

Literacy Development in Early French Immersion Programs

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Research findings on reading acquisition in early French immersion programs are reviewed. Findings on general reading outcomes, in English and French, are reviewed first, followed by a review of reading outcomes for students who are at risk for reading difficulty because of below-average levels of academic ability, poor first language abilities, disadvantaged socioeconomic backgrounds, and minority language status. There follows a review of studies on individual differences in reading outcomes, including research on students with or at risk for reading difficulties, and on interventions to support students with reading difficulties in immersion. Conclusions along with suggestions for future research are offered.

Keywords: literacy, second language reading, French immersion

The Canadian educational landscape changed dramatically in 1965 with the introduction of a French immersion program in the small community of St. Lambert, Quebec. This program took a radical departure from traditional education in Canada by educating English-speaking students in French. Students in this new program received initial literacy (and academic) instruction in French before being taught reading and writing in English. Immersion programs have proliferated across the country (and indeed worldwide) since 1965, and there are currently over 300,000 Canadian students in immersion (Canadian Parents for French, n.d.). The original St. Lambert program provided all instruction in French beginning in kindergarten until the end of Grade 2. Alternative forms of immersion have been developed, varying primarily with respect to when French is used as a medium of curriculum instruction (in primary or middle elementary grades, or later—in late elementary or high school) and how much instruction is given through French; distinctions are usually made between total and partial immersion with the latter consisting of less than 100% instruction and a minimum of 50%. Detailed descriptions of prototypical immersion program models can be found in Genesee (1987, 2004).

We review findings on reading acquisition in students in early French immersion programmes (see Genesee, 1987, 2004; Lambert & Tucker, 1972; and Swain & Lapkin, 1982, for general reviews). There was an initial surge in research on immersion programs that lasted until approximately the mid-1980s. Research during this period was motivated largely by concerns about the effects of immersion on student achievement, including reading. This has been followed by research with a greater focus on individual differences in, and processes underlying, the acquisition of French reading skills in immersion. We begin with research that has examined general reading outcomes in English and French,

followed by studies on students who might be considered at risk for low levels of achievement in reading because of below-average levels of academic ability, poor or impaired first-language abilities, disadvantaged socioeconomic backgrounds, and minority language status. We then review studies on individual differences in reading outcomes, including research on students who are at risk for reading difficulty, and finally studies on interventions for students who need additional support.

General Reading Outcomes

English

Evaluations of early total immersion, many of which were carried out during the first two decades after the program was inaugurated, found that students scored significantly below grade level on tests of English word knowledge and reading comprehension during those grades when no instruction in English was provided (Genesee, 1978; Geva & Clifton, 1994; Lambert & Tucker, 1972; Swain & Lapkin, 1982). Immersion students achieved parity with English comparison students in these same skills usually within one or two years of having English language instruction (e.g., Genesee, 1978; Lambert & Tucker, 1972; Rubin, Turner, & Kantor, 1991; Swain & Lapkin, 1982). Early total immersion students' ability to catch up to students educated entirely in English within one or two years suggests that skills acquired in French can be, and are, transferred to English, and possibly vice versa (Cashion & Eagan, 1990). Their competence in English reading may also reflect students' literacy experiences in English outside of school (Cashion & Eagan, 1990; Romney, Romney, & Menzies, 1995). It has been found that early immersion students continue to perform as well as comparison students in all English reading skills assessed when evaluations are carried out in higher grades (Genesee, 2004).

These findings have been confirmed in more recent studies by Turnbull, Lapkin, and Hart (2001) and Lapkin, Hart, and Turnbull (2003), which were based on Ontario-wide testing of Grade 3 and 6 students' reading, writing, and mathematics using the Education Quality and Accountability Office of Ontario evaluations (EQAO). The EQAO tests are curriculum-based criterion-referenced tests

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rather than the commercial standardized tests used in much of the early research. Turnbull et al. found that French immersion students in Grade 3 were more likely to score at Levels 3 or 4 ("expected" and "exceeds grade level expectations," respectively) on tests of English reading than students in English programs (55% vs. 48%), except for students who had had no instruction in English prior to taking the test. The Grade 6 results reported in Lapkin et al. (2003) indicate that French immersion students' performance on the English reading tests was clearly better than that of students in English-only programs (71% vs. 51% scored at Levels 3 or 4, respectively).

