ABSTRACT

The fourth year of the partial immersion program in grades one through four at Key Elementary School (Arlington, VA), where half the day is taught in English and half in Spanish, is reported. Eight teachers and 85 students are involved in the 4 classes. As in other years, the "special" classes (music, physical education, and library) are conducted in English, but there is an increased awareness of Spanish language activities throughout the school. The annual review has included classroom observations, student and teacher interviews, student assessment, and parent and staff interviews. Student assessments measured progress in both Spanish and English (standardized tests, oral language assessments, and teacher evaluations). Reasons for the program's continued success are identified, including: teacher/staff dedication; coordination between the two immersion classes and between the English and Spanish parts of the day, including the approaches to reading, writing, and hands-on science instruction; active involvement of parents; and continued support for the program from the central office. A major recommendation is that the program be continued and expanded to involve grades 1-5. Additional recommendations call for teacher inservice training opportunities and for the implementation of a long-term plan for the continuation of Spanish instruction for immersion students in middle and high school. Appended are agendas from parent-teacher meetings, a newspaper article about the program, the school immersion brochure, and the Holistic Rating Scale for Writing Samples. (LB)
Review of the Fourth Year of the Partial Immersion Program at Key Elementary School, Arlington, Virginia

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Arlington, Va. 22201

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Nancy C. Rhodes
August 1990
Center for Applied Linguistics
1118 22nd St. N.W., Washington, D.C. 20037
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Review of the Fourth Year of the Partial Immersion Program at Key Elementary School, Arlington, VA 1989-90

I. Introduction

The Center for Applied Linguistics has been involved in a review of the partial immersion program at Key School in Arlington since the program began four years ago. The annual review has included observing the partial immersion classes on a regular basis, interviewing students, teachers, other school staff and parents, and recommending student assessments so that the students' achievement could be measured in both Spanish and English (standardized tests, oral language assessments, and teacher evaluations).

A. Program Design

The partial immersion program at Key School teaches approximately half the day in English and half the day in Spanish. Adding one grade level per year, the program in its fourth year has expanded to grades 1 - 4 and plans have been made to continue expanding through grade 5. Each class contains 40-60% fluent Spanish speakers and 40-60% fluent English speakers.

The students in grades 1 and 2 change classrooms at noon, changing teachers and language of instruction. Grade 3 and 4 students have the same teachers all day, for both Spanish and English sessions. The program for grades 1 - 4 is set up as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Language</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A.M.</td>
<td>P.M.</td>
</tr>
<tr>
<td>Grade 1</td>
<td>SPANISH</td>
<td>ENGLISH</td>
</tr>
<tr>
<td></td>
<td>Language Arts</td>
<td>Language Arts</td>
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<td></td>
<td>Social Studies</td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>Science/Health</td>
<td>(Ms. Bretz)</td>
</tr>
<tr>
<td>Grade 2</td>
<td>ENGLISH</td>
<td>SPANISH</td>
</tr>
<tr>
<td></td>
<td>Language Arts</td>
<td>Language Arts</td>
</tr>
<tr>
<td></td>
<td>Math</td>
<td>Social Studies</td>
</tr>
<tr>
<td></td>
<td>(Ms. Fernandez)</td>
<td>Science/Health</td>
</tr>
<tr>
<td>Grade 3</td>
<td>ENGLISH</td>
<td>SPANISH</td>
</tr>
<tr>
<td></td>
<td>Language Arts</td>
<td>Language Arts</td>
</tr>
<tr>
<td></td>
<td>Math</td>
<td>Social Studies</td>
</tr>
<tr>
<td></td>
<td>(Ms. Kirsch)</td>
<td>Science/Health</td>
</tr>
<tr>
<td>Grade 4</td>
<td>ENGLISH</td>
<td>SPANISH</td>
</tr>
<tr>
<td></td>
<td>Language Arts</td>
<td>Language Arts</td>
</tr>
<tr>
<td></td>
<td>Social Studies</td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>(Ms. Cruz-Fridman)</td>
<td>Science/Health</td>
</tr>
<tr>
<td></td>
<td>(Ms. Cruz-Fridman)</td>
<td>(Ms. Cruz-Fridman)</td>
</tr>
</tbody>
</table>

The "special" classes (music, physical education, and library) are typically conducted in English, but there has been an increased awareness of Spanish language activities overall throughout the school and other teachers have incorporated Spanish language and culture into their lessons.
B. Personnel

New to the immersion program but an experienced teacher at Key, Ellen Bretz taught the English portion of the day for both the first and second grade immersion classes. Veteran immersion teacher Evelyn Fernandez taught the first grade Spanish portion of the day. Marcella Von Vacano, also new to the program but with experience in the Arlington Schools as an ESOL/HILT teacher, had responsibility as the Immersion Resource Specialist in the morning and taught the Spanish portion of second grade in the afternoon. A third new teacher in the program, Carmen Kirsch, newly arrived from Chile, taught the third grade for both the English and Spanish portions of the day. Mildred Cruz-Fridman taught the fourth grade for both the English and the Spanish portions of the day. All four teachers of Spanish have native-like fluency in Spanish and English, representing the cultures of the Dominican Republic, Bolivia, Chile, and Puerto Rico, respectively. Dr. Paul Wireman, Principal, Jan Specs, Reading Specialist, and Marcella Von Vacano in her role as Immersion Resource Specialist at Key gave ongoing support to the teachers and students in the program. In addition, the Arlington County Public Schools Acting Foreign Language Supervisor, Mary Ann Ulrich, assisted at the county level through support for staff and curriculum development.

C. Class Composition

The fourth grade immersion class had 20 students. Of these, 10 were native Spanish speakers, 8 were native English speakers, and 2 had other native languages (Armenian and Chinese) but were proficient in English. Eighteen of the 20 students had been in the immersion class the previous year.

