

# French immersion study results impressive

A seven-year study of Fredericton's total immersion French program by two University of New Brunswick psychology professors indicates that the children achieved an impressive facility in French, without any cost to other aspects of their intellectual development.

Catherine Ann Cameron and Vicky A. Gray studied the first two groups in the Fredericton immersion program, from their entry into grade one in 1973 and 1974 until they had all completed grade six in 1980.

Drs. Gray and Cameron, and as many as 13 research assistants at a time, also tested comparison classes - Anglophone children enrolled in the core English program as well as unilingual Francophone and bilingual children enrolled in the standard French program in Fredericton or Edmundston schools. Data was accumulated on close to 600 children per year.

Scholarly publications on the research began with an article on the morphological development of the children, which appeared in the January, 1980 issue of *Applied Psycholinguistics*, and other articles are planned.

However, in annual summaries provided to District 26 (greater Fredericton area) school authorities, the researchers explained their findings in terms of the concerns of parents and educators. The most recent summary is now available to interested persons through the District 26 office.

Detailed scientific reports on the testing and results were also provided to school authorities by Drs. Gray and Cameron, but these reports are not being publicly circulated.

The first question asked about the immersion program is whether it is successful in giving the children competence in French language. Teachers and parents had been commenting with satisfaction on the children's progress for several years, but it was up to the Gray-Cameron study to make some precise evaluations.

In a nutshell, by the end of grade six the immersion students were superior in every aspect of French language to grade 12 Anglophone students who had completed the regular second language program. On the other hand, the immersion students were several years behind control groups enrolled in the regular French schools and also behind students in Ottawa and Quebec immersion programs, in their command of the French language.

While the researchers did not expect the immersion students to match the French language development of students from French-speaking homes, they had hoped the gap between the two groups would be narrowing more quickly, as the children progressed through the elementary grades.

Drs. Gray and Cameron suggest some measures to boost the French proficiency of the immersion classes - such as continued emphasis on the French language

and providing a totally French school environment for the immersion classes.

The next major concern was the effect immersion would have on the English language skills of the students. Reading and writing in English was introduced as an academic subject in grade four of the Fredericton program. This is later than in some other Canadian immersion programs.

The Gray-Cameron study found that even in grades one and two immersion classes were less than one year behind the control groups in English. And by grade six the immersion classes were the equal of the English classes on tests of English competence. The researchers believe this indicates that there was considerable transfer of reading skills from French to English.

Mathematics, the other major area of concern in the elementary curriculum, was also not jeopardized by immersion. Drs. Gray and Cameron tested the children in both English and French and found that their mathematics achievement matched both the English and French control groups.

The students were tested each spring, using standard measures of basic intelligence, mathematical skills, and comprehension, grammar and vocabulary in both languages. Their parents' occupations were coded according to a standard rating system. The researchers characterized the first two immersion classes as having "relatively high levels of intellectual functioning and socio-economic background" and they were matched with very similar control groups.

Drs. Gray and Cameron emphasize that they were focussing on the immersion program, not on individual teachers or students, who were identified only by numbers on their test results.

The researchers also tested the fifth group of first graders, those who entered in 1977. They were

looking for evidence that the first years of the program were characterized by more structure, by greater effort, and enthusiasm or any other factor which could have significantly contributed to the particular success of the first groups of children. They found none.

They did find, as they expected, that as immersion grew in community acceptance, from four grade one classes in 1973 to 10 grade one classes in 1977 (nine grade one classes entered this year), the program was attracting children with a much wider range of intellectual ability.

When the fifth group's test results were adjusted statistically to control for differences in intelligence, their performance was found to be quite comparable to that of the 1973 and '74 entrants.

Some of the questions being asked about immersion could not really be answered with the data Drs. Gray and Cameron collected. They reviewed the research literature to provide additional information which would be useful in evaluating and operating the Fredericton program.

One thorny issue for immersion organizers is whether or not a child identified as having learning problems should be excluded from immersion. Conventional wisdom suggested that learning a second language added yet another burden to children already destined to have difficulty in school. Drs. Gray and Cameron cited a study by Margaret Bruck at McGill University and the Montreal Children's Hospital on this question.

Dr. Bruck studied two groups of language-handicapped Anglophone children, one in immersion and one in the core English program, plus French and English control groups. She found that by the end of grade three, children with language problems were indeed having difficulty with various aspects of school curriculum. But the immersion children were

having no more difficulty than those in the core English program, Dr. Bruck reports, and they were making satisfactory progress in French as well.

In her clinical experience, Dr. Bruck observed that children with language disabilities learn virtually no French in the standard second language program. She believes this may be due to traditional second language teaching methods, such as memorization and learning of abstract rules, which are particularly unsuitable for language disabled children. Immersion, in her view, involves a more appropriate learning situation for these children.

Dr. Bruck suggests that immersion may be the only way to provide language disabled children with second language competence, and all the social and economic benefits associated with that skill.

Drs. Gray and Cameron also looked at the whole issue of whether early total immersion is the only, or necessarily the best, way to teach French. They think not. They point out that there is no magic in the way young children learn languages.

"There is not a shred of empirical evidence...that the young are more successful than older second language learners," Dr. Cameron wrote in an editorial published by the New Brunswick Teachers Association.

She points out that immersion children learn so much French because they are exposed to close to 1,000 hours of French per year, which is roughly equivalent to the entire second language program through grade 12.

The UNB researchers noted that a test program in Quebec in late

entry immersion, taking students at grade seven, has also been successful. By the end of grade eight the late entry students were as competent in French as students who had taken eight years of immersion, Drs. Gray and Cameron report.

They do caution however, that the late entry immersion was only tried with carefully selected groups of seventh graders who were already successful in the regular second language program. The UNB psychologists expect that early immersion will prove to be the most suitable for the widest spectrum of students.

The real advantage of immersion is that it offers a learning experience to children when they have plenty of time, and few preconceived notions about how difficult or unpleasant it might be to learn a language.

As Dr. Gray points out "when else in your life will it be so easy to spend six hours a day learning a language?"

## Speak Spiro

Dear Editor:

It was kind of you to publish my letter - Brunswick, Sept. 19, '80. (Next one will consist of poetic things, just to see if you head it: "Spiro Sings.")

Best wishes to all  
Maurice

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