Comparisons of early total immersion versus early partial immersion and of early versus delayed immersion indicate that there is no advantage to English word recognition and reading comprehension skills development in immersion programs that provide more or early English instruction, as in early partial immersion, in comparison with programs that provide less or delayed instruction in English, as in early total immersion (Genesee, 2004; Noonan, Colleaux, & Yackulic, 1997). Contrary to the more-English-is-better hypothesis, in at least one case, it was found that students in early total immersion—in which English language instruction was delayed until Grade 4 and was limited to 20–30 min per day in Grades 4 to 6—scored significantly better than English comparison students in the same district on tests of word recognition and reading comprehension (Genesee, Holobow, Lambert, & Chartrand, 1989). Immersion and English program students were comparable with respect to socioeconomic background, ruling out this as an explanatory factor.

French

Comparisons between students in all types of immersion programs and students in core French programs have consistently revealed that the former score significantly higher than the latter on tests of word recognition and reading comprehension (e.g., Genesee, 1978; Lambert & Tucker, 1972; Swain & Lapkin, 1982). Comparisons of immersion students and native French-speaking students in French programs, carried out primarily in Montreal, have revealed that immersion students often score at the same level as native French-speaking students on tests of reading comprehension and in the average range on standardized tests normed on native French-speaking students (Genesee, 1978). Comparisons among early immersion program alternatives (total vs. partial, and early vs. delayed) have revealed that, generally speaking, students with more exposure to French achieve higher levels of proficiency, including reading, than students in programs with less exposure to French (e.g., Genesee, 1981a; Swain & Lapkin, 1982; except see Lapkin, Swain, Kamin, & Hanna, 1982). In an early review of immersion students' performance on a variety of norm-referenced French tests (such as the Public Service Commission French language tests), Pawley (1985) noted that immersion students often achieve advanced levels of functional proficiency in French reading and writing.

In contrast, a number of studies have reported that immersion students have areas of difficulty. Geva and Clifton (1994), for example, reported that the development of French immersion students' French reading lags somewhat in comparison with the English reading of students taught only in English. They gave Grade 2 students in early total immersion programs and in English

programs a test of reading fluency and observed that fewer immersion students were independent readers when reading in French and that fewer had good passage-retelling scores in comparison with regular program students reading in English. Cashion and Eagan (1990) noted that when reading French texts, immersion students in Grade 3 could get the gist but could not answer questions concerning details of the text. Many of their oral reading errors in French were nonsense words or did not make sense in context. Malicky, Fagan, and Norman (1988) found that Grade 1 and 2 immersion students were less able to integrate background knowledge and maintain the author's intended meaning when reading French than when reading English. These studies suggest that more sensitive tests than the standardized reading tests that have been used in much of the early research are needed to gain a clearer understanding of immersion students' reading abilities. It is also important to assess reading fluency, because fluency is largely influenced by reading practice, and two studies have observed that French immersion students engage in little French reading outside of school (Genesee, 1981b; Romney et al., 1995). In interviews, the Grade 5 immersion students in Romney et al.'s (1995) study indicated that they thought that a lack of French vocabulary was the main reason for their difficulty in reading French.

