

The Relationship Between School Environment and Effectiveness in French Immersion

Scott P. Kissau

*University of Windsor and
Greater Essex County District School Board*

The purpose of this study was to investigate the relationship between school environment and effectiveness in French immersion. The two settings investigated were the immersion-centre school, where all students were involved in the French immersion program, and the dual-track school, in which the French immersion and regular English program co-existed. Questionnaires were developed to gather relevant information from students in Grade 7 and from teachers in both school settings. The investigation determined that immersion-centre students were perceived, by both teachers and students, to be exposed to more French and less peer pressure than their dual-track counterparts. It was also determined that there were no significant differences between the two groups in regards to student use of French or student and teacher satisfaction with the program. In conclusion, it is suggested that teachers and administrators at dual-track schools attempt to recreate the perceived advantageous conditions at immersion-centre schools in order to maximize student exposure to French and to improve school atmosphere.

Cette étude avait pour objet d'examiner la relation entre l'environnement scolaire et l'efficacité de l'immersion française. Deux milieux ont été étudiés : des écoles d'immersion — où tous les étudiants sont inscrits dans le programme d'immersion — et des écoles ordinaires offrant les deux programmes — immersion française et programme d'anglais. Deux questionnaires ont été élaborés et distribués dans les deux types d'école, l'un destiné aux étudiants de septième année et l'autre aux enseignants. L'analyse des résultats a démontré que tant les enseignants que les élèves ont l'impression que ces derniers sont davantage exposés au français et subissent moins la pression de leurs pairs dans les écoles d'immersion que dans les écoles ordinaires offrant les deux programmes. Par contre, il n'y a pas de différence significative entre les deux groupes en ce qui concerne l'utilisation du français par les étudiants ou la satisfaction envers le programme. L'étude conclut en suggérant aux administrateurs et aux enseignants des écoles offrant les deux programmes (régulier et immersion) d'essayer de recréer les conditions perçues comme avantageuses dans les écoles d'immersion dans le but d'améliorer l'exposition des étudiants au français et l'ambiance générale de l'école.

Address for correspondence: 433 McKay Ave., Windsor, ON Canada N9B 1Z7;
scotkiss@att.canada.ca.

Introduction

French immersion education is currently being provided in two basic types of environments: immersion-centre and dual-track schools. The dual-track school is one in which the immersion program and the regular English program are housed in the same building. In an immersion centre, only French immersion classes are offered. There are presently approximately 260 immersion-centre schools in Canada compared to 1500 dual-track schools (Canadian Parents for French, 2002).

When discussing immersion-centre and dual-track schools, the question that comes to mind is which type of environment is more effective for the teaching of French as a second language. Unfortunately, the answer to this question is not simple. The question of efficacy in the two environments has not been examined extensively. Furthermore, many of the seminal studies in the area are now more than 20 years old, and often report contradictory results.

It is argued by some researchers (Lapkin, Andrew, Harley, Swain and Kamin, 1981; Genesee, 1987) that immersion centres are a more effective environment for teaching French as a second language. Chief among their reasons has been the idea of *ambience*. If all of the students in a given setting are involved in French immersion, there will be less need for them to speak English either in or out of the classroom. The exclusive use of French by the teaching, administrative and secretarial staff would encourage the students to use French by example. Intra-school communications, posters, signs, announcements and assemblies would all be in French, and all could be used not only for teaching but also for the development of school spirit and an appreciation of the French language and culture. In contrast, the dual-track school must have a complete English orientation or risk alienating those who do not understand French. An additional feature of the dual-track school is the presence of a large number of students whose proficiency in French is likely to be minimal. When the students interact, the common language must be English.

In contrast to the findings of Lapkin *et al.* (1981) and Genesee (1987), Parkin (1979) found that students' use of French in unsupervised classroom situations and outside the classroom was not affected by school environment. Based on teacher observations and student and teacher self-reports, it was concluded that language usage was not significantly influenced by grade level or type of French immersion program.

In addition to being dated and, at times, contradictory, the research that is currently available on the relationship between environment and effectiveness in French immersion tends to focus more on student achievement, ignoring other important affective factors. For example, in the previously-mentioned study by Lapkin *et al.* (1981), the researchers found that Grade 5 student participants from immersion centres scored significantly higher than their dual-

track counterparts on French proficiency tests, listening comprehension tests and reading comprehension tests. A number of other studies (Andrew, Lapkin and Swain, 1979; Foidart, 1981; Genesee, 1987) reported similar findings, indicating immersion-centre students in Grades 3 through 9 to have superior French-language proficiency.

