

STUDENT ATTRITION IN FOREIGN LANGUAGE IMMERSION PROGRAMS

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Abstract

In the United States, foreign language immersion programs are K-8 voluntary programs wherein children are instructed in the core subjects in a language other than English. Even though these programs are quite popular, many parents, having purposefully chosen immersion for their child's education, change their mind and transfer their child in a *regular* non-immersion program. What factors guide parents' decisions to enroll their child, keep him in, or withdraw him from a foreign language immersion program?

Because student attrition is detrimental both for the student (Wiss, 1989) and the institution he leaves (Louisiana Consortium of Immersion Schools, 2006), it is equally important for researchers and school administrators to explore the extent of the phenomenon, investigate the reasons for student withdrawal from foreign language immersion programs, and attempt to identify trends within these reasons.

Research from higher education (Tinto, 1973) offers an attrition/persistence model transferable to the immersion setting. Additionally, immersion research from abroad, especially Canada (Cadez, 2006), has yielded quantitative and qualitative findings, even though those cannot be directly transposed into the United States setting. Still, 36 years after the opening of the first U.S. foreign language immersion elementary school program, the issue of student attrition here is still unclear.

Student Attrition in a Foreign Language Immersion Program

In the U.S., a foreign language immersion program is a K-8 voluntary program wherein children are instructed in the core subjects in a language other than English. Because foreign language immersion programs are voluntary, parents must choose to place their child in them at the time he/she enters kindergarten and, likewise, have the option to withdraw him/her before program completion. Considering that foreign language immersion programs are quite popular in the United States, making up 11% of magnet school programs (Rossell, 2005), and that they traditionally yield, on average, high levels of academic success (Cummins, 2000; Halsall, 1998), in addition to obvious foreign language acquisition (Genesee, 2007), it is intriguing, to say the least, that many parents, after having purposefully chosen this program for their child's education, change their mind--sometimes in a period of a few months--and enroll their child in a *regular* non-immersion program.

What factors guide parents' decisions to enroll their child, keep him in, or withdraw him from a foreign language immersion program? Why do some parents decide to withdraw their child from a foreign language immersion program before its completion? Can any significant trends of such withdrawals be identified at different grade levels? In parallel, what elements of the program keep parents and students satisfied or even enthusiastic for nine years of schooling, from kindergarten to the end of 8th grade?

In the last forty years, immersion programs have flourished throughout the world. Some opened as an answer to increased needs for second language fluency brought on by the globalization of the economy, or as an answer to heritage language speakers' demands in our diversified population; other still, opened as an answer to academic enrichment efforts or even, in the United States, as an answer to desegregation requirements through magnet programs (Met, 1987; Rossell, 2005).

On the practical side, it is important to remember that the traditional point of entry in foreign language immersion is at the kindergarten level. Once past first grade, it is very difficult to accept any new entries, as the students have already reached a high level of fluency at which a newcomer could not function. As a result, student attrition in immersion programs should be, and is, a concern. It reduces student numbers in upper grades, forces administrators to consolidate classes at those levels, and altogether weakens the program (Louisiana Consortium of Immersion Schools, 2006). This makes it crucial to identify the factors causing parents to withdraw their child at an early stage as well as those that keep parents and children in the program. Attempts to eliminate or reduce the first, and at the same time reinforce the latter should help reverse, or at least control the attrition trend.

Additionally, many U.S. foreign language immersion programs were and are still today created for desegregation purposes, and represent a significant percentage of desegregation magnet programs (Rossell, 2005). Foreign Language immersion programs, when implemented properly, are very efficient in regard of both foreign language acquisition and academic achievement (Cummins, 1983), earning the definition of "enriched education" (Cloud, Genesee, & Hamayan, 2000, p.1). As a result, they are

highly popular, and in that regard, appear to be the perfect *carrot* to invite parents and their children to participate in voluntary desegregation. It is unclear when and where the first use of a foreign language immersion program for desegregation purposes took place. Christine Rossell found that among a 1989 sample of magnet schools, “11 percent offered foreign language immersion” (Rossell, 2005), which represents the second largest category of magnet schools nationwide. In 2007, the Center for Applied Linguistics estimated that 27 % of U.S. foreign language immersion programs existed in a magnet school or school of choice setting, but did not have data showing that their setting was specifically for desegregation purposes (Lanker & Rhodes, 2007). The specific issue of attrition in such setting should be of heightened importance, as student enrollment data is one important indicator of magnet programs’ success in their desegregation efforts.

Attrition is also detrimental to students who are leaving – whether they realize it or not. Research supports a *threshold theory* which states that students need to reach a certain (high) threshold of fluency in their foreign language acquisition before positive transfers can happen between their two languages (Lee & Schallert, 1997). In leaving early, students discard their investment of time and efforts without giving themselves a chance to reach all the benefits that could be reached once they would have attained that threshold. The argument that such students can always pick up the language later on in life through traditional foreign language instruction is rendered almost invalid by the research-based rule that “acquirers who begin natural exposure to second language during childhood generally achieve higher level proficiency than those beginning as adults” (Munoz, 2006, p.2). Munoz’s study relates to Lenneberg’s Critical Period Hypothesis (CPH) based on the observation that people lose neural plasticity as they grow up beyond

a critical period for language learning (Lenneberg, 1967; Fullana, 2006). Early language immersion, while not taking advantage of the whole critical period – from birth to puberty, at least covers roughly half of this period, starting at age five and ending in eighth grade at age 13 or 14.

Specialists agree that it takes seven to eight years to master a second language to the level in which the student will retain high levels of fluency (Krashen, Long & Scarcella, 1979). Interrupting the intense exposure to the language earlier, not only prevents the student from achieving mastery in the language, but eventually will cause him/her to forget most of the language. Additionally, student's movement from school to school or program to program has been identified as a major disturbance with a potentially negative impact on the student's academic success (Kerbow, Azcoitia & Buell, 2003). Furthermore, switching out of immersion, especially if the decision is made based on achievement issues, might be perceived by the student as a failure. This potentially important negative emotional impact should be of great concerns for parents, teachers, and administrators: the student "would be marked as not succeeding, would be separated from friends, and would have to readjust to a new social-educational system" (Wiss, 1989, p.52).

In view of these facts, it is equally important for researchers and school administrators to explore the extent of the student attrition phenomenon, investigate the reasons for student withdrawal from foreign language immersion programs, and attempt to identify trends within these reasons. What factors guide parents' decisions to enroll their child, keep him in, or withdraw him from a foreign language immersion program?

Organization of the Review, Scope, and Library Research Plan

Before concentrating on the issue of student attrition in the immersion setting, it is necessary to review the literature on student attrition in general in order to grasp all concepts associated with this phenomenon. This section of the literature review further includes subsections on studies regarding student attrition in identified settings such as the university level, the K-12 education system – including the issue of student mobility, and the magnet school setting. Because magnet schools have a very specific history and features that affect and can be affected by student attrition, studies about their history and features are explored as well.

The second part of this literature review concentrates on studies regarding student attrition in the foreign language immersion setting. The purpose of this section will be twofold: (1) to examine the literature pertaining to the immersion concept, its implementation and its methodology, as well as the large number of studies on student achievement in immersion; and (2) to analyze the literature on student attrition in immersion from Canada, from abroad, and from within the United States.

Interest, Significance, and Rationale for the Critical Analysis

Foreign language immersion programs in the United States are growing in popularity (Met, 2001). The Center for Applied Linguistics' national survey on the teaching of foreign languages indicates an 11% jump in the number of immersion programs between 1997 and 2007 (CAL, 2008). In addition, much research points to the success of these programs in regard to foreign language acquisition and academic

achievement (. The issue of student attrition can weaken these programs and threaten both the institution in which they exist and the students they serve. As research on this specific subject is close to inexistent in the United States, it is imperative to search for information and assistance elsewhere in the literature, on student attrition in various school settings, and on immersion programs abroad.

Student Attrition in General

Webster's on-line dictionary (Merriam-Webster, 2008) defines attrition as "a reduction in numbers usually as a result of resignation, retirement, or death", but the phenomenon of student attrition, its reasons, and consequences, varies much according to its setting. In addition, it has different implication whether the declining enrollment numbers are due to students exiting a course, a program, an institution, or a district prior to completing their planned education.

