The report describes first-year activities of Project CABE (Content-Area Bilingual Education) which aims to improve instruction and increase parental involvement for limited-English-proficient Spanish-speaking students with handicapping conditions in grades 4 through 9. During its first year the project served 308 students attending 25 public schools in Brooklyn and Manhattan. Project resource teachers met with a minimum of eight classroom teachers each week. They provided assistance in lesson planning, developed Spanish and English behavioral objectives for the content areas, identified and distributed suitable teaching materials and curricula, provided classroom demonstration lessons, assisted in the implementation of students' Individualized Educational Plans (IEPs) mediated between target teachers and special education personnel, aided in developing and conducting teacher and parent training activities, and facilitated access to and use of the Regional Second Language Acquisition Centers. The project also held eight workshops on such topics as choosing the language for instruction and language assessment in a preventive-prereferral mode. Audiovisual and instructional materials in English as a Second Language were purchased and used at the Centers. The project also produced a manual and provided 35 tuition grants to teachers receiving special training. Recommendations for the next year include holding of parent and teacher workshops at local schools. (DB)
PROJECT CASE

1986–1987
O.E.A. Evaluation Section Report

Robert Tobias, Administrator
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PROJECT C Abe
1986-1987

Prepared by the O.E.A.
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A SUMMARY OF THE REPORT

Project CABE (Content-Area Bilingual Education), a Title VII-funded project administered by the Office of Bilingual Services (O.B.S.) of the Division of Special Education (D.S.E.), was in its first year of a three-year funding cycle. CABE seeks to improve the quality of instruction and to increase the level of parental involvement for a historically underserved group: fourth- through ninth-grade limited English-proficient (LEP) Spanish-speaking students with handicapping conditions. During its start-up year, CABE served 308 students attending 25 public schools in Brooklyn and Manhattan. In future years, the project intends to raise to 700 the number of students it serves, to increase the number of schools to 36, and to include Queens as well as Brooklyn and Manhattan in its area of operation.

The Director of O.B.S. supervised CABE's staff, which consisted of a project coordinator/resource teacher and three resource teachers. Because of delays in the hiring process, it took until March/April 1987 for the three resource teachers to be hired, and until April 1987 for the project coordinator to be hired. These delays kept CABE from beginning its activities until the spring semester. A fourth resource teacher was due to begin working in Queens in September 1987. All five staff members were bilingual, had seven or more years of experience, and had master's degrees; however only the coordinator/resource teacher had special education experience.

The project coordinator/resource teacher was responsible for coordinating and supervising the implementation of the project and for serving as liaison between the other resource teachers and the D.S.E.'s central and regional offices. (Three regional offices were involved in CABE's first-year operations: Brooklyn-East, Brooklyn-West, and Manhattan.) In addition, she served as resource teacher at four participating public schools in the Manhattan region.

The resource teachers met with a minimum of eight classroom teachers each week. Their principal duties were: to provide assistance in lesson planning; to develop Spanish and English behavioral objectives for the content areas; to determine, locate, and distribute suitable teaching materials and curricula; to provide classroom demonstration lessons; to assist in the implementation of students' Individualized Educational Plans (I.E.P.s); to mediate between target teachers and special education personnel so as to maximize the provision of services to students; to aid in developing and conducting teacher and parent training activities; and to facilitate the access to and use of Regional Second Language Acquisition Centers by teachers, paraprofessionals, parents, and others.

CABE also held a series of eight workshops on: issues and concerns related to LEP students with handicapping conditions;
choosing the language for instruction; and language assessment in a preventive-prereferre mode. These workshops were conducted by a consultant from the University of Texas and took place in January 1987. They were attended by over 400 bilingual and special education teachers. The workshops were held at a single central site. During the spring semester, CABE held workshops on each of the content areas. During the summer, a four day Bilingual Special Education Summer Institute was held.

CABE funds were used to purchase audiovisual and instructional materials in E.S.L. and in the content areas for three Second Language Acquisition Centers that operated under the aegis of the Brooklyn-East, Brooklyn-West, and Manhattan regional Special Education Training and Resource Centers (S.E.T.R.C.s). Each Second Language Acquisition Center was staffed by a tax-levy-funded paraprofessional who was supervised by a CABE resource teacher. These Centers were open to parents and teachers of LEP students with handicapping conditions. The Centers provided teachers an opportunity to review supplementary instructional materials, attend demonstrations of new instructional techniques, and review and discuss current research in the area of second language acquisition and content-area instruction.

