An experimental bilingual bicultural French language program for kindergarten students in a former French-speaking area of western Newfoundland was initiated in an integrated primary school in September 1975. The experimental class of thirty students was taught entirely in French while the control group received twenty minutes of French per day during the year. Research controls and continuous evaluation were provided by a joint school district and university team. Intra-school district class comparisons of achievement indicated minor lags in cognitive skills for the experimental group. Evaluation results were positive and the program will be continued and expanded next year. (Author)
REVIVING A CULTURE
KINDERGARTEN AND FRENCH IMMERSION*

A RESEARCH REPORT PRESENTED
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Portions of this paper were based on a report prepared by
Joan Netten.
Introduction

Planning for Newfoundland's Port-au-Port French Immersion Program began in the early 1970's with the initial work done by the district's superintendent of schools and the school board. In summer 1975, Ottawa granted funds sufficient to train key personnel, as well as hire a French kindergarten teacher and an immersion coordinator. Memorial University involvement, which began in spring 1975, consisted of research consultations and the establishment of an evaluation team to monitor instructional programs for the Cape St. George Immersion kindergarten.

The purposes of the evaluation team were: acquisition and collation of descriptive data emerging from the first operational year; transmission of recommendations to interested audiences (notably the school board and district superintendent); and an attempt to assess the relative success of introducing French into the school system.

Cape St. George, locus of this study, is a small West Coast community situated near the southwest end of the Port-au-Port peninsula, a triangle of land extending 40 miles into the Gulf of St. Lawrence. Many of the area's 1600 inhabitants are of French origin, part of a culture with an oral rather than a written tradition.

Matthews (1976) has suggested that settlement probably began under the terms of the Treaty of Utrecht, 1713. At that time the French were given exclusive rights to fish Newfoundland's West Coast (as most of Newfoundland was an important fishing area), but settlement was forbidden. From 1713 to 1893, French fishermen were transported each spring from France to the fishing grounds, then returned to their homeland in the Fall.

After 1893, the French government encouraged the summer placement along Newfoundland's entire West Coast of shore-based fishermen from the nearby French-owned island of St. Pierre. Instead of making the yearly
round trip to France, a number of fishermen established permanent homes at Grand Terre, on the Port-au-Port peninsula. In 1904, France renounced her exclusive fishing rights in the area and the peninsula came under the jurisdiction of Newfoundland.

From 1900 to 1940, the Cape St. George area functioned as a self-sufficient community, a fisherman-woodsman-farmer subsistence economy. The establishment in 1940 of an United States military base at nearby Stephenville affected social, as well as economic changes. As one example, the area's residents accustomed themselves to a cash economy. Additionally, English was the language of work on the base; area francophone residents who sought employment had to communicate in English with supervisors.

The closing of the base in the mid-1960's reduced the necessity to use English as the language of work - but about this time the French culture and heritage was re-awakened, partly due to the Royal Commission Report on Bilingualism and Biculturalism (Innis, 1973). In 1969, the Official Languages Act guaranteed minority rights and encouraged a revival of the French culture and heritage in Canada, even in remote areas with small francophone populations, such as the Port-au-Port peninsula.

In perspective, the long-term colonial struggles between France and England for control of fishing rights and land claims influenced the educational development of the area. Rowe (1964) suggested colonial development was generally retarded on the Port-au-Port peninsula; and settlement was dispersed over a long, rugged coastline, partly to allow settlers to remain inconspicuous to authorities. Treaty agreements resulted in a denial to settlements on the French Shore of those amenities and institutions which helped to establish a semblance of civilization in other
settled areas of Newfoundland. Schooling and the usual literary traditions which accompany formal education were not widely established in the Cape St. George area until after Confederation with Canada -- 1949.

There was education, but it was minimal. The 1887 records indicate that the area's school children spoke French but received textbooks and instruction in English, prompting a proposal for a bilingual teacher (Champdoizeau, 1974). Though the Port-au-Port peninsula boasts several pockets of anglophone settlers, Scots and English-language Newfoundlanders, it remained predominantly French. Even today, many elderly and middle-aged residents still speak French, though they had never been taught to read or write the language. All instruction had been in English. (Today, programs to improve literacy skills for older residents are underway and many are becoming literate in French).