Before looking at each of these variances within the student attrition issue, one must look at the core of the problem, the exit phenomenon in general. Several researchers have attempted to apply the business concept of Harvard economist Albert Hirschman (Hirschman, 1980) to the educational system (Ogawa & Dutton, 1997). According to these researchers, Hirschman's principle is based on the theoretical framework of the balance between exit and voice, where exit is defined as something that "occurs when client become dissatisfied with the quality of an organization's product or service, and seek it elsewhere" (p. 334), but is also related to the idea of voice, which "occurs when dissatisfied clients register their complaints with the organization" (p.334). This framework also establishes that, "when alternatives become available, dissatisfied clients

are more likely to exit than to voice” (p.334). Some have applied Hirschman’s theory to parents’ choice of charter schools (King & Taylor-King, 2002), others to the school voucher system (Matland, 1995), but Ogawa and Dutton expanded it to compare school choices within three settings: interdistrict transfers – attending school in another school district than one’s district of residence; vouchers to private schools – exiting the public school system altogether; and intradistrict options - crossing school zones to attend another school or a specific magnet program. Their study considered parents’ choice of education for their children, and the fact that, when dissatisfied by the traditional public education system, parents often chose to use their exit option rather than their voice. They transferred their children out into another district, a private school, or a program of choice within their district, according to the local opportunities, as well as their own means and educational beliefs. The concept of satisfaction is essential to Hirschman’s theory. In the school setting, it takes a larger sense to encompass not only plain dissatisfaction, not liking what is being offer, but also the sense that what is being offered is not serving one’s need. It might be too difficult, too expensive, or simply does not meet expectations, regardless of how realistic or not these expectations are. This concept surfaces in Cadez’s study on immersion student attrition when he states that “something about the French immersion experience [was] not sufficient or satisfying for all students” (Cadez, 2006, p 1).

Student Attrition at the College Level

Student attrition has been studied extensively at the college level, where students exiting their program or the university altogether represent a loss of income for the university, hence, the importance of studying and eventually alleviating the problem. The

literature links this issue mainly to academic and/or financial difficulties, but also to the contact between faculty and students, and to student background and history. Some research even identified specific predictors of student drop-out. The leading researcher in this field, Vincent Tinto, as early as 1975 published an interaction model of student attrition that “laid the theoretical foundation for research about student attrition” (Mannan, 2007, p 147). Comparing drop-out from the social system of college to suicide in the society at large, Tinto built upon Durkheim’s theory of suicide (Durkheim, 1961; Spady, 1970) to offer an attrition model linking six elements together, from the pre-entry attributes and aspirations of a student to his/her institutional experiences and integration, and finally goals and outcome, graduation, transfer, or drop out. This model was based on Tinto’s collaboration with John Cullen (Tinto & Cullen, 1973) and relates the concept of student persistence, when students remain in their program until completion, to the concept of student attrition, when students exit their program prior to completion and/or graduation. Later on, Tinto (1982) summarized the research by stating that “there is very little one can do at the national level to substantially reduce dropout from higher education without also altering the character of that education” (p. 696), and more specifically that “dropout is as much a reflection of the merits (and weaknesses) of the educational system as is persistence” (p. 699). He argued that rather than trying to reduce attrition as a whole, institutions should instead identify types of students for whom specific policies must be developed. He advocated that successful retention programs are long-term projects, or “longitudinal in character” (p 699), and that their beneficial outcomes for the institution go way beyond the simple reduction of dropout rates. More than twenty years later, Tinto (2005) is still carrying the same message:

Research on student retention is voluminous. It is easily one of the most widely studied topics in higher education over the past thirty years... Despite all the research that has been conducted to date, little work has been devoted to the development of a model of student persistence that would provide guidelines to institutions for creating policies, practices and programs to enhance student success (p. IX, 2005).

However, some recent research has challenged Tinto's long-standing theoretical model of student attrition versus student persistence (Metz, 2002). The first critic of his model was that it relies mainly on traditional students, but cannot be generalized to non-traditional students, especially racial and ethnic minorities (Nora, 1990; Tierney, 1992). Other scholars called for additional research, claiming that Tinto's studies did not involve students in two-year colleges or in graduate schools (Pascarella & Terenzini, 1991). Finally, Cabrera, Castaneda, Nora, and Hengler (1992) argued that Tinto's model did not consider major external factors such as parent's involvement and financial issues. While research on student persistence or attrition at the college level obviously concentrates on a very different population from the children involved in the issue of student attrition in K-8 immersion programs, this literature review I uncovers that similar efforts from administrators in both settings are needed to identify at risk students and answer their needs as a mean of keeping them in their program, and that Tinto's theory of student persistence, or in case of elementary students, parent persistence, can be applied very much to the immersion setting.

Student Attrition in K-12 Education

At the K-12 level, studies have concentrated on statistics of student drop-outs at the high school level, with increased attention being given to the special education population or to specific ethnic minorities (Driscoll, 1999; Rumberger & Palardy, 2005). Some have investigated the school settings and their impact of drop out rate (Franklin, Streeter, Kim & Tripodi, 2007), or possible interventions in general (Bost & Riccomini, 2006; Lehr & Lange, 2003; Martin, Tobin & Sugai, 2002; Picklo & Christenson, 2005). One might tend to see a large distinction between a student dropping out of school altogether, and a student dropping out of a program to transfer to another setting within the same school district, from immersion to regular all-English classes, for example. However, some researchers argue that changing school is actually a form of withdrawing from school, and that drop-out theories can apply to the transfer phenomenon (Rumberger & Larson, 1998). According to them, all drop-out research in the literature identifies the same factors at the basis of dropping out: school performance, academic behavior, social behavior, educational attitude and general attitude. Rumberger and Larson refer to Finn (1989) and his review of two specific models. The first model is the frustration-self-esteem model which hypothesizes that poor school performance leads to poor self-view, which in turn leads to oppositional behavior. Two outside factors worsen the situation: first, Finn blames deficient school practices, and then adds to this the negative effects of peer pressure. At the end of the road, the student either withdraws or is thrown out from school. Finn regrets that the research on this frustration-self-esteem model has not been able to identify specific school practices to prevent this chain of events, but could only suggest a few, including “separate schools for at-risk youngsters,

revised disciplinary procedures, curricula tailored for the needs of these students, positive teacher attitudes, and teaching practices that involve students in the learning process” (p.122). Finn’s second model, the participation-identification model, insists on the importance of students establishing a bond or some form of attachment to school, which in turn causes them to “value success in school-relevant goals” (p.123). Failure to establish this bond, on the other hand, will lead to alienation and *normlessness* (p.124), both of whom the literature associates with dropping out.

The third theoretical perspective reviewed by Rumberger and Larson is the attrition/persistence model established by Tinto in higher education and reviewed earlier in this literature review. Rumberger and Larson relate it to the two models outlined in Finn’s research that they merge together, insisting that both academic and social dimensions are strongly influenced by outside factors, especially “the informal, as well as the formal, structure of the institution” (p.6). In a related study, Rumberger (1987) insists that, rather than concentrating on a student’s characteristics such as his/her socio-economic status or race, researchers should concentrate on the long term process that lead to student drop-out.

All of these models can be applied to the original purpose of this literature review and outline the important role schools play in either increasing or decreasing the attrition rate in general as well as in special settings such as foreign language immersion programs.

Student Attrition and Student Mobility

Another issue in student attrition has revolved around mobility, which in itself can have drastic consequences on a school. Student mobility might be due to their family’s

geographic mobility. For instance, a California study had explored the schooling of migrant workers' children and the issues teachers must face to serve them efficiently ((Lash & Kirkpatrick, 1990). This study recommended that school districts offer professional teacher training to make them understand the mobility patterns of their schools, and use this information to plan and adjust their curriculum (p. 188). Elsewhere, David Kerbow and two other researchers, building on his previous research of almost ten years, acknowledge that some Chicago schools lose as many as two third of their student body after a three year period (Kerbow, Azcoitia & Buell, 2003), and that 58% of them move because of residential changes. They remind their readers how they uncovered that schools with a high level of student mobility slow down their curriculum and that, by fifth grade, their mathematic instruction is a whole grade level behind the level of a more stable school. Before offering recommendations for policies, Kerbow et al. insist that “the academic growth of highly mobile students is less than that of non-moving students who are similar in other characteristics” (page 161), and that “this[...] holds true regardless of the student’s background characteristics [as well as] across racial and ethnic differences” (p. 161). While geographic mobility does not seem to be a major issue in the immersion student attrition problem, this literature review might give immersion administrators an insight into what they could recommend for students who leave their program, in order to smooth out the transition.

