Integrating Language and Content Instruction in Immersion Classrooms: Literature Review

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Introduction

Over the past 15 years, the percentage of children in the United States who speak a language other than English at home has been increasing. As of 2013, this was almost one in four children (KIDS COUNT Data Center, 2014). With the passage of No Child Left Behind in 2001, schools have felt added pressure to ensure that children learn academic content and the language of the disciplines (Koyama & Menken, 2013). With limited hours in the day, the question becomes, how does one teach content and language simultaneously? This is a question for general education classrooms with learners of English and immersion classrooms with learners of an additional language.

In this literature review, I will focus most on immersion classrooms because the integration of language and content is a central, defining feature of these programs since they teach students a second language through both content-area instruction in that language and additional language instruction (Lyster, 2007). For immersion programs to be successful, their teachers must be both language and content teachers. In order to explore how this can be accomplished, I will examine the historical and contextual influences on language-content integration in immersion education, the ways in which teachers can integrate language and content, and future directions for research.

Historical Definitions and Issues

Immersion History and Terminology

In Canada, parents initiated French language immersion programs in 1965 because of their frustrations with their children’s proficiency in existing programs. The Canadian language immersion model spread to the United States in 1971 with the first schools in Culver City, California (Genesee, 1985). Through the years, enrollment and the number of immersion programs have increased. For the 2010-2011 school year, 341,000 students enrolled in French language immersion programs in Canada (Government of Canada, 2013), and in the U.S., 448 immersion programs were self-identified in the Center for Applied Linguistics (2011) database.

Many terms describe a variety of immersion programs. Lenker and Rhodes (2007) defined one-way immersion programs as those designed for English-speaking students to learn their subjects through a second language. These programs can be classified as full, or total,
immersion in which students in kindergarten through second grade receive all instruction in the second language with subsequent grades increasing English instruction to 20-50% of the day. Partial immersion programs allocate approximately 50% of the day in the second language throughout the grades. Two-way immersion, or dual language, programs instruct both English-speakers and native speakers of the target language, and they attempt to balance the numbers of students in each group (Lenker & Rhodes, 2007; McField, 2008). However, Genesee and Lindholm-Leary (2008) also used the term “dual language” to describe any program in which English is used for instruction at least 50% of the school year with another language used for the other portion. This thereby includes transitional bilingual programs in which students in grades one and two learn mainly in their home language in order to transition into all-English classrooms by grade three.

Regardless of their name, immersion programs fall under the heading of content-based instruction (CBI), which involves learning a language through content (Lyster, 2007). To differentiate between the myriad of CBI models, Met (1999) proposed a continuum that sorted programs by the amount they focused on content learning versus language learning. Met placed immersion education on the “content-driven” end because its primary objective is content learning with language learning as secondary. On the “language-driven” end were theme-based, multidisciplinary, and foreign language in the elementary school (FLES) courses. These programs were characterized by curricula that organized language learning by themes such as immigration or shopping. To discuss these topics, other disciplines may be used such as math when calculating a shopping order or geography to discuss immigration patterns. However even though they used some content to teach language, any content learning was incidental because language learning was always the priority. Every activity chosen was to facilitate acquiring language. In 2012, Tedick and Cammarata added Europe’s version of CBI—content and language integrated learning (CLIL) programs—to Met’s continuum. These programs began in the mid-1990s and take many different forms; therefore, they fit in all sections of the continuum. In the end, the sheer magnitude of types of immersion programs and the ways in which they conceptualize content and language instruction makes immersion education a complex endeavor.

**Rationale for Immersion**

Many parents, educators, and researchers support immersion programs because students in these programs attain higher linguistic proficiency than students learning a language as a separate subject (Lyster, 2007). Content-area instruction in the second language provides meaningful, communicative contexts for children to learn language (Genesee, 1985). This is similar to first language development in that people find motivation to learn a language because they use language to understand and describe the surrounding world (Genesee, 1985; Snow, Met, & Genesee, 1989). Because the content areas require different linguistic skills, language instruction in the content areas helps students develop proficiencies in various linguistic registers (ERIC Clearinghouse on Languages and Linguistics, 1995). In addition, teaching language through content instruction is more time-efficient than teaching them separately (Met, 1998).
Since content instruction occupies the majority of the school day, students also have more exposure to the second language in these program models.