The third grade class had 18 students: 11 native Spanish speakers and 7 native English speakers. Fifteen of the 18 students had been in the immersion class the previous year.

In the second grade class there were 25 students: 17 native Spanish speakers, 6 native English speakers, and 2 native speakers of other languages (Chinese and Haitian Creole) who had been mainstreamed into an English-medium class. Seventeen of the 25 students had been in the class the previous year.

The first grade class had 22 students: 11 native Spanish speakers and 11 native English speakers, including one who was English-Hindi bilingual.

II. Evaluation Procedures

Arlington staff requested that CAL provide an evaluation of the immersion program's fourth year of operation. CAL staff who participated in the project included Nancy Rhodes, Donna Christian, JoAnn Crandall, and G. Richard Tucker. The evaluation was planned as a follow-up to the first, second, and third year evaluations and addressed the following questions:
1. What is the English and Spanish proficiency of students in the immersion program, and how does it change over the year?

2. How well do the immersion students do in content area subjects? Do they make academic progress comparable to other first, second, and third graders?

3. How might the program be improved?

As in the past three years, several types of information was collected for this review of the program. From January through May, CAL staff conducted classroom observations of the immersion class. Staff members spent time observing both the English and Spanish portions of the day in all four grade levels. CAL staff also had other opportunities to visit classes at other times before and after the observation period and to talk informally with the immersion teachers and other Key School staff. They also attended parent meetings and student performances for parents which allowed informal interaction with parents as well. Teachers and students in the program as well as the principal were interviewed during the course of the year to find out their opinions of the program.

As with the first three years, several kinds of test data were collected on the students to assess their academic progress and language development. The Language Assessment Scales (LAS) were administered in the fall and spring to the first, second, third, and fourth graders in the program to provide a measure of both English and Spanish proficiency for immersion students. The Student Oral Proficiency Rating (SOPR) was used by the teachers to assess Spanish speaking proficiency for all four grades. The Boehm R Test of Basic Concepts was administered to the first graders again this year to assess the students' conceptual development in English and Spanish. The students' mastery of content area subjects was examined from scores on end-of-unit tests in social studies, science, and reading. As an additional assessment this year, we have focused on the student's writing, collecting data from the first, second, and fourth grade classes and conducting a detailed analysis of the first graders' writing.

The results of these information collection efforts are described in the following sections.

III. Student Progress

A. English and Spanish Language Development

The Language Assessment Scales (LAS) are used to measure English and Spanish language development through a five-part test that measures students' ability with minimal pairs (identifying words as being the same or different), vocabulary (naming an object represented by a drawing), pronunciation (repeating a word), comprehension (listening to a tape and then pointing to a picture that is described on the tape), and oral production (retelling a story). The first four parts of the test make up 50% of the total score while the story retelling makes up the other 50%. Students are rated on a scale from 0 - 5 with 0 indicating a "non-speaker" and 5 indicating a "fluent" (proficient) speaker. The students' LAS scores are presented below by grade, first for the native English speakers and then for the native Spanish speakers.
FIRST GRADE English speakers. On the LAS English test in the fall, of the 11 English speakers, one was at level 4 and ten were at level 5. By spring, the one level 4 student had moved up to level 5. In addition, two English speakers arrived after the fall testing and scored at level 5 in the spring.

On the Spanish test in the fall, all eleven non-native Spanish speakers scored at level 1, except one who scored at level 2. By spring, four had moved up to level 2 and the level 2 student had moved up to a level 3. (The two late arrivals scored at level 1). When comparing student gains, the improvement in this first grade class is comparable to that of the 1988-89 first grade class.

FIRST GRADE Spanish speakers. On the English test in the fall, among the eleven native Spanish speakers, two students were at level 3, four at level 4, and five at level 5. By the spring test, only one student was at level 3, two at level 4, and eight at level 5. (One student did not take the test.)

In the fall on the Spanish test, three students were at level 2, two students were at level 3, three were at level 4, and three were at level 5. By spring, two were at level 3, one was at level 4, and the other eight were at level 5.

SECOND GRADE English speakers. On the LAS English test, of the six native English speakers and the two native speakers of languages other than English or Spanish, two scored at level 4 and the rest at level 5. By spring, all scored at level 5.

On the Spanish test in the fall, this same group had four scoring at level 1, three at level 2, and one at level 3. By spring, one student was at level 1, four students scored at level 2, and three students scored at level 3.

SECOND GRADE Spanish speakers. On the English test in the fall, of the seventeen native Spanish speakers, one scored at level 2, one at level 3, four at level 4, and ten scored at level 5. (One student was not tested in the fall.) By spring, four were at level 4 and the rest were at level 5.

On the Spanish test in the fall, one student scored at level 3, three at level 4, and twelve at level 5 (one student was not tested). By spring, only one student was at level 4 while the rest were at level 5.

THIRD GRADE English speakers. On the LAS English test, of the seven native English speakers, all scored at level 5 in the fall and in the spring.

On the Spanish test in the fall, this same group had three scoring at level 3, three at level 4, and one at level 5. By spring, one student had fallen back to level 2, one scored at level 3, and five scored at level 4.
THIRD GRADE Spanish speakers. On the LAS English test, all students scored at level 5 in the fall and in the spring, including five additional newcomers to the class.

On the Spanish test in the fall and spring, all native Spanish speakers, including the newcomers in the spring testing, scored at level 5 except one, who scored at level 4 in the spring.

FOURTH GRADE English speakers. On the LAS English test, of the ten native English speakers or native speakers of languages other than English or Spanish, all scored at level 5 in the fall except one who scored at level 4. By spring this student also scored at level 5 along with the rest of the students.

On the Spanish test in the fall, this same group had one scoring at level 1 (a newcomer to the program who entered in fourth grade with no Spanish background), four scoring at level 3, and five at level 4. By spring, two students scored at level 3 (including the newcomer), one at level 4, and the rest of the seven students at level 5.