However, student mobility also includes transfers from one program or school to another for different reasons. Lee and Burkam (1992) found that 40% of elementary student transfers in Chicago public schools were not due to a change of residence. It can be argued then, as previously in the discussion relating to student attrition in K-12

education, that mobility in this case is a form of dropping-out, and that some elements of the research reviewed earlier should apply to the issue of student mobility.

Student Attrition in Magnet Programs

Magnet Programs

Research seems to have ignored the issue of student attrition in magnet programs or schools of choice created for desegregation purposes, when in fact, more than fifty years after the Supreme Court's denunciation of the unconstitutionality of racial segregation in schools, some school districts across the United States are still struggling with the practical aspects of desegregation orders from the Federal Justice Department (Rossell, 2005). As of 2002, over four hundred school districts in the United States were still under court order from desegregation cases, and were yet to reach the unitary status demanded by the federal judge in charge of their case (Clegg, 2002). Many of these districts choose to turn to some system of magnet programs or schools of choice, and have done so for the past forty years.

According to Howard Fuller (2004), "until 1954 the " 'separate but equal' doctrine enshrined in the *Plessy v. Ferguson* decision defined the national norm". When this norm was found unconstitutional by the 1954 Supreme Court's *Brown vs. Board of Education* decision, courts ordered districts around the country to desegregate their schools. In 1968, the *Green vs. New Kent County, Virginia* court ruling aimed at strengthening *Brown vs. Board of Education* decision by demanding from school districts to make an active effort toward desegregation rather than simply refraining from segregation (Willy & Alvez, 1996). Desegregation common practices during these

decades included voluntary or mandatory busing, closing racially segregated schools (Fuller, 2004), or opening enrollment (Reber, 2003), but could not prevent the “White Flight”, white students leaving the public system, which cancelled out most of the desegregation efforts. School boards across the country started looking at other means of desegregation. One school district, McCarver Elementary in Tacoma, Washington, stumbled upon the idea of a magnet school with a program attractive enough to bring white children into a black neighborhood for their schooling (Rossell, 2005).

Today, the number of magnet schools keeps on growing. One could find about 1,000 such magnet schools in the United States in 1981; by 1991, there were over 2,400; and 3,100 by 2001 (Rossell, 2005). In this aspect, the magnet school idea was and still is a great success. Such schools traditionally aim at white parents by offering them an enticing and desirable educational program located in a less desirably perceived site, with the idea that the attraction of the program will override the negative feelings about the school site and its traditional population. According to Inger (1991), the original purpose of magnet schools was “to create schools so good that they would draw a racial cross section of students out of the segregated neighborhood boundaries, avoiding the political opposition engendered by mandatory busing” (p. 2). Some have compared magnet schools to *the carrot* as opposed to *the stick* of mandatory busing (Rossell, 1990, p. 1). As a model recognized for its success in raising student achievement scores and for its high popularity, foreign language immersion represents a perfect example of such carrot (Beal, 2006).

According to Dentler (1991), “A magnet school has four essential ingredients: a distinctive curriculum; a unique district purpose for voluntary desegregation; an

opportunity for school choice; and access to students beyond a district attendance zone” (p. 6). What Dentler does not include in his definition, but that is clearly outlined by Steel and Levine (1994) is that is also supposed to strengthen the overall educational program or, as Bank and Spencer write it, is “part of a national reform effort to make schools more effective (1997, p. 4).

Much research regarding magnet programs use in attempts to desegregate schools studies the racial desegregation numbers over time, and shows different levels of success (Bank et al, 1997; Blank, Dentler, Baltzell & Chabotar, 1983; Bush, Burley & Causey-Bush, 2001; Christenson, Eaton, Garet, Miller, Hikawa & Dubois, 2003). While some studies find specific programs with results in desegregation that can be considered as significant (Steel and Levine, 1994), others find results less impressive; some research show no difference in desegregation achievement between a simple school attendance choice program and a magnet school program (Rossell, 2003), and some even find a negative effect on desegregation in a magnet school programs (Andre-Bechely, 2004).

On its Magnet Schools Assistance Grant Program website, the United States Department of Education (2007) explains that

Magnet schools offer a wide range of distinctive education programs. Some emphasize academic subjects such as math, science, technology, language immersion, visual and performing arts, or humanities. Others use specific instructional approaches, such as Montessori methods, or approaches found in international baccalaureate programs or early college programs.

The most specific list is given by Rossell (2005) where she relates a survey she undertook in 1989. Rossell states that in 1989

12 percent of the elementary and middle school magnet programs in [her] sample specialized in basic skills and/or individualized teaching; *11 percent offered foreign language immersion* [italic added]; 11 percent were science-, math-, or computer-oriented; 10 percent catered to the gifted and talented and 10 percent to the creative and performing arts; 8 percent were traditional, back-to-basics programs (demanding, for instance, dress codes and contracts with parents for supervision of homework); 7 percent were college preparatory; 7 percent were early childhood and Montessori (The remaining preferences, each under 7 percent, included multicultural/international, life skills/ careers, and ecology/environment) (p. 46).

Student Enrollment and Attrition

Regardless of the magnet school theme, the specific issue of attrition in such setting should be of heightened importance, as student enrollment data is one important indicator of magnet programs' success in their desegregation efforts. Still, even though student population stability is an indicator of success of a program of choice, no study was found regarding student attrition in such setting, and formal evaluations of programs of choice did not consider the issue. An evaluation of the U.S Department of Education's Magnet School Assistance Program for grantees of 1998 completed for the U.S.

Department of Education, measures in details the Minority Group Isolation rates (MGI) and their reduction or lack thereof during the grant program years, but does not mention any inquiry into student attrition issues at the school sites in general or within ethnic group in particular (Christenson, et al, 2003). Similarly, the second-year report to the United States Department of Education on the enrollment and participation of students in the magnet program in Charlotte-Mecklenburg schools detailed statistics on enrollment per race and per program, without offering any type of comparison of numbers to those in the first year of the implementation of the magnet school program. The only comparison to be found is that nineteen new schools were added to the magnet program, which does not give any indication pertaining to the persistence or withdrawal of students enrolled in the program (Charlotte-Mecklenburg Public Schools, 1993). Institutional reports seem to indicate that attrition does occur in magnet programs, but in many cases, is hidden by the enrollment of late entry students into the program. For instance, in a southern Louisiana school district, statistics of the lottery for entrance into a highly popular Arts and Technology elementary magnet school show year after year a full enrollment at the kindergarten level, with many applicants on a waiting list. However, they also indicate that a lottery takes place every year at each subsequent grade level as well, allowing late entries into the program (Lafayette Schools of Choice, 2008). Obviously, these late entries are rendered possible by the withdrawal of original kindergarten students. Still, the phenomenon is not acknowledged, let alone studied.

However, when student attrition cannot be ignored, i.e., when exiting students cannot be replaced, such as in the immersion setting, some studies offer possibilities for comparison of attrition rates or reasons for attrition. For instance, Johnson (2007) stated

the purpose of her doctoral dissertation as “to identify causal factors of student attrition” (p.4) in an alternative school in rural Georgia. This research indicated that the program had a 49% attrition rate in the 2003-2004 school year, a 53% rate in 2004-2005, and a 35% attrition rate during the 2005-2006 school year. It acknowledged that the school had been “ineffective in its mission to provide students with an alternate route to graduation” (p.3). Its recommendations included review of the progress of identified at-risk students every 6 to 9 weeks, the hiring of a transition specialist to act as liaison between school and home, and specific actions to alleviate the perception of many students that the school lacked in caring adults.

High levels of attrition were also revealed in a study about an urban elementary instrumental music program. Although this quantitative study could not identify significant contributors to the phenomenon through its multiple regression process, the author identified the drop out rate at 23%, and commented that “the percentage of drop outs was neither unusually large when compared to the previous years’ figures nor, in all probability, atypical of a large urban system” (McCarthy, 1980, p.67). This literature review will show that this fact-of-life attitude toward student attrition is also found among administrators of immersion students.