At-Risk Learners

In this section, we review studies that have examined the performance of students who might be considered at risk for academic difficulty because of low levels of general academic ability, poor first-language abilities, disadvantaged socioeconomic background, and minority language status. The general issue in question here is whether such students are at greater risk of academic difficulty or even failure in immersion than are similar students in all-English programs (see Genesee, 2007, for a comprehensive review of these studies). This issue has generated a considerable amount of discussion (Bernhard, 1993; Calvé, 1991; Genesee, 1992, 2004, 2007; Majhanovich, 1993; Mannavarayan, 2002; Murtagh, 1993/4; Rousseau, 1999; Wiss, 1989). There are both practical and ethical implications to this issue. On the one hand, and practically speaking, it is a matter of whether there is empirical evidence to discourage or even disqualify such students from a form of education that is generally regarded as the most effective educational means for attaining functional bilingualism. Discouraging such students from immersion in the absence of empirical support for such a policy is questionable on ethical grounds, because it denies subgroups of learners access to employment-related skills that are important in a bilingual country. On the other hand, including such students calls for providing appropriate differentiated instruction and support services, which are often not provided at the moment.

Poor Academic Ability

Genesee (1976, 1978) examined the performance of early total immersion students in Montreal in relation to their academic ability, as measured by a standardized intelligence quotient (IQ) test. As would be expected from the students' performance on the IQ test, below-average students in both immersion and English programs scored significantly lower than average and above-average students in the respective programs on English reading tests. Of most importance, there were no statistically significant

differences between below-average students in immersion and those in the English program on these tests, indicating that the below-average immersion students were not at greater risk for low reading achievement in comparison with students in the English program. With respect to French reading, the below-average students in immersion scored significantly higher than below-average students in the English program, indicating that the immersion students were benefiting from immersion in the form of enhanced French reading ability despite their academic challenges.

Bruck (1985a) examined whether academic difficulty is a necessary and sufficient cause for students to switch out of immersion. Specifically, she collected information on the academic, familial, and socioaffective characteristics of Grade 2, 3, and 4 early French immersion students in Montreal who switched to an English program and of students who remained in immersion despite academic difficulties. She found that the reading achievement scores of the students who switched out of immersion were not significantly worse than those of students who remained in immersion despite also having been identified by their teachers as experiencing difficulty. In contrast, the students who switched out of immersion had significantly more negative attitudes toward schooling (and immersion in particular) and they exhibited more behavioral problems than did the students who remained in immersion. In other words, behavioral problems linked to the students' academic difficulties, and not difficulty with reading, distinguished between the two groups and appeared to be the decisive factor that led some parents to switch their children out of immersion. In a follow-up investigation, 1 year later, Bruck (1985b) noted that the students who had switched improved in English reading (including word recognition and comprehension) to the same extent as the students who had stayed in immersion; their progress was not significantly different despite the switch. At the same time, the negative attitudes and poor school behaviors that characterized the transfer students continued after they had transferred. These results suggest that the ability to cope with poor academic performance may be a more serious problem for some immersion students than is poor academic performance alone. These results also support the argument that academic difficulty and, in particular, reading difficulty do not distinguish students who can benefit from immersion education and those who cannot and, thus, should not be used as a selection criterion.

Poor First-Language Abilities

Despite concerns that are often expressed by educators and parents about the suitability of immersion for students with poorly developed first-language skills, there has been surprisingly little empirical research on students with language learning impairments. To date, the only relevant studies have been carried out by Bruck (1978, 1982). She compared the performance of Grade 1, 2, and 3 students who had been classified in kindergarten as "impaired" or "normal" on the basis of teachers' judgments, an oral interview, and a battery of diagnostic tests. Bruck found that by Grade 2, the impaired immersion students were reading almost at grade level, albeit somewhat lower than the impaired English program students, and that at the end of Grade 3, they were reading as well as the English program students. Teachers perceived the skills of the impaired immersion students to be the same as those of the English program students. At the same time, participation in

the immersion program had benefited the impaired students with significantly superior French language proficiency in comparison with students receiving core French instruction. While these findings are important and useful, research that looks in detail at the reading skills of immersion students with language impairment is still needed. Critically, research is called for on these students' higher-order reading comprehension skills in the later elementary school grades and inclusion of students with language impairment using current conceptualizations and diagnostic criteria for language impairment (Leonard, 1998).¹