CABE personnel collaborated with the staffs of RECURSO, another Title VII project targeted at LEP special education students, the S.E.T.R.C.s, and the O.B.S. to produce a Resource Guide on Bilingual Special Education Instruction.

CABE provided thirty-five $500 tuition grants to teachers at participating schools to enroll in courses on bilingual special education and English as a second language (E.S.L.) at local colleges and universities.

In conjunction with Project RECURSO, CABE organized parent workshops at all four participating D.S.E. regional offices. These workshops sought to introduce parents to the project and to provide them with information on their rights as parents of LEP students with handicapping conditions and on how to interact with teachers. Despite a fairly intensive recruitment effort, however, participation averaged just five to six parents per region. Since the workshops' central location reportedly was the major cause of the low level of participation, in the coming academic year CABE planned to hold parent workshops at several local schools.

In conjunction with the Office of Bilingual Education, CABE held an all-day citywide conference for parents of learning-disabled LEP students. CABE also paid for 10 parents to attend a Special Education Institute at the annual New York State Association for Bilingual Education conference in May 1987.
In order to gauge how teachers' participation in CABE staff development activities affected students, instructional objectives were set in English (Language Assessment Battery); mathematics, science, social studies, and career and vocational education (mastery of skills consistent with I.E.P. short-term objectives); and language skills (Comprehensive Test of Basic Skills-Spanish and teacher-made tests). Quantitative analysis of student achievement data indicates that:

- While grades two through five met the proposed objective in English (that 70 percent of the students will improve their skills), students in the other grades also showed gains. However, the meaningfulness of the results is questionable because the number of students in each grade was small and it is uncertain whether the instruments and objective were appropriate for this population.

- Fourteen of the 19 students (74 percent) for whom data were available mastered at least two new math skills, thereby meeting the project's objective.

- Eleven of the 17 students (65 percent) assigned to master two new objectives in science mastered both of them, thereby failing to meet the objective by five percentage points.

- Twelve of the 19 students (63 percent) assigned to master two new skills in social studies mastered both of them, thereby failing to meet the objective by seven percentage points.

- Since mastery of two, rather than the proposed three, career/vocational education skills was set for CABE students, the objective in this area could not be evaluated as proposed.

- No data were provided to evaluate the language-skills objectives.

The evaluation team makes the following recommendations for improving the project in its second year of operation:

- Since some teachers have difficulty in attending centrally-located training sessions, consideration should be given to holding them during regular on-site teacher training workshops.

- To raise the level of parental involvement, consideration should be given to identifying several interested parents at each school to notify other parents about CABE activities.
Ascertain whether the instruments and objectives are appropriate for the target population.

To properly evaluate the objectives, provide data as proposed.

Because D.S.E. regional offices are hard for many parents to reach, follow through with plans to hold workshops at local schools.
ACKNOWLEDGEMENTS

The production of this report, as of all Office of Educational Assessment Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of regular staff and consultants. In addition to those whose names appear on the cover, Beth Schlau has edited the report. Margaret Scorza has reviewed and corrected it, and has coordinated the editing and production process. Finally, Betty Morales has worked intensively to produce, duplicate, and disseminate the completed document. Without their able and faithful participation, the unit could not have handled such a large volume of work and still have produced quality evaluation reports.
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I. INTRODUCTION

Project CABE (Content-Area Bilingual Education), a Title VII-funded program in its first year of a three-year funding cycle, is a transitional bilingual special-education program that addresses the specific educational needs related to the handicapping conditions and linguistic and cultural backgrounds of approximately 308 students. The purpose of the program is to assist participating students to succeed in self-contained bilingual special-education classes through appropriate academic growth in the target languages of instruction: English as a second language (E.S.L.) and Spanish native language arts.

CABE focuses on the integration of content-area instruction and development of language skills using a content-based cognitive language learning approach. Project CABE aims to assist 70 participating teachers in developing a bilingual instructional program designed to further language development through curriculum-based instruction in mathematics, science,
social studies, and career/vocational education. As a result, limited English-proficient (LEP) students with handicapping conditions who attend upper elementary and intermediate school bilingual special-education programs and who participate in such classroom activities will then be better prepared to respond to academic demands and to adjust to the new social context.

Project CABE has three interrelated operational components:

1. Staff development -- bilingual resource centers that contain professional references and instructional materials; and training to teachers of participating students in the form of demonstration lessons, in-class consultations, staff development workshops, and tuition reimbursement for courses in E.S.L. and bilingual special education.

