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INTEGRATING LANGUAGE AND CONTENT: LESSONS FROM IMMERSION

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OVERVIEW

Among the most interesting and effective innovations in second language education during the last three decades have been the immersion programs developed in Canada. The first immersion programs were developed to provide Canada's majority-group English-speaking students with opportunities to learn Canada's other official language. Since that time, immersion programs have been adopted in many different areas of North America, and alternative forms of immersion have been devised.

This report presents a selective review of research findings from the extensive evaluations that have been undertaken to evaluate the effectiveness of immersion programs in Canada and the United States. It focuses on selected aspects of second language learning and discusses implications of immersion research findings for the design and development of second language programs in other school settings for other kinds of learners: for example, for students learning through other forms of content-based instruction and limited-English-proficient students.

The intent of this review is not to advocate immersion for all second language learners but to learn from the experiences and research findings in immersion for majority language learners. The lessons to be learned from immersion are related to the importance of (1) [integrating language with content instruction](#), (2) [classrooms that are discourse-rich](#), and (3) [systematic planning of language along with content instruction](#).

Integrating Language and Content: Lessons from Immersion

INTRODUCTION

Among the most interesting innovations in second language education during the last two decades have been

the second language immersion programs developed in Canada (Genesee, 1987; Lambert & Tucker, 1972; Swain & Lapkin, 1982). Immersion programs were initially developed to provide majority-group English-speaking Canadian children with effective means of attaining proficiency in French, Canada's other official language. Since their inception in 1965, immersion programs have been set up in a variety of second languages, including such indigenous languages as Mohawk (Holobow, Genesee, & Lambert, 1987) and such non-official heritage languages as Hebrew (Genesee & Lambert, 1983) and Ukrainian (Lamont, Penner, Blowers, Mosychuk, & Jones, 1976). There are also numerous immersion programs in the United States (Genesee, 1985).

At the time that immersion programs were first introduced in 1965, they were a radical educational experiment. In order to monitor their effectiveness and consequences for the participating students, researchers in Canada and the United States carried out extensive evaluations of them. The results of these evaluations provide a detailed and comprehensive understanding of immersion and its outcomes. This report is not a comprehensive review of findings from this research. Rather, it focuses on selected aspects of second language learning that are important for the design of second language programs in other school settings and for other kinds of learners. For example, issues of second language pedagogy are important for educational planners working with limited-English-proficient (LEP) students, given the long-term goal of English language proficiency for these students. However, the intention of this report is not to advocate the use of immersion-type programs for limited-English-proficient students from minority language backgrounds. The best educational approach for these learners includes an emphasis during the early grades on development of the home language, including literacy, so that the learners' academic development can proceed more effectively, and their second language learning can be based on well developed first language skills (Cummins, 1981).

From a review of research findings on immersion programs, at least three major lessons can be learned. These lessons are important for the design and implementation of second language instruction for second language learners in other types of programs.

LESSON 1

The first and most general lesson to be learned from immersion is that second language instruction that is integrated with instruction in academic or other content matter is a more effective approach to teaching second languages than methods that teach the second language in isolation. Research has shown consistently that immersion students acquire functional proficiency in French, or in other second languages, that surpasses that of students in all other forms of second language instruction to which immersion has been compared (Genesee, 1987). The integration of language instruction with content instruction is the hallmark of the immersion approach.

There is an important contrast between the integrated approach used in immersion and the conventional grammar-based approaches used in some other programs. In immersion, second language teaching is embedded in a rich and meaningful communicative context. The goal of learning language is not grammatical perfection, but meaningful communication among students and teachers. Students remain motivated to learn the second language when they have a sense of academic accomplishment and of increasing competence in using the second language for communicative purposes. The behaviorist notion of "practice" as a means of learning, which is prevalent in conventional programs, is replaced in immersion-type programs by the notion of "creative construction," in which learners are encouraged to experiment with linguistic forms in order to communicate with one another and with their teachers about academic and social matters. Errors in language use are not seen as bad, but rather as indications of the learners' active efforts to master a complex linguistic system. In immersion, the learner is seen as progressing through a series of stages toward full target language proficiency; the learner is not expected to start off like a native speaker.

