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AUTHOR Ortiz, Alba A.; And Others
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ABSTRACT

The Assessment and Intervention Model for the Bilingual Exceptional Student (AIM for the BESt) was designed as a comprehensive service delivery system to help school districts address the educational needs of language minority students. The model incorporates prereferral intervention, assessment, and intervention strategies. Implementation of the model aims to improve the academic performance of limited English proficient (LEP) students in regular and special education programs, reduce inappropriate referrals of LEP students to special education, ensure that assessment procedures are non-biased, and ensure that special education instruction is appropriate for language minority students with disabilities. The model was implemented in a central Texas school district serving approximately 6,000 students in grades K-12. Results of implementation of the model are evaluated in terms of effective instructional practices (as indicated through use of Shared Literature and the Graves Writing Workshop), campus-based problem-solving student and teacher assistance teams, and curriculum-based informal assessment. Results suggest that the model holds promise for improving educational services provided to limited English-proficient students. (33 tables, 4 figures, 30 references) (JDD)

AIM for the BESt

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A Technical Report from the Innovative Approaches Research Project

Technical Report

for the U.S. Department of Education
Office of Bilingual Education
and Minority Languages Affairs

Alba A. Ortiz, Co-Principal Investigator
Cheryl Yelich Wilkinson, Co-Principal Investigator
University of Texas at Austin
Department of Special Education

Charlene Rivera
IARP Director
Development Associates, Inc.

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Alba A. Ortiz, C-Principal Investigator
Cheryl Yelich Wilkinson, Co-Principal Investigator
Phyllis Robertson-Courtney, Research Collaborator
Alan Bergman, Research Collaborator

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The University of Texas
Department of Special Education
College of Education
The University of Texas at Austin
Austin, Texas 78712
telephone 512 471 6244

Development Associates, Inc.
1730 North Lynn Street
Arlington, Virginia 22209-2023
telephone 703 276 0677

September 1991

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National statistics about the education of Hispanic students are rather bleak. According to Brown, Rosen, Hill and Olivas (1980), the school dropout rate for Mexican American students may be as high as 66%. Evidence that Hispanic students are undereducated is also found in standardized achievement test scores which show that these students traditionally score 2 to 3 years below grade level in critical skills such as reading, math and science. Add this to a serious overrepresentation of Hispanics in programs for students with learning disabilities (Ortiz & Yates, 1983), and one would have to conclude that Hispanics have met with limited educational success.

State findings, as reported in the Texas State Board of Education's Long-Range Plan for Public Education, 1990-94, parallel national trends. In 1989, only 64% of Hispanic students passed the state-mandated exit level assessments of minimal competencies in mathematics, English language arts, and writing as compared with 84% of White students. The dropout rate for Hispanic students was 45%. These statistics are particularly alarming, given Texas Education Agency (TEA) projections which indicate that the Hispanic student population is growing at over twice the rate of the Anglo population and that Hispanics will account for nearly 50% of original school entries during the decade of the 90's.

Lack of educational progress of Hispanic students has specific implications for special education, as students are likely to be referred for services because of academic difficulties. Too often, the lack of appropriate instruments and procedures for distinguishing linguistic and cultural differences from handicapping conditions results in disproportionate representation of minority students in programs for students with exceptionalities. For example, Hispanics are under-enrolled in programs for the gifted and talented and over-enrolled in programs for students with mental retardation or learning disabilities (Dew, 1984). Although the general expectation of educators seems to be just the opposite, placing language

minority students in special education may not offer any greater hope for improving their educational status. Wilkinson and Ortiz (1986) conducted a study of reevaluation outcomes for a sample of Hispanic students with learning disabilities and found that (a) both Verbal and Full Scale WISC-R (Weschler, 1974) IQ scores decreased significantly between the time of the initial special education assessment and the mandated triennial evaluation, and (b) reading and written language achievement scores did not change in respect to the subjects' grade level peers. Interestingly, placement committees which reviewed evaluation outcomes nevertheless recommended that students spend significantly more time in special education classes.

The education of language minority students requires that both regular and special educators be adequately prepared to meet the needs of a diverse student population. Regular classroom teachers must be able to provide instruction that is linguistically and culturally relevant so students can succeed academically. In this way, retention and dropout rates can be reduced and inappropriate referrals to special education decreased. When students are referred for suspected handicapping conditions, assessment procedures must be adapted to insure accurate diagnosis, a goal which cannot be met if assessment personnel use instruments and procedures which are not normed for a culturally and linguistically diverse population. When students are placed in special education, teachers and other service providers must possess the skills to implement programs which simultaneously address students' disabilities and students' other background characteristics, including proficiency in the native language and in English.

The Assessment and Intervention Model for the Bilingual Exceptional Student (AIM for the BESt) was designed as a comprehensive service delivery system to help school districts address the educational needs described above. The model incorporates prereferral, assessment, and intervention strategies.

Implementation of the model can help (a) improve the academic performance of limited English proficient (LEP) students in regular and special education programs, (b) reduce inappropriate referrals of LEP students to special education, (c) ensure that assessment procedures are non-biased, and (d) ensure that special education instruction is appropriate for language minority students with disabilities. This model was field-tested through the Innovative Approaches Research Project on Exceptional Children. The steps in the AIM for the BESt model are described below (see Figure 1).

Insert Figure 1 about here

Step 1: The regular classroom teacher uses instructional strategies known to be effective for language minority students.

In Step 1 of the AIM for the BESt model, regular education teachers are trained in instructional strategies which emphasize reciprocal interaction. The strategies which seem to be more effective for language minority students are those which are transmission-oriented and emphasize direct instruction (Cummins, 1984). Transmission-oriented approaches emphasize task analysis, sequence instruction from simpler to more complex activities, and focus on direct instruction using highly structured drills and practice. These approaches present difficulties for LEP students because, as activities are simplified, they are frequently stripped of context thereby losing their meaning and purpose. For example, English as a second language lessons, which focus solely on the accuracy of linguistic structures may actually interfere with the second language acquisition process, since instruction inappropriately attempts to correct developmental "errors".

On the other hand, interactionist approaches, such as those suggested in Figure 2, are characterized by genuine dialogue between students and teachers. In both oral and written communication, emphasis is placed on higher-order thinking and problem-solving skills. For example, initial reading instruction focuses on comprehension rather than word recognition, and writing instruction emphasizes communicative competence, not the mechanics of written expression (e.g., punctuation or spelling). Moreover, teachers consciously integrate language use and development into all curricular content, as opposed to teaching language as an isolated *subject*.

Insert Figure 2 about here

Cummins argues that the way to simplify a task for a child is to add sufficient context to make the task comprehensible, rather than to segment the task into simpler, decontextualized units (Swedo, 1987). He supports holistic approaches as an alternative to direct instruction activities.

Step 2: When a student experiences difficulty, the teacher attempts to resolve the difficulty and validates the problem.

The second phase of prereferral intervention involves training teachers in diagnostic/prescriptive or clinical teaching approaches (Lerner, 1976). According to Adelman (1970), teachers should be taught to routinely sequence instruction as follows: (a) teach content, subjects, or skills; (b) reteach skills or content using *significantly different strategies* to accommodate individual learning styles and needs and for the benefit of students who fail to meet expected performance levels after initial instruction; and (c) refocus instruction on the teaching of prerequisite skills for students who continue to experience difficulty even after instructional

approaches and materials have been modified. Teachers skilled in sequencing instruction and observing and analyzing student performance are better able to design instructional programs to meet student needs, implement those programs, monitor progress, and redesign instruction as necessary. Diagnostic/prescriptive approaches to teaching thus create an environment which is more conducive to academic success because instruction is tailored to students' specific instructional needs and provides a way for teachers to validate learning problems.

Step 3: If the problem is not resolved, the teacher requests assistance from a school-based problem-solving team.

A support system, other than referral to special education, should be available to assist teachers with student-related problems. Several alternatives for prereferral problem-solving have been suggested including, among others, Child Study Teams (CST), Student Assistance Programs (SAP; Fields, 1988), and Teacher Assistance Teams (TAT; Chalfant, Pysh, & Moultrie, 1979; Chalfant & Pysh, 1981). The major difference among the teams is their membership. TATs are comprised of regular classrooms teachers; SAPs and CSTs generally include specialists such as psychologists, special education teachers, nurses, counselors, and administrators. The intent of the team is to exhaust the possibility that a student's problems can be handled in the context of regular education, before considering a special education referral. Based on the information available regarding the problem, the teacher and team members cooperatively develop intervention and follow-up plans to resolve the difficulties.

Step 4: If the problem is not resolved by the school-based problem-solving team, a special education referral is initiated.

If the recommendations of the support team fail to alleviate the student's difficulty within a reasonable period of time, a referral to special education is appropriate. The team's records describing efforts to resolve difficulties accompany

the referral. This information helps referral committees and assessment personnel tailor evaluations to the specific needs of the student, as precise information about teacher concerns, student behaviors, and the success or failure of adaptations of instruction is documented.

Step 5: Assessment personnel incorporate informal assessment procedures into the comprehensive individual assessment.

Low performance on standardized instruments, particularly if they are administered in English, is not sufficient to determine that a limited English proficient student is handicapped. However, appraisal personnel are frustrated by the lack of appropriate instruments available for assessing language minority students and for determining the presence of a disability. Rather than relying on inappropriate instruments, one alternative is to utilize informal assessment instruments and strategies to support or refute the outcomes of standardized testing. Results of *both* norm-referenced instruments and informal assessments are then considered in deciding whether the student is eligible for special education services.

According to Tucker (1989), informal assessment strategies, such as those incorporated into Curriculum-based Assessment (CBA; Tucker, 1989), are of greater benefit than traditional norm-referenced instruments in that they help identify the *instructional* needs of students. When informal assessments, are based on the actual curriculum to which the child is being exposed, evaluation outcomes can be translated directly into instructional strategies to improve student performance and provide a vehicle for continuous monitoring of progress.

Step 6: If the child has a disability, special educators use instructional strategies known to be effective for language minority students.

The academic activities associated with the most intensive and prolonged levels of task engagement in special education classrooms draw heavily upon, and encourage expression of, students' experiences, language background and interests.

They also foster feelings of success and pride in accomplishment, give children a sense of control over their own learning, and include peer collaboration or peer approval. Furthermore, they are holistic in nature in that they do not involve learning or drilling of isolated, decontextualized segments of information. Activities that present decontextualized information in drill format are among those producing the lowest rates of engagement and success (Willig, Swedo, & Ortiz, 1987). These findings support Cummins' (1984) hypothesis that reciprocal interaction strategies are more effective than direct instruction for language minority students, including those with learning disabilities. Given this, Step 6 of the AIM for the BESt model recommends that special education teachers, just as regular education teachers (Step 1), be trained in reciprocal interaction teaching strategies such as those presented in Figure 2.

Major Features of the Model

The AIM for the BESt model stresses the importance of prereferral intervention. An effective prereferral process includes three phases: (a) training regular classroom teachers in effective instructional strategies (Step 1); (b) training teachers to validate students' learning problems (Step 2); and (c) using campus-based problem-solving teams to help teachers resolve students' academic and behavioral problems (Step 3). The decision to refer students to special education is made only after exhausting the possibility that problems can be resolved through prereferral intervention (Step 4). When referrals occur, assessment personnel are required to use a systematic informal assessment process to support or refute the outcomes of norm-referenced testing (Step 5). In the AIM for the BESt model, it is unacceptable to place minority students in special education solely on the basis of norm-referenced test scores. Finally, if the student does require special education services, such services accommodate linguistic and cultural differences (Step 6).

Through the UT Austin Innovative Approaches Research Project, three major features of the model were piloted: (a) implementation of effective instructional practices by regular and special educators, (b) the establishment of school-based problem-solving teams, and (c) the training of appraisal personnel in informal assessment procedures.

METHOD

The purpose of the AIM for the BESt project was to field-test and refine the comprehensive service delivery model previously described. The following formative and summative research questions were investigated:

Research Questions

1. Did school personnel implement school-based problem-solving teams?

2. Did school-based problem-solving teams resolve student difficulties without special education referral?

3. Did school personnel implement effective instructional practices, i.e., Shared Literature and the Graves Writing Workshop?

4. Did teachers' concerns about Shared Literature and the Graves Writing Workshop change as they implemented these practices?

5. Does implementation of the model improve oral language, reading, and writing achievement of learning disabled (LD) and LEP students?

6. Does implementation of the model improve attitudes of LD and LEP students toward reading and writing?

7. Did assessment personnel incorporate informal assessment procedures in the comprehensive individual assessment?

Site

The AIM for the BESt Model was implemented in a central Texas school district located along the corridor between Austin and San Antonio, an area of extremely rapid growth. According to the local Chamber of Commerce, the community has been expanding at a rate of approximately five percent per year for the past twenty years.