2. Instructional services -- E.S.L. and native language instruction to participating LEP students in community and special schools with an emphasis on developing language skills through the content areas.

3. Parent involvement -- relevant materials in the bilingual resource centers and parent education workshops.
II. PROGRAM DESCRIPTION

There are currently approximately 116,000 students with handicapping conditions who are served by New York City's Board of Education. The special education population includes:

- 38,000 students in mainstream classes with resource room support;
- 58,000 students in special education classes in approximately 800 community schools in 32 decentralized community school districts; and
- approximately 20,000 students in over 100 special schools.

About 26,000 of these students are in programs operated by the central Division of High Schools while the remaining 90,000 are served directly by the Division of Special Education (D.S.E.).

LEP special education students are traditionally an underserved and inappropriately served group. Of the 90,000 students with handicapping conditions served by D.S.E., 7,258 (8 percent) have been identified as LEP. Currently, 2,195 students (30 percent) participate in a bilingual program. The remainder of the LEP students with handicapping conditions are part of the monolingual special education program.

D.S.E. is unable to provide all LEP students with handicapping conditions with bilingual instruction for two reasons: insufficient number of qualified specialized bilingual
teachers; and for some languages, not enough students attend the school where they would normally go who have similar program and language needs and who are in the same age range.

D.S.E. operates through five regional offices, and the Office of Citywide Programs which administers the special schools for low-incidence and more severely handicapped students. Until recently the five regional offices (Manhattan, Brooklyn-East, Brooklyn-West, Bronx, and Queens), had centralized both the instructional (resource room and special education classes) and clinical (School-Based Support Teams [S.B.S.T.s] and Committee on Special Education [C.S.E.s]) programs operating in the community schools. In 1987, however, as a result of the citywide decentralization of the regional structure within D.S.E. (i.e., Project SEALL*), special education instructional services were integrated with those of general education in the local community school districts. This fell under the supervision and administration of the local district superintendents and District Administrators of Special Education (D.A.S.E.s). Each region, however, would continue to provide technical services and would also monitor each district's special education instructional programs.

*As stated in the May, 1986 Division of Special Education's final report on Project SEALL: "Project SEALL (Special Education at the Local Level) is designed to improve the delivery of services to students in regional special education programs in the New York City public schools and provide assistance for those who may be candidates for referral to such programs. It is designed to decentralize control of special education services with those of general education in the local community school districts."
In order to help alleviate the lack of bilingual education services offered to students with handicapping conditions, the central D.S.E. offices, such as the Office of Bilingual Services, the Office of Program Support (Reimbursable Programs Unit), the Office of Curriculum and Professional Development, and others worked with the regional offices and parent groups to identify the needs of the target population and to design a program that would most effectively build on D.S.E.'s capacity to address those needs. Project CABE evolved as a result of these coordinated efforts.

ORGANIZATIONAL STRUCTURE

Project CABE is under the direct supervision of the Director of D.S.E.'s Office of Bilingual Services and a project coordinator/resource teacher located on site in the Manhattan regional office. Ongoing coordination is maintained centrally with D.S.E.'s Office of Bilingual Education, Office of Program Support (Reimbursable Programs Unit), Office of Curriculum and Professional Development, and regional offices. At the regional level, CABE resource personnel work under a coordinator who facilitates the implementation of various project components.

During the course of its three-year cycle, CABE will be implemented in grades four through nine at 36 schools in Manhattan, Brooklyn, and Queens. The schools were chosen because of their high concentration of LEP students with handicapping conditions and because of the need for the teachers in those
schools to have supplemental training in bilingual special education. Additional factors in school selection included: number of students new to the school system, number of students who live in poverty areas, students' reading and math scores, and prior school participation in Title VII programs.

**STAFF CHARACTERISTICS**

Title VII funded five of the program's positions: a project coordinator/resource teacher and four resource teachers. The project director's position was funded locally. During 1986-87, the program was still in the formative stage because of New York City Board of Education's hiring policies which stipulate a long and formal process for advertising positions and conducting interviews. This process created delays in recruiting staff until April 1987, when a project coordinator/resource teacher was hired. Three resource teachers started working for CABE in February and March in the Brooklyn-East, Brooklyn-West, and Manhattan regions. The final teacher, to be based in Queens, was selected and was expected to commence her duties in September 1987.

