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ABSTRACT

This supplementary secondary school program reports on the fourth year of a program focused on instructional intervention, parental involvement, and staff development in a school district with a 46% at-risk student population; more than 630 students were preliterate or limited education Hispanics. In this fourth year, the program continued to serve as a 1-year transitional program for the targeted Hispanic students based on previous year results demonstrating improved self-esteem, a more trusting attitude towards the school system and staff, a sense of belonging, punctuality and regular class attendance, improved literacy in both English and Spanish, and increased computer usage. Math, science, and Spanish teachers were involved in the project using instructional materials such as motivational readers, computer software, laser disks, CD ROM disks, and appropriate math and science texts. Major strengths of the fourth year included increased parental participation, improvement in project professional staff, increases in student achievement, and improvement in district operational levels. Appended tables offer statistical comparison of teacher classroom behavior and post classroom observations. The data is presented in 17 tables. (NAV)

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# EVALUATION REPORT

YEAR FOUR

## ¡ESPAÑOL AUMENTATIVO!

A Transitional Bilingual Education Program  
for Secondary Hispanic Preliterates

Grant # T003A 10254-93

from the

SPRING BRANCH INDEPENDENT SCHOOL  
DISTRICT

in collaboration with

THE UNIVERSITY OF HOUSTON

Renate H. Donovan  
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September 30, 1995

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# EVALUATION NARRATIVE

## A. PROJECT OVERVIEW

### 1. ABSTRACT

The Spring Branch Independent School District has identified over the last four years a population of 46% at-risk students, including more than 630 secondary Hispanics, either preliterate or with limited education, in the total yearly population of approximately 28,200 students. Studies by Cummins (1981) have shown that students who read and write in their primary language have higher educational success rates transferring to English than students who are preliterate in their language.

### 2. PROGRAM DESCRIPTION

This supplementary secondary school program is a model that focuses on **INSTRUCTIONAL INTERVENTION, PARENTAL INVOLVEMENT, AND STAFF DEVELOPMENT**. Targeted students are secondary Hispanic students with little or no previous education in their native country who are attending beginning ESL classes. The project is being coordinated with other efforts that relate to school improvement and at-risk populations, and supplements state requirements to provide a more complete program for the target population.

## B. ACCOMPLISHMENT OF OBJECTIVES

### 1. INSTRUCTIONAL INTERVENTION

#### a) STUDENT IDENTIFICATION and PERFORMANCE

Students were tested and identified at both project and non-project schools and were enrolled in Functional Spanish classes at the project schools. The "¡Español Aumentativo!" (ESPA) staff identified 630 students over the four year period who fit

into this category, 464 at the project schools and 166 at the non-project schools. They ranged from preliterate to a third grade reading level at the middle schools. At the high schools, they ranged from preliterate to the low fourth grade level. An additional 510 students each year received continual support from the bilingual teacher assistants placed in content area classrooms. Each assistant served two schools. In addition to the Functional Spanish class, Spring Woods Middle School continued to conduct a class of Functional Math in Spanish. Landrum Middle School conducted bilingual instruction in a science class. Spring Woods High School offered bilingual instruction in a health class. In addition to this instruction, the students at all campuses received intensive English during two-to-three hours per day.

In its fourth year, this grant continued to serve as a one-year transitional program for the targeted students, although a second year was granted when needed based on a student's need to further develop literacy skills. Teachers and assistants have observed that students who had been served by the Functional Spanish class returned to school the following year with a positive attitude, reflected in a greater desire for learning, in their manner of dress, and improved personal hygiene.

Among the improvements observed were:

- improved self-esteem due to increased academic success
- a more trusting attitude towards the school system and staff
- a sense of belonging
- punctuality and regular class attendance
- improved literacy in both English and Spanish, due to the increased awareness and strategy training of the teachers serving the targeted students
- more extensive use of the computer in the classroom as reflected in the final student products, such as stories written in Hypercard

## b) TEACHER AND CAMPUS IDENTIFICATION

Both, Functional Spanish teachers at project schools and content teachers in math and science at both project and non-project schools, were identified and observed.