**Issues Integrating Language and Content**

Even though immersion students tend to attain high language proficiency and can communicate their intent, studies from the 1980s found that immersion students did not perform like native speaking peers, especially in the areas of vocabulary and grammar (Genesee, 1985; Harley, Allen, Cummins, & Swain, 1987). Recent studies are inconclusive as to the reasons why. Genesee and Lindholm-Leary (2013) posited that often in immersion and other content-based instruction classes, as long as students understand the content and can communicate about it meaningfully, then “the accuracy with which they use language to communicate may go unnoticed, unchecked, and, thus, underdeveloped” (p. 22). Moreover, Genesee and Lindholm-Leary (2013) contended that especially in the United States, teachers and students are not held accountable for content and language outcomes in the second language to the degree in which they are for English. That can lead teachers to simplify their linguistic input in order to ensure students’ content mastery, since students will be tested on their content knowledge. Unfortunately, simplified input limits the complexity of students’ language competence.

Lyster (2007) posited that immersion programs do not focus specifically on language skills because, for years, many immersion teachers have viewed these programs as places where students incidentally learn a language through content instruction. Traditionally, people viewed immersion as a “two-for-one” approach, i.e. students would acquire a second language through content instruction (Snow, 1987, p. 5). Even United States government reports stated that immersion’s primary focus was academic instruction, not language learning (ERIC Clearinghouse on Languages and Linguistics, 1995).

Lyster (1987) suggested that “immersion” was a misnomer because these students are not immersed in a culture of native speakers. Instead, they are “integrated” with other English speakers and are exposed to a language in an academic context. Lyster also questioned the idea that immersion students “acquire” the second language, since “acquisition” suggests unconsciously obtaining a language. Therefore, Lyster asserted that immersion students “learn” the second language. This is important because the previously discussed findings of immersion students’ lack of proficiency show they are not unconsciously acquiring language. Instead, they must be explicitly taught. However, the following studies seem to show continued resistance to Lyster’s assertions. It seems the idea of immersion in a second language has persisted as teachers have continued to struggle with explicitly teaching language through content.

Day and Shapson (1996) conducted what they termed an “educational ethnography” and a “case study” of twelve French-language science classrooms in British Columbia in grades 4, 7, and 10 (p. 45). They observed each class twice, inventoried science equipment, and interviewed teachers, students, and school staff. They noticed that educators focused on the curriculum and only viewed themselves as content teachers versus both content and language teachers.

Swain (1996) corroborated Day and Shapson’s (1996) conclusions with an article
proposing recommendations based on a synthesis of her own immersion classroom observations and at least two other case studies and one experimental study conducted by other researchers. Swain noted a dichotomy—that teachers provided content instruction with little attention to language and that they provided language instruction divorced from content and meaningful contexts. Swain also noted that teachers restricted the amount of input given to students, that students rarely produced extended oral discourse, and that teachers infrequently and inconsistently corrected students’ errors. In addition to recommending that educators remedy these situations, Swain wanted them to be purposeful in their integration of language and content. However, to do this, immersion teachers need to reconceptualize their classrooms as places where students learn versus acquire a language, as Lyster (1987) advocated.

Lyster (2007) echoed Swain’s 1996 findings that teachers did not integrate language instruction in the content areas and instead taught language in decontextualized ways. He lamented that “[o]veremphasizing decontextualized language lessons at the expense of systematically drawing attention to language in the context of subject-matter instruction falls short of tapping the full potential of content-based classrooms” (p. 40). Not only were teachers not integrating language and content, but research left this topic largely unexplored (Fortune, Tedick, & Walker, 2008; Walker & Tedick, 2000). This is generally unsurprising given the variety of content-based instructional models and the persistent idea of immersion as promoting language acquisition versus learning.