Student Attrition in Foreign Language Immersion

Foreign Language Immersion Program Concept

In order to fully comprehend the issue at stake in the foreign language immersion setting, it is necessary to revisit the foreign immersion concept and its history. This might give a better grasp of the apparent contradiction between a widely documented public

attraction for foreign language immersion (Cummins, 2000; Met, 1987) and a high level of student attrition within the program.

Some Canadian authors identified some prior programs similar to what we call today language immersion as early as the 1950's (Cadez, 2006). However, most studies agree that modern foreign language immersion programs in school setting started in the small community of St Lambert in Quebec, Canada in 1965. Twelve Anglophone parents wanted to give their English-only speaking children a chance to compete economically with their bilingual peers by learning French to the high level of fluency necessary to communicate with the francophone community in their province. Dissatisfied with the results of the traditional French as a second language program in their Protestant English school system, and unable to enter their children in the overcrowded Catholic French school system, they drafted and organized other parents to demand that the first three years of their children's schooling take place entirely and exclusively in French (Lambert & Tucker, 1972) From there the program spread to the rest of Canada as a way to support its official pledge to bilingualism, then to the rest of the world, including the United States, where the first foreign language immersion program opened in California in 1971 (Fortune & Livant, 2007).

Because of its uniqueness, the foreign language immersion model from Canada was the topic of much research for the past 40 years, bringing Krashen (1984) to observe that "No program has been as thoroughly studied and documented" (p. 61).

In 1997, Swain and Johnson studied foreign language immersion programs worldwide and came up with eight core features that constitute the characteristics of such programs. They are as follows:

- the target language must be the medium of instruction;
- the immersion curriculum is the same as, or at least parallels the local “regular” curriculum;
- support is present for the first language of the student;
- the aim of the program is additive bilingualism;
- student exposure to the target language is usually confined to the classroom;
- the students enter the program with similar (and limited) level of fluency in the target language;
- the teachers are bilingual, or the program includes two teachers, each fluent in one of the languages;
- and the classroom culture is the local majority culture. (p.6-8)

Swain and Johnson (1997) established that “each of [these criteria] must be present to some degree in order for a program to be considered an immersion program” (p. 8). They further identify ten variable features found in immersion programs such as the different levels at which the program starts, often referred to as early or late immersion, the extent of the instructional daily hours conducted in the target language, from partial to total immersion models, the articulation of the program, or the resources, commitment, or attitudes of the school, the system and the community.

While this study gives a clear overview of what immersion program practices entail, there is still a major element missing from this framework. This element was actually identified ten years earlier by two of the most respected researchers in language acquisition. One is Fred Genesee, Professor of Psychology at McGill University, who has

studied the immersion phenomenon in Canada and in the United States for over three decades now. The second is Miriam Met, who went from coordinating foreign languages in Montgomery County, VA, one of the pioneers school districts of immersion instruction, to being the Deputy Director of one of the six United States National Foreign Language Centers at the University of Maryland. Along with Snow (1987), in an article grown out of a seminar on content-based instruction held at the Center for Applied Linguistics (CAL), Genesee and Met insisted that the conceptual framework of immersion is “the systematic approach to the identification and instruction of language aims within content teaching” (p. 216). In other words, immersion teachers must plan their instruction on two levels simultaneously: planning for skills and knowledge acquisition in the content (mathematic, social studies, sciences, for example), and at the same time, planning for fluency and skills in the target language.

The principle of foreign language immersion is simple: instead of being taught as an independent subject, the foreign language is the medium of instruction for most if not all instructional content, creating an authentic need for the students to master it in order to succeed academically, or, as Johnstone (2002) writes, “Immersion pupils do not simply learn the language. They find they have to learn to use the language in order to learn something very important to them that lies outside the language, e.g. mathematics, home economics” (p. 1). A century ago, John Dewey (1916) was already advocating the importance of what he calls the student’s *interest*. Criticizing the education methods used in his time, and quoting a humorist’s words ““It makes no difference what you teach a boy so long as he doesn't like it.” (ch.10), Dewey illustrated his counter educational theory by using the model of a toddler learning how to walk. As he pointed out, no one

has ordered the child to learn to do it, nor has s/he “set out, consciously, to learn walking. One sets out to give his impulses for communication and for fuller intercourse with others a show ”(Dewey, 1916, ch. 10). Similarly, the immersion pedagogues do not order their students to learn the target language, but by making it the only communication tool in the classroom, motivate them to make necessary efforts to master it. This requires from teachers and administrators a strong and unwavering commitment to the immersion principle. Fred Genesee explained it in these words on October 2, 1999 at the University of Minnesota:

As an immersion teacher in an immersion program, you have to be absolutely convinced that what you’re doing is not harmful for [your] students from an academic and native language point of view because if you have any qualms... it’s going to impact on your delivery of the program and that hesitation will ... be more worrisome than the program per se. (Miller, 1999, p. 5)

The principle sets the guidelines for the methodology. In the same way, the goals set the guidelines for curriculum and content. The goals of foreign language immersion programs are threefold: *linguistic*, producing functionally bilingual young adults; *academic*, insuring that immersion students achieve in school as well as their non-immersion peers; and *multicultural*, promoting among students a positive shift in attitude toward other cultures and their own culture and encouraging interculturalism (Louisiana Consortium of Immersion Schools, 2006). The third goal has not been studied as intensively as the first two, although some researchers documented encouraging social attitude changes among immersion students (Haj-Broussard, 2002). As for the first two

goals, research shows that, when implemented properly, foreign language immersion programs are very efficient in both foreign language acquisition and academic achievement (Cummins, 2000; Genesee, 2007; Halsall, 1998).

Foreign Language Immersion Program Implementation

Also studied were issues regarding programmatic choices and program implementation. Through simple search, one can find several immersion administrator's guides, from the very practical guide published by the Province of Manitoba in Canada (Alberta Learning, 2002), to short check lists (Boudreaux, 2007; Met, 1987), to entire books dedicated to successful implementation of immersion programs (Cloud, Genesee, & Hamayan, 2000). They cover such subjects as advocacy, funding, teacher recruitment, community involvement, or student attrition, and answer a real need linked to the global increase in the number of foreign language immersion programs. In the United States specifically, the popularity of foreign language immersion programs has grown steadily from the opening of the first immersion program in 1971 to 2000. Since then, the number of programs has reached a plateau. However, the Center for Applied Linguistics still counts over 300 programs spread throughout 30 states, offering 18 languages, from Spanish or French to less commonly taught languages such as Hawaiian, or Mandarin, as well as some Native American languages (Lenker & Rhodes, 2007). In spite of CAL's best attempt at searching out and including all immersion programs in the country (Lenker & Rhodes, 2007), the numbers might actually be larger, as CAL's immersion directories are based on self-reported data. Not only is the number of programs increasing, but the number of students enrolled in these programs seems to be on the rise

as well. For example, Louisiana, cited in 2007 as the state with the most programs, counted over 3,000 foreign language immersion students in the 2006-07 school-year, an increase over its pre-Katrina numbers, even though its New Orleans-based immersion programs were decimated by the hurricane. Today, most administrators have to turn to some system of lottery to deal with the large number of student applications at kindergarten level (Louisiana Consortium of Immersion Schools, 2007).

Foreign Language Immersion Program Methodology

Researchers studied in depth the methodology of immersion, in an attempt to first, investigate issues and problems that matter most to practitioners and scholars alike, and second, try to identify successful elements to make them easily reproduced in similar settings. Among those, Tardif & d'Anglejan (1981), then Lyster (2001), have done extensive research on error correction. Tardif and d'Anglejan concentrated on errors that actually interfered with oral communication (1981). Lyster, based on many hours of classroom observation, created a list of commonly used techniques for error correction, from explicit correction, recasts, and prompts on learner uptake to repair, then established a scale of effectiveness among these techniques. Lyster continued his work with Mori (Lyster & Mori, 2006) concentrating on the two most efficient techniques, prompt and recast. Arnett and Fortune (2004) catalogued many avenues of student remediation and, going beyond simple research, today offer highly-requested seminars on the subject. Cummins (2000) has spent decades of his life studying second language development in general, both in additive bilingual situations, when a second language is added to the child's mother tongue, and subtractive bilingual situations, or *submersion*, when the

second language eventually takes the place of the child's mother tongue, as seen in immigrant families, recommending the former as sound instructional practices, and warning against the latter and its negative effects both on the cognitive and the emotional well-being of the child.