The school district serves approximately 6,000 students in grades K-12. The district's 1988-1989 Annual Performance Report indicates that 59.2% of the students enrolled were Hispanic, 36.6% were White, 3.9% were Black, and .2% were members

of other ethnic groups. Approximately 42% of the students received free or reduced price lunch. More than 30% of the Mexican American families living in the community earn an annual income below the national poverty level.

During the 1988-89 school year, 723 students were served by special education. The majority (78.5%) of Hispanic students served were enrolled in programs for the learning disabled or speech handicapped. Thirteen percent of special education students were limited English proficient.

The district maintains seven individual campuses: a preschool site, four elementary schools, a sixth grade center, a junior high and a high school. The four elementary schools, which include two K-2 (primary) campuses and two 3-5 (intermediate) campuses, participated in implementation of the model. For research purposes, pairs of schools served as intervention and comparison groups. Each pair consisted of one primary campus and one intermediate campus. Primary School 1 is the feeder school to Intermediate School 1; these sites served as the intervention group. Primary School 2 is the feeder to Intermediate School 2; these sites served as the comparison group. Information relative to each campus is provided in Table 1.

Insert Table 1 about here

Overview of Project Activities

The proposal for the project was written in collaboration with the participating school district. The special education director briefed school personnel, including the school principals, on the nature of the interventions. After the project was funded, AIM for the BESt staff held several meetings with the superintendent, special education staff, and school principals and assistant

principals to review project goals and to begin implementation. The schedule of implementation is presented in Table 2.

Insert Table 2 about here

Each of the three project components involved different groups of subjects, training activities and outcome measures. Therefore, the methodology for each component is described separately.

Effective Instructional Practices

Subjects

Three groups of subjects, two student groups and a teacher group, were involved in the instructional practices component.

Teachers

All bilingual, English as a second language (ESL), and special education teachers in the four participating schools served as subjects. Seventy-one teachers were involved, 68 females and 3 males; all teachers had bachelor's degrees and elementary education certification. Thirty teachers (or 42%) had obtained their master's degrees. None of the teachers was on emergency permit. A majority of them (n=59 or 83%) participated in both years of the project. Table 3 details grades taught by participating teachers during each project year.

Insert Table 3 about here

Student Sample 1

Student sample 1 was used to examine the effects of Shared Literature on reading attitudes and achievement, and the effects of the Graves Writing Workshop

on writing attitudes. Subjects were selected from students who were classified as Hispanic by the district and who met district criteria for classification as LEP and/or LD. Students who are *learning disabled* are those (a) who demonstrate a significant discrepancy between academic achievement and intellectual abilities in one or more of the areas of oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematics calculation, mathematics reasoning or spelling; (b) for whom it is determined that the discrepancy is not primarily the result of a visual handicap, hearing impairment, mental retardation, emotional disturbance, or environmental, cultural, or economic disadvantage; and (c) for whom the inherent disability exists to a degree such that they cannot be adequately served in regular classes without the provision of special education (TEA, 1980). Operationally defined, a learning disabled student is one who exhibits a significant discrepancy between his/her ability, as measured by a standardized intelligence test, and actual achievement, as measured by a standardized achievement test.

In Texas, students are classified as *limited English proficient* if they score 3 or below on a test of English oral language proficiency (with a score of 1 indicating limited English and 5 indicating native or native-like proficiency). In addition to an oral language test, students in grades 2-12 must also take a written English proficiency test (TEA, 1985). They are considered LEP if they score below the 23rd percentile on this measure of academic achievement. Students are considered *English proficient* (i.e., non-LEP) if they score a 4 or a 5 on an oral language proficiency measure and/or above the 40th percentile on an English language arts achievement test. Districts have discretion to retain or exit students from special language programs if they score between the 23rd and the 40th percentile.

Students are exited from bilingual education when they are judged to have sufficient proficiency to receive instruction only in English. They are monitored for

the first two years after exiting by a Language Proficiency Assessment Committee (LPAC). The committee may choose to return a student to a bilingual classroom if circumstances warrant. During these two years, students are classified as either M1 (first year monitor) or M2 (second year monitor).

Three categories of students were included in Student Sample 1: (a) LEP LD, (b) non-LEP LD, and (c) nonhandicapped LEP. The research design called for random selection of 8 students per group per grade in grades 1 through 4 during school year 1988-89. While project interventions were implemented in K-5 classrooms, kindergartners were not included as subjects because a different battery of assessment instruments and procedures would have been necessary to monitor project effects. Fifth graders were not included because they transfer to a different campus as sixth graders and thus would not be able to participate in the AIM for the BESt project during the 1989-90 school year.

Actual sample size was affected by the number of students eligible in a group (e.g., in 1988-89, there was only 1 student identified as LEP LD in first grade in the intervention school). Representation was also affected by the number of parents who gave permission for their children to participate in the study. For example, in 1988-89, parental permission was obtained for only 6 of the 8 eligible LEP LD students in 3rd grade. In instances where the subject pool was already limited (e.g., the LEP LD category), parent refusals resulted in small numbers of subjects.

A total of 107 student subjects was identified and tested during 1988-89. However, only 70 of these students were available during 1989-90. While some attrition occurred because students moved from the district, the majority of losses occurred when students were exited from bilingual education, and consequently were no longer served in project classrooms. Two actions were taken to compensate for the reduced sample size: (a) any 1988-89 student subjects who had exited bilingual education to M1 status but were still served in project classrooms were

retained as part of the subject pool, and (b) parent permission was obtained to test forty-two additional students, for a total of 112 subjects in the final sample. The distribution of students by school (intervention or comparison), by group (LEP LD, non-LEP LD, or nonhandicapped LEP) for 1989-90 is shown in Table 4.

Insert Table 4 about here

Tables 5 and 6 detail students' grade by school and by group; Tables 7 and 8 show their bilingual education status in the same manner.

Insert Tables 5 through 8 about here

Student Sample 2

Student Sample 2 was used to examine the effects of the Graves Writing Workshop on students' writing. Since writing samples were collected by teachers as part of regular classroom activities, the district did not require parent permission for students to participate. Hence, it was possible to obtain a larger sample for writing analyses than for other measures (n = 130). These 130 students represented all LEP students and all non-LEP Hispanic LD students in the district for whom pre and post writing samples were obtained.

Student Sample 2 contained the same three groups represented in Student Sample 1, (i.e., LEP LD, non-LEP LD, and nonhandicapped LEP). Table 9 shows the distribution of the sample by school and group; Table 10 shows their distribution by grade and group.

Insert Tables 9 and 10 about here

Instruments Administered to Teachers

Instruments administered to teachers were used to: (a) monitor project implementation, (b) assess project effects on teachers' attitudes and practices concerning the teaching of reading and writing, and (c) gather background information about participating teachers.

Project Implementation Instruments

Stages of Concern (SoC) Questionnaire. The SoC questionnaire (Hall, Wallace, & Dossett, 1973) was administered to explore teachers' feelings, preoccupations, thoughts, and considerations relative to implementation of Shared Literature and the Graves Writing Workshop. The questionnaire determines at which of seven stages (see Figure 4) "adopters" of an innovation are functioning and documents changes in stages as users become more familiar with an innovation and gain experience using an approach or strategy. The SoC questionnaire includes 35 items which are answered using a 1 to 7 rating scale; items within each stage are combined to obtain a percentile score for that stage.

Insert Figure 3 about here

Training pre/post tests. A 10-item pre and posttest were administered during initial training workshops to determine each teacher's level of information/skill about Shared Literature and the Graves Writing Workshop.

Observations. All teachers were observed while teaching a Shared Literature lesson on three occasions. Teachers who received Graves training were also observed during three writing periods. Data from these observations have not yet been analyzed.

Teacher evaluation and feedback forms. These questionnaires were used to identify the components of the Shared Literature project which teachers were able to successfully implement and areas with which they experienced difficulty. Teachers also responded to questions about the effects of the project on students' oral language and reading skills and identified the types of students they felt profited, or did not profit, from the Shared Literature approach. Teachers answered the evaluation items on a five-point Likert scale, with space provided for additional comments.

Debriefing meetings for project evaluation. Meetings were held to obtain additional input from teachers about the Shared Literature and the Graves Writing Workshop approaches. Their evaluations of the approaches were tape-recorded, as were their suggestions for improving training and facilitating implementation.

Project Effects Instruments

Teacher Perceptions of Literature Questionnaire. Seven items, which were answered using a five-point Likert scale, were used to capture teacher perceptions of the usefulness of literature in developing reading skills, the value of reading aloud to children, and the value of reading trade books. In addition, teachers responded to items which asked whether reading was the most important skill taught in their classroom and whether they were knowledgeable about children's literature. Teachers also rated their read-aloud skills.

Teacher Perceptions of Writing Survey. This instrument combined 16 Likert items and five open-ended questions. It was developed to obtain pre and post training data on teacher perceptions about the writing curriculum, the purpose of writing instruction, and the relationship between reading and writing skills. Teachers also described writing activities carried out in their classrooms.

Background Information

Demographic data were collected for all participants. The profile included each teacher's gender, age, degrees and certifications, job assignment (e.g., program, grade, school), and the number of students taught. Teachers also indicated whether they were bilingual and their degree of proficiency in the non-English language(s) spoken.

Instruments Administered to Students

Instruments administered to students were used to: (a) document the effects of Shared Literature and the Graves Writing Workshop on academic performance, (b) examine students' attitudes toward the interventions, and (c) gather background data about participating students. Unless otherwise noted, the instruments listed below were administered to Sample 1 students.

Academic Performance Effects Instruments

Language Assessment Scales. The LAS (de Avila & Duncan, 1983) is an individually administered, standardized, global oral proficiency measure composed of five subtests: minimal pairs, lexical, phonemes, sentence comprehension, and oral production (story retelling). Parallel forms of the test in English and Spanish allow comparison of relative language proficiency. The English LAS was administered to all students; the Spanish LAS was administered to all students classified as LEP for either project year and to non-LEP LD students whose home language survey data suggested that Spanish was used in the home.

Peabody Picture Vocabulary Test-Revised. The PPVT-R (Dunn & Dunn, 1981) is a measure of receptive vocabulary for persons aged 2 1/2 through adult. The test consists of a series of stimulus pictures. The examinee points to the picture which corresponds to the word given by the examiner. The PPVT was administered to all students.

Test de Vocabulario en Imagenes Peabody. The TVIP (Dunn, Padilla, Lugo, & Dunn, 1986) is a Spanish adaptation of the 1981 Peabody PVT-Revised. The TVIP was administered to LEP students and to Spanish-speaking non-LEP LD students who were in grades 2 and 3 during the 1989-90 school year.

Writing samples. Samples of students' writing were collected by classroom teachers for all students in Sample 2. Students were given 15 minutes to write on a topic of their own choosing.

Storytelling. A story-telling task was also administered to students. Students who were in second and third grade during 1989-90 told stories in response to a picture prompt in both English and Spanish; fourth and fifth graders told stories in English. Data from this measure are still being analyzed.

Student Attitude Instruments

All student attitude instruments were completed by all students in Sample 1.

Lewis Reading Attitude Inventory for Low Level Reading Ability. This instrument (Lewis, 1979), which was developed to measure the attitudes of elementary students toward reading, is an adaptation of the Estes Reading Attitudes Survey (Estes, 1971). Each of the 20 items (e.g., Reading is fun for most people; I wish there were more time for me to read.) is read to the student, who answers *yes*, *no*, or *sometimes*.

Student Attitudes Toward Writing. This instrument was used to obtain pre and posttest data on (a) student attitudes concerning the importance of writing, (b) students' perceptions of its purpose, and (c) students' evaluations of their own writing abilities. The questionnaire also documented the types of writing activities conducted in classrooms. Students were asked to respond to 23 items on a four-point scale with responses ranging from always to never and to answer eight open-ended questions. This instrument was adapted from a similar measure by Garcia, Ortiz and Bergman (1990).

Student evaluation of Shared Literature and Graves Writing Workshop activities. Thirteen open-ended questions were developed by project staff to obtain feedback about classroom reading and writing activities. Shared Literature items asked students to describe the activities in which they participated, and to identify the things they liked and did not like about these activities. Graves items asked students to describe classroom writing activities, the things they did and did not like about the activities, and what happened to their written work. Shared Literature items were administered via a separate survey; Graves items were incorporated into the Attitudes Toward Writing Scale.

Background Data

Language Proficiency Assessment Committee (LPAC) folder data. The LPAC determines which students are eligible for bilingual education or English as a second language instruction. School history data, including results of the initial Home Language Survey, results of language proficiency testing, and eligibility and programming decisions made by the LPAC, were collected from student folders.