Functional Spanish classes were continued at the following six campuses and Spanish teachers were assigned to these classes:

Middle Schools:        Landrum Middle School  
                             Northbrook Middle Schools  
                             Spring Oaks Middle School  
                             Spring Woods Middle School

Senior High Schools:  Spring Woods High School  
                             Northbrook High School

Content teachers in math and science, who served the targeted students, were identified at both project and non-project schools. At the project schools they received assistance from the co-project director / facilitator teacher, caseworker, and the three bilingual paraprofessionals, budgeted by means of the grant. They were also encouraged to attend professional development and college courses on ESL methodology.

## c) STAFFING FOR ESPA

The following staff has carried out duties during the fourth year of the project:

- 1) Project director: Renate H. Donovan
- 2) Co-project director / facilitator: Julie Hodson
- 3) Case worker / evening coordinator: Raquel Leal
- 4) Bilingual paraprofessionals: Marcel Pereira, Raquel Ortiz-Aguayo and Juana Sanchez, each assigned to two schools
- 5) Full-time secretary: Rose Al-Banna

At the end of the fourth and final year, principals at two of the project schools hired two of the three bilingual paraprofessionals to work full time for them as classroom assistants. The third bilingual paraprofessional was hired to work at a

non-project school. The district hired the co-project director / facilitator as a Secondary Resource Teacher. This attests to the fact that highly qualified personnel were chosen and well trained by the ESPA staff.

The project director, Renate H. Donovan, supervised the ESPA "¡Español Aumentativo!" Title VII program, the staff, the budget, and served as liaison with the district comptroller. She reviewed curriculum and materials and suggested changes when necessary. In addition to her regular duties with the district, as Coordinator of Foreign Languages and Secondary ESL, she kept a close watch on the daily operation of the program and was available for consultation with the staff at all times.

The co-project director / facilitator, Julie Hodson, took on additional duties during the fourth year of the grant. These included:

- supervision and training of the three bilingual teacher assistants
- supervision of the case worker
- supervision of the full-time secretary
- presenting the grant with comprehensive evaluation results at national, state, regional and local conferences
- overseeing the writing of new curriculum for:
  - (a) a study skills course to transition ESL students into English mainstream courses
  - (b) ESL Social Studies curriculum using the latest technology
  - (c) a "how-to" guide on using a secondary bilingual classroom assistant
- writing of a curriculum supplement in Spanish on how to conduct informative parent meetings for parents of teenagers, focusing on the prevention of destructive behavior through the teaching of positive communication and life skills
- supervision of the budget, data collection, and research for the project
- planning, organizing and collecting the research data both for the district and for the University of Houston

- serving as a communication link between the university and the project and non-project schools
- responsibility as key facilitator for the program, acting as liaison between administration, the project director, the caseworker, school principals, school counselors, teachers, and teacher assistants
- planning and conducting staff development at the campuses on language acquisition and modified teaching strategies

The case worker, Raquel Leal, increased the scope of her position, serving not only the needs of the targeted students and their families but expanding her position by networking with district administrators, mainly in the area of student services.

Some of her responsibilities included:

- identifying and serving targeted students and families with specific needs through personal communication, such as home visits and phone calls
- involving churches attended by targeted students
- planning and chairing monthly parent meetings
- soliciting community support for the monthly parent meetings
- distributing throughout the district the "Recursos para la Comunidad" brochure that she authored. In Year Four the Case Worker updated this popular brochure with the assistance of Title I staff.
- serving as district representative for the targeted population on various district committees
- serving as a resource for the co-project director / facilitator in writing a curriculum supplement in Spanish on how to conduct informative parent meetings for parents of teenagers

The three bilingual teacher assistants have become a key part of the ESPA grant staff by:

- serving as assistants to the campuses and teachers working with the targeted students
- serving as tutors and translators on a one-to-one basis or with groups
- acting as liaisons between the campus and the parents, especially by assisting the non-Spanish-speaking school personnel

- serving as instructors for groups of students accompanying their parents to parent meetings
- serving as communication link between project director and co-project director / facilitator and project campuses

The full-time secretary, Rose Al-Banna, kept track of all paperwork, the budget, phone calls to campuses, and contact with staff members. She became proficient in computer usage and facilitated the smooth running of the project.

The district has continued its contract with the University of Houston for a university coordinator and research assistant for outside evaluation. The university coordinator has continued to be Dr. Judith Walker de Felix. The research assistant, Susan Paige, has supervised and assisted with classroom observations and data collection.