While acknowledging the importance of academic performance, there are other factors in addition to student outcomes that influence a school's effectiveness. In spite of this realization, very few studies have investigated affective factors that may have an impact on the effectiveness of dual-track and immersion-centre schools. Although not dealing specifically with dual-track and immersion-centre schools, Obadia and Thériault (1997) raised the issue of peer pressure and social problems influencing French immersion attrition. A questionnaire was sent out to French immersion teachers, principals and coordinators in 75 school districts in British Columbia asking respondents to list perceptions regarding reasons for attrition in the French immersion program. Forty-five percent of principals who responded felt peer pressure was the main reason for students leaving the program, as did 32% of teachers and 31% of French coordinators. Although these findings cannot be directly linked to either dual-track or immersion-centre schools, it is a reasonable assumption to make that French immersion students in dual-track schools may experience greater peer pressure or social problems from their English counterparts than those students in an all French setting. This assumption is supported by the findings of Wood-Mokri (1993), who reported that there was a tendency for English program students at dual-track schools to discriminate against, name call, and make fun of the children in the French immersion program.

In the study by Lapkin *et al.* (1981), the researchers attempted to determine whether the immersion-centre or dual-track environment was more conducive to achievement in French. The teacher participants in this study unanimously chose the immersion-centre over the dual-track school as a better place to teach, suggesting that teachers in dual-track schools are not as satisfied with their schools as their immersion-centre colleagues.

Still investigating the concept of school atmosphere, Rideout (1987) conducted a study involving the role of the principal in a dual-track school. It was found that not only were there two distinct groups of students in dual-track schools, the teachers were also representative of two different cultures, since many French immersion teachers were Francophones. Rideout found that a number of factors, such as job insecurity, an inability to get to know each other due to language barriers and additional financial support provided to the French immersion program all contributed to produce an atmosphere of resentment and hostility between French immersion and regular program teachers. Although all immersion teachers regardless of the type of school environment would be affected by these factors, Rideout (1987) felt that the conflict and

tension between French immersion and English program teachers would be much more evident in a dual-track school where both groups are housed in the same building.

Although the question of efficacy in regards to dual-track and immersion-centre schools was investigated in studies over 20 years ago (Andrew *et al.*, 1979; Parkin, 1979; Foidart, 1981; Lapkin *et al.*, 1981) this topic may once again come to the forefront. Cash-strapped school boards are now being forced by government regulations to use all existing space in schools before any additional money will be granted for the construction of new buildings. As a result, the relatively few remaining immersion-centre schools may have to take in additional English program students, and hence become dual-track schools in order to reach their maximum capacities. The purpose of the current study is to build upon the limited and dated studies currently available on the topic of school environment and effectiveness in French immersion, and to broaden the scope of what is meant by effectiveness to include affective factors such as peer pressure and school atmosphere that have in previous studies been largely ignored. It is hoped that administrators and educators in French immersion schools will be able to use the findings of this study not to compare one school environment at the expense of the other, but to learn from the perceived strengths and weaknesses of both school settings so as to make both school environments as effective as possible. For the purposes of this study effectiveness was defined as the degree of success attained by the French immersion program, and was judged by the following criteria:

1. students' use of French inside and outside the classroom;
2. school atmosphere and negative peer pressure in the form of teasing and pressure to leave the program;
3. students' satisfaction with the French immersion program and their academic performance;
4. teachers' satisfaction with the French immersion program and their students' performance;
5. student exposure to French.

Method

Subjects

A convenience sample of four Grade 7 classes from four different immersion schools was used. All four schools were part of a southwestern Ontario school board. Two classes were from immersion-centre schools and two from dual-track schools. In total, seventy students participated in the study. Thirty-seven of the subjects attended a dual-track school and thirty-three an immersion centre. Of the thirty-seven dual-track students, three had once attended an immersion

centre. Two of the immersion-centre students had previously attended a dual-track school. Of the seventy subjects, forty were females and thirty were males

All of the French immersion homeroom teachers working at the four immersion schools involved were asked to participate in the study. In total, thirty teachers participated. Fourteen of the teacher-subjects taught at a dual-track school and sixteen at an immersion centre. Only eight of the participating teachers had taught at both types of school. Of the thirty teachers involved, four were male and twenty-six female. Male teachers were equally under-represented at both dual-track and immersion-centre schools. Although teacher experience ranged from first-year teachers to veteran teachers with 15 years' teaching experience, the average number of years teaching was 7.4 for both dual-track and immersion-centre teachers.