Special education folder data. Special education eligibility data, including reason(s) for referral, results of the comprehensive individual assessment, documentation of the handicapping condition, and the placement and Individualized Education Program (IEP) decisions made by the special education Admission, Review, and Dismissal (ARD) Committee, were collected from students' special education folders. Data were used to verify that all special education subjects were served in programs for students with learning disabilities and received at least part of their language arts instruction in special education.

Procedures

In piloting the AIM for the BESt model, Shared Literature and the Graves Writing Workshop were used as examples of effective instructional practices for language minority students because they incorporate characteristics of reciprocal

interaction teaching. These approaches are based on collaborative, cooperative learning with ample opportunities for interaction between the teacher and students in an academic context, thus facilitating the development of language skills which are requisite to becoming highly literate. The approaches focus on higher level cognitive skills and *lead* to mastery of basic skills, rather than vice-versa.

Teacher Training

Shared Literature. In Spring 1989, bilingual education, English as a second language program, and special education teachers from the intervention schools (one K-2 and one 3-5 campus) participated in a six-hour training workshop on the use of Shared Literature units. Teachers from the other two schools served as a comparison group during Spring, 1989, were trained in August, 1989, and began using Shared Literature in Fall, 1989.

Shared Literature is based on a story-reading approach to language and literacy development. Students are exposed to a rich print environment and to award-winning children's literature in order to develop their oral language and reading comprehension skills, to familiarize them with authors and illustrators, to prepare them for the variety of writing styles they will encounter in texts, and to support the creative writing process (Roser & Frith, 1983). Story reading provides comprehensible input (Krashen, 1982), exposing students to language they need to acquire but which is a little beyond their current level of functioning. Through Shared Literature experiences, students are exposed to a different thematic unit every two weeks (see Figure 4). For younger children, the units consist of ten picture books, on the same theme or topic, of the same genre , or by the same author. The teacher reads a book each day to the class. Older students are exposed to chapter books, with the teacher reading a chapter(s) of the book each day. Some units for older students required 3 to 4 weeks to complete. Because of the focus on reciprocal interaction, ample opportunities are given to discuss the stories read by

the teacher and a language chart is used to record student responses. Students may also participate in extension activities (e.g., writing, art, drama) designed to expand and refine their language skills.

Insert Figure 4 about here

During Shared Literature training, teachers were provided an introduction to the story reading approach and were familiarized with the units and the unit guides. The guide for each unit includes (a) activities to introduce the unit, (b) activities to introduce each book in the unit, (c) follow-up activities with a focus on eliciting student responses to the stories read, (d) sample language charts which can be used to capture student responses, and (e) other books on the same theme which can be placed in the class library. The training also included effective strategies for sharing literature and promoting comprehension, along with suggestions for obtaining student responses to the stories read through the use of language charts. Teachers were asked to implement each unit for a two-week period; this included reading a story or chapter to students every day and recording student responses on a language chart.

Finally, teachers were trained to create classrooms that help children like books (Hickman, 1983). In these classrooms, students have access to well-selected books and teachers personally introduce books to specific students in order to stimulate interest in reading. Students are given time to browse, choose books, and to read. Their responses to literature are shared and displayed. The class library center, which accommodates several students since reading is an interactive process, is located in a quiet area of the room and is both visually and physically accessible to the students. Shelves allow books to be displayed with the covers showing so that

students are drawn to the library center, something which may not happen if all they see are book spines. The library also contains elements of "softness" (e.g., pillows, beanbag chairs, rugs) so that students can relax and enjoy their reading.

Graves Writing Workshop. During the Summer of 1989, teachers from intervention schools attended a second six-hour workshop. The training included (a) an introduction to the Graves procedures and the rationale for them, (b) a discussion of the use of invented spelling, and (c) suggestions for publication of student writings. A supplemental three-hour workshop was conducted in January 1990. This training, which was provided by teachers from a nearby district who used a process writing approach, reviewed basic principles, discussed managing the approach in the classroom, provided examples of student writing produced, discussed writing in the content areas, and introduced the use of story webs as a basis for writing.

When the Graves (1983) approach is used, children write every day, developing topics of their own choice. The teacher conferences with students as they write, answering questions individually and evaluating skills. Lessons on mechanics (e.g., spelling, punctuation, capitalization, etc.) are based on the teacher's and the student's evaluation of the writing in progress. Again, the focus of instruction is on reciprocal interaction. Students share and talk about their writing, thus creating significant opportunities for meaningful language stimulation and use, and encouraging development of both conversational and academic language skills (Cummins, 1984). Students initially focus on clearly communicating ideas to those who will read their stories, and revise their work incorporating input from the teacher and from peers. After they have developed their ideas, students edit their work in preparation for publication. Finished stories are bound and placed in the classroom library center, along with trade or commercial books, for other students to check out and read. Intervention teachers were asked to implement

Graves procedures for a minimum of three twenty-minute lessons per week during 1989-90.

Technical Assistance

The site coordinator for the project, A UT-Austin staff member who was housed in the district, was available to assist teachers in the implementation and management of the innovations. Regular visits were made to project classrooms to ascertain the degree of implementation and determine whether additional assistance was needed.

Data Collection

Teacher Data

Stages of Concern, Attitude Surveys, and Background Information. Pre measures were administered to teachers at their training workshops. Meetings were held (usually after school) to complete intermediate measures, and a final half-day session was held at the end of the project to collect post measures. Measures were administered by project staff. The schedule of administration is shown in Table 11.

Insert Table 11 about here

Lesson Observations. Each teacher was observed on three separate occasions to gauge the level of implementation of each instructional strategy. Graves Writing Workshop and Shared Literature lessons were observed in intervention schools; Shared Literature lessons were observed in comparison schools. Observations were conducted at 3 to 5 week intervals during the Spring of 1989-90, with advance notice given to the teacher prior to each observation. Three individuals, the site coordinator and two research assistants, conducted the observations.

The Shared Literature Observation Form was developed drawing upon two previously designed instruments, an observation checklist developed by C. Farest and the Reading Aloud to Children Scale (Revised) developed by L. Lamme. Additional items were added to determine the level of implementation of specific components of the Shared Literature approach. During each observation, the library center and other Shared Literature materials displayed in the classroom were inventoried and described. The teacher's actions while reading a book or chapter and follow-up activities were also observed and coded.

The Graves Writing Workshop Observation Form was developed independently based on specific components of the process-oriented approach to writing. Observations centered on how students' writing topics were selected and on how many components of the Graves process (e.g., revising, editing, conferencing, or sharing) were carried out. In addition to observation items, the Graves Form included a brief teacher interview which concerned student journals and publications.

Both forms were piloted in the K-2 intervention school. A team of three (the project director, research coordinator, and site coordinator) observed two Shared Literature and two Graves Writing Workshop lessons. Debriefing meetings were held to determine the level of consistency between observers and both forms were modified. A second round of observations was conducted by the site coordinator and resulted in minor modifications of the form.

The site coordinator then trained the two research assistants in the observation process. Initially, the research assistants were familiarized with the components of each instructional process. Video tapes of lessons were shown and observation forms completed. These were reviewed and feedback was given as appropriate. Finally, the research assistants and the site coordinator jointly observed five teachers in order to establish intercoder reliability.

Student Data

Table 12 shows the schedule of administration for student measures at intervention and comparison schools.

Insert Table 12 about here

LAS, PPVT, TVIP, Reading Attitudes, Writing Attitudes, and Project Evaluation. These measures were administered individually to students by trained graduate research assistants. Standardized tests were administered using test publishers' instructions; Spanish tests were given by bilingual research assistants. Attitude test items were presented in written form and were also read aloud to students.

Research assistants were trained by project staff at the beginning of each semester. Training included instructions for visiting schools, administering tests, and insuring confidentiality of information. Research assistants practiced administering tests to each other and to children they knew, and were observed in simulated testing situations by project staff before testing in schools. Test protocols were turned in to project staff who checked and scored them using test publishers' instructions.

Writing Samples. Writing samples were collected by teachers using instructions and writing paper provided by project staff. Teachers were asked to help their classes generate four possible writing topics; students were then given 15 minutes to write individually on one of those topics or a topic of their own choosing.

Campus-Based Problem-Solving/Teacher Assistance Teams

Subjects

Subjects were all students whose cases were considered by the Student and Teacher Assistance Teams (S/TATs) on each of the four campuses during the two project years.

Procedures

School-based problem-solving teams were implemented at all four participating schools during the Spring 1989 semester. Members either volunteered or were appointed to the S/TATs. The core teams consisted of a campus administrator, counselor, nurse, regular classroom teachers (usually one representative from each grade level), a special education teacher, and an educational diagnostician. One of the K-2 campuses also involved the physical education teacher. The school counselor was appointed as coordinator for three of the teams; at one K-2 campus, this responsibility was rotated monthly among team members. The primary duties of the coordinator were to review requests for assistance, ensure that behavior observation checklists were completed, and to schedule and chair meetings.

Training. A one-day training session was provided for team members. The purpose of the teams was reviewed, general guidelines for implementing and operationalizing the campus-based teams were discussed, and information about community-based resources (e.g., family counseling and drug and alcohol abuse treatment programs) was provided. The major focus of the workshop was on conducting problem-solving meetings. The teams were trained to conduct 30-minute meetings during which team members (a) reached consensus as to the nature of the problem; (b) negotiated one or two objectives with the referring teacher; (c) selected the methods, strategies, or approaches the referring teacher would attempt; (d) defined responsibility for carrying out the recommendations; and

(e) established a follow-up plan to monitor progress. Each team then developed a Request for Assistance packet and determined how they would operate on their campus.

Team operating procedures. The following operating procedures were common to teams at the four sites:

1. The teacher requesting assistance submitted a completed information packet to the team coordinator. The request for assistance form asked the teacher to describe the nature of the problem, what the teacher would like the student to do that s/he was not already doing, what the teacher had already done to attempt to resolve the problem, and the student's strengths and weaknesses.

2. The coordinator requested that all other school personnel in regular contact with the student complete a behavior checklist and return it to him/her within a week.

3. The coordinator then developed a composite checklist and distributed it to the team members.

4. A team meeting was held to discuss student needs and to determine the best plan of action for the student.

5. An intervention plan was developed which was then implemented by the teacher or other service provider (e.g., support group meetings conducted by the counselor).

6. A follow-up meeting was held to review progress and to develop additional interventions if necessary.

The teams scheduled a regular meeting day and time; all meetings occurred after school.

Data Collection

During both project years, data were collected on the number of requests for assistance received by the S/TATs, the types of cases referred, and the disposition of

those cases (including the number of students referred by the team to special education). During the second year, a sample of meetings was also observed by project staff.

Curriculum-based Assessment

Subjects

Subjects were the 3 educational diagnosticians and psychological associates who serve the four participating schools.

Procedures

The Curriculum-based Assessment component was implemented in Spring, 1990. During a two-day workshop, subjects were trained in the use of Curriculum-based Assessment for Instructional Design (CBAID). CBAID is a system for determining the instructional needs of students based on their on-going performance in existing course content, and for delivering instruction as effectively as possible to match those needs (Gickling, Thompson, & Hargis, in press). CBAID is based on the premise that if teachers carefully determine the instructional match among what students *need to learn*, what students *already know*, and how *much* and how *fast* students can learn, students will have a much better chance of learning new material. Initial training included (a) basic premises about teaching and learning; (b) the CBAID model; (c) an overview of the four phases of the model--measurement, analysis, design, and implementation; and (d) demonstration and practice of CBAID with students in the area of reading.

Data Collection

Pre and posttests were administered to participants to assess their knowledge of Curriculum-based Assessment, as was an initial Stages of Concern About Curriculum-based Assessment Questionnaire. Assessment personnel were asked to incorporate CBAID procedures into their comprehensive individual evaluations of

five limited English proficient students and to compare results of CBAID with those of norm-referenced instruments.

RESULTS

Effective Instructional Practices

Teacher Implementation Results

Stages of Concern for Shared Literature

Teachers completed four administrations of the SoC Questionnaire regarding Shared Literature (March, 1989, May or August, 1989, January, 1990 and May, 1990). Responses were scored using procedures described in the SoC manual (Hall, George, & Rutherford, 1979), and the highest stage of concern for each administration for teachers who completed all administrations was obtained. Table 13 details the highest stages of concern for each administration by school; Table 14 shows highest stages of concern by teacher assignment.