In the decades since Confederation, public education improved and expanded rapidly in every sector of Newfoundland. On the Port-au-Port peninsula where educational services are provided by the Roman Catholic School Board for the Port-au-Port District, the School Board, administration, teaching staff and district clientele have achieved educational gains which are significant in this Province. One must note how quickly Port-au-Port school personnel responded to the establishment by the Federal Government in 1969 of the Port-au-Port peninsula as an official Bilingual, Bicultural District. By the end of 1975, in his first Annual Report, the Superintendent of the District reported that:

"The French programs continued to expand in our district during 1974-75. Approximately 90% of our primary-elementary schools have French programs in operation, as outlined by the Department of Education. Our French teachers are bilingual and can adequately carry out the oral-aural program. At the high school level all of our six high schools have the services of a French teacher and the subject was offered as an option to any interested students."
In the 1975-76 school year the proposed French Immersion Project became a reality after a grant of approximately $50,000 was received from the Federal Government. The school district was able to hire one bilingual teacher, a district level French consultant, acquire curriculum materials, and hold in-service education workshops. Plans for the September enrollment permitted 30 students to register for immersion.

A major factor in the establishment of such programs (both in the Port-au-Port area and Canada generally) has been a desire on the part of the parents to develop in their children a level of competence in French, not usually attainable in regular French second-language programs.

The remarkable success of the immersion-type program has been the ability of the student to develop competence in French without significant negative influences on competence in English. Current program objectives are to develop students who may be considered fluently bilingual by the end of Grade IV. It will be 1980 when current French Immersion students reach the Grade IV level.

Curriculum and teaching strategies in immersion programs have been selected to give the children as enriching and satisfactory a primary school experience as possible. Curriculum materials which reflect content and objectives similar to those used in regular primary grades have been selected. Generally, teaching strategies have been the same as those used in regular primary experiences, the only major deliberate difference being the language of instruction. In fact, mainland experience has suggested the real success of the immersion French program depends upon maintenance of a regular primary program and on the quality of primary instruction.
With the introduction of immersion programs, naturally there were also concerns expressed about the loss of English language skills. The chief concerns of the parents, and of the school boards reflecting their responsibilities to parents, have been that children involved in such programs should suffer no ill-effects from their schooling experience. Concerns have generally centred around the following areas:

1. that English language skills be maintained at the same level of competence as would be achieved if the youngster were in a regular school program;
2. that general academic achievement be maintained at the same level of competence;
3. that the cognitive development of the pupils not be affected adversely by exposure to this type of school experience;
4. that pupils suffer no ill-effects psychologically from being placed in this type of school environment;
5. that a level of competence in French be achieved significantly higher than that which would normally be achieved in a regular French second language program.

In recent years, a great deal of data regarding effects of bilingual schooling has been generated, by such research teams as the Lambert group, the Ottawa Board of Education, the Ontario Institute for Studies in Education (Barik and Swain, 1975, 1976a, 1976b; Lambert and Tucker, 1972). In general, the conclusions drawn from this research have indicated that, while there may be discreet, well-defined areas in which there are significant differences, (e.g., writing skills), and periods of development in which the differences between groups are more marked (e.g., Grade II), that over the full length of a bilingual program (usually six years) in Ontario and Quebec, and with certain variations introduced according to the needs of the youngsters, no significant markedly ill-effects have been
found for youngsters exposed to this type of schooling. In most cases distinct positive results seem to have accrued from exposure to this type of schooling.

Method

The immersion class of 30 students was randomly chosen from the 47 parents who had expressed interest. Those not chosen and the remaining students formed the control group of 26 students for this study.