Disadvantaged Socioeconomic Background

A number of studies in Canada have examined the academic performance of immersion students from low socioeconomic backgrounds (Bruck, Tucker, & Jakimik, 1975; Cziko, 1975; Tucker, Lambert, & d'Anglejan, 1972). All have found that participation in early immersion programs does not put such students at greater risk for poor reading outcomes than that experienced by similar students in English programs. Bruck et al. (1975), for example, compared the language and literacy development of early total immersion students and English comparison students from working class backgrounds in Montreal on a battery of English and French tests. The students, who were in Grades 1 and 2 at the time of testing, were classified as *working class* on the basis of their fathers' occupations. Bruck et al. found that even in Grade 2, when the immersion students had had only about 1 hr of English instruction per day in Grade 2, they scored at the same level as the comparison students on English reading tests. The immersion students scored significantly higher than the comparison students on a test of French reading in both Grades 1 and 2, as one would expect given their differences in exposure to French.

Minority Language Status

Researchers have also studied French immersion students who speak a language (or languages) other than English or French at home (e.g., Bild & Swain, 1989; Dagenais, Day, & Toohey, 2006; Swain & Lapkin, 1991; Swain, Lapkin, Rowen, & Hart, 1990; Taylor, 1992, 2006). Hurd (1993) noted that concern has been expressed that such minority language students may experience incomplete development of all languages if they are schooled in early French immersion programs. Indeed, early French immersion has not been as popular as middle immersion among heritage language children in Toronto, likely because of a belief that these students should learn English first because it is the dominant language of the community. The most extensive data on heritage (or minority) language students in French immersion was collected by Swain and her colleagues in research focusing on Grade 8 middle immersion students (Bild & Swain, 1989; Swain & Lapkin, 1991; Swain et al., 1990). They found that students who had developed literacy skills in their heritage language scored higher on a French reading comprehension test than either anglophone immersion students or heritage language immersion students who had acquired only oral proficiency in the heritage language. The

¹ Research by C. Erdos, F. Genesee, R. Savage, and R. Lyster is currently underway to examine the performance of early immersion students who are at risk for reading impairment, language impairment, or both.

performance of the latter two groups did not differ. There was no additional advantage for students whose first language was another Romance language. Understanding the mechanism by which heritage language literacy influences the acquisition of French reading skills in immersion students requires more research. Furthermore, more longitudinal research is needed on the reading outcomes of minority language students in early French immersion programs.

Predicting Individual Differences in Reading Outcomes

Not all students are successful in French immersion programs. In a study of attrition from French immersion (Obadia & Thériault, 1997), principals and teachers most often cited academic difficulties as the primary reason students dropped out, and in another study (Halsall, 1994), school board respondents indicated that they felt more students with special needs could be retained if appropriate resources and programs were put in place. Almost two decades ago, Lapkin, Swain, and Shapson (1990) called for more research on early detection of students with language-related difficulties in immersion and on effective remedial activities for these students, although to date, only a small number of such studies have been published.

The understanding and prediction of individual differences in reading outcomes and the early detection of children at risk for reading difficulties have been major foci of reading research with English-speaking children in the last two decades. In a review of research on kindergarten predictors of subsequent reading ability (primarily word identification) in monolingual English-speaking children, Bowey (2005) identified letter-name knowledge and phonological processing abilities as key predictors of early reading ability. Bowey concluded, as others have, that understanding the alphabetic principle and developing efficient phonological recoding skills are the main competencies that beginning readers must acquire for reading to become a self-teaching process and that abilities that contribute to these competencies, such as phonological awareness, are critical. An important question for researchers and educators in French immersion is whether progress in learning to read French can be predicted by students' English-language skills upon entering the program, given that relevant French literacy-related skills are absent or weak at that point in their schooling.