FOURTH GRADE Spanish speakers. On the LAS English test, all students scored at level 5 in the fall and spring.

On the Spanish test in the fall all native Spanish speakers scored at level 5 except one who scored at level 4. By spring that student had reached a level 5. (See chart below)
## Language Assessment Scale - English and Spanish Results
### Fall 1989 and Spring 1990, Grades 1 - 4

<table>
<thead>
<tr>
<th>Grade 1 - ENGLISH LAS</th>
<th>Grade 1 - SPANISH LAS</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Spring</td>
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<td>Level 1</td>
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<td>Level 2</td>
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<td>Level 3 ≥</td>
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<td>Level 4 ≤</td>
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<tr>
<td>Level 5 ≤</td>
<td>xxxxxxxx</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade 2 - ENGLISH LAS</th>
<th>Grade 2 - SPANISH LAS</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Spring</td>
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<tr>
<td>Level 1</td>
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<tr>
<td>Level 2 ≤</td>
<td>oo</td>
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<tr>
<td>Level 3 ≤</td>
<td>o</td>
</tr>
<tr>
<td>Level 4 ≤</td>
<td>ooo</td>
</tr>
<tr>
<td>Level 5 ≤</td>
<td>xxxxxxxx</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade 3 - ENGLISH LAS</th>
<th>Grade 3 - SPANISH LAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Spring</td>
</tr>
<tr>
<td>Level 1</td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td></td>
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<tr>
<td>Level 3</td>
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<tr>
<td>Level 4</td>
<td></td>
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<tr>
<td>Level 5 ≤</td>
<td>xxxxxxxx</td>
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<table>
<thead>
<tr>
<th>Grade 4 - ENGLISH LAS</th>
<th>Grade 4 - SPANISH LAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Spring</td>
</tr>
<tr>
<td>Level 1</td>
<td></td>
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<tr>
<td>Level 2</td>
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<td>Level 3</td>
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<tr>
<td>Level 4 ≤</td>
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<tr>
<td>Level 5 ≤</td>
<td>xxxxxxxx</td>
</tr>
</tbody>
</table>

**NOTE:** x represents native English/other language-speaking student; o represents native Spanish-speaking.
A few conclusions can be drawn from the pre (fall) and post (spring) LAS scores: (1) all first and second grade students made gains in both English and Spanish; (2) in Spanish, the second grade native English speakers improved from fall to spring, while the native Spanish speakers improved and performed at the highest level (except one student at level 4) by spring; and (3) the third and fourth grade native English/other language speakers continued to improve their Spanish from fall to spring while the native Spanish speakers all performed at the highest level in Spanish.

B. Spanish Oral Language Skills

As in the past two years, the Student Oral Proficiency Rating (SOPR) was used by the teachers to assess Spanish speaking skills. The SOPR provides a measure of a student's ability to understand, speak, and be understood by others in the language he or she is learning. It is focused on oral communication ability considered apart from the ability to read or write in the language. Instead of rating the students during a specific testing time, the teachers use their observations over the year as the basis for rating a student's level of ability. Each student is rated on five categories of oral language proficiency: comprehension, fluency, vocabulary, pronunciation, and grammar. For each category, the student is rated in one of five levels, ranging from 1, indicating little or no ability, to 5, indicating a level of ability equivalent to that of a native speaker of the language. The scores reported below are the averages for the five categories.

FIRST GRADE English speakers. Of the eleven native English speakers, one scored at level 1 (very limited oral), six scored at level 2 (limited oral), three scored at level 3 (functional oral), and one scored at level 4 (fluent oral) during the end of the year Spanish oral proficiency testing.

FIRST GRADE Spanish speakers. Of the eleven native Spanish speakers, one scored at level 3 (functional oral), eight scored at level 4 (fluent oral), and two scored at level 5 (native-speaker oral).

SECOND GRADE English speakers. Of the eight native English speakers, three scored at level 2 (limited oral), three scored at level 3 (functional oral), and two scored at level 4 (fluent oral).

SECOND GRADE Spanish speakers. Of the seventeen native Spanish speakers, three scored at level 4 (fluent oral) and fourteen scored at level 5 (native-speaker oral).

THIRD GRADE English speakers. Of the seven native English speakers, one scored at level 2 (limited oral), one at level 3 (functional oral), and five at level 4 (fluent oral).

THIRD GRADE Spanish speakers. Of the eleven native Spanish speakers, four scored at level 4 (fluent oral), and seven scored at level 5 (native-speaker oral).
FOURTH GRADE English speakers. Of the ten native English speakers and native speakers of languages other than English or Spanish, two scored at level 3 (functional oral), and eight at level 4 (fluent oral).

FOURTH GRADE Spanish speakers. Of the ten native Spanish speakers, one scored at level 4 (fluent oral), and the rest of the nine scored at level 5 (native-speaker oral).

These results indicate that the teachers observed a wide range of Spanish proficiency levels at each grade level, confirming the LAS scores, and that the students improved their skill level as they continued in the program. As the students progress from first through fourth grades, there are fewer scores at the lower 1 and 2 levels and more at the higher four and five levels (see chart below).