Student Achievement in Foreign Language Immersion Programs

This paper will address the large number of immersion students exiting due to a perceived or real lack of satisfactory academic achievement in English, in the target language, or in both, thus the literature relating to student achievement in the foreign language immersion setting will be reviewed.

Research has shown very positive results concerning foreign language immersion as it relates to student academic achievement. These programs are often earning the definition of "enriched education" (Cloud, Genesee, & Hamayan, 2000, p. 1), because they promote bilingualism and biculturalism along with the other objectives of a regular school program. Immersion is also recognized as the foreign language acquisition method that yields the highest levels of fluency among their students (Genesee, 2007), and at the same time, its positive impact on student academic achievement has been well documented (Campbell, Gray, Rhodes & Snow, 1985; Halsall, 1998). Most research show that, not only do foreign language immersion students perform as well as their non-immersion peers on standardized tests, but often, outscore them (Caldas & Boudreaux, 1999; Met, 2001). In addition, bilingual students are more likely to be successful readers (Lindholm-Leary, 2000), have higher levels of metacognitive and metalinguistic development (Genesee & Cloud, 1998; Hakuta, 1986), and show greater cognitive

flexibility, problem solving, and divergent thinking (Cloud, Genesee, & Hamayan, 2000; Horgan & Hayes, 1994; Petitto & Koverman, 2003).

After much research showing the positive effects of foreign language immersion, not only on students' language acquisition and academic achievement, but even on important brain functions, scholars eventually put to rest the worries that parents instinctively had that their children would not perform as well as they could if instruction was in a language other than the one in which they were fluent. Researchers narrowed their focus to studying the impact of foreign language immersion programs on different subgroups, especially students at risk (Caldas & Boudreaux, 1999), students with learning disabilities (Bruck, 1978; Genesee, 2007), and students with below average levels of academic ability (Genesee, 1987). Most research has shown that these students performed as well in immersion as their non-immersion peers in any sub groups. For example, Genesee (1978) found that immersion students with a low socio-economic status were on average performing as well as, or better than, their non-immersion counterparts in more affluent neighborhoods, as evidenced by scores on standardized tests. A 1999 study of Louisiana French immersion students seems to indicate that immersion might help in closing the racial achievement gap. While research shows that traditionally, African-American students perform lower than their white peers on standardized tests (Caldas and Bankston, 1997), this study finds some groups of African-American immersion students outscoring non immersion white students (Caldas & Boudreaux, 1999). The same results were found in a subsequent Louisiana-based study by Haj-Broussard in 2003.

At-risk students also include students whose risk factor is not based on their socio-economic status but on their learning abilities. Genesee, Paradis & Crago, (2004), examined language development disorders within the bilingual context, often in immersion. While the authors call for early identification and treatment, at no time do they suggest that immersion is not the appropriate setting for students with such disorders. However, toward the end of the volume, these researchers discuss the case study of a little American girl in Spanish immersion and insist that her speech-language pathology intervention should happen in both her first and her second language. Acknowledging that “bilingual intervention is a rarity”, they admit that “the lack of it in Samantha’s case might make continued education in Spanish less desirable” (p.203).

Only a few studies have yielded contradictory results. Trites (1978, 1986) has advocated that students should be tested prior to entering an early immersion program. A few years later, Wiss (1989) agreed that unsuitable immersion candidates should be identified but disagreed with Trites’ methodology. In addition, instead of recommending automatic exclusion from immersion for this group of students as Trites did, Wiss advocated early diagnosis of difficulties and individual plans to handle these difficulties on a case by case basis. Because Trites’ findings are based on a study aiming at lessening student attrition and its effects on immersion programs, Trites’ study is reviewed later in details in the discussion pertaining to immersion student attrition. Apart from the view of Trites and Wiss, the literature seems to generally agree that all students can succeed in an immersion setting regardless of their ability level (Bruck, 1978; Cummins, 1983).

In conclusion, out of this large amount of research, one is hard pressed to find any outright negative findings. This compelled Maria Bonan to write in 2000:

Early studies focused on the product of immersion programs and how well students performed in comparison to students not enrolled in immersion programs. As immersion is now an established educational alternative, the success of these programs has given rise to new issues. (p. 74)

Student attrition in Foreign Language Immersion Programs

Student attrition In Canada

Given the successes of foreign language programs, at least in terms of enrollment, it is surprising that attrition would even be a serious issue. However, concern about student attrition appeared early in the history of the Canadian French immersion programs, and the phenomenon has preoccupied Canadian researchers for decades (Halpern, MacNab, Kirby & Tuong, 1976; Adiv, 1979; Bruck, 1985).

As Cadez (2006) summarizes, “something about the French immersion experience [was] not sufficient or satisfying for all students” (p. 1). Quite a few studies concentrated on student attrition at the secondary level, after the 8th grade level, mentioning that a worrisome number of students chose not to continue their studies in the French immersion setting at high school level (Adiv, 1979), and that most of them switched to a regular English program at the beginning of grade 9. Lewis and Shapson (1989), identified three profiles of students leaving immersion at this level: 44% of them did so because they were dissatisfied with the quality of the instruction they were receiving; 33% of them were having difficulties in their immersion courses and felt they would earn better grades in English instructed classes; finally, 24% of them left to go into another

special program, especially the International Baccalaureate program. Regardless of reasons, a comprehensive study covering the immersion setting from kindergarten to the end of high school found that in the Ottawa school district, 8% of the original students remained in the program by grade 12, indicating a 92% attrition ratio (Ottawa-Carleton, 2000).

Those interested in attrition at the elementary school level tended to agree that the attrition norm indicated that 40 to 50% of the students entering French immersion in early grades (traditionally, Kindergarten level) had left the program by the end of 5th grade (Obadia & Theriault, 1995). The very first two studies on the subject, one by Genesee in 1978, and one by Adiv in 1979, agreed that on average, more boys than girls exited immersion before completing the program (Adiv, 1979), a fact that becomes more interesting when knowing that Genesee's study concentrated on elementary years and Adiv's on high school years. However, this theme was not pursued further by any of the subsequent research.

Once quantitative information regarding attrition rate and gender difference was accepted, researchers concentrated on qualitative studies in attempts to further understand the phenomenon. Two major studies summarize the literature produced on this topic during this time, one by Obadia and Theriault (1995), and one by Cadez (2006). According to both studies, recurrent issues were identified through two decades of research, from Adiv's study in 1979, to the Ottawa Carleton District study in 2000. Most often cited were academic difficulties and lack of options in French, followed by lack of support, quality of instruction, teacher/parental influence, or simply "too difficult" (Cadez, p. 38).

Obadia and Theriault (1995) listed the major reasons cited for transferring out of program. They explored several key issues with the educational personnel of several British Columbia French Immersion schools, focusing on their perceptions of the problem, and what research-based strategies, if any, were developed to lessen the attrition problem. They found that opinions and perceptions varied according to the position of various personnel. While principals, coordinators, and teachers, all agreed that the most crucial for students leaving the program were academic difficulties, limited choice of subjects, and peer pressure, quite consistent with previous studies, there was no consensus regarding which grade level saw the most attrition, and hard data was not used to confirm or negate each group's perception. Interestingly enough, the perception of the amount of effort given to trying to retain students in the program varied according to the position of the interviewee. The majority of teachers felt that not enough was done to change parents' minds, and 26 % of them even stated that no action at all was taken. In opposition, 69% of the coordinators and 45% of the principals reported that some action had been taken to lower student attrition rate. However, Obadia and Theriault added that "[v]ery few studies proposed solutions to lower the drop-out rate in FIP" (p. 15). In response to this statement, they ended their article with a summary of recommendations personnel made in the questionnaire regarding possible intervention strategies to reduce French immersion program attrition, and subdivided in categories such as communication, exchange with secondary-level schools, teachers and staffing, facilities and funding, learning difficulties assistance, or even transportation.

Other research identified some key grade levels at which most attrition happened, labeling them as "transition grades" (Campbell, 1992; *Canadian Parents for French*,).

For example, if a school district is organized around primary schools (K-5), middle schools (6-8) then high schools, all on different campuses, 5th and 8th grades will be considered *transition grades*, at the end of which many withdrawals will take place, as students chose not to attend the next school.