From November 1986 to March of 1987, D.S.E.'s Office of Professional Development hired a project director to oversee the teacher training and resource activities of Project CABE. The project director, working from D.S.E.'s Office of Bilingual Services, supervised the overall organization and implementation of the project, including the hiring of project personnel.

The project coordinator/resource teacher is responsible for
coordinating and supervising the implementation of the project as well as serving as liaison between project staff and the central and regional offices. The project coordinator works out of the Manhattan regional office where she serves a dual role as resource teacher for four schools in the region.

The resource teachers' duties include working with a minimum of eight classroom teachers per week in order to provide assistance in the following: planning lessons; developing Spanish and English behavioral objectives for content areas; locating and distributing suitable teaching materials and curriculum; providing classroom demonstration lessons; assisting in the implementation of students' Individualized Education Plans (I.E.P.s); mediating between target teachers and special education personnel to maximize services to students; aiding in developing and conducting teacher and parent training activities; participating in the pre- and posttesting process; facilitating the use and access of the regional Second Language Acquisition Centers* by teachers, paraprofessionals, parents, and others; keeping records of students' work; and maintaining weekly logs of activities and visits.

All five CABE staff members hold master's degrees. The project coordinator has a master's in Special Education and a Ph.D. in Bilingual Education. The other staff members' areas of

*The centers offered teachers technical assistance with classroom instructional materials, new teaching techniques, and reviews of current research in second language acquisition and content-area instruction.
specialization include bilingual/bicultural education and educational administration. All personnel have had over seven years' teaching experience and are bilingual.
III. STUDENT CHARACTERISTICS

Seven hundred LEP students in grades four to nine were identified to participate in Project CABE, with all students participating in the schools that they regularly attend. Only three hundred and eight students were reported as having taken part in CABE during 1986-87 because program services were delayed until the spring semester. Table 1 presents the number of project participants according to borough, district, and school. Grades four through nine were selected not only because they have been historically underserved in the delivery of bilingual services, but also because they have traditionally required the greatest concentration of special education resources. D.S.E.'s Office of Bilingual Services identified a large number of LEP students in these grades as never having been served by Title VII. In addition, it is in these same grades where the new Part 100 of the Regulations of the Commissioner of the State of New York will have the most impact. These regulations require implementation of the same curriculum in special education as in general education, implying instructional change in special education classrooms.

Students participating in Project CABE had the following characteristics:

- all had scored below the twentieth percentile on the Language Assessment Battery (LAB) examination and were from homes where the primary language spoken was Spanish;
- all were identified as handicapped, having been certified by the C.S.E. as having a condition that would interfere with their ability to achieve in a regular educational
TABLE 1

Number of Project Participants Reported by Borough, District, and School, 1986-87

<table>
<thead>
<tr>
<th>Borough</th>
<th>District</th>
<th>School</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manhattan</td>
<td>1</td>
<td>P.S. 22,63</td>
<td>18</td>
</tr>
<tr>
<td>Manhattan</td>
<td>3</td>
<td>P.S. 25,54,76</td>
<td>24</td>
</tr>
<tr>
<td>Manhattan</td>
<td>4</td>
<td>P.S. 72,99,102</td>
<td>51</td>
</tr>
<tr>
<td>Manhattan</td>
<td>6</td>
<td>P.S. 143</td>
<td>10</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>13</td>
<td>P.S. 54,287,304</td>
<td>34</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>14</td>
<td>P.S. 49,257</td>
<td>52</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>15</td>
<td>P.S. 136,293</td>
<td>33</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>17</td>
<td>P.S. 246</td>
<td>6</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>19</td>
<td>P.S. 158,302,364</td>
<td>29</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>23</td>
<td>P.S. 327</td>
<td>2</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>32</td>
<td>P.S. 75,162,296,377</td>
<td>49</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>308</td>
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setting;

- none had previously received Title VII services;
- almost all were from low-income families, with over 95 percent qualifying for the federally assisted free-lunch program;
- almost 40 percent of the students were recent arrivals to the United States; and
- all were functioning two or more years below grade level in reading and mathematics.
IV. FINDINGS

The evaluation findings for the 1986-87 academic year included both objectives measurable by standardized test results and those based on an examination of program materials and records, site visits, interviews with school personnel, and a questionnaire.

NON-INSTRUCTIONAL OBJECTIVES

Teacher Training

- By June, 1987, 80 percent of participating teachers will have demonstrated mastery of teaching skills developed in training sessions, as measured by program coordinator reports.