Instruments

A student questionnaire (see Appendix A) was developed to gather information in English about home and school exposure to French, the students' use of French in and out of school, satisfaction with the French immersion program and with their academic performance, and school atmosphere and negative peer pressure. The first part of the student questionnaire elicited demographic data about the subjects. The second part of the questionnaire required responses to 40 items pertaining to the various hypotheses. The first hypothesis—that immersion-centre students would use more French than their dual-track counterparts—was addressed by a total of 11 items (1–7, 11, 15, 16, and 33). In total 15 items (8–14, 22–27, 29 and 31) dealt with the second hypothesis, that immersion-centre students would be exposed to more French than dual-track students. The third hypothesis—that immersion-centre students would be more satisfied with the program than their peers at dual-track schools—was addressed by 11 items (17, 18, 20, 21, 32 and 35–40). Items 19, 28 and 34 addressed the hypothesis that dual-track students would be exposed to more negative peer pressure, in the form of teasing and pressure to leave the program, than their immersion-centre counterparts. All 40 items required the students to circle the number which best represented their answer on a five-point Likert-scale. A response of 1 indicated strong agreement and 5 strong disagreement.

A questionnaire was also developed for participating homeroom teachers in the four immersion schools (see Appendix B). The first part of the teacher questionnaire elicited demographic data about the subjects. The second part of the questionnaire required responses to 25 items pertaining to the various hypotheses. Items 1 to 7 dealt with student use of French, items 7, 8, 9, 10, 19, 20, 21, 24 and 25 addressed student exposure to French, items 13 to 18 pertained to teacher satisfaction with the program, and items 11, 12, 22 and 23 dealt with school atmosphere and negative peer pressure. All 25 items required the teachers to circle the number which best represented their answer on a five-

point Likert-scale. A response of 1 indicated strong agreement and 5 strong disagreement. The last part of the questionnaire asked the participants to state their opinion on which type of school would be more advantageous for students in the French immersion program; immersion centre or dual track. They were also asked to explain their reasoning.

A brief telephone survey was also conducted involving the secretarial staff at each of the participating schools. The secretaries were contacted by the researcher in order to determine the number of students who had left the French immersion program at each participating school for reasons other than a family move during the academic year (1999–2000). The attrition rates obtained during the telephone survey were examined as a possible indicator of student satisfaction with the French immersion program and are discussed with the findings from the student questionnaire.

Results

Data analysis

As was mentioned above, for both the student and teacher questionnaires there were a number of items dealing with different variables. For example, on the student questionnaire items 1–7, 11, 15, 16 and 33 dealt with use of French. In all cases, responses to all items pertaining to a particular variable were added together, then divided by the number of items in the measure (11 in the case of use of French on the student questionnaire). Since a response of 1 indicated strong agreement, a lower mean indicates a more favourable response. In instances where negative statements were used pertaining to a particular hypothesis, as was the case for questions 11, 12 and 23 of the teacher questionnaire and questions 19, 28 and 34 of the the student questionnaire, negatively worded statements were flipped to facilitate statistical analysis. In other words, if a teacher or student indicated strong disagreement to a negatively worded statement, the response would be treated as indicating strong agreement to a positively worded statement.

Student questionnaire

Two-way MANOVAS were completed on the scores related to the four groups of questions with sex (male or female) and school type (dual track or immersion centre) as independent variables. A significance level of .05 was set. No statistically significant differences were found in regards to the variable of sex. For this reason, the study focused solely on the independent variable of school type (dual track or immersion centre). Table 1 provides both the students' and teachers' responses to their respective questionnaires. Responses are grouped according to the four hypotheses mentioned above: students' use

of French, exposure to French, satisfaction with the program and atmosphere and peer pressure.