Walker and Tedick (2000) lamented that immersion research had focused on the product of immersion (students’ proficiency) but not the process (how educators enacted it). Therefore, they conducted a qualitative study based on focus group meetings and interviews of six elementary immersion teachers, a sample evenly divided between upper and lower elementary and between native English and native Spanish speakers. The teachers identified issues they faced, and all addressed the importance of systematically focusing instruction on the second language. However, while teachers demonstrated verbal understanding of this, Walker and Tedick did not observe classrooms to see if teachers practiced their beliefs. Fortune et al.’s (2008) multiple case study addressed this omission. They interviewed five U.S. Spanish immersion teachers, videotaped four classroom lessons, analyzed teachers’ reflections of the lessons, and conducted a final focus group meeting to probe teachers’ understandings and guiding beliefs of integrating language and content. While the teachers thought they always taught language, an evaluation of their videotaped lessons showed the contrary.

Cammarata and Tedick’s (2012) phenomenological study of three immersion teachers at elementary, middle, and high schools noted that these educators saw themselves as both language and content teachers. However, the authors observed the persistence of the idea of immersion as a “two-for-one” model because these teachers still saw language instruction as an add-on. They lamented how their colleagues did not understand the extra work they did—that they taught the same content information but with an additional language focus, which made it hard to keep pace with their non-immersion colleagues. It also led to feelings of isolation.
From these conclusions and other observations, researchers have stressed the need to integrate language and content instruction. Swain (1988) explained that even in meaning-focused, communicative contexts like immersion classrooms, students have to attend to form in order to express their intended meaning or understand someone else’s. In an activity manual for immersion math and science teachers, Lorenz and Met (1990) called for language-content integration, stating that “[s]tudents' ability to understand concepts and develop skills is dependent on their skills in the immersion language” (p. 10). Therefore, language and content learning have a synergistic relationship. Met (1999) agreed because she believed students must learn discourse styles to help them be successful in their content learning. They must also increase their communicative range beyond subject-specific dialogues, which helps them develop social language skills not taught or learned through content areas. Therefore, while researchers established that teachers must purposefully address language and content skills, the question remains of how to accomplish this.

**Focusing on Form: A Counterbalanced Approach**

In order to integrate content and language, Lyster (2007) advocated for what he called a “counterbalanced approach.” This approach moves immersion programs away from solely a meaning-oriented direction toward a more form-oriented direction to balance the two foci. To accomplish this, Lyster advocated that teachers encourage students to “engage with language” so that “language permeates instructional activities across the curriculum” (p. 133). Instruction should integrate both experiential and analytic language activities. Therefore, teachers should not only expose students to language so that students experience and gain meaning from it, but they should also help students analyze the language and focus on its form during content lessons. Teachers should help students notice specific linguistic features and help them pay attention to the linguistic forms they produce. This emphasis on form, in addition to content, enacts Lyster’s counterbalanced approach.

Specifically, Lyster recommended that teachers provide comprehensible input through the subject matter and enhance that input through noticing and awareness tasks. Then students should have opportunities for production that focus on both linguistic practice and content understanding. Finally, teachers and students should participate in meaning negotiation that scaffolds content and language understanding and provides linguistic feedback. Through counterbalanced instruction, neither language nor content learning is sacrificed. However, successful implementation requires that educators not only see themselves as both language and content teachers, but that they also purposefully integrate the two as Swain (1996) advocated—something easier said than done.

**Contextualizing the Counterbalanced Approach**

The counterbalanced approach and the ideas of language-content integration in immersion education are similar to sheltered instruction in English as a second language (ESL) programs. Echevarria (2010) described sheltered instruction as making subject information understandable while helping students develop English proficiency. She explained that sheltered
instruction is typically associated with learning English, but sheltered instruction techniques, such as those in the Sheltered Instruction Observation Protocol (SIOP) Model, can be used in immersion programs too. The SIOP Model has 30 instructional features divided into eight components: Preparation, Building Background, Comprehensible Input, Strategies, Interaction, Practice/Application, Lesson Delivery, and Review/Assessment (Short, 2013). However, in my analysis of the 30 features, only ten have some relation to developing students’ linguistic competence. The remaining two-thirds involve developing content knowledge. Therefore, even with forms of sheltered instruction, teachers must pay explicit attention to developing linguistic proficiency and not overemphasize content learning. Lyster’s counterbalanced approach is imperative to sheltered instruction as well.