Site Visits. Resource teachers were to provide direct instructional support to special education teachers on site on a regular basis. However, since program staff were not hired until the spring semester, this objective was difficult to achieve. For the most part, resource teachers were able to gain entry into the schools and establish relationships with the regional coordinator, school principals, field supervisors, and classroom teachers.

One resource teacher (Manhattan) told a member of the evaluation team that she found that although she came on to the project at a time of year when teachers were most overloaded with annual reviews and testing (many asked "Why now?"), the teachers were receptive to her visiting classes on a regularly scheduled basis. The resource teacher felt that she put the teachers at ease and informed them about the resources available
to them. She spent what was left of the year establishing a rapport with her teachers. By observing individual teachers and talking with them, she was able to identify their curricular needs, their strengths and weaknesses, and the areas where she could be of assistance (language arts, content areas) in providing training and materials.

A member of the evaluation team observed the resource teacher's interactions with two teachers at one site and found that she listened attentively to their concerns and was supportive when necessary. She told them that she would bring materials that she thought might be helpful to them at each visit. The teachers indicated that the resource teacher was consistent in following through with assistance, and appreciated her support.

Workshops. An initial set of citywide workshops was organized to address the needs of administrative, clinical, and instructional special education staff. A workshop series for CABE staff members and other special education professionals was held in January 1987, the purpose of which was to assist teachers in developing teaching methods appropriate for LEP students with handicapping conditions. Over 400 bilingual and special education personnel attended eight training sessions that were held during a three-day period. The seminars were conducted by a consultant from the University Texas-Austin. The consultant spoke about issues and concerns related to LEP students with handicapping conditions, choosing the language of instruction for
them, and language assessment in a preventive pre-referral model for special education. Some teachers found it difficult to attend these workshops because they were held at a central location.

This initial set of citywide workshops was organized to address the needs of administrative, clinical, and instructional special education staff.

Other training sessions were held in the spring that focused on curricular issues. The first one was on integrating math, language, and content areas in teaching LEP students with handicapping conditions. There were two additional workshops on science and social studies.

A four day Bilingual Special Education Summer Institute was held in August for 80 teachers and para. ...als and 20 other guests. The sessions focused on "Academic Linguistic Growth through Content-Area Instruction" which were then followed by workshops for participants to engage in hands-on activities.

Second Language Acquisition Centers. CABE funds were used to purchase audiovisual and instructional materials in E.S.L. and content-area instruction that would enhance and supplement the existing Special Education Training and Resource Centers (S.E.T.R.C.s) in each region. The resource teacher at each CABE site set up a Second Language Acquisition Center with the assistance of a tax-levy paraprofessional. Each center was open to parents and teachers of LEP students with handicapping conditions from 2:00pm to 5:00pm. The centers offered teachers
the opportunity to review supplemental instructional materials, see demonstrations of new teaching techniques and to review and discuss current research in the area of second language acquisition and content-area instruction.

**Resource Guide.** CABE personnel collaborated with the staff of Project RECUREO, S.E.T.R.C. staff, and D.S.E.'s Office of Bilingual Services in developing a Resource Guide on Bilingual Special Education Instruction. The guide addressed issues of theory and practice with regard to language use in the bilingual special education classroom. It aimed to deal with both instructional and assessment issues, providing guidelines for teachers, trainers, evaluators, and consultants in bilingual special education.

**Tuition Assistance.** Through arrangements with local universities (Adelphi, Hunter, Long Island University, C.W. Post, St. John's University, Queens College, Bank Street, and Teachers College), CABE teachers and paraprofessionals were offered a tuition plan in order to continue their bilingual and special education studies. A brochure entitled "Tuition Plan for Special Education Personnel" was developed and circulated by CABE's project director to teachers in special education and general education. CABE personnel were informed of the program through their field supervisors. Applications were also mailed to their home addresses. One hundred applications were received and thirty-five $500 awards were granted to teachers. Of a $25,000 budget allocated for this purpose, $13,000 was spent between the
fall and spring with the remaining $12,000 allocated for the summer session.

The project director believed that this tuition reimbursement program would have a positive effect on teacher training programs in special education at local universities -- these institutions would be encouraged to include issues related to bilingual special education and the needs of LEP students in their classes. The College of New Rochelle, for example, included bilingual issues in three new courses. Similarly, at Bank Street, concerns related to cultural and linguistic differences in relation to nonbiased testing were added to the course "Diagnosis and Teaching Methodology for Children with Learning Difficulties," offered in the summer of 1987.