Table 1: Student and Teacher Responses to Questionnaires by Hypothesis

Hypothesis	Dual Track		Immersion Centre		P value
	Mean	S.D.	Mean	S.D.	
Student Use of French (Students)	2.98	.34	3.37	.39	.058
Student Use of French (Teachers)	3.24	.52	3.03	.66	.132
Exposure to French (Students)	3.32	.33	2.60	.42	.000***
Exposure to French (Teachers)	3.68	.57	3.02	.71	.003**
Satisfaction With Program (Students)	2.42	.83	2.16	.74	.108
Satisfaction With Program (Teachers)	2.60	.78	2.67	.53	.236
Atmosphere and Peer Pressure (Students)	2.61	.96	1.71	.73	.000**
Atmosphere and Peer Pressure (Teachers)	3.11	.38	2.73	.40	.028*

Note: A lower mean score indicates a more favourable response.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Eleven items from the student questionnaire dealt with student use of French inside and outside the classroom. Dual-track students had a mean of 2.98 compared to 3.37 for immersion-centre students. Although the difference was not significant ($p = .058$), there appears to be a trend indicating that dual-track students perceive themselves to use more French than their immersion-centre counterparts.

Student responses pertaining to their exposure to French differed significantly. Dual-track students responded to the items with a mean score of 3.32, while students from immersion-centre schools responded more favourably, with a mean score of 2.60. This difference was significant ($p < .001$), indicating that students at immersion centres perceive themselves to be exposed to a greater degree of French than their peers at dual-track schools.

Student satisfaction with the program was also based on a number of items from the questionnaire. The mean of the responses by dual-track students was 2.42 compared to 2.16 for students at immersion centres. Statistical tests revealed no significant difference regarding student satisfaction. The results pertaining to school atmosphere and peer pressure again favoured those students attending an immersion-centre school. Immersion-centre students responded

with a mean of 1.71 compared to a mean of 2.61 from dual-track students. This difference was highly significant ($p < .001$), indicating that students at dual-track schools did experience a greater degree of peer pressure, in the form of teasing than did students attending an immersion centre, and that the atmosphere at immersion centres was more harmonious than that at dual-track schools.

Telephone survey

It was revealed during the telephone survey that in the academic year 1999-2000 the two immersion-centre schools involved had a combined total of 29 students leave the French immersion program to attend an English school for reasons other than a family move. The two dual-track schools involved in the study had only a combined total of nine French immersion students leave the program for similar reasons.

Teacher questionnaire

Responses to the data obtained from the teacher questionnaire are also found in Table 1. A number of items from the teacher questionnaire dealt with student use of French inside and outside of the classroom. Dual-track teachers responded to the items with a mean of 3.24 compared to 3.03 for immersion-centre teachers. Statistical tests revealed no significant difference in regards to student use of French. Teachers at dual-track schools perceived their students to use as much French as did teachers from immersion centres.

In regard to exposure to French, dual-track teachers responded to the items with a mean score of 3.68, while teachers from immersion-centre schools responded more favourably with a mean score of 3.02. This difference is significant ($p < .01$), indicating that students at immersion-centre schools were perceived by teachers to experience greater exposure to French than students at dual-track schools.

Teacher satisfaction with the program was also addressed by several items on the teacher questionnaire. Statistical tests revealed no significant differences in teacher satisfaction. Teachers at dual-track schools were as satisfied with their school and their students' progress as teachers at immersion centres.

The results pertaining to school atmosphere and peer pressure again favoured those students attending an immersion-centre school. Immersion-centre teachers responded with a mean of 2.73 compared to a mean of 3.11 from dual-track teachers. This difference was also significant ($p < .05$), indicating that the atmosphere among staff at immersion-centre schools was more harmonious and less segregated than that at dual-track schools. Students were also perceived by teachers to experience more peer pressure at dual-track schools than at immersion centres.

Although the results from the questionnaires were mixed, in the minds of the large majority of the teachers who responded there was little question that the immersion centre was the more advantageous setting. When asked what type of school they felt would be more advantageous for students in the French immersion program—immersion centre or dual track—26 out of the 30 teachers stated that immersion centres would be more advantageous. One participant felt that both types of school environment had their benefits, two felt that dual-track schools were advantageous over immersion centres, and one teacher felt that there was not much difference between the two environments. The most common reason given why immersion centres were more advantageous than dual-track schools was the increased exposure to French. Increased exposure to French assemblies, extra-curricular activities, announcements and bulletin boards were all mentioned. Other reasons given in support of immersion centres were more school-wide activities in French, greater promotion of the French language, less peer pressure to speak English and a less tense and segregated atmosphere amongst both staff and students. The two respondents who felt that dual-track schools were more advantageous cited the ease with which struggling students may transfer to the English program as the major factor. Of the eight teachers who had taught at both immersion centres and dual-track schools, all felt that immersion centres were more effective than dual-track schools. One such teacher commented:

An immersion centre is the best learning environment. It is difficult to keep the students tuned to French even when you are focused on a French milieu. I found in a dual-track school, sometimes you felt isolated just to try and keep your milieu French. I am not sure I would send my own two daughters to a dual-track school. We need less English and more French in our French programs. Other factors have influenced this, but if you look just at the language aspect, total immersion is the most successful at developing fluency and ease with the language.