Insert Tables 13 and 14 about here

Results suggest that teachers' stages of concern changed as they implemented Shared Literature. At the first administration, 86% of intervention teachers and 81% of comparison teachers scored at awareness or informational levels (Stage 0 or 1 respectively). These stages of concern are typical of non-users of an innovation. By the fourth administration (at which time intervention teachers have been using Shared Literature units for three semesters and comparison teachers had used them for two), 50% of intervention and 38% of comparison teachers scored at the awareness or informational stages of concern, while 41% of intervention and 38% of comparison teachers scored at Stage 4 (consequence) or above. Concerns at Stage 4 focus on the impact of an innovation on students, evaluation of student outcomes, and changes needed to increase outcomes. Stage 5 (collaboration) concerns focus on the possibility of using the innovation in collaboration with others, and Stage 6

(refocusing) concerns focus on the exploration of more universal benefits from the innovation, including possible modification of the strategy or replacement with a more powerful alternative.

Examination of results by teacher assignment (either bilingual/ESL or special education) suggests that teachers from both groups reached higher stages of concern about Shared Literature. No bilingual education teacher scored above Stage 3 (management) on the first SoC administration; by the final administration, 39% scored at Stage 4 or above. Similarly, no special education teacher scored above Stage 1 (informational) on the first administration, while 43% scored at Stage 4 or above by the final administration.

Stages of Concern for the Graves Writing Workshop

Table 15 shows the highest stage of concern for intervention and comparison teachers who completed all three administrations of the Graves SoC questionnaire (August, 1989, January, 1990 and May, 1990). By the third administration intervention teachers had used the Graves Writing Workshop for one school year; comparison teachers had not yet received Graves training.

Insert Table 15 about here

Results suggest that the highest stage of concern changed more for intervention than comparison teachers. Ninety percent of intervention teachers scored at Stage 0 (awareness) or 1 (informational) on the first SoC administration; by the third administration, this percentage had decreased to 62%, and 24% scored at Stage 4 (consequence) or above. Ninety-two percent of comparison teachers began at Stage 0 or 1. By the third SoC administration, 81% of this group still scored at Stage 0 or 1 and no teacher scored above Stage 3 (management).

Teacher Evaluation and Feedback Forms

Intervention teachers completed an evaluation and feedback form for the Shared Literature Project in May, 1989. Item means, frequencies and teacher comments were analyzed for the entire group, by grade level, and by school (one K-2 and one 3-5 campus). In addition, data for special education teachers were examined separately. Intervention and comparison teachers completed an identical form in May, 1990. Intervention teachers had been implementing the Shared Literature approach for approximately three semesters, whereas comparison teachers had been implementing it for approximately two semesters. Data were analyzed for the entire group, by treatment group (intervention or comparison), and by teaching assignment (bilingual/ESL or special education). Item means for the entire group and for special education teachers are shown in Table 16.

Insert Table 16 about here

Overall, teachers indicated highly positive feelings about the Shared Literature Project at both administrations (total group means: 1989=4.6; 1990=4.7). The teachers stated that the project had reinforced and organized already existing oral reading practices, provided suggestions for new ideas and activities to accompany read-aloud selections, and encouraged the allocation of time for oral reading. They enjoyed the organization of selections into units which focused on specific themes, topics, authors, or genres and appreciated the convenience of selecting a group of books with an accompanying unit guide. They believed that the units encouraged and developed students' enthusiasm for reading and writing, improved oral expression and word recognition, and motivated students to choose books to read on their own. One teacher mentioned that the project was too fast-

paced to allow adequate time to explore student interests, and a special education teacher noted that project activities interfered with IEP commitments. Several teachers commented that they did not like being observed by project personnel.

Teachers noted changes in their own attitudes toward literature and/or in their literature sharing skills (attitude means, total group: 1989=3.5; 1990=3.3; skill means, total group: 1989=3.4; 1990=3.7). Many teachers stated that while they had previously worked to involve their students with children's literature, the project had renewed their enthusiasm and motivation, and increased their involvement in literature-sharing activities. One teacher commented that while s/he had always viewed literature as an important component in the classroom, it was now recognized as important campus-wide. Teachers mentioned that the project had increased their awareness of various authors and topics and encouraged them to incorporate a wider variety of selections into their read-aloud programs. They noted that they are more structured and focused when sharing literature with children, provide more time for student discussion and comments, ask higher-order questions about the stories being read, and use literature as a springboard to other activities. Several mentioned the benefits of the language chart and the fact that students were excited about reading their own comments. One teacher felt that she had learned very little about Shared Literature.

Teachers reported changes in their students' attitudes during the Shared Literature Project (total groups means: 1989=3.8; 1990=3.9). The largest change over the two years of the project was reported by special education teachers in the area of student attitudes (attitude means, special education: 1989=2.7; 1990=3.9). When examined by treatment group, intervention teachers who had used Shared Literature for three semesters reported the highest degree of change in student attitudes (attitude mean, intervention schools: 1990=4.2). Teachers believed that students were more enthusiastic about being read to, spent more time in the library

center, and attempted to read more difficult material. In addition, they reported that the students looked forward to going to the library and often requested books from Shared Literature units or additional books by the same author or on the same topic.

Teachers also reported changes in the students' reading and language skills. In 1990, of the 62 teachers completing the evaluation, 84% (49) indicated that students' skills had improved, 16% (9) reported that they had not, and three did not respond. Teachers indicated that students enjoyed the opportunity to discuss stories and books, demonstrated an increased awareness of authors and illustrators, and were able to draw comparisons and contrasts between various stories and authors' styles. They reported improvements in students' sentence structure, oral and written vocabulary, intonation and expression, English proficiency, and comprehension skills. Several teachers mentioned that students were more creative in their thinking and were able to employ higher-level thinking skills. In addition, teachers noticed improvement in their students' writing abilities which they would attribute to the project and mentioned that a number of students aspired to be authors and illustrators. One teacher commented that students were discussing the Shared Literature books at home and that parents were reading the same books, which students chose from the library. Another felt that students who were initially reluctant to speak had shown the most improvement. A few teachers stated that they had previously employed literature-sharing techniques and therefore could not attribute any change specifically to the project.

Teachers reported that all students benefitted from Shared Literature. Gains were observed in all types of students, including above average, slow learners, students with learning disabilities, LEP and non-LEP students. Nonhandicapped students who were performing below grade level and students with mild and moderate disabilities were reported by fewer teachers as benefitting. However, a

number of teachers felt that they could comment only about the types of students with whom they worked directly.

In contrast, when teachers were polled about the types of students with whom the units were least successful, over ninety percent reported that the units would be beneficial to students in each of the categories mentioned. A few teachers commented that some books were too long for certain types of students and that more enrichment activities were needed for above-average students. Overwhelmingly, however, teachers indicated that all students would benefit from exposure to the units and that modifications could be made to meet students' individual needs.

When teachers were asked whether there was a need for Spanish units, responses were mixed. Overall, 54% (32) of the teachers responded "yes", 46% (27) responded "no." Sixty-two percent (30) of the bilingual/ESL teachers indicated a need for Spanish units while 38% (18) did not. Eighty-two percent (42) of the teachers indicated that they would like Spanish translations of books added to the units. Teachers' comments revealed a desire for books in Spanish, although several indicated that they did not speak Spanish and therefore would be unable to use them. Many of the bilingual/ESL teachers highlighted the need for Spanish books and indicated that they would be useful in fulfilling the requirements of the Spanish component of the curriculum. One teacher responded that Spanish books were not needed because all children need to learn English, while another indicated that Spanish books would be desirable despite the fact that s/he does not speak Spanish. Others requested books that would provide information regarding the culture, traditions, and holidays of Spanish-speaking people.

When asked what could be done to improve the project, the teachers requested more units, more books, and supplemental materials to accompany existing units. They requested that units be coordinated with science and social

studies curricula and that more units dealing with specific authors be included. Several teachers indicated a desire for units in Spanish and more culturally relevant material. A few teachers mentioned that it would be desirable to elicit teacher and student feedback when selecting topics or authors for unit development. Finally, teachers commented that some language charts and activities needed to be modified for use with certain grade levels and types of students, and that additional objectives and higher-level thinking skills activities would enhance others.

Teacher Outcomes

Perceptions of Literature

There was little difference between teachers' mean responses on the pre and post-administrations of the Perceptions of Literature instrument when analyzed either by school or teacher assignment (see Tables 17 and 18).

Insert Tables 17 and 2[illegible]out here

In most cases, teachers' initial scores were highly positive, leaving little room for change. The small differences that did occur tended to be in the desirable direction. For example, special education teachers' mean scores on item 2 indicate that reading aloud was more highly valued by the school, the district and the state at the post-administration than it had been previously. The same group felt that reading aloud to LEP students was more important at the posttest.

Perceptions of Writing

Mean responses to the pre and posttest administrations of the Perceptions of Writing instrument were compared by school, thus contrasting teachers who had implemented the Graves Writing Workshop with teachers who had not. Once

again, teachers began with scores that were highly positive and changes that did occur tended to be in the desirable direction (see Table 19).

Insert Table 19 about here

Responses to items 4, 7 and 8 indicate that intervention teachers had changed in their approach to teaching writing to a greater degree, and in a more positive direction than had comparison teachers. These items address topics covered during Graves Writing Workshop training. Intervention teachers' posttest responses to items 9 and 10 indicate that they perceived their students to be better writers who enjoyed writing more than they had at pretesting. The same cannot be said of comparison teachers. Intervention teachers also showed changes in the value they place on teachers being good writers themselves (item 13); comparison teachers showed less change. Intervention teachers indicated that they had benefitted from writing-related coursework or inservices; comparison teachers had not.

Student Background Characteristics

Background data were gathered to describe the characteristics of subjects who participated in the study and to examine the comparability of students across schools (intervention or comparison) and groups (LEP LD, non-LEP LD, or nonhandicapped LEP). Characteristics discussed in this section are based on analysis of students' bilingual education needs and school experiences.

Home Language Survey. When students entered school, their language history and proficiency were evaluated to identify pupils who would benefit from bilingual instruction. One means by which this was accomplished was a Home Language Survey (HLS) completed by students' parents or guardians.

The HLS consists of five items which inquire about children's exposure to English and Spanish, and their usage of these languages. Responses to the HLS indicated that 46% of the sample came from homes in which English was spoken most of the time, 22% came from homes in which Spanish was spoken most of the time, and 32% came from homes in which both languages were spoken. Home language background appeared similar for intervention and comparison students. As would be expected from their classification by the district, non-LEP LD students came from homes in which English was the predominant language more frequently than did LEP LD or nonhandicapped LEP students (see Tables 20 and 21).

Insert Tables 20 and 21 about here

Initial Language Assessment Scales Scores. Analyses of variance followed by post hoc Tukey comparisons for LAS English and Spanish level scores were used to compare the language proficiencies of subjects across schools (intervention or comparison) and groups (LEP LD, non-LEP LD, or nonhandicapped LEP) at the time of school entrance. Results show that non-LEP LD students were more English proficient than LEP LD or nonhandicapped LEP students (see Table 22). No differences were found for English scores across schools or for entering Spanish scores (see Table 23).

Insert Tables 22 and 23 about here

Retention. Grade retention was common for a large portion of the sample. Forty-three percent of students had been retained once and an additional 8% had been retained twice. An ANOVA which examined School and Group effects

revealed that special education students (both LEP LD and non-LEP LD) were retained significantly more frequently than were regular education students (see Table 24).

Insert Table 24 about here

Number of Years in Bilingual Education. An ANOVA like those described previously was used to compare the number of years students had been enrolled in bilingual education prior to project participation. Results confirmed that LEP students had been in bilingual education longer than non-LEPs, regardless of special education status. No differences based on school were found (see Table 25).

Insert Table 25 about here

Overall, comparison of home language and school history variables suggests that LEP students (regardless of special education status) were less English proficient than non-LEP students and spent more time in bilingual education. Differences were consistent with the district's assessment of students' English proficiency. Intervention and comparison students appeared not to differ on the variables considered.

Student Academic Outcomes

Peabody Picture Vocabulary Test

Examination of changes in students' English vocabulary skills across the two project years was conducted using a split-plot ANOVA with repeated measures. This procedure takes into account both the nesting of students within their LEP or non-LEP status and their LD or nonhandicapped classification, and multiple administrations of a measure to the same subject. Effects for school (intervention or

comparison), group (LEP LD, non-LEP LD, or nonhandicapped LEP), administration (Spring 1989 or Spring 1990), and the resulting interactions were examined. A significant main effect was found for the Group variable only.

Insert Table 26 about here

While the school by administration interaction failed to reach statistical significance, examination of mean scores across administrations suggests that greater gains were made by LEP LD students in intervention schools than were made by any other group (see Table 27). This group had participated in Shared Literature for three semesters and in the Graves Writing Workshop for one school year. While other groups' scores increased by three points or less between administrations, scores for intervention LEP LD students increased by 12 points.