Results of Spring 1990 SOPR Tests, Grades 1 - 4

SPANISH Oral Proficiency of All Students

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Very limited proficiency</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Limited proficiency</td>
<td>xxxxxx</td>
<td>xxx</td>
<td>x</td>
</tr>
<tr>
<td>3 Functional proficiency</td>
<td>xxxo</td>
<td>xxx</td>
<td>xx</td>
</tr>
<tr>
<td>4 Fluent proficiency</td>
<td>x0000000</td>
<td>xx000</td>
<td>xxx00000</td>
</tr>
<tr>
<td>5 Native-speaker proficiency</td>
<td>00</td>
<td>000000000000000</td>
<td>00000000</td>
</tr>
</tbody>
</table>

Note: The number of marks indicates number of students with that score (x=native English/other language speaker; o=native Spanish speaker)

C. Conceptual Development

The Boehm Test of Basic Concepts is designed to measure children's mastery of concepts considered necessary for achievement in the first years of school. Boehm test results may be used both to identify children with deficiencies in this area and to identify individual concepts on which the children could profit from instruction. The test consists of 50 pictorial items arranged in approximate order of increasing difficulty. The examiner reads aloud a statement describing each set of pictures and instructs the children to mark the one that illustrates the concept being tested. The Boehm test was administered to first graders in the fall and the spring. (The test is not administered to other grades.) Scores reported below represent the group average for the 22 immersion students.
On the English version of the Boehm in the fall, the immersion first graders averaged 87.5% (Spanish speakers 81%; English speakers 94%). In the spring, the first graders' average increased to 93.5% correct (Spanish speakers 92%; English speakers 95%).

On the Spanish version of the Boehm in the fall, the immersion first grade averaged 46.5% correct (Spanish speakers 64%; English speakers 29%). By spring, the total correct increased to 82.5% (Spanish speakers 89%; English speakers 76%).

<table>
<thead>
<tr>
<th>Results of BOEHM Test of Basic Concepts, Grade 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 1989 and Spring 1990</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>English version (Fall)</th>
<th>English version (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish speakers</td>
<td>81%</td>
<td>92%</td>
</tr>
<tr>
<td>English speakers</td>
<td>94%</td>
<td>95%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Spanish version (Fall)</th>
<th>Spanish version (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish speakers</td>
<td>64%</td>
<td>89%</td>
</tr>
<tr>
<td>English speakers</td>
<td>29%</td>
<td>76%</td>
</tr>
</tbody>
</table>

The Boehm scores from fall to spring illustrate the gains of all students in understanding concepts in both languages. On the English test, both the Spanish speakers and English speakers improved their scores from fall to spring. On the Spanish test, both groups improved as well, with the English speakers showing a substantial increase from 29% to 76% correct. There was more room for improvement for the English speakers in Spanish than for the Spanish speakers in English, of course, because the Spanish speakers started out the year with fairly high scores in English already. Further, the spring Boehm scores can be compared to the spring scores of the three previous immersion first grades. These comparisons show that there are no major differences in the English or Spanish scores when comparing the first grade immersion classes for the last four years.

D. Social Studies, Science, and Reading Achievement

FIRST GRADE Social Studies and Science. Students in the first grade immersion class were given chapter tests in social studies and science throughout the year. Since the social studies class is taught in Spanish, the tests were also given in Spanish. The class average was 89%.
The class average for the science chapter tests in Spanish was 92%. For an interesting comparison, the students were also administered end of chapter tests in English, even though all their science instruction was in Spanish. The class average for the science tests in English was exactly the same. The fact that these students were able to score this high in science in English, despite having received their instruction in Spanish, demonstrates that the students were acquiring the science concepts in Spanish and were also able to transfer the knowledge gained and apply these concepts when tested in English. Thus these results support the assumptions about achievement underlying the two-way immersion model that content learned in Spanish will be available in English as well. The fact that the students were able to score as well as they did demonstrates that the concepts were available to them in both languages.

SECOND GRADE Social Studies and Science. As with the first grade students, the second grade immersion students were administered end of chapter social studies and science tests in Spanish throughout the year. The class average for social studies was 88% and for science was 81%.

THIRD GRADE Social Studies and Science. The third graders also were tested in social studies and science in Spanish throughout the year and the class averages were 86% and 85% respectively.

FOURTH GRADE Social Studies, Science, and Mathematics. The fourth graders averaged 82% in social studies chapter tests (in English) and 87% in science chapter tests (in Spanish). The mathematics grade for the class (taught and tested in Spanish) was 80%.

As the test results show, both the native Spanish and native English speaking children in all four grades scored above average in achievement in social studies and science. There were no comparison group test scores available for social studies or science.

FIRST, SECOND, THIRD, and FOURTH GRADE Spanish Reading. For the past three years, the immersion students' Spanish reading skills have been assessed by their progress in the McGraw-Hill Hagamos Caminos reading series. This year, the first grade teacher supplemented this literature-based reading program with additional literature related to the curriculum and by using more of a whole language approach. She measured the students' progress this year by asking the students to read a story and answer three questions about it. The class average was 82% on the responses. For second and fourth graders, Spanish reading ability was not assessed separately but was evaluated together with the subject matter for social studies and science (second grade) and mathematics and science (fourth grade). The third grade, using the Hagamos Caminos texts, were tested in reading.
First, Second, Third, and Fourth Grade English Reading. All immersion students' English reading skills were assessed by their progress in the Silver-Burdeitt/Ginn "World of Reading" series, a newly implemented reading program at Key Elementary as of fall 1989. The series is literature-based and the reading selections encourage the students to read further on each topic, write about each topic, and explore ideas beyond what is on the written page. The children are constantly challenged to hypothesize what would happen next and are encouraged to give their opinions on the readings. The series is intended to be supplemented with material from the library. The first and second grade English reading teacher finds the series challenging for the students and sees the program as developing higher order thinking skills. However, one disadvantage to the program she sees for the non-native English speakers is that it is often assumed that they have background knowledge on a particular topic which they in fact do not have. To remedy this, the teacher must often prepare the students for a reading selection by discussing the topic ahead of time to make sure that everyone has the same background knowledge.

In the first grade class, two students completed the first half of the first grade reader (both native Spanish speakers), eleven completed the entire first grade reader (five native Spanish and six native English speakers), and six completed the first half of the second grade reader (two native Spanish and four native English speakers). (Two students who are being retained in first grade, one native Spanish and one native English speaker, completed the pre-primer level. The teachers noted, however, that the reason for their retention was not due to the immersion program but was due to their delayed academic/social development overall.)