Discussion

Student questionnaire

The first hypothesis—that immersion-centre students would exhibit a greater use of French than their dual-track counterparts—was not supported by the data obtained from the student questionnaire. In fact, far from supporting the hypothesis, the data gathered indicated that dual-track students may actually perceive themselves to use more French than their immersion-centre counterparts. An explanation for this could possibly be that dual-track students in a largely English-speaking environment may feel that they are using a great deal of French in comparison to the students in the English program. Immersion-centre students would not be able to make such a comparison. Although not

supporting the initial hypothesis, these findings do reinforce the earlier work of Parkin (1979), who found that students' use of French in unsupervised classroom situations and outside the classroom was not affected by school environment. Language usage was not significantly influenced by the setting of French immersion program. The only statistically significant differences were between individual classes, which the researcher felt may indicate the impact of the individual teacher on students' French-speaking behaviour.

The hypothesis that students at immersion centres would experience greater exposure to French than dual-track students was supported by the data collected in the student questionnaire. Statistical tests revealed there to be a relationship between school type and degree of exposure to French. More specifically, immersion-centre students are perceived to be exposed to more French than their dual-track counterparts. This study supports the research conducted by Lapkin, Andrew, Harley, Swain and Kamin (1981), which showed that students from immersion centres received more exposure to French than students in dual-track schools due to the French environment. Immersion students in the dual-track school tended to switch to the English language on the playground, in the corridors, and during extra-curricular activities.

The hypothesis that students at immersion centres would be more satisfied with their school and their academic performance than students at dual-track schools was not supported by this study. In fact, if attrition rates could be considered as an indicator of student satisfaction with the program, dual-track schools appear to have the advantage. As reported in the Results, the telephone survey revealed that in the academic year 1999–2000 the two immersion-centre schools involved had 29 students leave the French immersion program to attend an English school for reasons other than a family move. The two dual-track schools involved in the study had only nine French immersion students leave the program for similar reasons. Although these comparisons appear to strongly favour dual-track schools, the results must be viewed cautiously as they are indicative of only a one-year period and may be an aberration from the norm.

The results of the student questionnaire did support the hypothesis that students at dual-track schools experience a greater degree of negative peer pressure than students at immersion-centre schools. These results lend further support to the earlier work of several researchers. Wood-Mokri (1993) found there to be a tendency for the children in the English program at dual-track schools to make fun of their French immersion peers. In addition, Obadia and Theriault (1997) found that 45% of the principals who responded to a questionnaire felt that peer pressure was the main reason for students leaving the French immersion program.

Teacher questionnaire

The results of the teacher questionnaire mirrored the results obtained from the student questionnaire. Teachers at immersion centres were neither more satisfied with the French immersion program at their schools than their dual-track counterparts, nor did they perceive their students to use more French. Regarding student use of French, having both students and teachers in the study reject this hypothesis lends credence to what was previously mentioned in the study by Parkin (1979) pertaining to the influence of the teacher. Although students at immersion centres may be exposed to more French than dual-track students, they are, for the most part, all still Anglophones, and when given the opportunity or choice they will revert to using their mother tongue regardless of environment.

Those hypotheses that were supported by the student-questionnaire data were also supported by the data from the teacher questionnaire. More specifically, teachers at immersion centres perceived their students to be exposed to more French than did teachers at dual-track schools, and teachers at immersion centres perceived their schools to be more harmonious environments than their colleagues at dual-track schools.

In regard to the last hypothesis—school harmony—the present study provides further support for Lapkin and Swain's (1981) study, which showed that 44% of staff in immersion centres felt their staff to be of a compatible mix, with only 30% of dual-track staff making the same choice. In the same study, 17% of dual-track teachers felt that the atmosphere was segregated in their schools, whereas only 5% of the immersion-centre staff responded in that same way.