Insert Table 27 about here

Test de Vocabulario en Imagenes Peabody

Because of the small number of students for whom TVIP scores were available, it was not possible to examine changes in students' Spanish vocabulary. While 48 second and third grade students were tested with the TVIP in Spring 1990, only 18 students (36.5%) obtained a raw score high enough to allow a standard score to be derived; similarly, standard scores were available for only 10 students for the Spring 1989 TVIP administration. All students for whom a score was obtained were in bilingual or ESL, as opposed to special education, classes.

Available mean standard scores were relatively low (Spring 1989 $\underline{m}$ = 75.5, $\underline{n}$ = 10; Spring, 1990 $\underline{m}$ = 74.2, $\underline{n}$ = 18). Overall, results suggest that most students did not

know the Spanish vocabulary required by the TVIP, and that the test was probably not appropriate for documenting changes in vocabulary that may have resulted from AIM for the BESt instructional practices.

Language Assessment Scales

Two split-plot repeated measures ANOVAs like those described earlier were used to examine changes in students' English and Spanish LAS level scores between Spring 1989 and Spring 1990. No significant differences were found (see Tables 28 and 29).

Insert Tables 28 and 29 about here

Writing Samples

Scoring Procedures. Writing samples were analyzed using procedures previously field-tested in a study of the Graves Writing Workshop in special education classrooms (Garcia, Ortiz, & Bergman, 1990). Variables analyzed included the type of passage written, the main characters used, the type of segmentation used, the type(s) of dialogue used, the number and types of invented spellings in the writing sample and explication of any material from students' home culture included in the sample. Samples were also given an overall rating for quality of organization and quality of communication: specific communication and organizational problems were rated as being present or absent.

Coder training began with two two-hour sessions, during which coders were given (a) a brief introduction to holistic analysis, (b) a coding form denoting the categories of analysis, (c) a coding pamphlet providing detailed instructions on the scoring of each category, (d) detailed examples of the categories and their scoring, and (e) practice transcripts. Given the relatively subjective nature of the analyses,

trainees were guided through several practice transcripts and detailed discussion was initiated to develop consensus within problematic categories. Writing samples from the Garcia, Ortiz, and Bergman (1990) study served as practice transcripts for the present study; accuracy of scoring of practice transcripts was calculated based on percent agreement of each coder with these "master" transcripts.

Following training, coders were given practice transcripts to complete on their own. Immediate feedback concerning performance was provided. After each coder completed 4 to 7 transcripts, a new set of four reliability transcripts was distributed. Interrater reliability was based on the percent agreement of each coder with a "master" transcript. Reliabilities ranged from 83 to 92 percent agreement, with a mean reliability score of 86 percent for 9 individuals. Coders were given an additional set of instructions, reflecting a few modifications to the coding procedures, as a result of issues raised during the scoring of practice transcripts. Coders were further cautioned to refer to the coding pamphlet when scoring problematic categories.

Two independent raters scored each transcript; disagreements were resolved using a third independent rater. If disagreements remained, a fourth coder resolved them. Continuous feedback was given by the head coder, a UT-Austin faculty member, if inconsistencies in coding procedures were discovered.

Results. Analyses of writing samples for students involved in the Graves Writing Workshop are ongoing. However, a case study analysis comparing two groups of special education students' writing has been completed. One group was taught by a teacher in the K-2 intervention school whose lesson and walk-through observations indicated a high level of implementation of the Graves Writing Workshop; the other group was taught by a teacher in the K-2 comparison considered to be very effective by project staff, but who was not yet trained in the Graves approach.

The amount of writing produced by students in the Graves classroom doubled between the pre and posttests (see Table 30).

Insert Table 30 about here

While the organization of their writing improved only slightly, their quality of communication moved from being characterized as mostly incomprehensible to being adequate for comprehension. In the comparison classroom, the amount of writing decreased greatly between the pretest and the posttest, and scores for quality of communication were lower. These students' writing was characterized as poorly organized and mostly incomprehensible.

Student Attitude Outcomes

Lewis Reading Attitudes Inventory

The Lewis Inventory was administered to students in intervention schools twice during Spring 1989. Scores were obtained by assigning a score of 3 to the most positive possible answer for any item, items were reverse scored when necessary. Possible scores ranged form 20 to 60. After examining pre and posttest scores for the Spring 1989 sample, which failed to change despite positive student and teacher evaluations of Shared Literature, project staff added five items to the scale which dealt directly with teacher read-aloud activities. The new scale was administered in October, 1989, and results of this administration were used to obtain Cronbach's alpha reliability coefficients for the old and new versions of the scale. Results suggested that the expanded scale was slightly more reliable than the original (r for original scale = .61; r for expanded scale = .68). The expanded scale was therefore used in January and May 1990.

The same split-plot ANOVA design described previously was used for analysis of Lewis scores. One ANOVA was used to assess changes in scores across all administrations of the scale (Spring, 1989, October, 1989, January, 1990 and Spring, 1990; see Table 31). No significant results were found. A second ANOVA was performed for the three administrations of the scale which included the read-aloud items (October, 1989, January, 1990, and May, 1990; see Table 32). Again, no significant results were found.

Insert Tables 31 and 32 about here

Student Attitudes Toward Writing

Total scores, which were obtained by assigning a value of 4 to the most positive possible answer for each writing scale item, were calculated for each writing scale administration (October, 1989, January, 1990, and May, 1990). The split-plot repeated-measures ANOVA design described previously was used to examine changes in writing attitude total scores. No significant differences were revealed (see Table 33).

Insert Table 33 about here

Subsequent to completing the multiple choice items, students responded to eight open-ended questions related to their attitudes toward writing. They were asked to describe the types of writing they did in class, their likes and dislikes with respect to the writing process, ways in which the teacher helped with their writing, what was done with completed writing, and the reasons people write either in school or in other settings. Responses to these questions are being analyzed.

Students' Evaluation of Shared Literature

Students responded to five open-ended questions concerning the Shared Literature Project in Spring, 1990. They were asked to describe the story-reading and related activities in which they had participated, what they liked most and least about story-reading, what they thought they had learned from the program, and to name a favorite book or story.

Students' comments indicated that they were quite familiar with the components of a Shared Literature lesson. Students noted that the books shared focused on a specific topic or theme. Many mentioned that the teacher identified the author and/or illustrator of the book, and provided information about the type of book or its content prior to sharing it with the class. Several commented that the teacher reviewed new vocabulary before reading the selection. Many stated that the teacher read aloud daily or almost every day. Others noted that the students were given the opportunity to read aloud or that they read together in groups. A large number indicated that a discussion followed the sharing of the book and that comments were recorded on a chart. Several students mentioned going to the library to check out books to take home. A wide range of follow-up activities was mentioned including art activities, book reports and other writing assignments, worksheets, the creation of story webs, dramatic play, watching movies, and sharing foods mentioned in the reading selections.

Many students identified being read aloud to and listening to stories as the thing they liked most about the program. They commented that the read-aloud program was fun and that they enjoyed books that were interesting, funny, and adventurous. Students noted that they enjoyed being able to read books on their own, that they were able to spell or say new words, and that their writing had improved. Several mentioned that they enjoyed relaxing while the teacher read, commenting that they were allowed to lie down or gather in a circle while the book

was being shared and were given time to talk about it afterwards. They liked the follow-up activities that went along with the read-aloud program. Drawing, writing, and watching movies were mentioned most often. A few students identified specific characters or stories as the thing they liked best.

When asked what they liked least, a number of the students indicated that there was nothing about the program that they did not like. Many felt that some books were too long or were boring. Others mentioned not liking specific stories or characters, writing activities, or discussing their ideas with the class. Several commented that they didn't like it when other students failed to pay attention.

Students mentioned learning a wide variety of things from the Shared Literature project. The most prevalent response was that they had learned new and bigger words. Many felt that their reading, writing, and/or spelling skills had improved. They commented that they had learned about the importance of reading and that reading could be fun. A number of students specified information they had learned from various books, such as what to do if you get stuck in quicksand, that it is OK for a boy to have a doll, and that you shouldn't go into people's homes when they are not there.

When asked which book or story they liked best, the students' responses were quite varied; Charlie and the Chocolate Factory was cited most frequently. The majority of books the students identified were found in Shared Literature units. Several students commented that they liked books about a particular topic or theme and others gave brief descriptions of books when they could not recall the title.

Overwhelmingly, student comments concerning the project were positive and most students demonstrated a knowledge of program components.

Campus-based Problem-solving Student and Teacher Assistance Teams

The majority of requests for assistance received by Student/Teacher Assistance Teams (S/TATs) were related to behavioral or discipline problems; the second most common area of concern was academic difficulty. In the first year, 49 requests for assistance with student-related problems were considered by the four teams. Of these, 38 of the problems (78%) were resolved through the team process; 11 students (22%) were referred to special education. In the second year, of the 51 cases considered, 35 (69%) were resolved by the Student and Teacher Assistance Teams and 16 (31%) were referred to special education. Of the 100 requests for assistance which occurred over the two-year period, 73 (73%) problems were resolved by the regular classroom teacher and/or by using alternatives such as participation in support groups, or referrals to external agencies for group counseling.

Curriculum-based Informal Assessment

Only the preliminary steps for implementing informal assessments into the comprehensive individual assessments were completed in piloting the AIM for the BESt model. Thus, it is not possible to report results for this feature. The district's educational diagnosticians were trained in informal assessment strategies using the Curriculum-based Assessment model (CBA). However, it was apparent during this training session that the CBA approach is best used by classroom teachers, rather than by assessment personnel, because of the continuous monitoring of instruction and progress which is the basic premise of the approach. Consequently, further evaluation of the effectiveness of this component of the model could not be pursued.

DISCUSSION

The results of this study suggest that the Assessment and Intervention Model for the Bilingual Exceptional Student (AIM for the BESt) holds promise for improving educational services provided limited English proficient students. Results for each model component included in pilot testing are discussed below.

Effective Instructional Practices

Teacher Outcomes

Stages of Concern about Shared Literature and the Graves Writing Workshop

Data obtained through the Stages of Concern Questionnaire indicate that project staff were able to train teachers in the use of Shared Literature and the Graves Writing Workshop effectively. Prior to training, teachers had profiles typical of nonusers. They had little concern about the interventions, were interested in learning more about what this involved, and/or were uncertain about the demands that would be placed on them relative to implementation of these approaches. After two or three semesters of experience with the Shared Literature approach, teachers' profiles indicated greater concern with management of the interventions in their classrooms, effects on student performance, and with coordination and cooperation with their peers in the use of Shared Literature units. Some teachers were ready to explore adaptations or modifications of the approach to increase its effectiveness.

A somewhat different pattern was seen for Stages of Concern about the Graves Writing Workshop for intervention teachers. Half of the teachers were still operating at the lower stages of concern, that is, awareness, informational, and personal levels, after one year, while profiles for the other half indicated concerns relative to student effects, collaboration, and modification or adaptation of the

intervention. Comparison teachers had not been trained and were thus still operating at the lower stages of concern.

Differences in the results of the SoC Questionnaire for Shared Literature and Graves could be related to the length of implementation (two semesters for Graves versus three semesters for Shared Literature). However, they are more likely attributable to ease of implementation. The Shared Literature approach was easily implemented as teachers were provided with books for the units and unit guides which gave specific teaching suggestions and activities for lessons. The Graves Writing Workshop, however, is a process which requires greater teacher initiative, planning and organization. Teachers were trained in the process-oriented approach and were provided materials to facilitate implementation (paper, tape, markers, etc.), but had to assume responsibility for the mechanics of implementation in their classes. Management of the process was more complex, since it involved students working simultaneously on different tasks (i.e., composing, revising, editing, publishing), small group conferences among students, and one-to-one conferences both among students and between the teacher and individual students. Consequently, it may take teachers longer to develop an efficient system of implementation and thus to pass the lower levels of concern as measured by the Stages of Concern Questionnaire.

The biggest obstacle to implementation for both Shared Literature and the Graves Writing Workshop seemed to be that the State of Texas has a mandated curriculum for each grade level Not only are goals and objectives set, but the amount of time which must be devoted to each content area is specified. Mastery of the "essential elements" of the curriculum is then measured by a state-wide student competency examination. While teachers seemed to see the value of the reciprocal interaction teaching approaches, they were reluctant to replace the standard language arts curriculum with them, since achievement tests seem to be more

consistent with skill-specific teaching and less consistent with the higher-order skills incorporated into Shared Literature and the Graves Writing Workshop. This reluctance was present even though the project had the full support of the district superintendent, the bilingual education and special education program directors, and the school principals.