In the second grade class, nine students completed the first half of the second grade reader (five native Spanish and four native English speakers), eight students completed the second grade reader (seven native Spanish and one native English speaker), and eight students completed the first half of the third grade reader (five native Spanish and three native English speaker). It is important to note that of the nine students who did not complete the second grade reader, five of them were non-native English speakers. (Three of the students at the lowest reading level -- two native Spanish speakers and one native English speaker -- are being retained in second grade. The reason for their retention was due to delayed academic/social development and not to the nature of the immersion program.)

In the third grade class, seven students completed the first half of the third grade reader (five native Spanish and two native English speakers) while nine students completed the third grade reader (five native Spanish/other and four native English speakers). (There were not retentions in the third grade.)

All twenty of the fourth grade students completed the fourth grade reader and will be starting the fifth grade reader in the fall. It should be noted that the fourth grade students also read a lot of supplementary materials and children's literature during their regular reading period. When assessed in reading comprehension on the Iowa Test of Basic Skills, the fourth graders ranged from the fourth to seventh grade level. (There were no retentions in the fourth grade.)

Overall, the English reading results of grades 1 through 4 showed that the Spanish immersion students, both native English and native Spanish/other language speakers, scored at a comparable level.
to other students at Key. Interestingly, there was no pattern of distribution of immersion students' reading levels according to their native language. Both language groups were well represented throughout all the reading levels.

E. Writing

All four grades have focused on the writing process this year, both in Spanish and in English. Both the first and second grades collected Spanish writing samples of concrete writing (describe a picture of a snow scene) and abstract writing (describe why the girl in the picture is unhappy), with the samples graded by a holistic scoring procedure developed by the Arlington Public Schools. The fourth grade participated in the county-wide "Assessment of Writing" along with all other fourth, fifth, and sixth graders in the fall and spring as well as the "Virginia Literacy Writing Test." The following is an elaboration of the writing activities and outcomes in specific grades, with a special focus on Spanish writing in first grade.

FIRST GRADE. Below are samples of stories the first grade students wrote in Spanish about a picture of children playing in the snow. Their writing was graded holistically on a scale from 1 to 8, with 8 the highest (see appendix for complete rating scale). The samples appear below in order from lowest to highest scores, with the native language of the student in parentheses. The scores in the first grade ranged from 1 to 7.

SCORE: 1
1. (Engl) Iso nieso es seta jugando en la nedes y es seta a un.
2. (Span) Abia una vez un fue dos niños nombed Irene y Bonnie.
3. (Engl) La ninas y ninos feles estos 1. mohco male nino ha ha ha cabom. La nino es nieve sieror. ninos y ninas nieve blas fite.

SCORE: 2
6. (Engl) Mi mera la nina bilar de la nievay hoy. La nino tiene un nievay bola. La nino tiene un nieve sinyor. La nieve sinyor no tiene un nariz. La nina y nino es mocho feliz.
7. (Engl) Un nino es ha ha ha con la nina y la nina es ha ha ha de la munacadedeza. La color es blanco y la nefy es blanco y cafe. Un ninas cado y

SCORE: 4

8. (Span) Los ninuos estan jugcado y estan jugcado derado bolas y estan patnado y los ninuos estan reydtse y estan setado y esta scodedo y ame me gusa la nyve la nyve es blaca y atan coro y tiane bolas.


10. (Engl) Los niños y los niñas una niño terando una bol de ñeve al uno niña. Y uno niño termenaste una nieve niño. Una niño sentense a uno log. Y una niño es sletng ariba dl una muntana. Y la niña jugando el el helo.

11. (Span) Ha una bia un ninos los ninos esta jugdo con la neves. Los ninos esta jugdo con la néve. El niño ce esta en el abol. El abol es pcno. El niño es pcno. No temia neves en la mado. El niño garo la néve y yiso una bia de néves. La bla de néves no lo yiso una gate bia de néves. Los ninos tniha un bia de néves. Los ninos iser una bia de neves?


SCORE: 5


16. (Span) Abia una vez un niño y niña estavan terando bolas y despues era noche y la niña dejo buenas noches y la niña se fue. El niño estava perdedo y no equntrava so casa y despues lo eqntro.
The first grade writing samples above clearly illustrate the range of writing skills at the end of one year of partial immersion. Students' writing ranges from the example #1 where the student attempts to make a sentence using the words "snow" (niés or nedes) and "playing" (jugando), to example #20 where the student writes a paragraph about the children making a snowman and playing and sliding in the snow and ice. Although the native speakers of both languages scored at all levels on the scale, the native Spanish speakers scored higher than the native English speakers overall. The paragraphs can be analyzed by comparing their content, style, grammar, and spelling and punctuation.

The overall content of the paragraphs was similar in that all the students were describing the same picture of a winter snow scene. They all mentioned that there was snow and that there was a child/children playing. This is where the similarities ended, however. Many of the more advanced writers were able to elaborate on the topic and give supporting details to help the reader understand the story. For example, in story #15, the writer starts out, "Los niños y niñas están jugando." (The boys and girls are playing.) Then he elaborates, "Un niño esta asiendo un monego de nieve. El nina esta en el llleo. Nino esta tirando un pelota de nieve." (One boy is making a snowman. The girl is on the ice. The boy is throwing a snow ball).

The more advanced writers were also able to use their imagination to express a variety of ideas about the picture to tell a story rather than just describe exactly what was in the picture. One of the more...
creative writers (#18) developed a scenario where one of the younger children didn't speak Spanish and somehow had to communicate with the others. 