The present study also supports the findings of Rideout (1987), who reported that the increase in popularity of French immersion had given rise to a number of problems in terms of relations between teachers in French immersion and the regular English program. Although, once again, no direct comparisons were made between dual-track and immersion-centre schools, it is reasonable to assume that all French immersion teachers, regardless of the type of school environment, would be affected by such negative relations. The conflict and tension between French immersion and English program teachers would, however, be more evident in a dual-track school, where both groups are housed in the same building.

Although this study on the relationship between school environment and effectiveness in French immersion is investigating student and teacher perceptions, which may or may not be accurate, the fact that the data provided from both questionnaires report similar findings adds strength to the validity of these perceptions. If students from immersion centres perceived themselves to be exposed to more French than did the dual-track students, but if this perception was not shared by their teachers, the validity of the perceptions would be

questionable. This is not the case in the present study. In the case of both teachers and students, students at immersion centres were perceived to be exposed to more French and less peer pressure than their counterparts at dual-track schools. Equally important, it was perceived by both students and teachers that students at dual-track schools use as much French as students at immersion-centre schools. Both teachers and students at dual-track schools also perceived themselves to be as satisfied with the French program as students and teachers at immersion centres.

Limitations of the study

Interpretation of the present findings must also consider limitations of this study. A convenience sample was chosen to complete this study. It is therefore possible that the sample was biased. In general, convenience samples cannot be considered representative of any population. Demographics and other subject characteristics were included to help control this potential difficulty. This study should be replicated with a number of similar samples to decrease the likelihood that the results obtained were simply a one-time occurrence.

The questionnaire itself may reveal some evidence of bias or lack of clarity on the part of the researcher. The way in which some questions were worded may have made it unclear how dual-track students were to respond, and may, in fact, have presupposed a preference for immersion-centre schools. In addition, by administering the same questionnaire to both groups of teachers some problems of interpretation may have arisen. For example, French immersion teachers at dual-track schools might speak among themselves in French, but would obviously speak to other teachers in English.

The compilation of data in different sections was another possible limitation of the study. By combining the data for all questions related to a certain topic, such as student use of French, significant differences on particular questions may have been lost. However, the fact that a number of significant differences were found despite using this technique only makes those findings more noteworthy. The sample size was relatively small, especially regarding the number of male teacher participants. This may, however, not be a limitation. Male French immersion teachers are highly under-represented in French immersion schools across Canada. Therefore, the sample is very representative of the real population, and on this account the results can be generalized. In addition, important findings often emerge from small samples.

Conclusion

Twenty years later, and using different methodology, the findings of the present study are similar in many ways to that of the seminal study by Lapkin *et al.* (1981). Although dealing with perceptions rather than actual French language

proficiency, this study has presented some evidence to suggest that an immersion centre is a more effective environment in which to teach and learn French. The data collected in the study suggest two possible reasons for this outcome. Students who attend immersion-centre schools perceive themselves to be exposed to more French and a more positive school atmosphere than do their dual-track counterparts. This is not to say that a dual-track school is not an effective environment in which to teach or learn French, as this study also showed no significant differences between students' use of French or student and teacher satisfaction with the program.

Implications and applications

Perhaps the strongest finding of this study is that its results validate the findings of studies that had become quite dated. The results of this study may, in actuality, help to explain the previous findings of Lapkin *et al.* (1981), Foidart (1981) and Genesee (1987). It may be hypothesized that students at immersion centres demonstrate stronger French language proficiency due to their increased exposure to French. The influential work of Krashen (as cited in Brown, 2000), would seem to support this hypothesis. Krashen claimed that an important condition for second language acquisition is that students be exposed to large amounts of comprehensible input. The results of this study have shown that immersion-centre students are perceived to be exposed to more input than those students at dual-track schools. In light of this finding, dual-track schools need to increase the amount of French that their French immersion students are exposed to daily. However, an additional finding of this study was that immersion-centre students were not perceived to use any more French than the dual-track students. Increased exposure to French does not seem to affect the amount of French spoken. In this respect, teachers in both school environments need to be diligent. School-wide incentive programs at both types of schools need to be implemented to encourage students to use French. Such incentive programs would be particularly beneficial at dual-track schools, not only to increase students' use of French, but also, as a direct result, to increase student exposure to French.