Teacher Evaluation and Feedback Forms. Overall, teachers' ratings and comments reflect the effectiveness of the Shared Literature approach. Most recommendations for improving effectiveness included requests for additional literature units and books. Across all grades and groups, teachers expressed highly positive feelings about the project. Teachers saw themselves and their students as having a greater appreciation of, and more experience with, literature activities. Shared Literature was viewed as an exciting and enriching extension of on-going activities. Thus, while most teachers observed changes in their own and students' attitudes and skills, these were qualitative, not quantitative. Teachers measured student changes by awareness of narrative structure, improved reading vocabulary, comprehension, and increased proficiency in oral and written expression. As for themselves, teachers reported being more energized, enthused, and involved in literature activities. All students were seen as benefitting from the project, although some were thought to benefit more than others. While teachers surveyed did not see a pressing need for Spanish materials, two variables should be considered. One is that although students were limited English proficient, they tended to be English dominant, especially at the upper grade levels. Consequently, most of their instruction was in English. Moreover, the English as a second language teachers, most of whom were not themselves bilingual, were unlikely to use Spanish language materials and therefore did not identify this as a need.

Teacher Attitude Surveys. Intervention teachers seemed to change their perceptions of writing to a greater degree than comparison group teachers. One of

the most significant findings was that intervention teachers perceived their students to be better writers than do teachers in the comparison schools, supporting the effectiveness of a process-oriented approach to writing. Teaching strategies such as the Graves Writing Workshop may help teachers shift their emphasis away from direct instruction in basic skills to development of higher-order communication skills. They may also enhance bilingual and special education teachers' perceptions of their students' writing skills, thus raising teacher expectations.

Student Outcomes

Peabody Picture Vocabulary Test. The large increase in LEP LD intervention students' English vocabulary scores across the two project years suggested positive results for the effective instructional practices in which teachers were trained. However, achieving these changes may require long-term, intensive interventions. Intervention students were exposed to Shared Literature for one and one-half years and to the Graves Writing Workshop for an entire school year between pre and posttesting.

Writing Samples. Only preliminary analyses for the writing samples have been completed. Comparison of writing samples for students taught by a special education teacher characterized as having implemented the Graves Writing Workshop well with samples for students taught by an effective teacher who was not trained in the approach suggest possible positive outcomes. Students in the intervention special education class showed improvements in both the organization and quality of communication in their writing, while students in the comparison class did not.

Student Attitudes toward Shared Literature and Graves. No significant differences between intervention and comparison groups were found on attitudes toward literature or writing. However, it is possible that the attitude inventories have clear, socially correct responses, thereby masking changes in attitudes

following intervention. Additionally, the Lewis Inventory does not focus specifically on reading aloud. Even though some items were added to address this issue, most of the scale does not directly relate to the Shared Literature process.

Campus-based Problem-solving Teams

That the majority of requests for assistance were resolved by the Student/Teacher Assistance Teams is evidence of the effectiveness of this problem-solving process for prereferral intervention. Of the the 100 requests for assistance which occurred over the two-year period, 73% were resolved by the regular classroom teacher and/or by using alternatives such as participation in support groups or referrals to external agencies for counseling. In contrast, 70-90% of referrals to special education committees result in special education placements (Reynolds, 1984). S/TATs may be very effective in reducing inappropriate referrals to special education. This function is an important one, considering that there was very little difference in the background characteristics of the students with disabilities and nonhandicapped students in this study across variables such as language proficiency.

Another benefit of problem-solving committees is that the process helps identify campus-wide problem areas or training needs which, if addressed, can help school personnel deal more effectively with students' learning and behavior problems. For example, at one of the K-2 campuses, the team identified discipline referrals (to the team and to the principal) as being one of the most common issues. A discipline survey was conducted in which teachers were asked about behavior problems they observed (e.g., on the playground, at lunch, in the restroom). Teachers suggested possible consequences for misconduct and identified those offenses which warranted immediate action from the principal. They also responded to general questions such as whether they favored eliminating privileges for students who violated school rules frequently, and whether children with

emotional problems should be given the same consequences as other children. The S/TAT then drafted a school discipline management plan.

Informal Assessment

Although only the training for the informal assessment component was completed, several outcomes are already evident and should be carefully considered by school districts as they design assessment policies and practices. Because the approach requires *continuous* monitoring of student progress, Curriculum-based Assessment is more appropriate for use by classroom teachers than by assessment personnel. If teachers were trained to use CBA, the AIM for the BESt model would be revised to suggest that when a student is referred to special education, a summary of his/her curriculum-based assessment(s) would accompany the referral, along with records of the outcomes of the interventions recommended by the problem-solving teams. If teachers were trained in CBA, then informal assessment practices would also become an integral part of Step 2 of the model and would help teachers validate learning problems.

Training regular classroom teachers in informal assessment procedures has additional benefits. It is difficult to assess limited English proficient students without access to bilingual evaluators. If bilingual education teachers were trained in informal assessment procedures such as CBA, they could present systematic data about student performance, in both the native language and in English, in relation to the areas of concern. These data would be correlated with the actual curriculum and materials being used in the classroom. The results of teachers' informal assessments in both languages could be compared with outcomes of standardized testing and both sets of information could be used to determine special education eligibility. Such an approach seems much more equitable than reporting only scores from instruments which are not normed for language minority students.

Finally, it would also be appropriate for special educators to be trained in the use of informal assessments such as CBA so that they could continuously monitor progress. Data from these assessments would be invaluable in required annual reviews, given that decisions about continued eligibility and educational planning would then be based on information about the student's current level of performance rather than on outdated or limited assessment results. Continuous monitoring of student progress by both regular and special educators could also define or refine assessment questions to be addressed as part of triennial evaluations.

Summary

There are many benefits anticipated from implementation of the Assessment and Intervention Model for the Bilingual Exceptional Student. Serving students in the mainstream is more cost-effective than placing them in special education, especially if the student is underachieving, but not handicapped. Language minority students will have a greater chance of achieving their social, political, and economic potential because they are provided an appropriate education and are spared the stigma of being incorrectly labeled as handicapped. For students who have disabilities, implementation of effective instructional practices, along with a process for monitoring progress, will help assure that they also achieve their potential.

The instructional strategies piloted through this study provide examples of approaches which can be effectively used for both native language and for English as a second language development. Both regular and special education teachers reported that Shared Literature and the Graves Writing Workshop helped to develop students' communication skills, both oral and written, to expand their knowledge of literature structure, and to improve their attitudes toward literacy. This would suggest that instruction for language minority students should

incorporate strategies which emphasize reciprocal interaction and higher-order thinking skills.

Using campus-based problem-solving teams clearly demonstrates the benefits of collaboration among regular and special educators. The teams can support personnel and students across programs. For example, team members provide valuable assistance for: (a) students who present unique challenges to *regular classroom teachers*, but whose problems cannot be attributed to a handicapping condition (e.g., slower learners, poor students, linguistically or culturally different students); (b) *students who do not qualify for special education*, yet who still need assistance; (c) *handicapped students who are mainstreamed* into regular classrooms; and (d) *handicapped students* for whom the *special education teacher* is having difficulty meeting instructional goals and objectives. Campus-based problem-solving teams are excellent vehicles for inservice training. Participation on the team helps teachers develop skills in resolving the types of student-related problems they will routinely encounter in their classrooms. Moreover, by categorizing the problems for which teachers sought assistance, administrators can target staff development activities to the specific concerns of teachers on their respective campuses. Developing teachers' problem-solving skills can decrease dependence on the removal of students from the mainstream and placement in alternative programs as the major vehicles for assistance. Training such as that suggested by the model helps build self-efficacy and self-confidence among service providers responsible for educating a dramatically changing student population, because they possess the skills to more effectively do so.

Training regular and special education teachers, in addition to assessment personnel, in how to conduct criterion-referenced or curriculum-based assessments can demystify the assessment process. Teachers become a critical part of the assessment team providing data that are representative of student performance

across time, contexts, subjects, and/or skills. Bilingual educators can provide these data across languages, thus providing alternatives for school systems which do not have access to bilingual assessment personnel. Data, when available in both the native language and English, help distinguish between handicapping conditions and other background differences preventing placement of students into special education based on performance which actually reflects limited English proficiency or cultural differences. Assessment personnel are able to provide recommendations tailored specifically to the instructional needs of the student. This alleviates a common complaint of teachers, that is, that assessments simply confirm what they already knew (i.e., the child has a problem), but offer no specific recommendations for resolving the difficulty. By assessing skills in both languages, interventions can be developed to foster native language and English as a second competence and to improve academic achievement in both languages.

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Tables

Table 1

Campus Profile of Hispanic Student Representation and Teacher Assignments in Special Education and Bilingual Education

	Student data		Teacher data	
	Total enrollment	%Hispanic students	% of bilingual education teachers	% of special teachers
Primary School 1	819	57.9	33.5	14.1
Intermediate School 1	638	53.4	15.3	10.9
Primary School 2	747	61.0	42.2	8.9
Intermediate School 2	716	61.6	8.6	12.0

Note. Data are based on the 1988-89 school year.

Table 2

Order of Implementation of Model Components

	Campuses	
Year	Intervention K-2 and 3-5	Comparison[1] K-2 and 3-5
	Treatment	
1		
Spring 1989	Begin S/TAT	Begin S/TAT
	Begin Shared Literature	
2		
Fall, 1989	Continue S/TAT	Continue S/TAT
	Continue Shared Literature	Begin Shared Literature
	Begin Graves Writing	
Spring, 1990	Continue S/TAT	Continue S/TAT
	Continue Shared Literature	Continue Shared Literature
	Continue Graves Writing	Begin CBA
	Begin CBA	

[a]Teachers at comparison schools were offered Graves Writing Workshop training at the end of the Spring 1990 semester.

Table 3

Grade Taught by School

	School			
	Intervention		Comparison	
Grade	Year 1	Year 2	Year 1	Year 2
Kindergarten	8	8	8	8
First	6	6	6	6
Second	5	5	8	7
Third	3	2	2	2
Fourth	2	2	2	2
Fifth	2	2	2	2
Transition	0	0	0	1
Special Education	7	5	6	6

Table 4

Frequency Count of Students by School by Group for 1989-90

School	Group			
	LEP LD	Non-LEP LD	Non-handicapped LEP	Total
Intervention	9	10	37	56
Comparison	6	14	36	56
Total	15	24	73	112

Table 5

Students by Grade by School in 1989-90

	School	
Grade	Intervention	Comparison
First	2	0
Second	15	13
Third	13	11
Fourth	9	17
Fifth	17	15

Table 6

Students by Grade by Group in 1989-90

Grade	Group		
	LEP LD	Non LEP LD	Non-handicapped LEP
First	0	0	2
Second	3	5	20
Third	4	3	17
Fourth	4	6	16
Fifth	4	10	18

Table 7

Bilingual Education Status for 1989-90 by School

Status	School	
	Intervention	Comparison
In Bilingual Education	34	36
Monitor 1	11	6
Monitor 2	2	1
Exited/Never entered	8	13
Unable to determine	1	0

Table 8

Bilingual Education Status for 1989-90 by Group

Status	Group		
	LEP LD	Non-LEP LD	Non-handicapped LEP
In Bilingual Education	11	0	59
Monitor 1	4	0	13
Monitor 2	0	3	0
Exited/Never entered	0	20	1
Unable to determine	0	1	0

Table 9

Writing Sample Students by School by Group

	Group			
School	LEP LD	Non-LEP LD	Non-handicapped LEP	Total
Intervention	6	10	49	65
Comparison	7	10	48	65
Total	13	20	97	130

Table 10

Writing Sample Students by Grade by Group

	Group			
Grade	LEP LD	Non-LEP LD	Non-handicapped LEP	Total
Second	3	5	33	41
Third	2	3	11	16
Fourth	4	5	35	44
Fifth	4	7	18	29
Total	13	20	97	130

Table 11

Administration Dates of Teacher Measures by School

	Year 1		Year 2		
[1] Stages of Concern for Shared Literature Units					
Intervention	Mar 89	May 89	Jan 90	May 90	
Comparison	Mar 89	Aug 89	Jan 90	May 90	
[2] Stages of Concern for Graves Writing Workshop					
Intervention	none	Aug 89	Jan 90	May 90	
Comparison	none	Aug 89	Jan 90	May 90	
[3] Project Evaluation for Shared Literature Units					
Intervention	May 89		May 90		
Comparison	none		May 90		
[4] Perceptions of Literature					
Intervention	Mar 89		May 90		
Comparison	Mar 89		May 90		
[5] Perceptions of Writing					
Intervention	Mar 89		May 90		
Comparison	Mar 89		May 90		
[6] Observations of Shared Literature Lessons					
Intervention	none		Mar 90	Apr 90	May 90
Comparison	none		Mar 90	Apr 90	May 90
[7] Observations of Graves Writing Workshop Lessons					
Intervention	none		Mar 90	Apr 90	May 90
Comparison	none		none		