#### **d) INSTRUCTIONAL MATERIALS**

Instructional materials, consisting of motivational readers, computer software, laser disks and CD ROM disks were selected and purchased. Additional math and science materials appropriate for the targeted students were also previewed and purchased.

Spring Branch continues to share resources with other districts as they are requested through contacts made at conferences and through newsletters.

#### **e) TECHNOLOGY**

##### **1) Computers**

Macintosh computers and printers were used effectively throughout the school year by teachers and students. Products demonstrating the use of computers were required to be included in student portfolios. Half of the Functional Spanish teachers included computer disks containing student work as part of the student portfolio. Student portfolios include assignments written using word processors, bar graphs, pie charts, databases and spreadsheets, along with autobiographies and

other stories based on using Hypercard. Three of the Functional Spanish teachers wrote curriculum on how to use computer software and laser discs as creative instructional tools to increase student literacy. Student activities on computer disks were distributed as part of the curriculum guide. Those teachers who wrote the lessons trained fellow teachers and staff at the beginning of the 1994-95 school year.

The instruction in the use of computers has been one of the outstanding features made possible through the ESPA Grant. It has afforded the targeted students the opportunity to do work similar to that demonstrated by gifted and talented students.

## 2) Laser disc and CD ROM Players

Functional Spanish teachers were trained on how to network their computers with their CD ROM and laser disc players. Students learned to research topics with Grolier's Electronic Encyclopedia. At one of the project schools, the Functional Spanish teacher was named to be on the technology committee responsible for training the entire teaching staff.

## 2. PARENTAL INVOLVEMENT

Although all members of the ESPA staff had a role in Parental Involvement, this phase of the grant objectives became the primary responsibility of the case worker. Mrs. Leal identified and became acquainted with the majority of the parents of the targeted students through personal contact, memos, and home visits, all of which served to encourage their participation in the education of their children and their own education.

A parent education curriculum that addressed the needs of the target population was chosen, translated into Spanish and modified to meet the needs of the community. The program is entitled Parenting for Prevention of Drug and Alcohol Abuse: Teaching Your Child to Say No by David Wilmes and is published by the Johnson Institute in 1991. Monthly meetings were held in Spanish for parents and their children. To secure the parents' undivided attention, children were given

separate instruction in peer groups. The parent group was hosted by the case worker and other trained instructors. The student groups were instructed by the project secretary and teacher assistants.

The meetings earned district recognition by attracting a large number of participating parents including both men and women. The average number of parents who attended throughout the year increased from 9 in Year One to 54 in Year Four. The final meeting of Year Four addressed 195 parents and students.

The success of this parent program can be illustrated in numerous ways. In May of 1994 the Johnson Institute requested that the co-project director / facilitator submit a manual for publication. In response to this request, the co-project director / facilitator and the caseworker are preparing to submit a curriculum guide supplement complete with lesson plans on how to conduct parent meetings in Spanish. The district school board and the district Hispanic Advisory Committee have recognized the success of the parent meetings. They requested the meetings be replicated at other schools. Some of these replication efforts at individual campuses have already been established.

In addition to supporting the establishment of meetings for Spanish speaking parents at the campus level, the case worker followed through on a district level request to have parent meetings broadcast on television. In July, the district instructional television department broadcast its first parent meetings for Hispanic parents under the title of "Padres Con Poder." Based on the success of the pilot program, central office administrators have made plans to broadcast a series of programs during the 1995-96 school year. The videos will be taped at the district instructional television studio and broadcast within the community of Spring Branch through People's Choice, a cable television company. Another company called EMG (Educational Management Group) will distribute the videos nationally.

Another accomplishment of the case worker during Years One through Three was to author and publish a community resources brochure written in Spanish

"Recursos para la Comunidad" outlining services available to the community. During Year Four, the case worker revised this brochure by updating the information in cooperation with the Title I Family Involvement Facilitator.