From a pedagogical point of view, the integration of language and academic instruction in immersion programs means that mastery of academic skills and information provides a natural basis for second language teaching and learning. Language serves as a vehicle for discussions of academic matters and is only a secondary focus of instructional attention. Indeed, language learning in immersion is secondary to academic achievement. In

immersion, instructional planning is not based on some structuralist theory of language, as it often is in conventional programs. It is based on the intellectual skills and knowledge considered important for every child to acquire. Students are expected to acquire the language skills that are important for communicating about and understanding the academic subject matter set out in the program of instruction. Proficiency in the target language is not seen as a prerequisite to academic development but rather as a co-requisite. It is a means to an end.

During the last ten years, there has been a general shift in second language education away from teaching language in isolation toward integrating language and content instruction (Enright & McCloskey, 1989). There are at least four reasons for this shift (Snow, Met, & Genesee, 1989).

First, language is acquired most effectively when it is learned for communication in meaningful and significant social situations. In life at large, people use language to communicate what they know, what they want to know, and their feelings, and desires. For school-aged learners, the academic content of the school curriculum can provide a meaningful basis for second language learning. In programs of instruction where language is taught as an end in itself, students often lack motivation. Of course, understanding academic content is an effective motivation for language learning only to the extent that the content is interesting or of some value to the learners. The content of integrated second language instruction need not be academic; it can include any topic, theme, or non-language issue of interest or importance to the learners.

Second, the integration of content and second language instruction provides a substantive basis for language learning. Important and interesting content, academic or otherwise, provides students with a meaningful basis for understanding and acquiring new language structures and patterns. Similarly, authentic classroom communication, about matters of academic or general interest to the students, provides a purposeful and motivating context for learning the communicative functions of the new language. In the absence of important content and authentic communication, language can be learned only as an abstraction devoid of conceptual or communicative substance. Few school-aged learners are interested in learning language that serves no meaningful function.

A third reason for this shift toward language and content integration comes from the relationship between language and other aspects of human development. Primary or first language acquisition naturally goes hand in hand with cognitive and social development. Language, cognition, and social awareness develop concurrently in pre-school and young school-aged children. Indeed, language is an important medium through which social and cognitive development normally proceed (Ochs, 1988). Teaching second or foreign languages in isolation dissociates language from other aspects of human development. In contrast, integrated second language instruction for young second language learners seeks to keep these components of development together so that second language learning is an integral part of social and cognitive development in school settings.

A final reason for integrating second language instruction with authentic content and communication concerns the very nature of language itself. Although some language theorists continue to emphasize the universal aspects of language and language learning (Chomsky, 1986), others are pointing out that language is not monolithic. Researchers who study language in context (the functional variationist approach) emphasize the tremendous variation in the formal and functional characteristics of language from one context to another (Halliday, 1985; Wells, 1985). For example, a great deal of attention has been given to differences in the way language is used in school settings versus non-school settings (Cummins, 1981; Heath, 1983; MacLure & French, 1981). Current evidence indicates that the way language is used in particular academic domains, such as mathematics, is not the same way it is used in other academic domains, such as social studies (Short, 1994). Knowing how to use language in one context does not necessarily mean knowing how to use it in another. The integration of second language instruction with content instruction (e.g., science or history) respects the specificity of functional language use.

This general shift away from teaching second languages in isolation has resulted in the development of a variety of integrated approaches and methods to second language teaching. Immersion is a specific type of integrated second language instruction—one that focuses on the acquisition of language skills for academic

purposes. Immersion is also unique in its primary focus on academic instruction. Mastery of academic content is considered as important as--indeed, perhaps more important than--mastery of the second language. In fact, immersion programs are regarded as highly successful by researchers, educators, and parents, despite evidence of certain linguistic shortcomings (which will be discussed later in this report), because the academic achievement of immersion students is comparable to that of students educated through their native language. In comparison, some other integrated methods focus primarily on language teaching. They use content as a vehicle for promoting second language learning. For example, intensive second language programs in Canada use content and thematic units to teach French as a second language (Lightbown & Spada, 1994). Success in these programs is assessed primarily in terms of how much language learning has occurred. Mastery of the content is considered secondary.

The success of immersion programs as an integrated approach to second language instruction is evident from research showing that the participating students acquire the second language skills they need to acquire academic skills and knowledge appropriate for their grade level. This is no small achievement considering that students master such cognitively sophisticated subjects as high school mathematics, chemistry, and history (Genesee, 1987).

LESSON 2

Research has consistently indicated that there are no negative effects to the native language development or academic achievement of students in immersion programs (Genesee, 1987, chap. 3). As a result, researchers have shifted their attention away from these areas of inquiry in order to take a closer look at second language acquisition in immersion programs.