Trites and Price (1978, 1980) conducted the first study on early predictors of immersion students' English and French reading ability. They administered a large battery of tests to a group of junior kindergarten children before they started immersion, including Raven's Matrices (nonverbal IQ), Wide Range Achievement Test (WRAT, reading and spelling), English receptive vocabulary, English expressive language, speeded picture naming, word segmentation into syllables, and the CIRCUS tests, which assessed auditory discrimination, knowledge of letters and numbers, comprehension and recall of stories, quantitative concepts, and problem solving. In addition, teachers completed two student-rating scales, which included assessments of English auditory comprehension and English spoken-language ability; examiners rated children's behavior during testing; and parents completed a biographical and background information questionnaire. The children's English and French reading achievement was assessed 2 years later. A multiple regression analysis showed that 43% of variance in the students' Grade 1 French reading scores on the Test

de Rendement en Français could be accounted for by scores on tests of nonverbal IQ, WRAT-reading (primarily letter identification for 4 year olds), and teacher ratings of English auditory comprehension. The best junior kindergarten predictor of English reading ability was WRAT-reading, which accounted for 33% of the variance in Grade 1 scores on the same test. In a subsequent study of the same children, Trites and Moretti (1986) found that performance on the auditory discrimination test best distinguished between students who scored at least one standard deviation above the mean on a test of French reading in Grade 5 and those who scored at least one standard deviation below the mean on the test or were early dropouts from the program. Verbal IQ and expressive language scores were also good discriminators. These findings are important because they provide evidence that English language skills tested before children start immersion may be good predictors of later reading achievement in French.

Comeau, Cormier, Grandmaison, and Lacroix (1999) provided further evidence that skills assessed in English can predict French immersion students' word identification scores in French. They tested French immersion students in Grades 1, 3, and 5 and then retested them a year later. The predictor they focused on was phonological awareness, which was assessed using both English and French versions of a deletion task. Interestingly, scores on the two versions were equally highly correlated with English word-identification scores and French word-identification scores 1 year later. Comeau et al. concluded from these findings that phonological awareness skills transfer across languages. In a regression analysis, they found that phonological awareness scores accounted for significant additional variance in French word-identification scores 1 year later after age, gender, nonverbal IQ, rapid automatized naming (RAN) in English, and nonword repetition (using English-derived nonwords) were entered into a regression equation. The entire model accounted for an impressive 73.9% of variance in French word-identification scores, which was not that much less than the 80.2% accounted for in English word-identification scores by the same set of predictors. The analyses presented in their article used a combined phonological awareness score from the two languages, but Comeau et al. noted that similar results were obtained when phonological awareness scores for only one language were used.

Tingley et al. (2004) examined more specifically whether different levels of phonological awareness (syllable, onset-rime, and phoneme) were associated with kindergarten and Grade 1 French immersion students' reading ability in English and French. They observed that onset-rime and phoneme level awareness scores were correlated significantly with word and nonword reading scores in both English and French. However, syllable awareness was significantly correlated only with performance on French-derived nonwords. This latter finding is in contrast to Bruck, Genesee, and Caravolas's (1997) finding that syllable awareness is the best kindergarten predictor of francophone children's French word and nonword reading ability. Good familiarity with the phonological structure of French may be needed for syllable awareness to be strongly associated with French word reading ability.

MacCoubrey, Wade-Woolley, Klinger, and Kirby (2004) administered tests of nonverbal IQ, English phonological awareness, English RAN, and nonword repetition to French immersion students early in Grade 1 and investigated whether these measures

could discriminate between students who, 1 year later, could successfully read words (above the 35th percentile) and those whose word reading was poor enough that they were considered at risk (below the 25th percentile). They found that phonological awareness scores best discriminated between successful and at-risk readers of English words, whereas both RAN and phonological awareness discriminated between successful and at-risk readers of French words. The analyses correctly identified 14 out of 17 at-risk readers of English in Grade 2 and 13 out of 18 at-risk readers of French. The extent of overlap in at-risk group membership across languages was not mentioned. These findings provide further evidence that future word-identification ability in French can be predicted from tests given in English. This conclusion is also supported by Bournot-Trites and Denizot's (2005) observation that kindergarten and Grade 1 immersion students who were considered at risk according to their performance on a set of English tests (including knowledge of letter names, phonological awareness, and word and nonword repetition) were also identified as at risk on the basis of their performance on a similar battery of French language tests.

