ABSTRACT

Project SABER, which operated in Sarah J. Hale High School in South Brooklyn, New York, consisted of bilingual instructional and supportive services to 9th and 10th grade Spanish language students. Students received bilingual instruction in social studies, science, math, and Spanish. All the SABER students received English as a second language instruction for two periods per day. In the major subjects, class size was kept under twenty. Students were programmed to receive individual and small group instruction from the resource teachers. The resource teachers were also involved in developing and translating instructional materials in Spanish. Parental involvement and staff development were also part of the project. The SABER students did not make any significant gains in reading and English language proficiency as demonstrated by standardized instruments. However, the SABER students did meet most of the objectives for academic performance on teacher made or city wide examinations. (Author/AM)
An evaluation of the New York City School district educational project funded under Title VII of the Elementary and Secondary Education Act of 1965 (PL89-10) performed for the Board of Education of the City of New York for the 1975-76 School Year

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CHAPTER I: THE PROGRAM

The rationale for bilingual-bicultural education was expressed in the opening statement of Title VII of the United States Elementary and Secondary Education Act passed by the Congress on January 2, 1968, and subsequently referred to as the Bilingual Education Act:

The Congress hereby finds that one of the most acute educational problems in the United States is that which involves millions of children of limited English-speaking ability because they come from environments where the dominant language is other than English... Such priority shall take into consideration the number of children of limited English-speaking ability between the ages of 3 and 18 in each state.

A fundamental tenet of bilingual education, as presented in the New York State Regents Position Paper,* was that "a person living in a society whose language and culture differ from his own must be equipped to participate meaningfully in the mainstream of that society" and that available language skills and thought processes should be utilized to foster intellectual development while developing English-language proficiency.

Objectives for Bilingual-Bicultural Education in General

The primary goal of the bilingual education program at Sarah J. Hale High School was to provide equal educational opportunity for non-English speaking children through activities capitalizing on their proficiency in their native language. The program also emphasized the development of competence in English. The program affirmed the importance of English and at the same time recognized that the native language and the culture of a child could play a major role in his education.

PROGRAM DESCRIPTION

Project SABER* was designed to offer bilingual instruction and support services to 9th and 10th grade Spanish speaking students under funding from Title VII in the period from September, 1975 through June, 1976. The geographical area of the activity is South Brooklyn and the specific site is located in Sarah J. Hale High School, 345 Dean Street.

The target population was to consist of approximately 150 Spanish speaking students, who were to be exposed to a curriculum consisting of native language dominant and English as a second language instruction. The program was to provide classroom personnel as follows; 4 bilingual resource teachers and 4 educational assistants. In support of these personnel were to be one guidance counselor and a family assistant, all working under the supervision of a project director, with the assistance of a bilingual secretary. Staff development was to consist of regular workshops scheduled by the director in conjunction with CUNY.

Parent involvement was to consist of parental meetings with the program staff. A program advisory group composed of parents, community leaders, students, and bilingual educators was also to be formed.

Additional personnel were to be provided under Title I and New York City tax levy funding. Title I was to provide 3 ESL teachers and 3 educational assistants and NYC tax levy funds were to provide 2 reading teachers and 3 tax levy subject teachers. The overall budget for the program was to be $181,000.

*Student Assistance in Bilingual Education and Resources
Project SABER operated within the department structure of Sarah J. Hale High School. The teachers in each curriculum area were supervised by the project coordinator and followed the operating procedures and teaching methodologies of the bilingual department. The chairmen of the individual subject areas acted as consultants. The students in Project SABER followed a curriculum similar to other students at the school. Students received instruction in all major areas. Instruction in social studies, science, and math was in the students' native language. All SABER students received ESL instruction: for two periods each day.

The typical school day for all SABER students consisted of daily classes in social studies, math, ESL, Spanish and science. The day was filled out with classes in health education, bilingual vocational education courses, music, fine art and practical and vocational arts. The double period of ESL represented a complete language arts program which included reading, writing, listening and speaking skills.

In the major subjects class size was kept at a minimum (under twenty per class). This was accomplished by siphoning off a number of students who were programmed to receive individual and small group remedial help from the resource teachers. The resource teachers provided by Title VII provided supplementary services to the program by developing and translating materials in Spanish, providing demonstration lessons and training teachers in small group and individualized instruction. Program personnel considered this function especially important because of the dearth of published materials in Spanish at the students' reading and interest levels.
Students were selected for Project SABER based on results of the Language Assessment Battery, interviews of each student by the counselor, and recommendations by teachers in the school. On the LAB test, students must score below the 20th percentile on the English part of the test, and must score above the 20th percentile on the Spanish part of the test.
CHAPTER II: EVALUATION PROCEDURES

The evaluation objectives, as stated in the evaluation design as prepared by the Office of Educational Evaluation, were:

Evaluation Objective #1: It is expected that the mean posttest reading score achieved by the treatment group will surpass their pretest score at the .05 level of statistical significance when the results of the Test of Proficiency in English Language Skills are submitted to analysis with a t test for correlated groups.