The immersion group was evenly divided as to boys and girls (fifteen of each), ranging in age from 4 years 8 months to 5 years 8 months as of January 1975. None of these children had had any previous experiences in a school situation, as there were no day-care centres, or early year kindergartens available in Cape St. George prior to September 1975. All of the children, with the exception of one, were born in Cape St. George area.

The control group had 26 children, ranging in age from 4 years 8 months to 5 years 7 months, and this was the first year of schooling for the entire group. These children were classified as anglophones. There were 10 boys and 16 girls. Both groups attended school in half-day sessions with approximately 15 in each group in the morning and in the afternoon.

Following the pattern adopted by many of the mainland experiences, the decision was made to conduct the entire kindergarten day in French. Youngsters were, therefore, placed in a total French immersion situation in the classroom. In the school at large, and in the playground, youngsters would hear and speak English.

In order to provide a kindergarten experience resembling as closely as possible that of pupils in a regular kindergarten, the classroom was equipped with the materials to be found regularly in such rooms. There
was access in the classroom to coloured T.V., record-player and records, tape-recorder and listening centre, various audio-visual aids, as well as games, puzzles, building toys, and activity-centred materials, in addition to a small library.

In the selection of curriculum materials, an attempt was made to adhere as closely as possible to the English language program. The selection of materials was closely representative of immersion materials being used in the Ottawa Separate Schools. The program followed is basically an integrated one, and specific materials, included the following:

For mathematics: Pre-math (preceded by kindermath charts). This program looks basically at recognition of sets, geometric shapes, development of visual memory, following directions; ordering, identifying and comparing of sets; and discovery of patterns. Exactly the same materials are used in English, by the regular kindergarten group.

Religion: This subject area is integrated in the rest of the program, though a published program Viens vers le père has been used as a basis for instruction. This program is very similar to La Beginning, the program used regularly in the kindergartens in the area, the French program being derived primarily from the English one.

Health: This subject area is also integrated with the rest of the program. Health is taught through discussion supplemented by the use of charts and pictures which again are similar for both kindergarten groups.

Science: Some science was integrated with the rest of the program, as was the case for the regular kindergarten group. This program is the
School Readiness: *Au jardin fleuri*, a series of themes having as their objective the preparation of the child for the school disciplines, reading, writing, and arithmetic, was used. Subjects of study included the family, our favorite animals, our games and or work, our stories, our walks. These themes included exercises in visual discrimination, auditory discrimination and logical sequencing, as well as others. There is no equivalent program to this one used in the regular kindergarten, but these areas are developed in English by the use of supplementary materials, duplicates, and pre-reading materials.

Language Arts: *Au pays du language*, a program designed specifically for francophone children in French language schools, was used as the basis of the integrated approach to language arts at the kindergarten level. The objectives of this program are to awaken in the child an awareness of phonetic differences and auditory discrimination, to be able to hear the sounds of a word, to reproduce the sounds of French correctly and exactly, as well as internalization of the language, and the development and integration of language concepts. Again, there is no published material in an equivalent program prescribed for use in the English kindergartens of the Province, but similar areas are developed by supplementary materials as well as through the use of some basal readers.

Pre-reading Skills: The program used to introduce the pupils in the French kindergarten to reading was *Le livre rouge* (S.R.A.). The English kindergarten pupils used Ginn Kit A & B, followed by the Nelson Hickory Hollow series. Again both of these programs were deemed to be comparable, as both emphasized pre-reading skills, such as initial consonants, visual discrimination, lettering, motor development, colours, and word recognition.
Generally, speaking, then, a sincere attempt was made to keep the curriculum materials used in the French groups as closely related as possible to those used in the regular English kindergarten groups.

Assessment

The tests administered were chosen in part because of the generally accepted reliability and validity of such tests, and because of their applicability to the particular question under study (some have been used in other bilingual schooling evaluations). Further relevant information on reliability and validity of the measures may be found in the manuals or other related literature.

The tests used included the following:

1) French Comprehension Test - K level - French language skills

This test was designed by members of the Bilingual Education Research Project at the Ontario Institute for Studies of Education specifically for use with children in the kindergarten level of French immersion programs. The test measures primarily listening comprehension. This test was used to obtain a measure of the degree to which children in the French classroom are profiting from their increased exposure to French.