As the case worker's reputation spreads throughout the district, the scope of her influence continues to increase. Principals, Community Youth Services Counselors, Communities and Schools Staff continue to network with her and request her services. In addition to the parent meetings, the case worker continued the following activities:

- a) home visits (more than 65) with parents when problems arose at school, such as those involving attendance, health concerns, or unsatisfactory classroom behavior
- b) information resource to parents including a wide range of topics: legal referrals, clinic and mental health referrals, clothing resale shops, food pantries, emergency relief services, recruitment to adult English as a Second Language (ESL) classes provided by the district
- c) resource to school district personnel regarding appropriate ways to communicate with poor, uneducated Spanish-speaking parents

As a result of the success of the ESPA parental involvement effort, the district has employed a full-time Spanish-speaking parental liaison who will work with parents of limited English proficient students to secure greater involvement in schools. The person selected for this position served as an instructor in the project parent program. The district expanded the responsibilities of this parental liaison, Ray Leal. In the 1995-96, his position will be Family Involvement Facilitator. As part of his duties, he trains struggling students and their dysfunctional families to trust others through ROPES, an experiential learning program. He serves on the committee to produce the television series for Hispanic parents.

### **3. STAFF DEVELOPMENT**

Extensive staff development was conducted for and by the ESPA staff, the Functional Spanish teachers, and content teachers at the project schools before,

during, and after each school year. The major change resulting from this extensive effort was a new attitude of understanding and tolerance towards the project's targeted students. This change was most noticeable among content teachers who participated in the various phases of the staff development.

One secondary content teacher took the plight of the current and former Functional Spanish students to the district advisory team. She recommended that the district train more secondary teachers in how to teach the Functional Spanish type of student. The superintendent assigned a central office administrator to extend staff development on ESL methodologies to the whole district.

The project director also made presentations to parents and Hispanic Committee members to acquaint them with the project's goals and objectives and to elicit their help.

The scope of the staff development offered by the ESPA staff along with district's in kind contributions is documented in Table 1. More than 50 teachers, administrators and teacher assistants participated in various phases of the training including:

- multi-media technology training
- professional development classroom visitations by teaching colleagues among schools within the district
- on - going Functional Spanish teacher meetings
- attendance at conferences
- attendance at seminars

The Enhancement Grant that has been awarded to the district for the 1995-96 and 1996-97 school years will continue the efforts begun during the ESPA Grant, to help overage, undereducated secondary immigrant students develop the English proficiency needed to meet the same challenging academic standards as other students.

**Table 1**  
**1994-95 ESPA Grant Professional Development Training**

<i># of Teachers, Principals &amp; Staff Trained</i>	<i>Workshops &amp; Seminars</i>	<i>Total Days or Hours</i>
1	Teaching English for Academic Purposes to English-Dominant Latino Students: The Sociolinguistic Approach vs. The Eradication Approach, Dr. Montaño-Harmon	1 day
4	Effective Tutoring Practices, Dr. Nancy Ramos	4 days
3	Bilingual Teacher Assistant Training, Dr. Nancy Ramos	3 days
1	STEM Phase I, Session I - Managing Change	8 hours
1	STEM Phase I, Session II - Effective Office Practices	8 hours
2	Texas Education Agency Title VII Grant Application Workshop	8 hours
2	Functional Spanish Teacher Training	2 days
5	Improving Math Instruction for ESL Students	4 days
20	Elementary School Visitations Focusing on Literacy Acquisition As It Relates to ESL Instruction	20 days
1	How the Brain Learns: A Rationale for Integrated Thematic Instruction, Dr. Susan Kovalik	1 day
7	Functional Spanish Teacher Meetings	88 hours
<b>29 different employees trained</b>	<b>112 hours &amp; 35 days of Professional Development Training</b>	

**Table 2**  
**1994-95 Conferences Attended (Paid for by ESPA Grant)**

<i># of Teachers and Staff</i>	<i>Conference</i>	<i>Total Days</i>
1	TAIR (Texas Association for the Improvement of Reading) Conference	2
2	Regional Conference, SEDL/MRC Southwest Educational Development Laboratory, Multi-Resource Center	4
1	1994 Summer Institute for Principals, SEDL - Southwest Educational Development Laboratory	3
2	1995 Summer Institute for Principals, SEDL - Southwest Educational Development Laboratory	4
4	TABE - Texas Association for Bilingual Education	8
1	NABE - National Association for Bilingual Education	4
10	HAABE - Houston Area Association for Bilingual Education	9
<b>17 different employees trained</b>	<b>8 Conferences</b>	<b>Total Days 34</b>