Evaluation Objective #2: It is expected that at least 70 percent of the treatment group will attain at least the criterion level set for passing subject content when posttest results of teacher-made final examinations in Native Language Arts are submitted to analysis.

Evaluation Objective #3: It is expected that the mean posttest reading score achieved by the treatment group will surpass their pretest score at the .05 level of statistical significance when results of the Stanford Achievement Test in Reading are submitted to analysis with a t test for correlated groups.

Evaluation Objective #4: It is expected that the percentage of treatment group students who pass the teacher-made or other uniform final examination will at least equal that percentage of selected non-treatment students in mathematics.

Evaluation Objective #5: It is expected that the percentage of treatment group students who pass the teacher-made or other uniform final examination will at least equal that percentage of selected non-treatment students in science.

Evaluation Objective #6: It is expected that the percentage of treatment group students who pass the teacher-made or other uniform final examinations will at least equal that percentage of selected non-treatment students in social studies.

Evaluation Objective #7: It is expected that the rate of attendance achieved by the treatment group will surpass the comparison group at the .05 level of statistical significance when pupil attendance results are submitted to analysis with a t test for percentage difference for uncorrelated groups.
PROCESS OBJECTIVE

The evaluator will observe program activity, conduct interviews, and examine pertinent records to determine the extent of congruence between program proposal specifications and the actual implementation of the program; these data will be included summarily in the final evaluation report.

The evaluator will observe activity and interview key personnel to determine strengths and weaknesses of the program in order to provide recommendations for recycling, planning and staff development; these data will be provided summarily in the final evaluation report.

The pre and post testing was carried out as planned and the results are presented in Chapter III. For Evaluation Objectives #2, 4, 5 and 6 testing was carried out only in June. Since the students are in the same classes during the entire year, it was not necessary to have a mid year examination.
CHAPTER III: FINDINGS

The program appeared to be carried out as it was described in the proposal. A program for parents was conducted on a weekly basis; and a monthly bilingual newsletter was sent to all parents, so as to help those who have not directly participated in the workshops. Parents who attended the workshops had an opportunity to participate with the project staff in the formulation and implementation of policies and plans for the program.

There have been monthly staff workshops for all the teachers in the bilingual program. Topics developed in the workshop included motivation, lesson development, testing, guidance and the use of multimedia materials.

The student tutorial program has been functioning on a regular basis so that some students can assist those in need of help.

CLASSROOM OBSERVATION

Pupils seemed to be motivated and involved. Classrooms operated with structure; teacher supervision by the program coordinator appeared to be oriented along practical lines.

TEST RESULTS

Objective #1 was concerned with proficiency in the English language. It was expected that the treatment group will surpass their pre-test score at the .05 level of statistical significance when the results of the Test of Proficiency in the English Language.
In both grades 9 and 10 the program population made no significant gains in the English language proficiency. For grade 9, 35 Spanish dominant students were present for both the pre- and post tests. The difference of 9.97 between the pre-test mean score of 144.06 and the post-test mean of 154.03 was not found to be statistically significant. For grade 10, 38 Spanish dominant students were present for both the pre- and post-tests. The difference of 13.21 between the pre-test mean score of 120.11 and the post-test mean score of 143.32 was not found to be statistically significant.

Table 1

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Raw Score Change</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>35</td>
<td>144.06</td>
<td>154.03</td>
<td>+ 9.97</td>
<td>0.49 NS</td>
</tr>
<tr>
<td>10</td>
<td>38</td>
<td>120.11</td>
<td>143.32</td>
<td>+ 13.21</td>
<td>1.33 NS</td>
</tr>
</tbody>
</table>

NS = Not Significant

OBJECTIVES 2,4,5,6

Objectives 2,4,5,6 all relate to student performance on teacher-made tests. Since the objectives were all written with the same language and the measurement technique was the same, the results are reported together. Objective #2 measures achievement in subject areas for the Spanish dominant target population. It was expected that at least 70 percent of the treatment group would attain the criterion level set for passing subject content. The criterion level was set at
65 percent. Table 2 presents the results for the 9th grade treatment group; and Table 3 presents the results for the 10th grade treatment group.

For the 9th grade treatment group, Objective #2 was achieved for all subject areas. At least 70 percent of 9th grade Spanish dominant students attained the 65 criterion score in the four subject areas.

For the 10th grade treatment group, Objective #2 was achieved for social studies, science and Spanish. It was not achieved for math.

