to develop second/foreign language competence. Japan emphasizes the importance of English education. However, many factors show that Japanese English skill still needs much endeavor for more improvement. For instance, Japanese TOEFL IBT test takers in 2013 had the lowest scores compared to other East Asian countries which have similar education circumstances (e.g. EFL context). There is a need for a new attempt in Japanese English education such as CBI or CLIL to be efficient for the second/foreign language literacy improvement as North America and Europe did. However, there is far less implementation of CBI or CLIL and more studies need to be conducted to explore the Japanese context compared to the other contexts.

One of the main reasons for this is that the implementation of CBI and CLIL requires to be considered in advance such as the perspective of whether it is even feasible in Japanese context because of the contextual and cultural differences from North America and Europe. For example, Japanese society is a monolingual context unlike European countries. Thus, students' willingness of learning content knowledge in English as a foreign language is questionable. On the one hand, existing theoretical research proposed that developing content knowledge and second/foreign language together may be challenging in EFL context such as Japanese context because of the great range of students' foreign language proficiency (Ikeda, 2013). On the other hand, Murphey (1997) proposed that, "CBI in EFL context is an exciting endeavor well worth the doing and well worth improving" (p. 29). Although implementing new instructions such as CBI and CLIL

may be challenging for educators, it is worthwhile to attempt applying in Japanese context to be beneficial as other countries.

In addition, there is another reason that causes the scarcity of conducting research on and implementation of CBI and CLIL. The second/foreign language literacy education in Japan is still apt to dominant the grammar-translation methods for various standardized tests (Butler, 2005). In Japanese education, students are still assessed by those standardized tests to determine who has successful literacy skills in second/foreign language. However, the bright side is that due to living in a global world, the grammar-translation methods became less effective for following the trend of the Japanese society. The speedy and powerful growth of the economics in Japan has ample impact on learning English and searching for innovative and effective instructions (Oda & Takada, 2005). In order to meet the needs for the great matter of international economic growth, the educational board realized that students require more than good performance in the standardized test such as developing writing and communication skills. In this regard, although grammar-translation methods are suitable for taking exams that are designed to assess primarily comprehension of grammatical rules, reading passages, and translation (Fotos, 2005), it is no longer meet the current movement of the Japanese society in terms of second/foreign language literacy education. The classes should be focusing on using the second/foreign language as a tool for the further practices. As a consequence, CBI or CLIL would be great to implement as a new instruction method to develop the practical skills of second/foreign language literacy as well as the useful content knowledge based on students' needs.

As a consequence, although grammar-translation method is predominately utilized, more innovative methods like teaching meaningful content knowledge with English is required (Butler, 2005). Moreover, implementing an innovative method, CBI or CLIL, should bring an effective outcome for the status of English usage in Japan responding to the global economic growth. If the dual focused instruction with content knowledge and second/foreign language literacy development, is implemented in an appropriate way, there is much space to yield positive result of students' performances like many studies in North American and European contexts (e.g. Llinares & Pastrana, 2013; Llinares, 2007 a, b; Aguilar & Munoz, 2014; Chostelidou & Griva, 2013; Pladevall-ballester, 2015). To fill the research gap, more empirical studies are crucial in order to understand how effectively

implementing CBI or CLIL would work and how to implement the integration of language and content learning in Japanese contexts.

2. Concerns of implementing CBI or CLIL in Japan

Prior to implementing CBI or CLIL in Japanese context, careful consideration of how to apply those instructions appropriately is crucial in order to get a positive outcome of developing content knowledge and second/foreign language literacy skills. Even though available research of CBI in North America and CLIL in Europe manifested positive outcomes, it does not directly determine that it would be beneficial in Japanese context in that all contexts have unique culture and education environment. The teachers and educators who are facilitating CBI and CLIL must carefully consider the different features of North American or European and adjust to their educational environments. In other words, to earn the most effective outcome of teaching Japanese students utilizing CBI or CLIL, careful consideration and preparation are essential as a tailor-made instruction for the individual classroom context with Japanese students.

To summarize the research gap in this paper, previous literature represented that integrated learning of content knowledge and second/foreign language literacy develop through CBI and CLIL is effective, and we cannot merely implement CBI and CLIL in Japanese context only because they were effective in North American and European contexts. In this respect, more empirical research should be conducted on CBI and CLIL classroom to explore how such instructions would benefit Japanese second/foreign language literacy education as well as building content knowledge. Such innovative instructions are necessity in Japanese second/foreign language education in order to response to the status of current Japanese society and the world.

Lastly, understanding the culture, status, education system of Japan is significant prior to implementing CBI or CLIL in order to adopt the instruction appropriately to yield successful outcome. Understanding the educational context and students' perspectives toward CBI or CLIL are significant components before designing and implementing the instruction in Japan. Therefore, some "tailor-made" adjustment based on the individual situation is necessity.

VI. Conclusion

Content and language learning integration in education across the world was vigorously implemented since 1980's, and it is changing continually to be more successful in specific contexts. In terms of the effectiveness of language learning with content learning across the U.S., European and some Asian countries, CBI or CLIL is "worth the payoff" and could be alternative approaches from traditional language methods that have existed until now (Stryker & Leaver, 1997, p. 321). Although CBI or CLIL are beneficial in students' learning, in reality, some studies in this paper manifested the negative outcome because, as Swain stated, "not all good content teaching is necessarily good language teaching" (Swain, 1988, p. 68). Nevertheless, evidence is compelling that successful language learning embraces meaningful content which students' value (Brinton, Snow, & Wesche, 2003). Meaningful information may also allow for increasing motivation and promote more effective language learning. Thus, when meaningful content meets language learning, although it may be challenging, there is ample potential to practice optimized learning.

Despite the fact that integrating learning content and language is considered as a profitable method, CBI and CLIL are not the only approach that has benefits across all educational settings. What is more, CBI or any types under CBI and CLIL itself does not entail simply offering both content knowledge and language learning. Instead, it is important to apply a "tailor made" form to fit to the educational context. There are a number of diverse models and forms under CBI and CLIL to be considered for successful implementation based on each educational setting. Since there are limited numbers of research about content and language learning integration across the world and many challenges and issues still exist, further empirical studies are crucial for the development of students' content knowledge and language skill.

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