Applying the Counterbalanced Approach

Teachers can put the counterbalanced approach into practice through planning the curriculum strategically, making input comprehensible and building students’ linguistic capabilities. To increase students’ linguistic proficiency, teachers can provide more opportunities for output and engage students in content learning at increasingly higher linguistic levels.

Curricular Planning

One of the most concrete ways by which teachers can ensure language integration across the curriculum is through writing language objectives for content-area instruction, something also advocated by the SIOP Model (Short, 2013). In Snow, Met, and Genesee’s (1989) oft-cited framework for writing language objectives, the content teacher (the content curriculum expert) works with the second/foreign language teacher (the language curriculum expert), or the single immersion teacher with knowledge of both curricula works by him/herself. Teachers combine their curricular understandings with their knowledge of students’ linguistic needs to create two types of objectives: content-obligatory and content-compatible. Content-obligatory objectives are the vocabulary and linguistic skills necessary for understanding a content lesson. Content-compatible objectives are vocabulary and linguistic skills with which students need additional practice and that naturally fit a specific content topic. For example, in a lesson about landforms and bodies of water, content-obligatory objectives may include knowing the geographic features’ names and knowing comparative and superlative linguistic forms because when describing geographic features’ characteristics, often students compare them—e.g. which one is taller or flatter or which is the biggest or steepest. In that same unit, content-compatible objectives may include practice with gender agreement. For example, in Spanish, speakers use specific forms of adjectives and the word “the” depending on the noun’s gender. Gender agreement is not critical to knowing and describing types of landforms, but it is a difficult skill for native English speakers because English does not use gender distinctions other than “he,” “she,” “him,” and “her.”

The creation of language objectives facilitates Lyster’s (2007) recommendation of including language in activities across subjects. It also takes a proactive approach to language instruction, which Lyster defined as teachers pre-planning instruction to help students notice and
use specific language features. Because students do not normally observe these features on their own, they meet Harley’s (1993) criteria for explicit instruction. Harley recommended teaching second language features that (a) differ in nonobvious or unexpected ways from the first language, (b) occur irregularly or infrequently, or (c) are used infrequently in communicative contexts. For example, immersion classrooms tend to use present tense and commands, so teachers must explicitly focus instruction on other verb tenses. These aforementioned principles can guide educators’ selection of content-compatible language objectives. When selecting specific linguistic features, Harley recommended that teachers spend the most time on features that inhibit second language understanding or that lead to confusion or negative attitudes toward the language learner in his/her communication attempts.

Met (1998) elaborated that teachers could also find content-compatible objectives in the language curriculum, observations of students’ linguistic needs, and content-obligatory language objectives from future lessons. Met (1994) recommended that educators look at their future content plans and find ways to introduce the content-obligatory language and skills earlier in the year as content-compatible objectives. For example, if teachers know students will need to distinguish between rural, suburban, and urban communities for an upcoming social studies unit, teachers can introduce some of this vocabulary in math story problems. The intent is that early instruction and exposure will facilitate and scaffold students’ language learning. Met (1994) also recommended that teachers sequence their language objectives and activities across the unit and year. Educators should try to begin with more hands-on activities to build language and content understandings before attempting more abstract activities and concepts. In addition, teachers should try to save units that require more abstract conceptual understandings and language skills for later in the year when students have increased in proficiency.

**Comprehensible Input**

Another way in which teachers can focus on language is through providing comprehensible input, which Krashen (1981) defined as language that people receive which is largely understandable. He compared comprehensible input to “caretaker speech” or the language people taking care of young children use. Because caretakers use syntactically simple speech, talk about present contexts, focus on communication and meaning-making, and speak more slowly in shorter utterances, children can understand them and acquire their first language. Krashen believed that if comprehensible input contributed to the ease of first language acquisition, it would facilitate second language acquisition.