An additional contribution that the present study can offer to the existing body of knowledge on dual-track and immersion-centre schools pertains to school atmosphere and negative peer pressure, areas that have been largely ignored by previous research. This study has shown that dual-track schools are perceived to be a less welcoming environment than immersion centres for both teachers and students.

The results of this study have indicated that there are some aspects of an immersion-centre school that are perceived by French immersion students and teachers to be advantageous over dual-track schools. However, in a time of

sweeping educational reform, school closings and budget constraints, school boards offering French immersion strictly in an immersion-centre setting is highly unlikely. A more feasible solution is to create as best as possible these advantageous conditions in all immersion schools, whether immersion-centre or dual-track. It is hoped that the present study has offered some insights on how this might be accomplished.

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**Appendix A:
Student questionnaire**

This questionnaire is part of a research project which is investigating the relationship between school environment and effectiveness in the French immersion program. Please answer all questions to the best of your ability, and ask for help if you do not understand. Completed questionnaires will be kept confidential. No one will see your completed questionnaire except the researcher, Mr. S. Kissau.

Thank you for your cooperation.

Section 1 — General information

Are you male or female? _____

Are you a student at a dual track or immersion centre school? _____

Have you ever attended another French immersion school? _____

If you answered “yes” to the question above, was this school a dual track or immersion centre school? _____

In what grade did you enroll at this school? _____

Section 2 — Questionnaire

For each of the statements below, circle the number which best represents your answer.

	strongly agree	agree	unsure/ undecided	disagree	strongly disagree
	1	2	3	4	5
1. I speak French often in class.	1	2	3	4	5
2. I enjoy speaking to my teacher in French.	1	2	3	4	5
3. I try to speak French with other teachers I see in the hallways.	1	2	3	4	5
4. I never speak French to my friends during recess or lunch.	1	2	3	4	5
5. I always speak to my friends in French during class time.	1	2	3	4	5
6. I rarely speak French at home with my family.	1	2	3	4	5
7. I frequently borrow French books from our school library.	1	2	3	4	5
8. I enjoy listening to French radio programs.	1	2	3	4	5
9. I often watch French programs on television.	1	2	3	4	5
10. I have had the opportunity at school to speak with francophones.	1	2	3	4	5
11. I have had the opportunity to use my French outside of school.	1	2	3	4	5
12. The teachers at my school always speak French to each other.	1	2	3	4	5
13. The principal and/or vice-principal never speaks French to the students.	1	2	3	4	5
14. The secretaries/secretary often speak(s) French to the students.	1	2	3	4	5
15. I like to speak French.	1	2	3	4	5
16. I am confident in my ability to speak French.	1	2	3	4	5

- | | | | | | |
|--|---|---|---|---|---|
| 17. I am satisfied with the French immersion program at my school. | 1 | 2 | 3 | 4 | 5 |
| 18. I am happy with my progress in the French immersion program. | 1 | 2 | 3 | 4 | 5 |
| 19. I am often teased by other students for being in the FI program. | 1 | 2 | 3 | 4 | 5 |
| 20. I would prefer to be in a school with only French immersion students. | 1 | 2 | 3 | 4 | 5 |
| 21. I really like my school. | 1 | 2 | 3 | 4 | 5 |
| 22. Displays in the hallways and on bulletin boards are usually in French. | 1 | 2 | 3 | 4 | 5 |
| 23. Bulletin boards in the classrooms are always in French. | 1 | 2 | 3 | 4 | 5 |
| 24. School assemblies are conducted entirely in French. | 1 | 2 | 3 | 4 | 5 |
| 25. Morning announcements are usually made in French. | 1 | 2 | 3 | 4 | 5 |
| 26. O Canada is always played in French at my school. | 1 | 2 | 3 | 4 | 5 |
| 27. The teams at my school are often coached in French. | 1 | 2 | 3 | 4 | 5 |
| 28. At times, I am afraid of being laughed at when I speak French at school. | 1 | 2 | 3 | 4 | 5 |
| 29. We often play French games in school. | 1 | 2 | 3 | 4 | 5 |
| 30. Even parents, sometimes speak to me in French at school. | 1 | 2 | 3 | 4 | 5 |
| 31. Videos we watch at school are usually in French. | 1 | 2 | 3 | 4 | 5 |
| 32. I hate French. | 1 | 2 | 3 | 4 | 5 |
| 33. I would feel uncomfortable speaking French under any circumstances. | 1 | 2 | 3 | 4 | 5 |
| 34. Several of my friends at school have dropped out of French immersion. | 1 | 2 | 3 | 4 | 5 |
| 35. I have learned a lot of French at school. | 1 | 2 | 3 | 4 | 5 |
| 36. If I had my choice I would switch to an English school. | 1 | 2 | 3 | 4 | 5 |
| 37. I would feel quite relaxed if I had to ask directions in French. | 1 | 2 | 3 | 4 | 5 |
| 38. My French class is really a waste of time. | 1 | 2 | 3 | 4 | 5 |
| 39. I am very happy with my grades at school. | 1 | 2 | 3 | 4 | 5 |
| 40. I am not doing very well in my courses taught in French. | 1 | 2 | 3 | 4 | 5 |