Objectives #4, #5, and #6 compare the percentage of Spanish dominant students who pass the teacher-made tests with the non-treatment students in mathematics, science, and social studies. Tables 4 and 5 present the results for the non-treatment groups in social studies, science and math. Table 4 presents the results for the 9th grade non-treatment group. For the 9th grade non-treatment group the criterion was only met in science. It was not met in social studies and math. However, for the treatment group the criterion was met for science, social studies, and math.

Table 5 presents the results for the 10th grade non-treatment group. For the 10th grade non-treatment group the criterion was only met in social studies. It was not met in science and math. However, for the 10th grade treatment group the criterion was met for social studies and science. It was not met for math.
### Table 2

**POSTTEST MEAN RAW SCORES AND PERCENTAGES OF 9th YEAR SPANISH DOMINANT STUDENTS REACHING CRITERION LEVEL ON TEACHER MADE TESTS IN SOCIAL STUDIES, SCIENCE, MATH, AND SPANISH**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>N</th>
<th>Mean Raw Score</th>
<th>Number of Stud. Attaining Criterion Score of 65</th>
<th>Percentage of Stud. Attaining Criterion</th>
<th>Achieved Subject Area Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>44</td>
<td>67.43</td>
<td>31</td>
<td>70</td>
<td>YES</td>
</tr>
<tr>
<td>Science</td>
<td>44</td>
<td>71.80</td>
<td>38</td>
<td>86</td>
<td>YES</td>
</tr>
<tr>
<td>Math</td>
<td>44</td>
<td>66.52</td>
<td>32</td>
<td>72</td>
<td>YES</td>
</tr>
<tr>
<td>Spanish</td>
<td>44</td>
<td>74.09</td>
<td>39</td>
<td>89</td>
<td>YES</td>
</tr>
</tbody>
</table>

### Table 3

**POSTTEST MEAN RAW SCORES AND PERCENTAGES OF 10th YEAR SPANISH DOMINANT STUDENTS REACHING CRITERION LEVEL ON TEACHER MADE TESTS IN SOCIAL STUDIES, SCIENCE, MATH, AND SPANISH**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>N</th>
<th>Mean Raw Score</th>
<th>Number of Stud. Attaining Criterion Score of 65</th>
<th>Percentage of Stud. Attaining Criterion</th>
<th>Achieved Subject Area Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>52</td>
<td>70.33</td>
<td>40</td>
<td>76</td>
<td>YES</td>
</tr>
<tr>
<td>Science</td>
<td>52</td>
<td>70.02</td>
<td>38</td>
<td>73</td>
<td>YES</td>
</tr>
<tr>
<td>Math</td>
<td>52</td>
<td>61.73</td>
<td>26</td>
<td>50</td>
<td>NO</td>
</tr>
<tr>
<td>Spanish</td>
<td>51</td>
<td>74.37</td>
<td>42</td>
<td>82</td>
<td>YES</td>
</tr>
</tbody>
</table>
### Table 4

**POSTTEST MEAN RAW SCORES AND PERCENTAGES OF 9th GRADE MAINSTREAM STUDENTS REACHING CRITERION LEVEL ON TEACHER MADE TESTS IN SOCIAL STUDIES, SCIENCE, AND MATH**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>N</th>
<th>Mean Raw Score</th>
<th>Number of Stud. Attaining Criterion Score of 65</th>
<th>Percentage of Stud. Attaining Criterion</th>
<th>Achieved Subject Area Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>50</td>
<td>59.20</td>
<td>33</td>
<td>66</td>
<td>NO</td>
</tr>
<tr>
<td>Science</td>
<td>57</td>
<td>54.89</td>
<td>40</td>
<td>70</td>
<td>YES</td>
</tr>
<tr>
<td>Math</td>
<td>55</td>
<td>56.71</td>
<td>37</td>
<td>67</td>
<td>NO</td>
</tr>
</tbody>
</table>

### Table 5

**POSTTEST MEAN RAW SCORES AND PERCENTAGES OF 10th GRADE MAINSTREAM STUDENTS REACHING CRITERION LEVEL ON TEACHER MADE TESTS IN SOCIAL STUDIES, SCIENCE, AND MATH**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>N</th>
<th>Mean Raw Score</th>
<th>Number of Stud. Attaining Criterion Score of 65</th>
<th>Percentage of Stud. Attaining Criterion</th>
<th>Achieved Subject Area Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>58</td>
<td>62.86</td>
<td>47</td>
<td>81</td>
<td>YES</td>
</tr>
<tr>
<td>Science</td>
<td>59</td>
<td>61.90</td>
<td>33</td>
<td>55</td>
<td>NO</td>
</tr>
<tr>
<td>Math</td>
<td>59</td>
<td>63.54</td>
<td>25</td>
<td>42</td>
<td>NO</td>
</tr>
</tbody>
</table>
OBJECTIVE #3

Objective #3 is concerned with reading comprehension in English for the Spanish dominant students. It was expected that the mean posttest reading comprehension standard score achieved by the treatment group would surpass their pretest standard score at the .05 level of statistical significance. The Stanford Achievement Test in Reading Comprehension was given in October, and posttesting took place in May. Results are presented in Table 6.