At the same time, several unpublished thesis (Keep, 1993; Stern 1991) added to the wealth of information regarding student attrition in Canadian French immersion programs. For instance, Keep concentrated on the academic achievement of students who had left the program compared to those who completed it successfully, finding that among the former, the majority was male, and the vast majority had transferred because of academic difficulties. Stern mainly studied statistics and literature to confirm the Canadian immersion student attrition ratio

Part of the research, once student attrition ration has been established, has concentrated on not only finding the reasons for student exits as described earlier, but further more, on establishing whether or not these exits were justified or preventable.

With academic difficulties having been identified as a major reason for exits, Bruck (1978) conducted two different studies, a qualitative case study of nine children who had exited the program because of academic difficulties, and a case study of language-delayed immersion kindergarten students. She insisted that language disability alone is usually sufficient cause for school difficulty, whether the child is in an immersion program or not. Each time, she concluded that switching out of immersion did not generally resolve academic difficulties and that struggling students who remained in immersion progressed as well as those who had left the program. She insisted instead on offering remediation services to such students and advocating among teachers that a child

with problems “has a place *in* rather than out of these classes” (p.72). Bruck later completed a similar study on 74 struggling immersion students in grades 2, 3, and 4 (1985). Again, her findings indicated that struggling students who stayed in immersion experienced no greater academic difficulties than those who exited the program. She insisted on the importance of attitude and motivation rather than academic achievement, and concluded that academic difficulties “may be a precursor of transfer but they are not sufficient condition” (p.59). This comment should encourage practitioners to be attentive to academic difficulties, in order to identify them early, provide adequate remediation, and especially advise parents that such difficulties are not necessarily a condemnation to withdraw from the immersion program. In 1988, Hayden built upon Bruck’s finding and conducted a study of 28 out of 34 students who withdrew from immersion programs in grades 1 through 6 in two Canadian school districts during one school year to explore parents, teachers, and students’ perceptions about their withdrawal. She again identified difficulties in language arts as a key factor, especially literacy acquisition, but also some disturbing opinions among teachers. For instance, 50% of the teachers stated that transfer took place upon their suggestion, and argued that they thought that the children would be better off in English. Hayden’s recommendations included teacher training, parent support, and the development of material specifically designed for the unique immersion setting. Demers (1994), who studied specifically students with learning difficulties, identified cross-linguistic interferences as indicators of the problem. Demers concluded that often, students transferring out of the program because of learning difficulties encountered the same difficulties once they were placed in a regular all-English classroom. He added that those who remained in the immersion program were “able to

deal with their difficulties [...] while still enjoying the bonus of functional bilingualism” (Demers, 1994, p.5). Further more, those who remained in French immersion through out the middle school years in spite of their academic difficulties, left for high school “with an extensive collection of coping skills and strategies. But more importantly, they left with a good self image, and a sense of accomplishment” (p.13)

Trites (1978), on the other hand, suggested the necessity of a pre-test administered to candidates ready to enter the program at the kindergarten level in order to identify and actually refuse entry to potential learning-disabled students. He claimed that his research shows that “there are certain children who have a specific maturational lag affecting their ability to progress satisfactorily in a primary French Immersion program” (p. 888). In 1986, he concluded a seven-year study of 200 early immersion students – with only 80 of them remaining at the end of 5th grade, and 20% of those recognized as having exited because of learning difficulties. He argued that some students benefited from withdrawing from immersion and being placed in an all-English class. In his research, he tested four-year old students with an early identification battery of tests with, he claimed, 85% accuracy as to whether they would drop out for learning difficulties or remain in the program, and even higher accuracy with the five-year old kindergarten testing. His argument is that these drop-out students, in follow up studies, reached regular levels of achievement by age nine or ten. Hence his theory that they suffered a temporary lag that prevented from being successful in immersion. He admitted that some of the students identified with learning difficulties, while struggling, still remained in immersion. However, he did not provide any information on the level they reached by the age of nine or ten, when, according to his theory, the temporary lag should have ended, nor did he

compare them to similar students who did exit the program. Such findings could have been compared to results from Bruck (1978) and Demers (1994) that were studied earlier in this section.

Another interesting point in Trites' study is the fact that, in parallel to his test batteries administration, he asked teachers for predictions of success for each student involved. He admitted that "teacher predictions obtained at the end of four-year-old kindergarten and five-year-old kindergarten [...] were poor indicators of eventual outcome in the French immersion program" (p. 3). This is important to the practitioner as one of the issues of student attrition is the elitist concept some teachers have of the program, which often results in these teachers discouraging parents to keep their struggling child in the program (Cadez, 2006). However, half-way through this long term research, Cummins, one of the recognized leading researchers in bilingualism and bilingual education, had already dismissed Trites' findings by claiming that his neurological assumption of a "maturational lag in temporal lobe regions of the brain" was unfounded, and by questioning his methodology and the validity of his research (Cummins, 1983).

Years later, Genesee (2007) still sides with Cummins on this matter, and argues that

« Les rapports faisant état d'améliorations de la performance des élèves de classes immersives qui passent aux programmes uniquement en anglais n'impliquent pas nécessairement que les élèves de classes immersives qui ont des difficultés scolaires devraient changer de

programme, car aucune de ces études n'a utilisé de groupe témoins formés d'élèves ayant des difficultés scolaires qui restaient dans le programme d'immersion et aucune n'a comparé la performance des élèves qui changeaient de programme à celle d'élèves de classes immersives qui restaient dans le programme d'immersion et recevaient du soutien additionnel ». (p.714)

(Reports showing performance improvement of immersion students who transferred to all-English classes do not necessarily imply that struggling immersion students should change program, as none of these studies used control groups of struggling students who stayed in immersion and none has compared the performance of students who switched program to the performance of struggling immersion students who stayed in immersion and received additional support.) (p. 714)

The flow of research on immersion student attrition in Canada seems to have slowed down somewhat in the past decade. Sadly, the research, that spawns several decades, does not seem to have brought any solid solution to the attrition problem in the field. This had compelled the *Canadian Parents for French* to conclude the following in its report in 2000:

Report after report is commissioned and report after report seems to point to the exact same issues and

problems. Time and time again, the problems of French immersion in 2000 eerily resemble those of the mid 1970's. [...] Attrition rates are too high and remedies should be found to bring them down.

In the same report, the organization had also complained that lack of financial support often causes students with learning difficulties to be counseled out of immersion rather than being offered expensive remedial assistance in French.

However, a recent study deserves special attention because of its transferability to immersion to the United States. In June 2006, Ron Cadez conducted a qualitative study in three French immersion high schools in Alberta, Canada. Although the high school setting is not as prevalent in the United States where most immersion programs are at the elementary and middle school level, many points of this study can apply for immersion programs in the United States. Cadez explored the perceptions of three groups from these schools: former French immersion high school students who left the program; high school French immersion teachers currently teaching at the three schools; and high school French immersion students currently in the French immersion program. He raised in particular the issue of the elitist label French immersion programs received, especially at the beginning. It is interesting to note that he did not consider it to be as true as it used to be anymore in Canada, but many of the descriptors he gave of this elitist label still ring true today for many current foreign language immersion programs in the United States. For instance, he reported the comment by Hart and Lapkin (1998) that , “There is some evidence that newly introduced programs, particularly those that appear experimental, will disproportionately draw students from families with high socioeconomic status” (p.

330). Although immersion is almost as old in the United States as it is in Canada, its popularity was slower to come, and many programs are considered very young – 10 years or less (Lenker & Rhodes, 2007). Cadez also noted that many parents chose immersion because it had “many of the attributes of a private school” (p. 32), and that some research indicated that many immersion teachers consider that screening should take place prior to entering an immersion program. These two points happen to be routinely addressed at immersion administrators’ meetings (Louisiana Consortium of Immersion School, 2006). Cadez added that student attrition tends to “fuel the notion that immersion is elitist” (p. 34). While Cadez reviewed the literature to list the usual reasons given for exiting French immersion as discussed previously, he also mentioned a fact that might be even more significant for the United States as it is for Canada, that “The possibility that students may leave immersion programs because of a lack of support for the French language in the system has been overlooked in the literature” (p 44). Cadez used his extensive literature review to construct a lengthy questionnaire for teachers and students, either still in the program, or who had exited it, addressing their perceptions revolving around the identified reasons for withdrawal. His finding confirmed most of the reasons given through the years when this issue has been studied, but insisted on two specific facts: first, he revisited the issue of gender brought up by Genesee and Adiv nearly thirty years ago, and insisted on the different perceptions he found in both groups; second, his data analysis confirmed that, at this point, toward the end of high school, most students still in the program are actually an elite, 70% of the students indicating that they were academically strong, a point that makes sense when considering the level of attrition due at least in part, to academic difficulties (Cadez, 2006).