**Appendix B:
Teacher questionnaire**

This questionnaire is part of a research project which is investigating the relationship between school environment and effectiveness in the French immersion program. Please answer all questions to the best of your ability, and ask for help if you do not understand. Completed questionnaires will be kept confidential. No one will see your completed questionnaire except the researcher, Mr. S. Kissau.

Thank you for your cooperation.

Section 1 — General information

- Are you male or female? _____
 Do you presently teach at a dual track or immersion centre school? _____
 Have you taught at both a dual track and an immersion centre school? _____
 How many years experience do you have teaching French immersion? _____

Section 2 — Questionnaire

A/ For each of the following statements circle the number which best represents your answer.

- | | strongly
agree | agree | unsure/
undecided | disagree | strongly
disagree |
|---|-------------------|-------|----------------------|----------|----------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 1. At this school, students often speak to their teacher in French. | 1 | 2 | 3 | 4 | 5 |
| 2. At this school, students try to speak to other teachers in French. | 1 | 2 | 3 | 4 | 5 |
| 3. The students always speak to their classmates in French during class. | 1 | 2 | 3 | 4 | 5 |
| 4. The students never talk to their friends in French during recess or lunch. | 1 | 2 | 3 | 4 | 5 |
| 5. The students are very confident with their ability to speak French. | 1 | 2 | 3 | 4 | 5 |
| 6. The students frequently borrow French books from the school library. | 1 | 2 | 3 | 4 | 5 |
| 7. The students have the opportunity at school to speak with francophones. | 1 | 2 | 3 | 4 | 5 |
| 8. The teachers at my school usually speak French to each other. | 1 | 2 | 3 | 4 | 5 |
| 9. The principal and/or vice-principal often speaks French to the students. | 1 | 2 | 3 | 4 | 5 |
| 10. The secretaries/secretary try to speak French to the students. | 1 | 2 | 3 | 4 | 5 |
| 11. The students experience peer pressure for being in the FI program. | 1 | 2 | 3 | 4 | 5 |
| 12. The atmosphere amongst the students at my school is segregated. | 1 | 2 | 3 | 4 | 5 |
| 13. I am satisfied with the French immersion program at my school. | 1 | 2 | 3 | 4 | 5 |
| 14. I am satisfied with the progress of my students in the FI program. | 1 | 2 | 3 | 4 | 5 |

- | | | | | | |
|--|---|---|---|---|---|
| 15. In general, the students achieve the goals of the program. | 1 | 2 | 3 | 4 | 5 |
| 16. I enjoy my job. | 1 | 2 | 3 | 4 | 5 |
| 17. I would prefer to teach in an immersion centre school. | 1 | 2 | 3 | 4 | 5 |
| 18. Many of my students have dropped out of French immersion. | 1 | 2 | 3 | 4 | 5 |
| 19. Displays in the hallways and on bulletin boards are usually in French. | 1 | 2 | 3 | 4 | 5 |
| 20. Material displayed in classrooms is often in French. | 1 | 2 | 3 | 4 | 5 |
| 21. At my school teams are never coached in French. | 1 | 2 | 3 | 4 | 5 |
| 22. The staff at my school gets along very well together. | 1 | 2 | 3 | 4 | 5 |
| 23. The atmosphere amongst the staff at school is segregated. | 1 | 2 | 3 | 4 | 5 |
| 24. Morning announcements are completed entirely in French. | 1 | 2 | 3 | 4 | 5 |
| 25. Assemblies are conducted entirely in French. | 1 | 2 | 3 | 4 | 5 |

B/ In your opinion, what type of school would be more advantageous for students in the French immersion program; immersion centre or dual track? Explain.