Research has shown that immersion students often perform as well as native French-speaking students on tests of reading and listening comprehension in French. However, they seldom achieve the same high levels of competence in speaking and writing as they achieve in comprehension.

Detailed analyses of the oral and written production skills of immersion students indicate a number of specific shortcomings. First, students' grammar is less complex and less redundant than that of native speakers. Whereas native speakers have a number of different ways of expressing the same ideas, immersion students have fewer ways--often, only one. Second, their grammar is influenced by English grammar. For example, for some verbs in English that use particle constructions (e.g., look for, listen to), the equivalent French verb is not followed by a particle (*chercher, écouter*). French immersion students tend to insert a preposition in French for the English particle, leading to incorrect constructions like "*Je cherche pour mon stylo*" instead of the correct "*Je cherche mon stylo*." Third, immersion students' use of language is often nonidiomatic (Genesee, Holobow, Lambert, Cleghorn, & Walling, 1985; Spilka, 1976). More specifically, their lexical and syntactic usage deviates from that of native speakers in ways that are not incorrect but that are uncommon or unusual. These and other findings suggest that the productive language skills of immersion students are linguistically truncated, albeit functionally effective (Genesee, 1987).

How can we explain the gap between immersion students' productive and receptive language skills? On the one hand, Krashen (1985) and other researchers have argued that comprehensible input is important for second language acquisition. That is to say, students can only acquire language that they can understand. In this regard, immersion programs provide extensive comprehensible input. This is evident from the impressive performance of immersion students on tests of comprehension. This is also evident from the consistent finding that immersion students attain the same level of achievement in academic subjects (such as mathematics) as students receiving instruction in these subjects through their native language.

On the other hand, to understand immersion students' productive language skills, we need to examine more precisely the ways in which the target language is used in immersion classrooms. Although we lack extensive and detailed information about this (Swain & Carroll, 1987), the available research evidence suggests that students in many immersion classes are given few chances to speak during class and even fewer opportunities to initiate the use of language. Most often, students use language in response to questions or comments initiated

by the teacher.

The findings from a research project undertaken by Lengyel & Genesee (1975) illustrate this point. The purpose of the project was to document the language development of individual immersion students over the course of an academic year, and to examine the linguistic environment in which this development took place. Most previous research on immersion had focused on groups of learners, rather than on individual students. Lengyel and Genesee observed the language used by a young Anglophone boy in a Grade 1 French total immersion class. He was observed during non-language classes, such as social studies, in order to obtain representative samples of his language use when the classroom focus was not on language itself. The student wore a powerful wireless transmitter so that everything he said and everything that was said around him could be recorded. For comparison purposes, another young Anglophone boy in an all-French school was similarly observed and recorded.

Each boy was recorded for one hour every other week during an entire school year. With the intention of creating a written record of the students' language development, researchers transcribed the recorded language samples from each boy and from their classmates and teachers. What was most striking from the recordings was the lack of verbal output from either boy. The boys were given very little chance to speak and even less chance to initiate language or engage in interactive discourse with either their teachers or their classmates. Analysis and detailed description of the recorded language was impossible due to the students' insufficient output. Most of the language in the recordings came from the teachers. These findings are similar to those of Swain (1988), who found that only about 14% of the utterances of immersion students in teacher-fronted classrooms were longer than a clause. These findings suggest that the non-native-like production skills of immersion students may result, in part, from reaming environments in which there is a lack of opportunity to engage in extended discourse.

Evidence from yet other studies indicates that students who have extended opportunities for classroom discourse in the target language, even with other nonnative speakers, are at an advantage for acquiring language production skills. This evidence comes from a comparison of an activity-centered immersion program with a teacher-centered immersion program (Stevens, 1976). Both were late immersion programs, in which students began to use French as the primary medium of instruction when they entered Grade 7, or when they were approximately 12 years of age. In the activity-centered program, French was used to teach language arts, mathematics, and science for half the day; English was used to teach the other subjects during the remainder of the day. The students in this program worked actively at learning centers situated around the classroom. The students were offered a number of learning activities at each center and were free to choose from among the alternatives. The projects chosen by the student often included hands-on activities (e.g., building models, preparing blueprints, or gathering collections of objects) in addition to strictly language-related work (e.g., library research). Thus, much of the students' second language learning occurred in conjunction with immediate and concrete physical activity. The students were encouraged to interact in French by working on projects together or consulting each another as their work progressed. Moreover, they were expected to make oral and written reports in the second language on the progress of their work. The activity-centered classrooms were animated with lively and vocal students chattering away in French. The teachers in these classrooms acted more as consultants and advisors than as disseminators of information. Thus, two important features of this program were its focus on activities as a basis for second language learning and its focus on individual choice of learning activities.