It must be noted, however, that findings from Canadian studies in general cannot simply be transferred directly to the U.S. setting. First, a lot of attrition data concerned high school students. While high school immersion is very common in Canada, it represents only about 10% of the U.S. immersion programs which are traditionally elementary (K-8th) programs (Lenker and Rhodes, 2007). Second, most of the Canadian immersion programs follow a total immersion model: 100% of the instructional day in the target language up to 3rd grade, diminishing after that while the majority language (English) is introduced. In comparison, only 44% of U.S. immersion programs are following this model. Most follow a partial immersion model where students receive between 50 and 75% of their daily instruction in the target language, and the rest of their instruction in English (mainly English language arts) starting in Kindergarten. Additionally, among those U.S. schools claiming that they follow a total immersion program, the definition of total immersion varies widely and makes for a wide margin of error for this percentage (Lenker and Rhodes, 2007). The difference is important. In total immersion, students learn to read and write in the target language only, then transfer those skills in English once English language arts classes are introduced after third grade. In partial immersion, students learn to read and write in both languages *simultaneously*, adding difficulties to the task, according to Fred Genesee (personal communication, 2000), and compounding learning difficulties that are often cited as reasons for withdrawal from the program.

Student attrition around the world

In other parts of the world, student attrition in foreign language immersion has been discussed as well. In Finland, Bjorklund (1997) studied the development and

expansion of immersion programs and concluded that the Canadian findings were not applicable to other countries. But, as Richard Johnstone (2002) stated in his Scottish paper, “[t]he extent of attrition from immersion programs across the world is not clear” (p. 5). He confirmed that most research on the subject comes from Canada and summarized findings regarding the effects of transfer from an immersion to a non-immersion program in these words: “The evidence suggests that immersion pupils who transfer to the mainstream L1 programme do not find themselves at a disadvantage in relation to their mainstream counterparts” (p.5)

In schools across the European community, the highly acclaimed European Sections represent a setting similar to the immersion setting, especially the late immersion model, one where students enter the program at the 6th grade or even the 8th grade level. Created in 1992, these sections propose instruction of core content areas in the chosen language (Système d’information SCOLARITE, 2008). Traditionally, students receive reinforced foreign language instruction at the late elementary and/or at the middle school level during at least the first two years of their entry in a European section. At the same time they receive instruction in the foreign language in at least one, but often two or more, DNL (*discipline non linguistique*), that is, a content subject, from mathematics to physics, chemistry, physical education, life science or social studies (Académie de Nancy, 2004). These sections are highly popular throughout the European community and lead to a specific end of high school exam, in France, the *baccalauréat*, and a degree reflecting instruction in European section (Système d’information SCOLARITE, 2008). In France alone, the number of students enrolled in European sections has gone from 126,561 in 2002 to 208,786 in 2007 (Eduscol, 2008).

While it seems that European research has so far totally ignored the issue of student attrition in this setting, administrative reports from various school districts in France indicate that these sections encounter the same type of attrition issues as those found in foreign language immersion. In its internal evaluation, the *Académie* de Nancy (2004) cites in its list of weak points that only 30% of the students from *Troisième Euro* (9th grade European section) continue into *Seconde Euro* (10th grade European section), even though these students have access to two additional weekly hours of support in the target language in order to prepare themselves to the 10th grade European section. It is important to add that the transition from *Troisième* (9th grade) to *Seconde* (10th grade) correspond to the transition between *collège* (middle school) and *lycée* (high school). Student attrition at a transition grade between two schools was identified as a serious issue by Canadian researchers (Campbell, 1992). The same kind of numbers appear in an internal report from the *Académie* de Versailles, a Paris suburb: « tel collège envoie 40% de son effectif au lycée, mais ses voisins seulement 30% et 15%... ailleurs il est même des collèges qui n'envoient personne! » (one middle school sends 40% of its students [in European sections] to high school, and its neighbors only 30% and 15%... somewhere else, there are even some middle school that do not send any student" (Vigié, 2007, p. 3).

In the same *Académie*, a report from 2003 uncovers that only 75% of the 10th grade European section students are still enrolled in the program at the 12th grade level. The study attributes this student attrition ratio to several factors including a perception of unbearable amount of additional work, the possibility to opt toward a different program, exit into private school, or recommendation of the faculty because of unsatisfactory achievement. It also recommends that, if the attrition level reaches 50%, which was

observed on three of the observed high schools, « l'analyse ne peut pas ne pas envisager l'hypothèse d'une crise ou d'un dysfonctionnement graves sur lesquels le lycée et le site doivent s'interroger au plus vite » (« the analysis cannot avoid to consider the hypothesis of a serious crisis or dysfunction on which the school and the site must reflect immediately) (Académie de Versailles, 2003). Again, all information found comes from internal evaluative material, not from any formal study. However, it seems to indicate that the student attrition issue exists as well in the European sections system. Considering that European sections have been in existence for little over 15 years, one could consider that this issue will soon formally surface in the European academic research world.

Intense foreign language programs in Europe also include *International Sections*, which are similar to our dual immersion programs here in the United States (Système d'information SCOLARITE, 2008). Dual immersion programs differ from pure foreign language immersion programs in that they cater to both English speaking students and students for whom the target language (in the United States, often Spanish) is their first language. Students receive some instruction in the target language and some in English, with the ratio target language/English daily instruction time varying from 50/50 to 90/10. It allows minority students to strengthen their foundation in their native language and at the same time provides English speakers with intensive exposure to the target language (Cloud et al., 2000). International sections in Europe function in a similar fashion. Originally opened to receive foreign students, today 25 to 50% of students enrolled in these sections, they offer an opportunity for majority language students to learn a foreign language to a high level of fluency (Système d'information SCOLARITE, 2008). These sections are at least as popular as the European sections. In France alone, a country of the

size of Texas, the *Ministère de l'Éducation Nationale*'s site eduSCOL (2008) lists almost 150 schools with International sections in eleven different languages. However, it seems that European researchers have not investigated their enrollment trends at this time.

Student attrition in the United States

It seems that the problem is perceived differently in the United States and in Canada. Immersion scholars might mention it within the research about other aspects of immersion (Arnett & Fortune, 2004), but while high levels of student attrition are documented in the United States, the phenomenon is viewed almost as a fact-of-life by many who merely identify it as an administrative issue (Cummins, 2000). This attitude reflects the attitude of magnet program administrators facing the same issue, as noted earlier. In a 1987 issue of *Foreign Language Annals*, Met writes:

In the course of the years, there will naturally be attrition. [...]

Therefore it is important to determine the desired size of the cohort at the end of the program sequence and then project backwards to determine the appropriate size of the cohort upon program entry. For example, a school that wants to maintain a class of 20 fifth graders may begin with 40 kindergartners (p. 5)

Similarly, most immersion administrator's guides offer some type of suggestion to counterbalance the effects of attrition, without trying to identify neither its amplitude nor its causes. Montone and Loeb (2000) will recommend that, "If the numbers get so low that they jeopardize [...] the actual viability of the program, schools will look for a way

to repopulate the program in a manner that does not endanger [its] pedagogical integrity” (p.13).

These statements confirm the fact that student attrition is as much an issue in foreign language immersion in the U.S. as it is in Canada, with high withdrawal ratios comparable to those identified by Canadian researchers.

Actually, only one U.S. research was found regarding specifically the issue of student attrition in immersion. Rigaud’s (2005) rationale for her study on this issue was based on two points: the first point considers the welfare of children and builds upon Stover’s research (2000) regarding the negative effects of switching school or program. The second point focuses on the programmatic issues caused by student attrition in a type of program where, typically, administrators cannot add students after the first grade level. Rigaud’s study was also out of curiosity, in order to find out whether or not attrition rates in immersion schools in her area were comparative to those found in Canada. When she found that transfer rates in the immersion schools she studied were “either similar to or lower than” other non-immersion schools in the same district, and much lower than the Canadian average of 40 to 50%, Rigaud concluded that “these findings suggest a high level of satisfaction with the immersion option” (p. 5).” However, it must be noted that the immersion schools in her study are all suburban schools, and serving a vast majority white and high SES population, characteristics that, alone, almost guarantee a low attrition rate (Stover, 2000). When it came to identifying the grade levels where attrition was found the most, data yielded inconclusive results, and no specific trend could be identified. Rigaud admitted that there were many gaps in the data she obtained. Likewise,

she was unable to address the reasons for transfer out of the program, because of the lack of documentation.