2) Raven's Progressive Matrices - For cognitive development

This test is a measure of intelligence considered to be relatively culture-fair and free of language bias. This test was chosen in order to obtain a comparison of the two kindergarten groups (regular and French) which would be relatively unattached to language
development, and thus would indicate whether there was any major retardation in general cognitive development occurring amongst youngsters in the French kindergarten.

3) **Mathematics Achievement Test** - A locally developed test

This test was developed by the French Consultant in cooperation with a specialist in early Childhood Education at Memorial University. It was directly related to the curriculum materials used in the regular and the French kindergarten classrooms and was administered only in English. This test was used in order to obtain a basis for comparison between the two kindergarten groups.

4) For English language skills.

a) **Peabody Picture Vocabulary Test: Forms A and B**

This test is sometimes used as a measure of intelligence. In this study, forms A and B were used interchangeably in order to obtain a measure of the vocabulary of the child. This test was administered only in English, in order to obtain a basis for comparison of the extent of English vocabulary development between the two kindergarten groups.

b) **Assessment of Children's Language Comprehension**

This test is divided into four parts: vocabulary, two, three and four component comprehension. It is designed to provide a measure of the child's ability to understand simple to relatively complex English language structure. This test was chosen because it has been found useful in obtaining a measure of the Newfoundland child's ability to cope with various complexities of English language structure in order to compare the two kindergarten groups.
to determine whether the children in the French immersion group showed any serious retardation in comprehension of the English language.

c) Gates-McGinitie Readiness Skills

This test comprises tests of a set of skills thought to be related to reading achievement in Grade one.

a) **Listening Comprehension** measures the ability to understand the total thought of a simple story.

b) **Auditory Discrimination** measures the ability of the child to distinguish between different sounds.

c) **Visual Discrimination** measures the ability of the child to distinguish between different printed words.

d) **Following Directions** measures the ability of the child to follow complex directions.

e) **Letter Recognition** measures the ability of the child to recognize letters of the alphabet.

f) **Visual-Motor Coordination** measures the ability of the child to complete printed letters.

g) **Auditory Blending** measures the ability of the child to join the parts of a word.

h) **Word Recognition** measures the ability of the child to recognize printed words in isolation.

i) **Total Weighted Score** is a composite of all readiness skills except word recognition.

This series of tests was chosen because it is widely used in Newfoundland schools, and is recommended by the Provincial Department of Education, as
a predictor of a child's readiness to cope with the reading program in English in Grade one. The purpose of this comparison was to determine whether the children in the immersion kindergarten were falling significantly behind their classmates in the regular kindergarten with regard to readiness for reading in English because of their exposure to a "French only" school environment.

Since the evaluation is concerned basically with the relative progress of the French kindergarten group, as compared with a regular English kindergarten experience, the results of the tests were analyzed in group comparisons not as measures of individual success or failure.

Results

It should be noted that there is very little data available on the kindergarten levels of bilingual programs, and this situation is due in part to both the difficulty of testing children at this age level and the reliability or validity of the results obtained.

Since the purpose of this study was to evaluate the possibility that the pupils in the French classroom as a group did not achieve as well as their classmates in the regular kindergarten, the procedures adopted in the statistical analysis of the data departed considerably from those employed in many research and evaluation studies.

With the exception of the Total Weighted Readiness Score of the Gates-McGinitie tests, raw scores were used. The use of raw scores tends to give more reliable statistics, but the statistics are not based on any norms, either local or national. The validity of the measures, then, as
comparative devices, is independent of the Cape St. George school population; but the educational significance of the observed differences will be obscured. It is fair to say, however, that the educational significance of the differences could not really be determined without further detailed study of the program, in any case.

Means were compared using one-tailed t-tests. Variances were tested using an F-test. In both tests a 0.25 level of confidence was set. The t-test and F-test relate to conclusions about the generalizability of the findings to other classrooms at other times. They will help to decide if similar results could be expected in next year's kindergarten classes, given similar conditions, and if similar results could be expected for other kindergarten classes in different locations with a context similar to the Cape St. George situation.