Comprehensible input is inherent to Lyster’s (2007) counterbalanced instructional approach in that the approach requires teachers to provide comprehensible input of content information and help students notice specific linguistic features of that input. Comprehensible input is also a key component of the SIOP model (Short, 2013) as it is required in the scaffolding of content and language learning. Met’s (1994) article of strategies for second language teachers described how they can make their language and the content information comprehensible through repetition, rephrasing, slowing down their speech, using concrete materials and visuals,
engaging in experiments and demonstrations, and acting out the information. In this way, teachers make abstract information concrete and more easily understood by students. Fortune and Curtain (1997) also cited comprehensible input as a strategy of effective immersion educators. They stressed building conceptual redundancy into lessons to help students understand the information. In addition, they explained how comprehensible input is important in the first years of an immersion program (or I would also argue when introducing new concepts). However, they stated that as students progress, teachers must provide more complex input to help students develop linguistically.

Even though comprehensible input is important, Lyster (1987) argued that people frequently overestimated the amount of comprehensible input actually present in immersion classrooms because often the materials are written for native speakers. Therefore, these materials contain large amounts of “incomprehensible input” as native speakers are more linguistically proficient than immersion students of the same age (p. 704). In light of this, Met (1994) recommended that teachers create their own materials or at least be aware of the linguistic demands and implied cultural knowledge in texts written for native speakers. Lyster (1987) also cited a 1986 article by Swain and Lapkin to show further issues surrounding comprehensible input—that if immersion students’ only second language input comes from their teacher, it is not enough to acquire another language. Therefore, teachers should provide multiple sources of linguistic input about content information, such as videos, readings, and guest speakers, which additionally offer diverse perspectives to push students’ thinking (Stoller & Tedick, 2003).

**Comprehensible Output**

Lyster’s (2007) counterbalanced instructional approach also calls for opportunities for students to produce language for increased content understanding and linguistic practice. Much reasoning behind this comes from Swain’s (1985) comprehensible output hypothesis. Swain stated that students’ struggles to produce native-like speech did not come from a lack of comprehensible input, but rather from a lack of comprehensible output. She explained that comprehensible output is the opportunity to use linguistic skills in meaningful contexts. She found that not only did immersion students lack opportunities to speak/write the second language, but their linguistic abilities were also not pushed or forced to improve. Peers and teachers generally understood students’ meanings even though their language had errors. Therefore, Swain advocated that teachers push students to convey their messages “precisely, coherently, and appropriately” (p. 249). She hypothesized that by using the language, students would move from semantic to syntactic processing, where they paid attention to the form because they had to create meaningful output.

Subsequent research on comprehensible output influenced Fortune and Tedick’s (2007) list of top ten immersion teaching behaviors, which stated that effective teachers talk less and create ways for students to talk more. Met (1994) and Fortune and Curtain (1997) provided multiple strategies to extend students’ output opportunities such as offering wait time, teaching prefabricated chunks of language (such as “I don’t understand” or “How do you say ___”), and
providing students with the same tools that teachers use to make their speech comprehensible such as visuals and concrete materials.

Collaborative activities also provide more opportunities for student output. “Pair and group work not only increases air time for immersion students, it provides repeated opportunities for students to notice, retrieve and generate new language” (Met, 2008, p. 66). As Lorenz and Met (1990) noted, students have more opportunities for output during pair and group work because it is not possible for every student to have one-on-one communication with the teacher. Plus, it also has affective benefits in that the whole class is not paying attention to the student as he/she tries to use the second language.

The SIOP model calls for collaborative groupings (Short, 2013), and Swain (2001) advocated collaborative learning through her description of a study she conducted with Lapkin involving conversational analysis of pairs of middle school French immersion students working on a jigsaw and dictogloss activity, where based on an oral reading of a text at normal speed, students wrote words they heard and created a summary. Swain found that when students worked in pairs and had to produce a final oral/written product, they had many output opportunities, and they focused on linguistic form as they tried to express themselves clearly and accurately. However, Swain cautioned that teachers must be available during collaborative activities for consultation and support and must pay attention to the accuracy of the final project.

**Repeated Practice with Higher Linguistic Demands**

As Swain (1985) noted, not only must the teacher provide opportunities for student output, but they must also push students to expand their language and speak more accurately. Another of Fortune and Tedick’s (2007) top ten immersion teacher behaviors addressed this. They said that teachers should recycle content, but at higher linguistic demands. Therefore, teachers should review the content information in ways that force students to use more sophisticated, challenging linguistic structures and vocabulary.