Table 12

Administration Dates of Student Measures by School

	Year 1		Year 2		
[1] PPVT /TVIP					
Intervention	Mar 89		May 90		
Comparison	Mar 89		May 90		
[2] English and Spanish LAS					
Intervention	Mar 89		May 90		
Comparison	Mar 89		May 90		
[3] Attitudes towards Reading					
Intervention	Mar 89	May 89	Oct 89	Jan 90	May 90
Comparison	Mar 89	May 89	Oct 89	Jan 90	May 90
[4] Attitudes towards Writing					
Intervention	none		Oct. 89	Jan 90	May 90
Comparison	none		Oct. 89	Jan 90	May 90
[5] Writing Sample					
Intervention	none		Oct. 89	May 90	
Comparison	none		Oct. 89	May 90	
[6] Project Evaluation					
Intervention	May 89 (Shar Lit)		May 90 (Graves & Shared Lit)		
Comparison	none		May 90 (Shared Lit)		

Table 13

Frequency Count of Highest Stage of Concern for Shared Literature by School

School	Stage of Concern--Shared Literature						
Intervention (n=22)	0	1	2	3	4	5	6
First Administration	9	10	3	0	0	0	0
Second Administration	5	7	3	2	2	3	0
Third Administration	7	2	1	6	0	5	1
Fourth Administration	9	2	0	2	2	5	2
Comparison (n=21)	0	1	2	3	4	5	6
First Administration	9	8	3	1	0	0	0
Second Administration	4	10	3	1	0	3	0
Third Administration	10	2	2	1	1	2	2
Fourth Administration	5	3	3	2	1	5	2

Table 14

Frequency Count of Highest Stage of Concern for Shared Literature by Teacher Assignment

Assignment	Stages of Concern -- Shared Literature						
Bilingual/ESL (n=36)	0	1	2	3	4	5	6
First Administration	13	16	6	1	0	0	0
Second Administration	6	14	5	3	2	6	0
Third Administration	13	4	3	8	0	6	2
Fourth Administration	10	5	3	4	2	8	4
Special Education (n=7)	0	1	2	3	4	5	6
First Administration	5	2	0	0	0	0	0
Second Administration	3	3	1	0	0	0	0
Third Administration	4	0	0	0	1	1	1
Fourth Administration	4	0	0	0	1	2	0

Table 15

Frequency Count of Highest Stage of Concern for Graves Writing Workshop by School

Assignment	Stages of Concern--Graves						
Intervention (n=21)	0	1	2	3	4	5	6
First Administration	11	8	1	0	0	1	0
Second Administration	12	2	2	2	0	2	1
Third Administration	12	1	1	2	1	4	0
Comparison (n=24)	0	1	2	3	4	5	6
First Administration	14	8	1	1	0	0	0
Second Administration	15	8	1	0	0	0	0
Third Administration	13	4	5	2	0	0	0

Table 16

Teacher Evaluations of Shared Literature
(1989 n = 29; 1990 n = 62)

Item	Mean			
	1989		1990	
	Total	SED	Total	SED
How do you feel about the Shared Literature Project?	4.6[1]	4.8	4.7	4.7
Have there been changes in your attitudes toward literature sharing since you began using this project?	3.5	3.5	3.3	3.3
Have there been changes in your literature sharing skills since you began this project?	3.4	3.8	3.7	3.6
Have there been any changes in students' attitudes since you started the Shared Literature Project?	3.8	2.7	3.9	3.9
Have there been changes in your students' reading or language skills that you would attribute to this project?	72%[2]	66%	84%	70%

[a]Items were rated on a 1 to 5 scale with 5 indicating the most positive response.
[b]Percentage responding yes.

Table 17

Item Means for Teachers' Perceptions of Literature
By School By Administration

Item	School							
	Intervention				Comparison			
	Pretest		Posttest		Pretest		Posttest	
	n	m	n	m	n	m	n	m
1) Reading stories to children in a class is a very good way to develop basic reading skills.	29	4.7[a]	28	4.9	31	4.9	32	5.0
2) Reading aloud to children is something that is not valued highly in my school, district, or state.	29	1.2	28	1.1	31	1.6	32	1.5
3) Reading orally to LEP students from trade books (i.e., library books) written in English is not a very good idea.	29	1.3	28	1.1	31	1.5	32	1.4
4) I am knowledgeable about children's literature, and, in particular, am able to choose good books to share with my class.	29	4.0	28	4.3	31	4.1	32	4.2
5) I am confident in my skill at reading aloud to my class.	29	4.7	28	4.6	31	4.8	32	4.7
6) Reading is the most important skill taught in my class.	29	4.4	28	4.0	31	4.3	32	4.2
7) I love to read. (This could pertain to you and your personal reading.)	29	4.6	28	4.7	31	4.6	32	4.6

[a]Items were rated using a 5 point scale which ranged from 1 = strongly disagree to 5 = strongly agree.

Table 18

Item Means for Teachers' Perceptions of Literature
By Assignment By Administration

Item	Program							
	Bilingual				Special Education			
	Pretest		Posttest		Pretest		Posttest	
	n	m	n	m	n	m	n	m
1) Reading stories to children in a class is a very good way to develop basic reading skills.	52	4.8[a]	49	5.0	8	4.6	11	4.7
2) Reading aloud to children is something that is not valued highly in my school, district, or state.	52	1.2	49	1.2	8	2.5	11	1.8
3) Reading orally to LEP students from trade books (i.e., library books) written in English is not a very good idea.	52	1.3	49	1.3	8	1.9	11	1.2
4) I am knowledgeable about children's literature, and, in particular, am able to choose good books to share with my class.	52	4.2	49	4.4	8	3.1	11	3.5
5) I am confident in my skill at reading aloud to my class.	52	4.8	49	4.7	8	4.5	11	4.4
6) Reading is the most important skill taught in my class.	52	4.4	49	4.1	8	4.3	11	4.1
7) I love to read. (This could pertain to you and your personal reading.)	52	4.6	49	4.7	8	4.4	11	4.3

[a]Items were rated using a 5 point scale which ranged from 1 = strongly disagree to 5 = strongly agree.

Table 19

Item Means for Teachers' Perceptions of Writing
By School by Administration

Item	School: Intervention Pretest n	Intervention Pretest m	Intervention Posttest n	Intervention Posttest m	Comparison Pretest n	Comparison Pretest m	Comparison Posttest n	Comparison Posttest m
1) Having nothing to write about is a problem for beginning writers.	18	4.7[a]	23	4.6	28	4.7	30	5.2
2) Writing instruction should be delayed until children have basic reading skills.	18	1.9	23	1.3	28	1.9	30	1.7
3) Writing instruction should be delayed until children have good language skills.	18	1.9	23	1.4	28	1.7	30	1.5
4) Sharing students' writing with the class is a very important part of the writing program.	18	6.3	23	6.6	28	6.0	30	5.5
5) Students can be successful writers even though they are limited English proficient.	18	6.4	23	6.7	28	6.2	30	6.1
6) Students can be successful writers even though they are handicapped.	18	6.6	23	6.6	28	6.2	30	5.7
7) It is important for teachers to respond immediately to incorrect spelling in children's writing.	18	1.8	23	1.3	28	1.6	30	1.5
8) Conventions such as punctuation, capitalization, and spelling are prerequisites to creative writing.	18	1.9	23	1.4	28	1.7	30	1.7
9) Children in my class tend to be good writers.	18	4.1	23	5.1	28	4.1	30	4.2

Table 19 - continued

10) Children in my class enjoy writing.	18	4.7	23	5.8	28	4.8	30	4.7
11) Teachers of writing must be good writers themselves.	18	4.4	23	5.2	28	4.3	30	4.8
12) I feel comfortable with my own writing skills.	18	6.0	23	5.5	28	5.8	30	5.4
13) Help from, or collaboration with, peers aids students' development of writing skills.	18	6.0	23	6.2	28	6.1	30	5.8
14) My university coursework and/or inservice training has helped me teach writing.	18	3.7	23	5.1	28	3.4	30	3.3
15) The writing curriculum in my district (e.g., the instructional materials, the texts, teacher guides, etc.) are helpful to me in the teaching of writing.	18	3.9	23	3.7	28	3.3	30	2.8
16) The essential elements and the TEAMS test have had a positive effect on children's writing skills.	18	4.6	23	4.2	28	3.8	30	3.4

[a]Items were rated using a 7 point scale which ranged from 1 = disagree to 7 = agree.

Table 20

Most Frequently Used Home Language by School

	School	
Language	Intervention	Comparison
English	24	27
Spanish	13	11
English and Spanish	18	18

Table 21

Most Frequently Used Home Language by Group

	Group		
Language	LEP LD	Non-LEP LD	Nonhandicapped LEP
English	5	20	26
Spanish	4	2	18
English and Spanish	6	1	29

Table 22

ANOVA Model for English Language Assessment Scales Level Scores at School Entry

SOURCE	ss	df	F-value	p
School	1.05	1	0.97	0.331
Group	10.10	2	4.67	0.015[a]
School x Group	2.32	2	1.07	0.353
Error	42.22	39		
Total	54.31	44		

Tukey Comparisons [b]

Non-LEP > LEP-LD
Non LEP-LD > Non-LD LEP

[a]Significant at alpha = .05
[b]Paired means significant at alpha = .05

Table 23

ANOVA Model for Spanish Language Assessment Scales Level Scores at School Entry

SOURCE	ss	df	F-value	p
School	0.05	1	0.08	0.776
Group	0.73	2	0.55	0.578
School x Group	0.32	2	0.24	0.786
Error	35.76	54		
Total	37.33	59		

Table 24

ANOVA Model for Number of Retentions

SOURCE	ss	df	F-value	p
School	0.16	1	0.46	0.499
Group	6.86	2	9.82	0.000[a]
School x Group	1.31	2	1.88	0.158
Error	33.18	95		
Total	40.53	100		

Tukey Comparisons [b]

LEP-LD > Non-LD-LEP
Non LEP-LD > Non-LD LEP

[a]Significant at alpha = .05
[b]Paired means significant at alpha = .05

Table 25

ANOVA Model for Number of Years in Bilingual Education

SOURCE	ss	df	F-value	p
School	0.02	1	0.01	0.914
Group	19.39	2	6.99	0.002[a]
School x Group	1.43	2	0.51	0.600
Error	102.30	73		
Total	121.87	78		

Tukey Comparisons [b]

LEP-LD > Non-LEP-LD
Non LD-LEP > Non-LEP LD

[a]Significant at alpha = .05
[b]Paired means significant at alpha = .05

Table 26

Split-Plot ANOVA Design with Repeated Measures for Peabody Picture Vocabulary Test

SOURCE	ss	df	F-ratio MS Error Term	F-value	p
School	365.46	1	Id(School x Group)	0.29	0.593
Group	16,246.88	2	Id(School x Group)	6.38	0.002[a]
School x Group	4,143.23	2	Id(School x Group)	1.63	0.201
Administration	418.65	1	Admin x Id(School x Group)	1.04	0.310
Admin x School	175.39	1	Admin x Id(School x Group)	0.44	0.510
Admin x Group	237.18	2	Admin x Id(School x Group)	0.30	0.745
Admin x Sch x Grp	130.01	2	Admin x Id(School x Group)	0.16	0.851

Tukey Comparisons[b]

[a]Significant at $p<.05$ following Geisser-Greenhouse conservative F-test.
[b]Paired means found significant at $p<.05$

Table 27

Mean PPVT Scores by School, Group and Administration

SCHOOL/GROUP	n	Pretest m	Posttest m
Intervention			
LEP LD	9	55.7	68.0
Non-LEP LD	10	77.7	79.8
Nonhandicapped LEP	36	67.1	69.2
Comparison			
LEP LD	7	40.9	42.9
Non-LEP LD	14	83.1	84.3
Nonhandicapped LEP	35	72.8	73.1

Table 28

Split-Plot ANOVA Design with Repeated Measures for English Language Assessment Scales Level Scores

SOURCE	ss	df	F-ratio MS Error Term	F-value	p
School	2.85	1	Id(School x Group)	3.84	0.053[a]
Group	5.50	2	Id(School x Group)	3.70	0.028[a]
School x Group	2.10	2	Id(School x Group)	1.41	0.248
Administration	0.48	1	Admin x Id(School x Group)	1.08	0.302
Admin x School	0.33	1	Admin x Id(School x Group)	0.74	0.392
Admin x Group	0.80	2	Admin x Id(School x Group)	0.90	0.409
Admin x Sch x Grp	1.57	2	Admin x Id(School x Group)	1.77	0.176

[a]Not significant following Geisser-Greenhouse conservative F-test.