Table 3

**1994-95 ESPA Grant In-Kind Contributions**  
**Training Provided by the District**

<i># of Teachers, Principals &amp; Staff</i>	<i>Workshop Name</i>	<i>Hours or Days</i>
2	Language Instruction, K. Tellez, Consultant, SEDL	4 hrs.
20	Career Awareness, An Academic Excellence Program, Project M.A.I.N.E.	4 hours
20	Strategies for Second Language Learners, B. Matluck, SEDL	4 hrs.
2	SAP (Student Assistance Program) Advanced Facilitator Training	2 days
1	Beginning SAP (Student Assistance Program) Facilitator	2 days
4	Texas Education Agency Grant Inclusion Training	24 days
1	Macintosh Mail Merge / Word	3 hrs.
4	Increasing Human Effectiveness	8 days
4	CALLA : The Cognitive Academic Language Learning Approach, Dr. Ana Chamot	16 hours
2	TAAS (Texas Assessment of Academic Skills) Reading and Writing Strategies	12 hrs.
1	Troubleshooting the Macintosh	4 hrs.
1	Clarisworks Database for the Macintosh	4 hrs.
1	Word Processing Microsoft Word 6.0	5 hrs.
2	Macintosh Basics, Part 2	3 hrs.
3	ESL - Bilingual Elementary Task Force	3 days
3	District Bilingual Teacher Assistant Training	3 days
1	Macintosh Claris Works	4 hrs.
<b>27 different district employees trained</b>	<b>63 hours &amp; 42 days of Professional Development Training</b>	

#### **4. CHANGES MADE IN THE ORIGINAL GRANT DESIGN**

##### **a) CHANGE IN GRANT DESIGN**

Only one change was made this year in the original grant design with the approval of the grant administrator at OBEMLA (Office of Bilingual Education and Minority Language Affairs). Permission was requested and granted during Years Two and Three of the grant to employ three teachers each year in a summer school program targeted towards helping LEP students with reading and writing skills. During Year Four, the district continued the summer school programs for Secondary ESL students totally at the district's expense.

The middle school summer program entitled LEAP (Language Experience Approach Program) emphasizes science-related reading and writing skills. This program was conducted in English primarily, giving our students a good transitional foundation towards their placement in all-English classes during the current school year.

Three teachers worked with the high school group and emphasized reading and writing skills. The students in their classes were motivated by the presence of computers and their capability to write their original stories on these computers. The teachers reported that 85% of both groups of students experienced improvement in English reading and writing skills.

##### **b) CHANGE IN SCHOOLS FOR 1992-93**

OBEMLA approved one change in high schools that took effect in the 1992-93 school year. Spring Woods Senior High School replaced Memorial Senior High School due to a shift in the targeted population.

#### **C. CAPACITY BUILDING**

The district has met its commitment to serve the targeted students by providing the salaries of Functional Spanish teachers, 100% of the salary of the project director, and the salary of content teachers serving the students.

The facilitator/resource teacher continues to distribute to other school districts the special curriculum guides created during the first year of the grant. The guides are for the Functional Spanish course and for ESL Reading, Math, Music and Science. The ESL guides supplement existing guides, and address the needs of the targeted students.

The case worker continued to recruit parents to attend ESL classes offered at eight locations in the district. In addition, three schools offered a GED program for parents. The case worker continued to advertise through the parent meetings and to recruit over-age students for a GED and pre-GED program implemented in the district during Year Two of the grant.

A class of Bilingual Office Support Systems was added to the career-oriented course selections in Year Three of the grant. The course continued in Year Four.

All of these special programs exemplify commitment by the Spring Branch Independent School District to appropriately serve all of the children. They are valuable examples of programmatic capacity for serving LEP children and families.

#### **D. OUTCOMES**

A number of outcomes were observed by the project director and staff which may be attributed to the ESPA program. These outcomes attest to the importance of this grant as a vehicle to help secondary Hispanic students with little or no previous education in their native country to achieve success in their education in the United States.

##### **1. ADMINISTRATIVE OUTCOMES**

- a) increased awareness towards diversity in the district
- b) new mission statement published by the district

## MISSION STATEMENT

Spring Branch Independent School District is dedicated to providing a quality education to meet the needs of a diverse student population in an environment of acceptance. All learners will be successfully prepared for their roles as responsible citizens in a global society.