The one-tailed test at the .25 level of confidence was selected because of the importance attached by the District to determining if the French class was not "keeping up" with the English class. The procedure does increase the possibility that a difference will be considered significant even though it truly is not; therefore, when it is concluded that a difference is significant, it would be wise to verify this conclusion with further evaluation.

The results of the assessment procedures are presented in Table 1. The French language Comprehension Test was only given to the French immersion group. The immersion students achieved a mean score of 27.5. Because there was no comparable Newfoundland group with which those test scores could be compared, the French consultant contacted the Ontario Institute for Studies in Education for possible comparisons with other
### TABLE I

MEANS AND STANDARD DEVIATIONS ON THE EVALUATIVE MEASURES FOR THE FRENCH AND ENGLISH CLASSROOMS

June 1976

<table>
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<th>MEASURE</th>
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*significant at the .25 level of confidence
groups. The results of those comparisons based on data from some 600 pupils in kindergarten immersion programs from Vancouver to Ottawa (\( \bar{x} = 31.8 \)) suggest the Cape St. George immersion pupils are enjoying a substantial measure of success. It is suggested that too much weight should not be placed on comparison of results across programs since there are obviously differences and uncontrolled variables which make such comparisons tentative at best. Some of the factors influencing such a comparison in this instance include:

1. The children in the Cape St. George program are being compared with an average level of performance from youngsters in Toronto, Ottawa, and London, Ontario, as well as Vancouver. Thus, we are comparing children from a rural background with those from more urban areas.

2. The children in Cape St. George are being compared with an average obtained by children in areas such as Ottawa where there is a strong bilingual milieu.

3. The children in the Cape St. George program had to cope with adjusting themselves to a form of French (i.e., accent, vocabulary items, etc.) on the part of their teacher different from that to which they were accustomed.

4. The learning climate created by the teaching strategies and classroom procedures may have been different from that in many kindergarten classrooms in mainland Canada.

Too much concern should not be placed at this point in the program on verbalization in French on the part of the child. It must be remembered that this skill will develop as the child progresses through Grades I and II,
and the child should not be made to feel that he must speak in French. As his confidence develops he will spontaneously want to express himself in French, although he should at all times be encouraged to speak in French.

Cognitive development as assessed by Raven's Progressive Matrices indicates no difference between the two groups compared. The immersion group is doing as well as the control group.

The mathematics achievement was assessed using a locally prepared instrument based on the curriculum materials. The immersion students scored lower than the control. It should be noted that in the kindergarten readiness pre-test which was administered to the French kindergarten in French early in the Fall, ten of the thirty youngsters were rated as "below average" or "poor" in mathematics readiness. In general, it was the same pupils who received the lowest marks in the achievement-oriented test given at the end of the year. This fact, coupled with the realization that mathematics often is a "problem" area, would lead one to predict a certain degree of deficiency in this area.

While the testing in English of Mathematics concepts learned in French ought not to have been a factor, it may indeed have been so, particularly if concepts were not well-understood and internalized. It would perhaps be prudent next year to expand the area of mathematics testing to include the same mathematics achievement test given in both French and English to the pupils in the French kindergarten group.

English language skills were assessed using three instruments:

(a) **Peabody Picture Vocabulary Test**

In this test, there were no differences between the mean achievement of the two groups. More marked variability of scores in the immersion program was however noted.
(b) Assessment of Children's Language Comprehension

The results of these tests show a slight retardation amongst the pupils in the immersion group as compared with the control group with regard to understanding more complex sentences in English. There is a greater range in the ability to understand three-component type sentences in the French classroom than in the English one. While this finding is difficult to interpret, it may be hypothesized that the ability of the French kindergarten group is slightly behind that of the English group in understanding English sentences of increasing complexity. This phenomenon may, however, be part of a developmental stage in which the French kindergarten group is at present behind the English kindergarten group. In the next few years the French group may catch up with their peers in the regular kindergarten group.