Based on observations and documentation of staff development activities, the proposed objective appears to have been achieved.

Parent Involvement

- By June 1987, 50 percent of the parents of participating students will have taken part in two or more activities for parents (workshops, individual conferences, I.E.P. conferences), as shown by program records.

Because program staff were not hired until the spring semester, this objective was only partially achieved.

A parent workshop was held in each of the four regions in conjunction with Project RECURSO and the Office of Community Liaison. The purpose of these workshops was to introduce parents
to the project and provide them with information on their rights as parents of LEP students with handicapping conditions and on interacting with teachers. They also gave parents an opportunity to ask questions and share problems and concerns about their children and the school system.

CABE's project director sent notices about upcoming parents' meetings to bilingual special-education teachers in each region. She requested that they send the flyers home with their students. The notices gave directions to the workshop site and advised parents that they would be reimbursed for their transportation costs.

Although parent participation at regional meetings was low (five or six parents per region), the workshops were well received. In the future, parent workshops will be held in local schools to encourage greater participation and will continue to stress the parents' role in the educational success of the child. Parents were also encouraged to visit their children's school when the resource teacher is on site.

An all-day parent conference was held on March 28, 1987 in conjunction with the Office of Bilingual Education. The conference included panel discussions, lectures, and workshops on various aspects of special education and bilingual education, and an exhibition of materials. There was also a demonstration on how parents can work with their children at home. Representatives of various community resource organizations (e.g., New York Association for the Learning Disabled) spoke to the parents
about the services their agencies provide.

In addition, CAi3E funds paid for ten parents to attend the Special Education Institute held at the New York Hilton during the New York State Association for Bilingual Education's Annual Conference on May 23, 1987.

INSTRUCTIONAL OBJECTIVES

Reading in English

• By the end of the first project year, 70 percent of the participating students will improve in English language skills as measured by the Language Assessment Battery (LAB) from the Spring of 1986 to the Spring of 1987.

In order to assess achievement in English reading, students were pretested and posttested using the LAB. Pre- and posttest scores on the Degrees of Reading Power Test (D.R.P.) were also

"The Language Assessment Battery (LAB) was developed by the Board of Education of the City of New York to measure the English-language proficiency of non-native speakers of English in order to determine whether their level of English proficiency is sufficient to enable them to participate effectively in classes taught in English. The areas measured are listening, reading, writing, and speaking. The LAB was designed to maximize the discrimination of the test for the non-native at the twentieth percentile on the norms for an English-proficient sample. This is the cutoff point for eligibility for bilingual and E.S.L. instruction. The Kuder-Richardson reliability estimate for the total test was .97 for the high school level (Level 4). Studies have shown that the relative difficulty of items was highly similar for both native and non-native speakers, thus validating the homogeneity of the test's content.

"The Degrees of Reading Power Test was developed by the College Board to provide information about student reading ability on the same scale used to describe the difficulty of textbooks. The Kuder-Richardson reliability estimates are above .94, and various studies have demonstrated the validity of the test. It has convergent validity correlation coefficients with the California Achievement Test ranging from .77 to .85, and it was found to have a predictive validity correlation coefficient of .89 with the Word Completion Test."
available for students for whom LAB data were not available.

Although the project was designed for grades four through nine, complete LAB data were provided for a total of 53 students in grades two, three, four, five, seven, and eight. Since there were relatively few students at each grade level, statistical analyses were not computed. However, Table 2 presents means, standard deviations, and the proportion of students making gains by grade.

As Table 2 indicates, students in grades two through five met the proposed criterion that 70 percent would improve in English language skills. Of the seven students in grades two for whom complete data were available, five (71 percent) made gains. Seven out of ten (70 percent) third graders and 13 out of 18 (72 percent) fourth graders also showed gains. All seven fifth graders with pre- and posttest LAB scores showed gains. Of the seven seventh graders, four (57 percent) made gains and only two of the four (50 percent) eighth graders improved.