In contrast, the students in the teacher-centered classrooms all worked on the same projects at the same time and in the same way; students were offered less activity-based learning and much less individual choice in learning activities. An additional difference between these two types of classrooms was that the teacher-centered program provided a full day of instruction through French, whereas the activity-centered program used French for only about 40% of the school day.

Despite the greater use of French in the teacher-centered classrooms, students in the activity-centered classrooms attained the same levels of proficiency in French speaking and listening comprehension, and almost the same levels of proficiency in French reading and writing, as did the students in the teacher-centered

program. The comparative success of the activity centered classes can be attributed to two main factors: 1) students had regular opportunities for extended discourse in French with peers in a stimulating and enjoyable atmosphere; and 2) students were highly motivated to learn the second language because they were given the opportunity to use the target language in situations of personal choice.

Another way of providing opportunities for immersion students to use the target language productively is by including native speakers of the language in the same classrooms. Research has shown that immersion students in classes with native French-speaking classmates attain higher levels of oral French proficiency than comparable students in classes without French-speaking peers (Genesee, 1987). These studies make a strong case for two-way bilingual programs that are being implemented in the United States (Lindholm, 1990). In two-way programs, monolingual students of English and Spanish, for example, are taught through the medium of their second language during part of the school day. For the English-speaking students, the program is similar to Spanish immersion, and for the Spanish-speaking students, it is similar to English immersion. The difference between this and conventional one-way immersion programs is that students in two-way programs have the opportunity to use the target language with native-speaking peers. This has obvious benefits for second language learning.

Thus, the second lesson to emerge from research on immersion is that integrated second language approaches that provide opportunities for extended student discourse, especially discourse associated with activities selected by individual students, can be particularly beneficial for second language learning in school settings (Ellis, 1984).

LESSON 3

The language development of immersion students depends on two aspects of the learning environment of the school: the explicit language curriculum and the implicit language curriculum. The explicit curriculum consists of language arts instruction and other instruction during designated aspects of language are taught for limited and specified periods of time. Like other academic subjects in North American schools, language arts are taught and learned relatively formally. Teachers have explicit language arts objectives and designated time lines for teaching those objectives, and the objectives are often unrelated to the rest of the curriculum (although this is changing as more teachers use whole language approaches).

The implicit language curriculum consists of all other instruction in which language is the medium but not the object of instruction, as in mathematics, science, and social studies lessons. The implicit language curriculum does not have explicit language learning objectives. Rather, it is reflected in all language that is used to teach academic subjects. The implicit curriculum is embedded in the academic content and materials of the program of study and in the ways in which teachers use instructional materials to teach academic content. It is also associated with incidental language reaming. The implicit language curriculum is most important for language development for two reasons: 1) the implicit curriculum provides students more exposure to the target language than does the explicit curriculum, and 2) it provides students with exposure to the target language in an authentic and meaningful context, which, as we saw earlier, is conducive to language learning.

One would expect immersion students' language development to be continuous to the extent that the implicit language curriculum allows for and actively promotes continuous development. Is this what happens? On the one hand, research indicates clearly that immersion students are able to handle increasingly complex academic material that is taught through the second language (Genesee, 1987; Swain & Lapkin, 1982). To this extent, then, immersion students appear to be developing increasingly complex functional language skills.

On the other hand, research findings show that the language development of immersion students is not continuous and does not correspond directly to the amount of input they receive. A particularly striking case in point is seen in comparisons between students in early and late immersion programs. In early immersion programs, instruction in French begins in kindergarten, whereas in late immersion programs, it is delayed until Grade 7 (or until students are approximately 12 years of age). Early immersion programs typically provide students with much more exposure to the target language than do late immersion programs, because in the

former program, the target language is used as a medium of instruction much earlier. In some cases, early immersion provides two to three times more exposure. However, research in Montreal has shown that students in two-year late immersion programs often achieve the same levels of proficiency in most aspects of French as students in early total immersion programs (Genesee, 1981).