The setting in which Rigaud's study takes place, with its majority white and high SES population seemed to have been the norm at the beginning of the immersion phenomenon both in Canada and in the United States. According to Cadez (2007), "immersion programs, especially in the early days, were not meant for everyone, as every parent would not be able to make such a commitment" (p. 30). He quotes Hart and Lapkin (1998) who noted that, "There is some evidence that newly introduced programs, particularly those that appear experimental, will disproportionately draw students from families with high socioeconomic status" (p. 330). This finding is reflected in Walker and Tedick's (2000) research. Their qualitative study was conducted with several focus groups of immersion teachers. One theme that emerged from their data underlines the issue of an increasingly diverse student population: "although in some communities immersion programs have traditionally served middle-class and upper-middle-class high achieving English students, immersion teachers in the metropolitan area found that their students reflected the diversity of the community at large" (p. 19). Walker and Tedick concluded that, as the immersion student population changes, immersion programs will have to address complex issues that had not surfaced in previous years.

Summary and Interpretation

On one hand, foreign language immersion programs are highly acclaimed for their success both in student target language fluency and student academic achievement. Research has proven that they should not be considered elite programs but on the

opposite, can be beneficial for most categories of students at risk, such as students from low socio-economic status, or students with learning difficulties. Additionally, they are highly popular in many places in the world and especially in Canada where the model started and the United States where it is often used as an attractive program of choice as a desegregation tool;

On the other hand, high rates of student attrition have appeared almost as soon as the immersion model was implemented in Canada. For decades, researchers have sought an answer to this apparent dichotomy. While quantitative research concentrated on finding exactly the extent of the problem, many qualitative studies have concentrated on identifying the causes of student attrition.

In summary, student attrition happens in any setting when students or their parents are not finding satisfaction in their program of schooling: they choose to exit, whether because they do not have a voice, or because they choose not to use it. (Oggawa & Dutton, 1997). From studies done at the college level, we can generalize Tinto's student attrition/persistence model (1973) to the foreign language immersion setting and recognize the important and intricate relation between the pre-entry attributes and aspirations of a student and his/her parents to his/her institutional experiences and integration, and finally goals and outcome, completion or transfer out.

Among the pre-entry attributes, two themes surface. First, the issue of gender is addressed by Genesee (1978) and Adiv (1979), who both found out that boys are more likely to exit the program than girls. Second, the issue of potential success based on pre-entry attributes has been raised by Trites (1986) who advocated for a testing system which would eliminate students profiled as potentially struggling learners in immersion,

based on his identification of a maturational lag in the temporal lobe among students who were struggling or who left the immersion program. Trite's findings were contested by Cummins (1983) as based on invalid research, and contradicted Bruck's (1985) findings that struggling learners could be as successful in immersion as they would be in another setting. This debate is very much alive among practitioners and especially among early immersion teachers, with some of them stating that some students should not be in immersion (Cadez, 2006), even though some researchers showed that teacher's predictions of student success in immersion were not reliable (Bruck, 1985). Finally, Bruck (1985) also underlined the importance of student motivation and attitude.

In the immersion situation, and because the point of entry is at kindergarten level, the pre-entry aspirations identified by Tinto (1973) as the second element of his model, are more of the parents than of the student him/herself. Cadez (2007) raises the issue that some people perceive immersion as an elitist program, finding in it the attractive qualities of a private school within the public school setting. Obviously, these aspirations have little to do with the goals of the program. Luis Versalles and Ursina Swanson (2008) advocate for intensive parent information prior to kindergarten application into the program. Aside from these two occurrences, the issue of parents' motivations and aspirations when entering their child in a foreign language immersion program has been grossly ignored by the research in Canada as well as in the United States.

The third element of Tinto's (1973) model of student persistence or attrition is his/her institutional experiences and integrations. This is where the research on immersion student attrition has concentrated. The main issue remained academic achievement or lack thereof as the number one reason to leave the program, (Bruck,

1985; Cadez, 2006; Wiss, 1989). Whether the academic problem was real or perceived, whether it surfaced in English, in the second language, or in both, the research has consistently found that students with learning difficulties will perform as well as their non immersion peers, and should not be deprived of the opportunity to become bilingual. However, parents and teachers' perceptions as well still lean toward withdrawal from the program as a solution to the learning difficulties, a solution highly debated by the research community who has not identified any solid study defending it as a reasonable option Cummins, 1983; Genesee, 2007). Researchers have identified other reasons relating to the institutional experiences per se including quality of the program or the teachers, as well as transition between school sites, and programmatic financial issues, while discipline, social or emotional problems relate more to the issue of institutional integration (Obadia et al., 1995; Cadez, 2006).

The last element of Tinto's attrition/persistence model is the student's goals and outcome. In immersion, this could translate simply into whether or not the parents will maintain their goal and whether or not their commitment will remain strong enough for the child to remain in immersion until completion of the program. Statistics in Canada show that about 50% of students have left the program by the end of 5th grade, and 92% of them will have left prior to high school graduation (Obadia et al., 1995; Ottawa-Carleton, 2000).

. In the United States, research is sorely lacking, with the exception of one study in Minneapolis's affluent suburbs where the very low attrition rate could be attributed to the student population's profile rather than to specific characteristics of the immersion program there (Rigaud, 2005). However, this literature review has also uncovered the

important role the school in general plays in supporting its students and their parents' goals and commitments. Still it is also lacking in specific studies regarding what administrators of immersion programs in particular are doing to ensure that this support is in place.

Conclusions

It is disturbing to think that in spite of the foreign language immersion model's popularity, and the number of districts using it for desegregation purposes in a magnet setting, no stronger research has been conducted to verify the extent of a phenomenon that can threaten the success of a program, and to understand the apparent contradiction between its well documented popularity and its suspected high attrition rate. Thirty-six years after the opening of the first U.S. foreign language immersion elementary school program, the issue of student attrition here is still unclear. Applying Hirschman's (1980) principle of voice and exit to the problem only underlines the dissatisfaction some parents' experience, which leads them to withdrawing their child, often without first attempting to use their voice.

Recommendations

Two specific fields of research were unveiled through the review of literature on student attrition in general and student attrition in foreign language immersion in particular. The latter especially has been neglected by the current literature in the United States. Studies from Canada, where researchers were more attentive to the issue, cannot be transferred directly from one country to another as the model, the status, the clientele,

and the setting of foreign language immersion differ. However, these studies can offer key findings. The first field of research is quantitative and should seek answers regarding the actual rate of attrition, as well as quantitative trends within the phenomenon, including attrition rates per race, per socio-economic status, per gender, and per grade level.

The second field of research, made evident by applying Tinto's (1973) model of student persistence developed at the higher education level to the immersion setting, should explore the interconnection of various factors influencing a student's persistence into his/her educational program. It should especially examine the motivations and aspirations of parents when they enroll their young child in immersion. Identifying the reasons why people are dissatisfied with a program enough to exit it cannot be completely achieved unless we have previously identified the reasons why they initially entered the program. Rather than fixating on the exit itself, when it is too late for intervention, qualitative research should concentrate on what happens before enrollment. In accordance to Hirschman's (1980) business theory, satisfied customers do not leave. One way of insuring satisfaction is to make sure that customers' expectations are realistic and are aligned with the actual goals and characteristics of the program offered, in order to increase the odds for satisfaction, and decrease those of dissatisfaction and exit.

In today's shrinking world, seldom does a day pass without mention by the media of global economy, essential international trade, or vital communication among peoples. None of these crucial elements can successfully contribute to the world's prosperity if our society does not promote bilingualism at least, if not multilingualism. Immersion has proven to be the most efficient way to produce bilingual individuals. Now that we have

the model in place, it is imperative that we implement it properly and that we protect its success, which includes understanding and ultimately solving the student attrition issue.

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