Complete D.R.P. data were available for 28 students in grades three, four, five, seven, and eight. (See Table 3.) Students in grades four and five met the proposed criterion that 70 percent would make statistically significant gains. Seven of the ten students (70 percent) in grade four and five of the six (83 percent) fifth graders showed gains in their scores. While the other grades also demonstrated gains, they did not reach the proposed criterion. Although students in some grade levels met the proposed objective, it is questionable that the results are
meaningful since the number of students in each grade was small and the standard deviations were rather large. In addition, it is not clear that the LAB and D.R.P. are appropriate tests for a special education population. Even if these tests are appropriate, a question still remains concerning how reasonable the proposed objective is for this population. Perhaps program staff should pilot test large numbers of special education students to identify valid norms for this population. Clearly a norming study would clarify what a fair objective is for special education students on the LAB and D.R.P.
### TABLE 2

**English Reading Achievement**

Initial and Final Test Raw Scores on the Language Assessment Battery, by Grade (Grades 2, 3, 4, 5, 7, and 8)

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest Standard Deviation</th>
<th>N</th>
<th>Posttest Mean</th>
<th>Posttest Standard Deviation</th>
<th>Number of Students with both Pre- and Posttest Scores</th>
<th>Proportion* of Students Making Gains</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12</td>
<td>23.8</td>
<td>20.1</td>
<td>9</td>
<td>28.6</td>
<td>14.6</td>
<td>7</td>
<td>71</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
<td>30.9</td>
<td>16.5</td>
<td>20</td>
<td>43.7</td>
<td>18.3</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>27</td>
<td>35.9</td>
<td>15.1</td>
<td>44</td>
<td>40.9</td>
<td>16.4</td>
<td>18</td>
<td>72</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>29.4</td>
<td>13.6</td>
<td>23</td>
<td>45.0</td>
<td>20.3</td>
<td>7</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>45.2</td>
<td>22.3</td>
<td>25</td>
<td>35.2</td>
<td>16.0</td>
<td>7</td>
<td>57</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>38.1</td>
<td>14.8</td>
<td>17</td>
<td>46.3</td>
<td>22.9</td>
<td>4</td>
<td>50</td>
</tr>
</tbody>
</table>

*Proportions are based on data for those students for whom both pre- and posttest scores were available.*
TABLE 3

English Reading Achievement

Initial and Final Test Scores on the Degrees of Reading Power, by Grade (Grades 3, 4, 5, 7, and 8)

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Standard Deviation</th>
<th>N</th>
<th>Posttest Mean</th>
<th>Standard Deviation</th>
<th>Number of Students with both Pre- and Posttest Scores</th>
<th>Proportion* of Students Making Gains</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5</td>
<td>14.6</td>
<td>9.9</td>
<td>14</td>
<td>13.4</td>
<td>14.1</td>
<td>3</td>
<td>66</td>
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<tr>
<td>4</td>
<td>20</td>
<td>14.4</td>
<td>6.5</td>
<td>34</td>
<td>14.1</td>
<td>7.8</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>16.1</td>
<td>11.1</td>
<td>25</td>
<td>18.5</td>
<td>6.4</td>
<td>6</td>
<td>83</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>19.6</td>
<td>9.5</td>
<td>26</td>
<td>18.2</td>
<td>5.9</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>22.7</td>
<td>13.8</td>
<td>17</td>
<td>19.6</td>
<td>11.2</td>
<td>5</td>
<td>60</td>
</tr>
</tbody>
</table>

*Proportions are based on data for those students for whom both pre- and posttest scores were available.

- Grades six and nine had only one student each.
Mathematics Skills

- By the conclusion of the first project year, a minimum of 70 percent of the students participating in Project CABE will demonstrate a mastery of two out of three new mathematics skills.

A total of 19 students were assigned between three and five new skills in math. Of these students, 14 (74 percent) mastered at least two skills, thereby meeting the proposed objective. Additional analyses indicate that only ten (53 percent) mastered a minimum of two-thirds of their set skills. While 24 of the 29 students (83 percent) who were assigned one skill mastered it, only 17 of the 30 students (57 percent) who were assigned two skills mastered both. Overall, the data suggest that students appear to be learning new mathematics skills. Since the results are based on a small proportion of program students, caution should be exercised in generalizing these outcomes.

Science and Social Studies

- By the conclusion of the first project year, a minimum of 70 percent of the students participating in Project CABE will master two out of three new skills consistent with the student's I.E.P. short-term objectives for science and social studies.

A total of seven students were assigned three new skills in science, of whom only 2 (29 percent) mastered at least two. The proposed science objective was not met. However, additional analyses indicate that 11 of the 17 students (65 percent) who were assigned two new skills in science mastered both, suggesting that students are learning new skills.
Six students were assigned at least three new skills in social studies. Only one (17 percent) mastered at least two. Therefore, the proposed objective in social studies was not achieved. However, of the 19 students assigned only two skills in social studies, 12 (63 percent) mastered both, indicating that students also learned new social studies skills.