Table 6
PRETEST AND POSTTEST MEAN GRADE EQUIVALENT SCORES FOR SPANISH DOMINANT STUDENTS IN GRADES ( AND ±) ON THE STANFORD ACHIEVEMENT TEST IN ENGLISH (TOTAL READING)

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Pretest</th>
<th>Posttest</th>
<th>G. E. Change</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>34</td>
<td>2.57</td>
<td>2.77</td>
<td>0.20</td>
<td>0.06 NS</td>
</tr>
<tr>
<td>10</td>
<td>30</td>
<td>2.36</td>
<td>2.73</td>
<td>0.37</td>
<td>0.07 NS</td>
</tr>
</tbody>
</table>

NS := Not Significant

Objective #3 was not achieved for both 9th and 10th grade treatment groups. The students in the SABER program failed to achieve significant improvement in reading comprehension in English.
OBJECTIVE #7

Objective #7 measures program attendance against school attendance for the entire school year. It was expected that the rate of attendance by the treatment group will surpass the comparison group at the .05 level of statistical significance when pupil attendance results are submitted to analysis with a t test for percentage differences for uncorrelated groups. Results are presented in Table #7.

Table 7
COMPARISON OF ATTENDANCE RECORDS FOR SABER PROGRAM AND MAINSTREAM CONTROL GROUP

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>MEAN Attendance for year</th>
<th>Raw score change</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 SABER</td>
<td>39</td>
<td>80.51</td>
<td>4.05</td>
<td>0.99 NS</td>
</tr>
<tr>
<td>9 Mainstream</td>
<td>61</td>
<td>76.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 SABER</td>
<td>49</td>
<td>84.02</td>
<td>5.72</td>
<td>2.14*</td>
</tr>
<tr>
<td>10 Mainstream</td>
<td>61</td>
<td>78.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at .05 level
NS - Not Significant

Attendance records for the SABER students were better than for the Mainstream control group. For the 9th grade no significant difference was found between the treatment group and the comparison group. However, for the 10th grade a significant difference in attendance was found. The SABER students had a significantly better attendance record than the Mainstream control group.
SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Based on the discrepancy evaluation the following findings concerning the SABER program can be made:

1. The students in the SABER program were those in need of a bilingual education program.
2. The staff met the language and subject area standards of the program and school. All the subject teachers were properly licensed and spoke fluent Spanish.
3. The resource teachers and paraprofessionals were used as described in the program proposal.

SUMMARY OF TEST RESULTS

The SABER students did not make any significant gains in reading and English language proficiency as demonstrated by standardized instruments. However the SABER students did meet most of the objectives for academic performance on teacher made or city wide examinations. In addition the SABER students performed better on the teacher made tests than the mainstream control group.

The attendance objective was achieved for the SABER students for the 10th grade. The 9th grade mainstream control group and the SABER students had about the same attendance record. The 10th grade SABER students had a significantly better attendance record than the 10th grade mainstream control group. The efforts of the guidance counselor, family worker and program director most likely affected attendance for the good.
Based on the classroom observations and interviews with program staff, the following conclusions concerning the SABER program can be made:

1. Teachers were competent, and professional. Learning was taking place in the SABER program.

2. Spanish language curriculum development was a major goal of the SABER program. Resource teachers developed and translated many materials that could be used by other teachers at the school.

RECOMMENDATIONS

1. The staff should place more emphasis on English language skills.

2. There should be more training in the methodology of small group and individualized instruction.

3. It is recommended that the program be refunded.
PROGRAM ABSTRACT
SARAH J. HALE - SABER

This program consisted of bilingual instructional and supportive services to 9th and 10th grade Spanish Language Students. Students received bilingual instruction in social studies, science, math and Spanish. All the SABER students received ESL instruction for two periods per day.

In the major subjects, class size was kept under twenty. Students were programmed to receive individual and small group instruction from the resource teachers. The resource teachers were also involved in developing and translating instructional materials in Spanish.

The program was carried out as it was described in the proposal. The SABER students did not make any significant gains in reading and English language proficiency as demonstrated by standardized instruments. However, the SABER students did meet most of the objectives for academic performance on teacher made or city wide examinations.

The 10th grade SABER students had a significantly better attendance record than the 10th grade mainstream control group. The efforts of the guidance counselor, family worker and program director helped to improve attendance for the SABER students.