Although most attention has focused on phonological awareness as a predictor of subsequent reading ability, Deacon, Wade-Woolley, and Kirby (2007) examined whether French immersion students' English morphological awareness skills could also predict later French reading ability. They observed that Grade 1 students' performance on a past tense analogy task accounted for significant and unique variance in French word-identification scores each year from Grades 1 to 3, even when Grade 1 scores on nonverbal IQ, English vocabulary, phonological awareness, and a French version of the task were included in the regression equations. Phonological awareness in English accounted for significant unique variance in French word identification in Grades 1 and 2 as well. Deacon et al. also presented evidence that French morphological awareness predicts subsequent English word reading ability and concluded that morphological awareness facilitates reading across languages.

These studies provide evidence concerning the skills that facilitate learning to read in a second language, and they demonstrate that skills assessed in students' first language, particularly phonological awareness, can predict subsequent word-identification ability in their second language. Further research needs to extend this work to look at predictors of French reading fluency and comprehension and to include a wider range of predictor variables within a single study to determine the best predictors of later reading development. In addition, the relationship between French oral language development and the acquisition of French reading skills needs to be better understood. Both of us are involved with colleagues in large-scale longitudinal studies of children in French immersion that address these issues (Erdos, Genesee, & Savage, 2007; Jared, Cormier, Levy, & Wade-Woolley, 2008).

Intervention Studies

There have been few studies that have examined the success of interventions for French immersion students with difficulties in learning to read. Rousseau (1999) presented a descriptive case study of an intervention program for learning-disabled students in French immersion. The students in the program reported that they felt that their reading had improved, and both parents and teachers

reported that the program improved the students' academic skills. No data from reading assessments were given.

Bournot-Trites (2004) carried out a questionnaire-based evaluation of a peer-tutoring program for Grade 2 French immersion students. The peer tutors were Grade 5 and 6 French immersion students who underwent a 3-day training program that focused on improving word-reading skills. The tutored students had mild reading difficulties, determined by the number of words they were able to read from a list of 160 words of increasing difficulty. Student performance following peer tutoring was assessed using the same list of words. The students showed significant improvement in word reading from pretest to posttest, but because there was no control group, it is not possible to determine whether their improvement was due to the intervention or to other factors. All participants (including parents and teachers) expressed positive attitudes toward the program and its effects. The tutors also reported benefits with respect to the students' self-esteem, interest in reading, and reading ability. While it is not possible to ascertain the true effects of this intervention, these results attest to the feasibility of providing intervention for French immersion students with (mild) reading difficulties using a peer-tutoring model. The question remains whether peer tutoring could be used effectively with students with more severe reading problems and whether it produces significant gains in reading performance.

MacCoubrey, Wade-Woolley, and Kirby (2005) sought to determine whether early intervention in French can be effective for English-speaking immersion students in kindergarten who are at risk for reading difficulty. Risk for reading difficulty was based on the students' performance on tests of English phonological awareness, English letter knowledge, and word reading. The researchers examined the effect of instruction in French phoneme blending and segmentation on the acquisition of phonological awareness skills. Treatment extended over 12 weeks, and training sessions consisted of four components, including warm-up activities, letter-sound activities, and activities that made explicit the role of segmentation and blending in the alphabetic code. A control group of students engaged in activities with the same games, puppets, and word lists used with the treatment group, but they did not receive instruction in phonological awareness. Their activities focused on French vocabulary building. Results indicated that students in the treatment group had significantly greater improvement in phonological awareness in both English and French than did the control students, even though training had been in French only. However, the treatment group did not show a significantly larger improvement in letter-sound knowledge in either French or English than did the comparison students. MacCoubrey et al. did not examine the impact of their phonological awareness training on actual reading performance. Clearly, more intervention research is needed to assess the impact of specific interventions on French and English reading ability.