Table 29

Split-Plot ANOVA Design with Repeated Measures for
Spanish Language Assessment Scales Level Scores

SOURCE	ss	df	F-ratio MS Error Term	F-value	p
School	0.51	1	Id(School x Group)	0.20	0.653
Group	9.83	2	Id(School x Group)	1.98	0.144
School x Group	1.68	2	Id(School x Group)	0.34	0.714
Administration	0.00	1	Admin x Id(School x Group)	0.00	0.976
Admin x School	0.06	1	Admin x Id(School x Group)	0.24	0.626
Admin x Group	0.48	2	Admin x Id(School x Group)	1.03	0.361
Admin x Sch x Grp	0.11	2	Admin x Id(S ol x Group)	0.24	0.785

Table 30

Writing Sample Results for Primary Special Education Classes

Variable	Class							
	Intervention (n=5)				Comparison (n=3)			
	Pre		Post		Pre		Post	
	m	(sd)	m	(sd)	m	(sd)	m	(sd)
Number of Words	24.6	(11.7)	54.0	(25.8)	60.3	(17.6)	36.7	(10.5)
Quality of Organization[a]	2.2	(0.8)	2.4	(0.5)	2.0	(1.4)	2.3	(0.6)
Quality of Communication[a]	2.8	(0.4)	3.2	(0.4)	2.3	(0.6)	2.3	(0.6)
Number of Spelling Inventions	4.4	(3.5)	1.8	(0.8)	15.7	(15.6)	11.3	(2.5)

[a]Rated on a 1 to 5 Likert Scale; 1 = Unstructured/Incomprehensible, 5 = Excellent

Table 31

Split-Plot ANOVA Design with Repeated Measures for
Lewis Reading Attitudes Scale

SOURCE	ss	df	F-ratio MS Error Term	F-value	p
School	24.85	1	Id(School x Group)	0.90	0.350
Group	94.27	2	Id(School x Group)	1.72	0.199
School x Group	83.95	2	Id(School x Group)	1.53	0.235
Administration	2.47	3	Admin x Id(School x Group)	0.03	0.992
Admin x School	113.39	3	Admin x Id(School x Group)	1.52	0.217
Admin x Group	235.04	6	Admin x Id(School x Group)	1.57	0.166
Admin x Sch x Grp	64.99	6	Admin x Id(School x Group)	0.43	0.854

Table 32

Split-Plot ANOVA Design with Repeated Measures for Reading Attitudes - Expanded Scale

SOURCE	ss	df	F-ratio MS Error Term	F-value	p
School	56.13	1	Id(School x Group)	1.18	0.284
Group	6.80	2	Id(School x Group)	0.07	0.931
School x Group	30.55	2	Id(School x Group)	0.32	0.727
Administration	51.82	2	Admin x Id(School x Group)	0.96	0.387
Admin x School	98.40	2	Admin x Id(School x Group)	1.82	0.168
Admin x Group	56.94	4	Admin x Id(School x Group)	0.53	0.716
Admin x Sch x Grp	283.79	4	Admin x Id(School x Group)	2.63	0.041[a]

Note. Results are for a reading attitudes measure which included the Lewis Scale plus 5 items assessing attitude toward classroom teacher read-aloud activities.

[a]Not significant following Geisser-Greenhouse conservative F-test.

Table 33

Split-Plot ANOVA Design with Repeated Measures for Writing Attitudes

SOURCE	ss	df	F-ratio MS Error Term	F-value	p
School	7.47	1	Id(School x Group)	0.10	0.754
Group	20.92	2	Id(School x Group)	0.14	0.870
School x Group	163.16	2	Id(School x Group)	1.09	0.348
Administration	225.69	2	Admin x Id(School x Group)	1.56	0.217
Admin x School	116.55	2	Admin x Id(School x Group)	0.80	0.451
Admin x Group	284.86	4	Admin x Id(School x Group)	0.98	0.422
Admin x Sch x Grp	275.76	4	Admin x Id(School x Group)	0.95	0.439

Figures

Figure 1
Assessment and Intervention Model for the Bilingual Exceptional Student

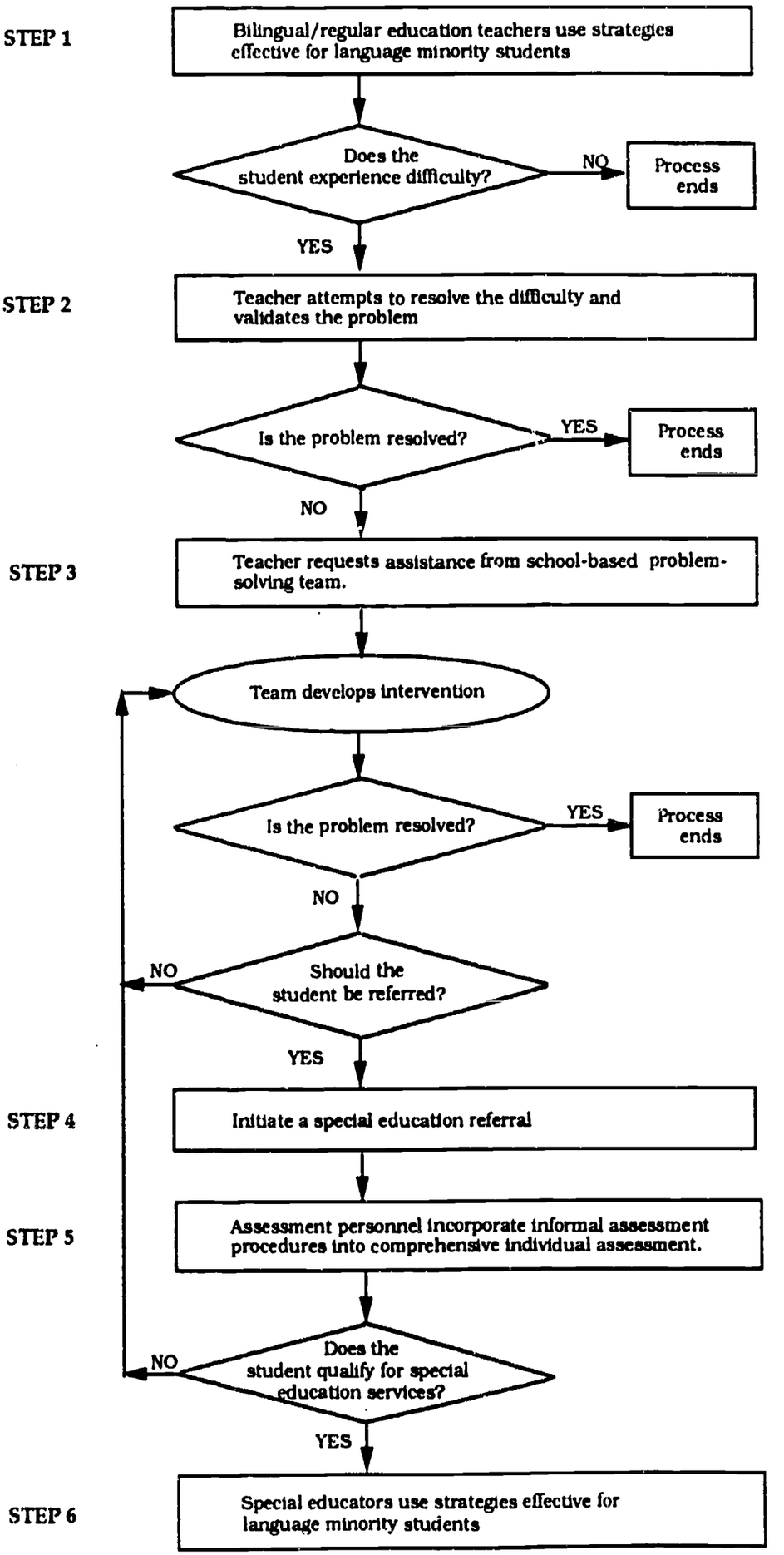

Figure 2
Examples of reciprocal interaction teaching strategies

Language Teaching

- The Natural Approach
- Total Physical Response Approach
- Sheltered English

Acquisition of Literacy

- Shared book experiences
- Language Experience Approach
- Graves Writing Workshop
- Journals
- Dialogue Journals

Collaborative or Cooperative Learning

- Finding Out/Descubrimiento
- Collaborative/cooperative learning
- Peer tutoring

Learning Strategies

- Attribution training
- Instrumental Enrichment
- Study skills
- Metacognitive skills training

Figure 3. Definitions in Stages of Concern About the Innovation

6 REFOCUSING

The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite form of the innovation.

5 COLLABORATION

The focus is on coordination and cooperation with others regarding use of the innovation.

4 CONSEQUENCE

Attention focuses on impact of the innovation on students in his/her immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.

3 MANAGEMENT

Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.

2 PERSONAL

Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

1 INFORMATIONAL

A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.

0 AWARENESS

Little concern about or involvement with the innovation is indicated.

Original concept from Hall, G. E., Wallace, R. C., Jr., & Dossett, W. A. (1973). *A developmental conceptualization of the adoption process within educational institutions.* Austin, TX: Research & Development Center for Teacher Education, The University of Texas.

Measurement described in Hall, G. E., George, A. A., & Rutherford, W. L. (1977). *Measuring stages of concern about the innovation: A manual for use of the SoC Questionnaire.* Austin, TX: Research & Development Center for Teacher Education, The University of Texas.

Available from: *Research and Development Center:*
Language to Literacy Project
College of Education
The University of Texas-Austin
Austin, TX 78712

Figure 4

Shared Literature Units by Grade Level

Kindergarten

Bears, Bears, Bears
Books to Sing
Books that Read Themselves
Books by Eric Carle
Ezra Jack Keats: Author/Illustrator
Pattern Books
Say "Good Night."
The Cat's Meow
The Earth Turns Around
Read-Together Books
Perfect Pets
Big and Small
Cows on the Moove
Friendship
Being Afraid
School

First Grade

Being Different Makes Us Special
Smile: All About Teeth
Cats, Cats, Cats!
Days with Frogs and Toads
Let's Go to the Beach
Mice Are Nice
Dog-Gone Fun
Pig Tales
Predictable Books
Rabbit Round-Up
Solving Problems
Theodore (Dr.) Seuss Geisel
Watch It Grow
We Are Family
Mighty Monsters
On The Go
Modern Day Fables by Leo Lionni

Second Grade

Arnold Lobel
Books to Chew
Brothers and Sisters
Charlotte Zolotow
Curious George
Fly Away with Me!
Folktales by Tomie de Paola
Make a Wish
Please Bug Me!
That's Entertainment
Write to Me
Special Toys
You're My Friend
Adventures with Arthur
My House, My Home

Third Grade

Bill Peet
Cleverness
Books by Tomie de Paola
Courage
Dinosaur Time
Horses
Make it from Scratch
Mischief Makers
Steven Kellogg: Author/Illustrator
The Royal Touch
Susan Jeffers
Tickle Your Funny Bone
Cumulative Tales
Ramona
Having Fun with James Marshall

Fourth Grade

Mystery and Adventure:
Sincerely, Harold X
Travel Back Through Time
Laughter in the Classroom
Pioneer Days
James and the Giant Peach
Hans Christian Andersen
Tales from Other Lands
Books That Blume
Passport to Adventure
Island of the Blue Dolphins
What's a Biography, Jean Fritz?
Mary Poppins

Fifth Grade

Survival
What's the Secret,
Mrs. Frankweiler?
Sounder
Chocolate Mania
Witches (3 weeks)
On My Own
Make Way for Sam Houston (3 weeks)
Friends and Family
The Civil War (4 weeks)
In Search of The Black Caldron
Folktales from Around the World
The Phantom Tollbooth

Glossary

Curriculum-based Assessment (CBA)

CBA is a procedure for determining the *instructional needs* of students. Informal assessment strategies based on the actual curriculum are used to determine the student's entry level skills in order to identify where in the curriculum materials the student should begin and what s/he needs to learn. Interventions are based on the outcomes of these assessments and, in this way, can be more precisely tailored to the student's instructional needs. Repeated measurements are used to fine-tune instruction and to track progress.

Campus-based Problem-solving Teams

These teams are peer-support groups comprised of four to six professionals who meet to help regular classroom teachers develop intervention plans to remediate students' behavioral and academic difficulties. There are several alternatives for team membership. Teacher Assistance Teams are comprised of regular classroom teachers; Student Assistance Programs and Child Study Teams generally include specialists such as psychologists, special education teachers, nurses, counselors, and administrators. In all instances, the intent of the team is to exhaust the possibility that a student's problems can be handled in the context of regular education, before considering a special education referral.

Shared Literature Units

Shared Literature involves the use of thematic units used to expose children to children's literature. For younger children, the units consist of ten picture books, on the same theme or topic, and the teacher reads a book each day

to the class; older students are exposed to chapter books, with the teacher reading a chapter of the book each day.

Process-oriented Writing

This is an approach which involves children in the process of composing, revising, editing, and publishing original stories. Finished stories are shared with peers.