One day a boy who was four went with them. They were seven or eight years old. And the boy spoke English, not Spanish. Everyone (else) spoke Spanish. So, he said, "Hi!" And the other boy said, "You don't speak Spanish." He said, "I no se espanol. I - fou. And you?" "I am seven. They are seven and eight. We are going to teach you how to speak Spanish." And he also learned Spanish.) The writer took a creative approach by developing a story through realistic dialogue and a surprise ending that made the story enjoyable to read.

Another aspect to look at in the stories is the style or structure used by the students. At least six of the students (#2, #11, #13, #16, #18, #19) started off their story with a recognized beginning story format, "Habia una vez" or "Un día" (Once upon a time or One day). This demonstrates the students' understanding of the need for story structure and the awareness of writing for an audience. Another advanced style technique used by some of the writers (#7, #14, #16, #19) is the use of speech or dialogue. As in example #16, "... después era noche y la niña dijo 'buenas noches' y la niña se fue." (Then it was night and the girl said, "Good night" and she left.) At least three of the students attempted to bring humor to their writing by inserted laughing into their story as in #14, "'Ha ha ha,' dijo el niño a la niña. Y la otra niño esta aplaudar." ("Ha ha ha," said the boy to the girl. And the other boy applauded.) The most extensive use of dialogue was in example #18 mentioned above with the two children talking.

When looking specifically at the grammar in the stories, it is apparent that the students are writing down various versions of verb forms and nouns that they have heard orally in class or elsewhere, but that they have not yet internalized many of the rules. For example, gender agreement (la niña, el niño) and verb agreement (la niña fue, las niñas fueron) have not yet been mastered by the majority of the students. This writing process the students are following is a natural process in second language learning (and in first language learning) and should be encouraged. Through additional written and oral practice throughout elementary school the students will eventually internalize grammar rules and will know that it must be el niño not la niña and las niñas fueron not las niñas fue.

The first graders are encouraged to use words even if they don't know how to spell them and are encouraged to use invented spelling when they are unsure. As a result, in these stories they've come up with 10 variations of the spelling for niño, niño, niños, niñas: niñoña, nena, nefa, neneuo, niñe, neos, ninuos, niñ, ninos, ninas. For snowman, they've come up with 8 variations: nieve sinyor, nieve sieror, nieve niño, nino neve, moñeco de neve, muñeco de nieve, moneco de nieve, and ombre de nieve. The spelling, along with the grammar, will become more standard as they gain more practice in writing and reading and have more exposure to the written word. As can be seen in the variations of spellings for niño and snowman, the use of the accent marks varies widely. Many of them have mastered the ø but used it inconsistently, while others "hypercorrected" to put accents where they weren't needed on
nieve, nêve, and intôneces.

The process of writing that these first graders are involved in is a critical step in the development of their writing and speaking skills. As they are given specific writing assignments, they are engaging in cognitive skills that force them to put down their spoken vocabulary in written form, something they may not have experienced before. As they gain more experience in writing, both in Spanish and in English, their grammar and spelling will improve as well. The wide range of writing skills that are exhibited in these examples shows that the first graders are learning to develop a topic by providing details, are learning organizational skills in written expression, and are developing an understanding of a sense of audience.

SECOND GRADE. The second grade participated in two writing assessments including the description of the winter scene (same as the first grade) and a story about a girl who looked very sad. The students's scores were as follows:

<table>
<thead>
<tr>
<th>SECOND GRADE HOLISTIC WRITING SCORES (1-8, 8 is highest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCORE: 1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td>Concrete writing</td>
</tr>
<tr>
<td>X XXX XXX XX XXXXXXX XXXXXXXX XX</td>
</tr>
<tr>
<td>Abstract writing</td>
</tr>
<tr>
<td>XX X XXXXX XXX XXX XXX XXXX XX</td>
</tr>
</tbody>
</table>

The second grade showed a wide range of writing skills in the two samples, with the majority of the students scoring 4 and above. As with the first grade, the process writing approach used in the second grade is an integral part of the program and a critical component in the successful curriculum.

FOURTH GRADE. The fourth grade class participated in a county-wide "Assessment of Writing," a paragraph writing assignment on a given topic that was scored holistically on a scale from 1 to 8. The immersion class scored an average of 3.57 in the fall and 5.73 in the spring, showing a gain of 2.16 points. This class had a greater gain from the fall to spring than any other fourth, fifth, or sixth grade class at Key School this year. In addition, their raw scores in the spring were higher than all the other fourth and fifth grade scores, and only one sixth grade class had a higher score. Keeping in mind that this writing assessment was in English, and that this class had only been receiving half of their daily instruction in English (and thus approximately half as many assignments in English as the comparison classes), it is clear that their Spanish study has not had any negative effect whatsoever on their English writing skills. In fact, it seems apparent that their facility in a second language has actually enhanced their English skills.
The fourth graders also participated in the optional state-wide "Writing Assessment," which is used as a predictor for the required sixth grade Virginia Literacy Test. The results validated their good performance on the Arlington "Assessment of Writing" test. The class averaged 52.31 points (out of 64) while the average for all of Arlington was 50.2. (The native English speakers scored 54.88 while the native Spanish speakers scored 50.)

F. Achievement Test Scores

The fourth graders were administered language arts, mathematics, science, and social studies standardized tests of the Iowa Test of Basic Skills in March 1990. As a class they scored at the fifth and sixth grade level in all areas, and were at or above the 68th percentile in all areas when compared to a national sample. They were at the 77th percentile in mathematics (math concepts, math problem solving, math computation), at the 76th percentile for language (vocabulary, reading comprehension, spelling, capitalization, punctuation, and usage and expression), at the 76th percentile in science, at the 76th percentile for work study skills (visual materials and reference materials), and at the 68th percentile in social studies.

G. Science Fair Participation

As with last year, all the immersion classes participated in the school-wide science fair. Since science is taught in Spanish in the program and the science fair is judged by English-speaking judges, the immersion students were asked to write summaries of their projects in English so that they would have a fair chance at the awards. They did indeed get a fair chance at the prizes, with the first grade immersion students taking first, second, and third place; the second grade immersion students taking first, second, and third place; the third grade immersion students taking second and third place; and the fourth grade immersion students taking first, second, and third place!