Stoller and Tedick (2003) provided a framework for revisiting content for different linguistic purposes. They said that students can report on their learning, re-examine information (often with a different learning goal), repeat content using a different linguistic mode (such as moving from a written text to an oral role-play), reformat information using graphic organizers, and review content in preparation for a quiz, presentation, or debate. Often these tasks help students synthesize information while practicing different linguistic skills.

Kong’s (2009) case study of two language-trained and two content-trained teachers in Chinese middle school content-based instruction classrooms supported these ideas. Kong found that when teachers structured their lessons cyclically, offered many opportunities for students to talk, and taught specific linguistic structures (such as cause-effect, if-then, and others), students had more opportunities to practice the content information, had higher quality interactions with the teacher, and used more target language forms. When teacher input and student output opportunities supported in-depth exploration of content information from different perspectives, students developed complex content understandings and used more complex language.
Kong and Hoare’s (2011) analysis of three lessons taught by a Chinese teacher in an English CBI middle school reaffirmed conclusions about the importance of language objectives and engaging students in cognitively challenging content and linguistic work. They observed that the teacher fostered engagement in the lessons by first planning language and content objectives. The teacher also structured the lesson cyclically so that students continually practiced the content information, looked at it from different perspectives, and connected it to previous knowledge—all of which challenged them linguistically and academically. Students were then more engaged in these lessons than when information was common sense and presented as isolated facts with quick initiation-response practice.

**Discussion and Future Research Directions**

The integration of language and content in education is an important topic because of its broad impact. Snow et al. (1989) described how teachers can apply content-obligatory and content-compatible objectives not only to immersion classrooms, but also to classrooms in general education with English language learners, ESL, and foreign language in the elementary school (FLES). This is critical because as stated previously, most classrooms are becoming language-learning classrooms as 22% of United States children speak a language other than English at home (KIDS COUNT Data Center, 2014). Therefore, general education teachers are tasked with helping students learn both content information and English (another language)—the same job as immersion teachers. Teachers use sheltered instruction methods such as SIOP to attain this goal, but like immersion teachers, Short (2002) noted that teachers using SIOP tended to focus on content learning to the detriment of language learning. She lamented that too often ESL teachers have not been trained in the content, and conversely, many content teachers do not have backgrounds in language acquisition. Additionally, many content teachers believe their job is to teach content, not language. Cammarata and Tedick (2012) had similar findings with immersion teachers and subsequently claimed that the fact teachers are licensed based on their content specializations leads educators to see themselves as content teachers, not as content and language teachers.

All students are learning how to use a language more proficiently, whether it is their first, second, or fifth language. That is why students in the United States, regardless of their first language, take English classes through high school. Students are also learning the language of the various subjects, so every teacher needs to see themselves as a language teacher and a content teacher, and this should affect how institutions prepare teachers.

Tedick and Cammarata (2012) completed a literature review of ten years of research concerning the integration of language and content in preschool through twelfth grade immersion/content-based language classrooms. They cited studies of student outcomes, teacher-student interaction patterns, and teachers’ perspectives on implementing content-based language instruction, but they found no studies describing the actual integration of language and content in immersion classrooms. However, there have been some studies into the effectiveness of SIOP in ESL contexts (e.g. Echevarria, Short, & Powers, 2006). While there needs to be more research
into the pragmatics of language-content integration in immersion contexts, more research needs to bridge ESL and immersion programs.

In light of the increasing amounts of United States students who are multilingual (KIDS COUNT Data Center, 2014) and multilingualism’s benefits to individuals and the nation (such as economic and national security benefits) (Garcia, 2009), it is important for researchers and educators to address how to foster multilingual proficiency. Additionally, each discipline has its own way of communicating ideas, its own discourse, its own language, which students need to learn. Therefore, more work needs to be done on how to emphasize and develop linguistic proficiency within the content areas. Furthermore, additional research needs to address how conclusions from ESL research can apply to immersion and how conclusions from immersion can apply to ESL. Finally, there needs to be more investigation into how to help teachers become both content and language instructors. These areas are vital in order to educate a society fluent in the disciplines and in the ways in which to communicate that information to a larger audience.

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