The fact that late immersion students can attain the same levels of second language proficiency as early immersion students, despite significantly less exposure to the target language, attests to the general cognitive maturity and learning efficiency of older learners. At the same time, the fact that early immersion students do not necessarily outperform late immersion students, despite considerable extra time studying in French, suggests that there is not a direct relationship between students' language development and the amount of exposure to the target language. This is supported by Adiv (1980) in a study of the oral language development of Grade 1, 2, and 3 early total immersion students in Montreal. In this study, Adiv examined in detail the students' acquisition of 17 specific linguistic structures. (e.g., use of prepositions, direct and indirect object pronouns, and certain idiomatic expressions). She found that even by Grade 3, most of the students had failed to master most of these structures.

Assuming for the sake of the present discussion that these results do not simply reflect absolute limitations on second language learning in classrooms that include no native speakers of the target language, the results raise important questions about the implicit language curriculum of immersion programs. In particular, they raise important questions about how immersion teachers use language to teach academic subjects. Does the language used by immersion teachers to teach content material change in developmentally significant ways as the material itself becomes progressively more complex from one grade to the next? Do immersion teachers or the academic tasks they set for their students demand progressively more complex language from their students as the material becomes more complex? If the students' language skills are to develop fully, then immersion teachers must model progressively more complex language and use instructional activities that demand progressively more complex language skills from their students.

Swain (1988) examined the ways in which a number of early immersion teachers used French to teach a variety of academic subjects. She found that the teachers limited their language use in certain important ways. They used a functionally restricted set of language patterns; they corrected content more often than linguistic form; they were inconsistent in their corrections of linguistic form; and they provided students with few opportunities to engage in extended discourse. In a particularly revealing episode, Swain noted that one immersion teacher who was teaching a history lesson used a predominance of present tense verbs. One might have expected a history lesson to provide a natural context for using and learning past tense verbs. Indeed, part of the rationale underlying immersion is that students will learn the particular language skills that are used for the instruction of academic material because those skills are necessary for mastery of that material.

Swain's results suggest that, without systematic plans, immersion teachers may adopt strategies that are not optimal for promoting second language learning (Swain & Carroll, 1987). In fact, one could imagine that in order to make the academic material as comprehensible as possible, immersion teachers might actually adopt communication strategies that rely on linguistic skills their students already have. In other words, the students are not challenged to learn new language skills.

Immersion teachers need instructional plans in which language objectives are systematically integrated with academic objectives (Brinton, Snow, & Wesche, 1989; Snow, Met & Genesee, 1989). This, in turn, means that at the outset teachers must specify the language skills that are important for students to learn (Short, 1991). Academic tasks and instructional strategies must be selected carefully so that teachers are compelled to model and demand these designated language skills. Careful selection of academic tasks is also important so that students are obliged to use and learn targeted aspects of the language. In the absence of such plans, teachers may provide language learners with inconsistent and possibly even random information about target language forms. Instructional materials that use communicative tasks to focus systematically on structural aspects of the language have been developed and used in immersion programs in Canada on an experimental basis. Evaluations of these materials indicate that student learning of the targeted grammatical features can be

enhanced through such an approach (Day & Shapson, 1991; Harley, 1993; Lyster, 1994).

These recommendations should not be construed as a call for less focus on communication and meaning and more focus on formal language instruction, but rather, for more systematic attention to the way in which language is used to express meaning and to teach content (Lightbown, 1989). Although these recommendations are based on an analysis of the results of second language learning in immersion programs, they apply to any program of second language instruction that integrates content with language instruction.

The third lesson to be learned then from immersion is that there should be a systematic plan that integrates language and academic objectives.

SUMMARY

To summarize, research results from evaluations of alternative forms of second language immersion programs suggest at least three lessons of general relevance for second language instruction:

1. instructional approaches that integrate content and language are likely to be more effective than approaches in which language is taught in isolation;
2. the use of instructional strategies and academic tasks that encourage active discourse among learners and between learners and teachers is likely to be especially beneficial for second language learning;
3. language development should be systematically integrated with academic development in order to maximize language learning.

There is no doubt that immersion programs are the most effective approach available to second language teaching in school settings. The purpose of this review is not to criticize the immersion approach nor to question its effectiveness, although there are clearly areas where improvements in the program are needed. Nor is the purpose of this review to recommend immersion-type programs for limited-English-proficient students from minority language backgrounds. There are solid theoretical and empirical grounds for favoring programs for LEP students that promote the development of their home language before and along with development of English (Cummins, 1981). The objective of this report has been to analyze selected findings from research on immersion in order to understand more clearly a number of important issues in second language teaching and to promote a long-term view to improving second language learning in school settings.

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