H. Attendance

The classroom teachers reported that student attendance in the first, second, third, and fourth grade immersion classes was normal throughout the year and was comparable in attendance to other classes.

IV. Recommendations

The partial immersion program at Key School continues to be quite successful for numerous reasons: the dedication of the principal, teachers, and staff; the continual infusion of innovations in both the English and Spanish portions of the day, especially in the approaches to reading, writing, and hands-on science instruction; the active involvement of the parents; and the continual support for the
program from the central office.

Our major recommendation is that the program be continued and expanded to involve grades 1 - 5. It is important that the students be guaranteed continuation of their Spanish studies throughout the elementary grades. In addition, we reiterate our recommendation from last year that a long-term plan be implemented for the continuation of Spanish instruction for immersion students in middle and high school. A critical element to the long-term success of Key's program will be the continuation of the program in later years. Lastly, we recommend that the immersion teachers be offered opportunities to continue their training by attending workshops, conferences (such as Advocates for Language Learning and Second/Foreign Language Acquisition by Children), and other in-service training sessions.

V. Conclusion

Key Elementary School has completed the fourth year of its Spanish partial immersion program, and the students continue to succeed in all academic areas. Test results have shown that the students in the partial immersion program have progressed in academic areas as well as other students at their grade level. Students are continuing to improve their Spanish and English skills, as measured by the LAS test, and their oral skills in Spanish are improving from fall to spring and year by year, as measured by the SOPR test. The pilot fourth grade class had stunning results on their achievement tests in all subject areas, scoring at the fifth or sixth grade level in social studies, science, mathematics, and language arts. The overall test scores from grades one through four confirm results of other partial immersion programs with both native English and native Spanish speakers and verify that Key School's model is an appropriate one for educating both English- and Spanish-speaking children.

A discussion of the 1989-90 school year cannot be complete without mentioning the extraordinary contribution of the retiring principal, Dr. Paul Wireman. Without the foresight of Dr. Wireman, who conceptualized the program in the spring of 1986 and implemented it amazingly quickly by the fall, the program would never have materialized. Through his confidence in the teachers and students and his initiative and drive in getting the program off the ground, this very successful program has flourished for the past four years. Its success in no small part is due to the dedication and determination of Dr. Wireman.
APPENDIX

A. Teacher-Parent meeting agenda (February 15, 1990)

B. Teacher-Parent meeting agenda (May 17, 1990)

C. Washington Post article about Key School (March 22, 1990)

D. Key School immersion brochure

E. Holistic Rating Scale for Writing Samples
February 15, 1990

PARTIAL IMMERSION PROGRAM

AGENDA

7:00 p.m.  Videotape "Insights" Arlington Cable Channel 30

7:10 p.m.  Dr. Wireman, Principal
            Questions - Concerns

7:30 p.m.  Mrs. Mary Ann Ullrich
            Supervisor - Foreign Languages

7:33 p.m.  Miss Nancy Rhodes
            Center for Applied Linguistics

7:35 p.m.  Mrs. Jan Spees
            Reading Specialist - Key School

7:40 p.m.  Immersion teachers
            1st grade Mrs. Fernández/Mrs. Bretz
            2nd grade Mrs. Bretz/Mrs. vonVacano
            3rd grade Mrs. Kirsch
            4th grade Mrs. Cruz-Fridman

7:50 p.m.  Sharing of ideas and comments
FRANCIS SCOTT KEY ELEMENTARY SCHOOL
2300 Key Boulevard
Arlington, Virginia 22201

"A School for All Children"

May 17, 1990 - Thursday, 7:30 P.M.

PARTIAL IMMERSION PARENT MEETING

AGENDA

Welcome - Dr. Wiroman

Brief history of the program and happenings this year

Open enrollment/limited transportation

Panel - classroom highlights by teachers, comments by related school personnel and parents, and responses to your questions/concerns.

Ms. Bretz (first/second grades English)
Ms. Fernandez (first grade Spanish)
Ms. Von Vacano (second grade Spanish)
Ms. Kirsch (third grade English/Spanish)
Ms. Cruz-Fridman (fourth grade English/Spanish)

Ms. Spees (Reading Specialist)
Ms. Ullrich (Foreign Language Supervisor - Research and Arlington County)
Dr. Christian (Center for Applied Linguistics) Evaluation
Ms. Buchholz
Ms. Brolis
Ms. Vasquez
Ms. Tucker, who incidently is Arlington’s Social Studies Elementary "Teacher of the Year" from Oakridge Elementary School.

Questions/comments to the panel

Ms. Von Vacano - Awards and Achievements

Dr. Wiroman - Plans for 1990-91
Number of classes 5-6
Location of classes 3-4 down and 2 up
Teachers
Summer Curriculum Projects
Principal for 1990-91

How can you help.
Brochure

It's a shared program - yours/your children/our - come visit, share your thoughts/concerns and help the program grow.

Thank you and good bye.

pdw
Language Immersion Program Puts Arlington Students in the Swim

By Stephanie Griffith

Two Arlington first-graders are now among the 110 students at Arlington County's Key Biscayne School participating in the district's bilingual immersion program. The children are learning in both English and Spanish, and in some cases, creative uses of multiple languages. There are 10 classes at Key Biscayne School in Arlington, two each in kindergarten, first, second, and third grades.

The bilingual immersion program, which is part of the Arlington County Public Schools (ACPS), is a language program designed to help students learn a second language while maintaining their first language. It is a highly successful program that has been in operation for over 20 years.

Despite the success of the program, the school board members voiced reservations about providing additional funding for transporting students from around the county to the program. The school building, at 2300 Key Blvd, is located near the Waterford Center.