The vocabulary section of the ACLC test did not show any significant difference between the number of English vocabulary items known by either group. (In both this test and the Peabody Picture Vocabulary test, both classrooms received high scores, and in both cases, there was a significantly wider range of scores.)

Of considerable interest is the finding that the French classroom consistently received more variable scores than the English kindergarten group. This may indicate that the French kindergarten pupils brought a wider range of learning abilities to the school experience. It may also be related to the teaching strategies and classroom procedures used in the two kindergartens. An experienced primary teacher might well consciously direct her teaching to
helping the poorer students, and be able to "individualize" her instruction procedures successfully, thus reducing the range of scores obtained. A less experienced teacher might, even unconsciously, focus her attention on the better pupils, thus widening the gap between scores. This latter case might be particularly true for a teacher coming from an European school background as was the case in the immersion program.

(c) Gates-McGinitie Readiness Skills

In this group of tests several interesting differences did occur. The French kindergarten group scored somewhat higher than the regular kindergarten group in Visual-Motor co-ordination. Slightly higher scores were also obtained by the French kindergarten group in the areas of "following directions" and "auditory discrimination". These gains, while very slight, would be consistent with research indicating that exposure to instruction in a second language increases auditory discrimination. The slightly higher score in "following directions" may also be related to a more formal atmosphere in the French kindergarten classroom.

There was no significant difference between the French and English kindergartens with regard to "listening comprehension", "visual discrimination", and "auditory blending".

A significant difference did appear in the areas of letter recognition and word recognition. These scores may be influenced, however, by differences in the level of achievement of the two groups. While both the French immersion group and the regular kindergarten attempted to achieve the same pre-reading skills,
many of the pupils in the English kindergarten went on to an actual reader and did word recognition exercises, while the French group did not get beyond the pre-reading stage. Thus, the higher scores achieved by the English group could be anticipated.

The more important finding, as far as total evaluation of the program is concerned, is that when the two groups were tested in English with regard to their readiness to enter a Grade I program given in English, the youngsters who had been exposed to an entire year of schooling in French, did not score very much lower than their classmates who had received an entire year's instruction in English (62.5 compared with 65.6). Part of this difference is accounted for by the different instructional activities which went on in the two classrooms. Therefore, those pupils who were in the French kindergarten are not very much behind their classmates in the regular kindergarten with respect to readiness for a Grade I program in English, but in addition, they have at the same time achieved close to a Canadian national average in French language comprehension.

Summary

Given the other factors which have been discussed in connection with each test in the preceding pages of this report, a summary of the findings would indicate:

1. That the progress of the children in the French kindergarten as measured by the French Comprehension Test - K Level (OISE) is fairly close to an average level of performance in French on a basis of 600 Canadian children in similar immersion programmes.
2. That the progress of the children in the French classroom in the area of cognitive development as measured by Raven's Progressive Matrices is not being adversely affected by their exposure to a kindergarten experience in an immersion environment, and that there may indeed be positive gains.

3. That the progress of the children in the French classroom in the area of mathematics is lower than that of their classmates in the regular kindergarten classroom as measured on a mathematics achievement test developed locally and related to the curriculum materials that were used in both classrooms. This may be explained by a difference in mathematics readiness between the pupils of the two classrooms, or it may be related to a difference in teaching strategies and classroom processes between the French and the regular kindergarten classrooms.

4. That the progress of the children in the French kindergarten in the area of readiness to enter a Grade I program as measured by the Gates-McGinitie test of readiness skills in English is lower than that of their classmates in the regular kindergarten program only in the areas of letter recognition and word recognition. These differences may be explained by a difference in learning activities (and teaching strategies used) in the two classrooms.

Taking all the circumstances into consideration, it would seem that the first year of the Bilingual Education project at Cape St. George has given the youngsters a successful kindergarten experience, has enriched their development, and has enabled them to increase substantially their French Language Comprehension.
BIBLIOGRAPHY