Future Directions

While French immersion programs have been the focus of extensive research and there is a fairly good consensus on some issues with respect to reading acquisition, there are many questions of considerable pedagogical importance that have received little research attention. These lacunae hamper both our continued understanding of second language reading acquisition and the devel-

opment of pedagogical innovations that can advance student acquisition. There is a particular need for research on the following:

1. Detailed comparisons with students in regular programs on aspects of reading comprehension, particularly in French, that are not revealed using typical standardized tests, such as the ability to grasp complex details and abstract ideas, to draw inferences from text, and to use background or contextual knowledge to comprehend text. Also, studies of factors that impede students' comprehension of complex text in French (e.g., weak vocabulary, syntax, or background knowledge) would provide a useful empirical base for developing curriculum and instructional strategies to advance immersion students' comprehension skills.
2. Comparisons of immersion and English program students on reading fluency and on interventions that will promote the development of reading fluency, particularly in French. Studies could examine the effectiveness of programs that promote more reading at home in French.
3. Students who do not speak either English or French at home, including investigations of French, English, and heritage language reading ability, particularly comprehension, in comparison with similar students in English programs throughout the elementary and high school years; also, comparisons of these students' reading outcomes in early, middle, and late immersion; and early predictors of reading difficulty and success specifically in this population.
4. Students who experience difficulty learning to read, including investigations of the following: difficulties that are specific to second-language reading and those that are common to first- and second-language reading; predictors of second-language reading difficulty; early detection of at-risk students, using a variety of dependent measures; long-term reading comprehension outcomes of immersion students with reading difficulties in comparison with English program students; and English reading outcomes of students who switch to English programs.
5. Students with other learning challenges, including language impairment, autism, and clinical perceptual problems. In a country that is officially bilingual and where bilingual competence is either a necessity or a distinct advantage, it is critical that educators and public policy-makers open the door to bilingual proficiency through schooling as wide as possible. At present, we have no evidence concerning the capacity of children who face serious learning challenges to benefit from immersion. Until we do, we risk continuing to offer immersion to only certain students.
6. Reading interventions. There is virtually no research on effective pedagogical strategies for promoting reading competence in immersion students.

In conclusion, immersion has become an entrenched part of the educational landscape in Canada. Early research served the research, education, and public community well by documenting its overall success. Recent research has begun to shed light on as yet relatively unexplored aspects of immersion and, in particular, reading acquisition. However, there is a serious need for renewed interest in and commitment to research on many aspects of immersion — most particularly reading—if our understanding of reading and language acquisition in immersion is to advance and if we are to acquire a broad empirical basis for creating and refining curriculum and instruction to advance student achievement.

Résumé

Dans cet article, on fait un examen de la recherche sur l'apprentissage de la lecture dans les premiers programmes d'immersion en français. Les premiers résultats analysés portent sur l'apprentissage de la lecture en général, en français comme en anglais, après quoi est évalué le cas particulier des élèves qui risquent de développer des difficultés d'apprentissage en raison des facteurs suivants : aptitudes scolaires inférieures à la moyenne, faibles aptitudes dans la langue maternelle, milieu socio-économiquement défavorisé et minorité linguistique. Les études sur les différences individuelles liées à l'apprentissage de la lecture, y compris celles portant sur les élèves qui ont des difficultés d'apprentissage ou qui risquent d'en développer, de même que la recherche portant sur les interventions visant à aider les élèves en immersion qui ont des difficultés en lecture font également l'objet d'une évaluation. Les conclusions de l'auteur et ses suggestions en matière de recherche future sont présentées en fin d'article.

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