The Arlington market, where students traveling to the program from greater distances might be able to use public transportation, has been a small county and the Key Biscayne School is on a major road.

Otherwise, the program is considered to be cost-effective because it does not require additional teachers or the hiring of extra teachers, according to the school board members.

Many of the Spanish-language teaching materials are written or translated by the teachers.

School board members are slated to vote on the proposal, which includes the transportation issue as well as the proposal to double the number of first-grade students in the program. The April 5 meeting.

Despite the hesitation of some board members, administrators of the bilingual program express optimism that it will be expanded, largely based on the glowing praise it has received from many corners—confidently so far as all from parents like Judy Buckholz.

"I feel that it's worthwhile," said Buckholz, whose 6-year-old son is a third-grader in the program. "He has no fear of the language, which is something kids sometimes develop when they get a little older."

The most enthusiastic advocates of the program, however, seem to be the participants.

Nine-year-old Grace Chou finds Spanish a worthwhile addition to a repertoire of languages which includes Mandarin and Vietnamese. "I have neighbors who only speak Spanish and my parents don't," she said, "so I have to translate for them."

Her classmate, Bryn Krumm, also 9, said she may even be on the verge of regretting the intangible rewards of bilingualism. "I do this," she said, "my parents told me that we can go to Puerto Rico for a week this summer."
HOW WILL MY CHILD BENEFIT?

Learning a second language at an early age

- has a positive effect on intellectual growth.
- develops greater flexibility in thinking, greater sensitivity to language, and a better ear for listening.
- gives the child the ability to communicate with people she/he would otherwise not have had the chance to know.
- opens the door to other cultures and helps the child understand and appreciate people from other countries.
- increases job opportunities in many careers where knowing another language is a real asset.

Center for Applied Linguistics
1988
KEY SCHOOL'S PROGRAM,
a model program in Virginia, began in 1986. The program is designed to teach children a second language in a natural way through subject content instruction and everyday classroom conversation. Enrollment is balanced with 50% Spanish-speaking and 50% English-speaking students.

PROGRAM GOALS

Students who complete this program will:

- learn Arlington's elementary curriculum.
- communicate effectively in a second language.
- acquire an understanding and appreciation for other cultures.

HOW THE PROGRAM WORKS

Half-day Instruction in English
Language Arts
Mathematics
Art and Music
Physical Education

Half-day Instruction in Spanish
Language Arts
Social Studies
Science
Health

RESEARCH TELLS US

Children in immersion programs compared with children in traditional classrooms

- achieve as well or better in English language arts.
- generally achieve higher scores in reading.
- perform as well or better in other subjects.
- achieve greater overall proficiency in pronunciation and language skills in the second language.
- are shown to be more creative thinkers.
- have better developed verbal skills.

WHO CAN ENROLL?

Students at Key School have first priority for enrollment. Students from other Arlington elementary schools may apply subject to the following criteria:

- an opening is available in the program.
- the applicant for grade 1 is English first-language proficient.
- the applicant for grades 2-5 demonstrates proficiency in Spanish and English appropriate to grade level.
- parents express a willingness to participate in program activities.

HOW CAN I ENROLL MY CHILD?

- Obtain an application by calling or visiting Key School.
- Complete the application and return it to Key School by June 1.
  If the number of applicants exceeds the number of vacancies at each grade level, students will be selected at random by means of a lottery.
- You will be notified of the status of your child's application by June 5.
  Limited transportation is available to students living outside the Key attendance area. Pick up points will be designated.
RUBRIC FOR ASSESSMENT OF WRITING
ELEMENTARY SCHOOLS

8 - 7

The writing demonstrates careful attention to the total effect of the piece. The thesis clearly gives the topic and the writer's point of view. The writer develops the topic by choosing related supporting details, arranging the details in the most appropriate organization, using a variety of sentence patterns, and choosing vocabulary thoughtfully. The mechanics of the piece contribute to the whole of the work. The writer demonstrates that audience understanding and interest are essential goals in writing. Relationships are clearly stated to ensure understanding. The writer strives for an original, creative, and honest approach. Language is used well with attention to flow, rhythm, and emphasis. The writing has clarity and style and is enjoyable to read.

6 - 5

Papers in this category show thought about the subject. The topic is clearly stated in a thesis, and the topic is supported with well-chosen evidence. The piece has no flaw glaring enough to detract from the sense of the writing. The writer uses mechanics competently. However, the writer takes no risks and primarily uses a formula for organization. In some cases, the choice of subject is unimaginative, lending itself to only the most general written discussion. There is little or no attention to the power of language, and the writer relies on simple relationships and explanations to develop the topic. The writer does not demonstrate an understanding of the total effect of a piece of writing. The writing has clarity and communicates to a reader.

4 - 3

The writing shows an honest attempt to address a topic. However, the writer does not actually develop the topic. Supporting details are chosen randomly with some being irrelevant. The writer has a miniscule organization and often neglects to include either a thesis or conclusion. The thinking exhibited in the piece of writing is superficial so that full explanation of the topic does not occur. The writing is often stream of consciousness and egocentric with no awareness of audience. The mechanics detract from the total effectiveness and serve to cloud meaning. Occasionally, the writing may be fairly articulate, but a major flaw in thinking or usage prevents the piece from being successful. The writing has minimal clarity and presents difficulty to a reader.

2 - 1

The writer does not narrow the topic or does not seem to understand the topic. The piece may be underdeveloped or undeveloped, but in either case, the writing is totally lacking in clarity. The piece does not include specific details that would make the writer understood, and the writer does not demonstrate organizational ability. Awareness of audience is not evident so that communication is the reader's responsibility. Inhibiting communication further is the writer's inability to use mechanics correctly. Some papers demonstrate that the writer has thought about the topic but does not have the facility with language to communicate that thinking. The writing is incoherent due to major difficulties with written expression.