Overall, while the proposed objectives in science and social studies were not met, the data indicate that the project students were learning some new skills; more than 80 percent of the students who were assigned one skill mastered it in both science and social studies.

Since these data are based on a small sample, the validity of the results is questionable.

**Career and Vocational Education**

- By the conclusion of the first project year, a minimum of 70 percent of the students participating in Project CABE will master a minimum of three new skills consistent with the student's I.E.P. short-term objectives for career and vocational education.

This objective could not be evaluated as proposed since only a maximum of two new skills were set for all 26 students. However, of these 26 students, 19 (73 percent) mastered at least one. While this indicates that a large percentage of the students are learning new skills, similar to the results in English and other content areas, it is recommended that these outcomes are not generalized due to the small sample.
Language Skills

- By the conclusion of the first project year, a minimum of 70 percent of the students participating in Project CABE will demonstrate an improved ability to read and comprehend their native language as measured by the Comprehensive Test of Basic Skills (C.T.B.S.)-Español Subtests and teacher-made evaluative tools.

- By the conclusion of the first project year, students participating in Project CABE will demonstrate improved oral, writing, and listening skills in their native language as measured by teacher-made and program developed evaluative instruments.

These objectives could not be evaluated because data were not provided.

Based on the available data, it appears that students are learning English as well as new skills in the content areas. However, the data are based on such small samples that the meaningfulness of the results is questionable. In addition to identifying appropriate objectives and norms for a special education population, it is recommended that data be provided as proposed.
V. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The foundation for CABE was laid during the first year, although the project was not fully staffed. For example, the project director informed key personnel in the regions (bilingual coordinators, instructional administrators, clinical supervisors, and teacher trainers) and SEALLL districts (D.S.S.E.) about CABE funding and engaged the participation of the sites.

The project director also facilitated the hiring and the subsequent placement of CABE staff under the direction of the regional coordinators (with the exception of Queens, which will have a resource teacher in the fall).

While all of the resource teachers were experienced bilingual educators, only the project coordinator/resource teacher had worked in special education. This situation reflects the limited number of experienced bilingual personnel in this area, a circumstance that Project CABE is attempting to change. Bilingual special education consultants were hired during the first year of the project to run teacher training workshops as a first step in overcoming these limitations. In addition, the project coordinator/resource teacher planned to hold training sessions for CABE resource teachers on a regular basis in 1987-88 in conformance with the project's goals.

Direct instructional support was provided daily to special education teachers on site. Support services included teaching strategies for content-area instruction, case discussion
meetings, and modification of interventions with the student thereby becoming an integral part of the educational process of the student. The resource teachers were able to establish relationships with field supervisors, school principals, classroom teachers, and program students. Teachers were generally receptive to the additional support they received from the resource teachers. Three training workshops were made available to program teachers to assist them in integrating math, language, and content-area instruction in special education. Workshops were also held for other special education professionals to sensitize them to the language instruction needs of LEP students with handicapping conditions.

Audiovisual and instructional materials in E.S.L. and content-area instruction were purchased to enhance and supplement existing S.E.T.R.C.s in each region. Second Language Acquisition Centers were set up for parents and teachers of LEP students with handicapping conditions. In addition, successful parent workshops were held in each region. While attendance at these sessions was low, the parents' enthusiasm was reportedly high.

Within staffing and time limitations, the project's staff development objective was met, and the parent involvement objective was partially achieved.

Finally, the student instructional data should be assessed carefully because the number of students evaluated is quite small. However, the data suggest that students are learning new mathematics, science, social studies, career, and vocational
skills. In addition, some of the objectives could not be assessed because no data were provided.

RECOMMENDATIONS

- Teacher Training: because of the difficulty that some teachers have in attending workshops at a central location, the seminars could be held during regular teacher training workshops in their district office. In addition, resource teachers should contact teachers directly about upcoming workshops that are held regionally or centrally, rather than relying on school supervisors to disseminate the information.

- Parent Involvement: identify parents in each school to help coordinate, contact, and involve other parents in CABE activities, thus ensuring greater participation. In addition, workshops should be held locally, rather than regionally.

- Achievement Data: identify norms on the LAB and D.R.P. for a special education population so that appropriate objectives can be proposed. Also, provide all necessary data.