- c) additional hiring of Hispanic administrators, including two principals and one parent coordinator
- d) increased number of case workers hired by secondary schools
- e) publishing of a district videotape in Spanish, outlining school rules and regulations which was made available to all campuses to be used with parents with limited or no knowledge of English
- f) recognition by administration of the curriculum needs for Hispanic ESL students resulting in the awarding of another secondary Title VII grant entitled "Improving Math Instruction for LEP Students in Middle School." This grant beginning August 1, 1994, is a Special Alternative Instructional Program.

In Year Four, teacher concerns over meeting the educational needs of Functional Spanish students was repeatedly discussed at the District Advisory Team Committee level. These discussions led to the development of Goal One and Objective One in the 1995-96 District Improvement Plan which states:

### Improving Student Performance

Goal 1: SBISD will decrease the disparity in academic performance among various ethnic groups and economically disadvantaged students.

- Objective 1: To improve the academic achievement of special populations students by coordinating efforts to appropriately and accurately identify, assess and serve students.

## 2. TEACHER OUTCOMES

A prerequisite to becoming a Functional Spanish teacher continued to be love and understanding for the targeted students. Most content teachers already in the district had neither the training nor the understanding to deal with this student population. Those who chose to or were asked to serve the targeted population had little or no previous training and many felt inadequate in their new positions. A number of changes became apparent as the school year progressed:

- a) change in attitude from apathy and lack of interest towards the student, to higher student expectations and better understanding
- b) acceptance of spoken Spanish among the students, needed to help each other, without the teacher feeling threatened
- c) willingness on the part of the teachers to learn new methodologies and to modify the curriculum to help the students learn more easily
- d) sharing techniques for both students and teachers

## 3. STUDENT OUTCOMES

A number of changes were noticeable among the students:

- a) higher self-esteem among the students due to interest shown towards them by the ESPA staff and the teachers
- b) higher expectations for self with the increased hope for academic success. Many of the targeted students who could not read or write at the beginning of the program were composing on the computer and writing in journals by the end of the school year
- c) teacher as a source of friendship and trust rather than a person to be feared
- d) acceptance of school rules and abiding by them, especially important for those students experiencing their first year in an American public school
- e) During Year Four, three former Functional Spanish students at Spring Woods High School took on the following roles: a varsity cheerleader, a drill team member and a varsity football player.

#### **4. PARENT OUTCOMES**

Some of the parents of the targeted students had never been inside an American school and believed that they had no business there. They believed that school should be the domain of the teacher and that parents played no role other than sending their children to school. Through continuous efforts on the part of the staff to involve parents, the following outcomes were observed:

- a) parents began to look at their child's school staff as partners
- b) parents began meeting the children's teachers and case worker and discussing matters concerning the school and family
- c) parents began to attend parent meetings regularly

#### **5. PUBLICITY AND PUBLIC RELATIONS**

- a) Articles were written by the facilitator-resource teacher on the ESPA grant program and the parenting program, developed because of the ESPA grant, and published in a NABE Secondary SIG newsletter. The same articles were posted electronically on Kidsnet. In Year Four, the Co-project Director was elected and served as Corresponding Secretary on the board for Houston Area Association for Bilingual Education. This position gave her many opportunities to advertise the ESPA grant.
- b) The ESPA Grant Staff submitted two proposals and presented at the Southwestern School Boards conference "Celebrating Opportunities for Hispanic Student Success" as requested by the district superintendent who attended both sessions.
- c) The ESPA Grant program was presented at the following conferences in its entirety or highlighting certain aspects (see table 4).

**Table 4**  
**Presentations By ESPA Grant Staff, 1994-95**

<i>Subject</i>	<i>Association</i>	<i>Presenters</i>	
Español Aumentativo Grant Program	SEDL	Southwest Educational Development Laboratory	Renate Donovan & Julie Hodson
Español Aumentativo Grant Program	TABE	Texas Association for Bilingual Education	Julie Hodson & Susan Paige
Español Aumentativo Parenting Program	TABE	Texas Association for Bilingual Education	Raquel Leal & Julie Hodson
Español Aumentativo Parenting Program	NABE	National Association for Bilingual Education	Julie Hodson & Susan Paige
Español Aumentativo Grant Program & Español Aumentativo Parenting Program	HCDE	Harris County Department of Education	Julie Hodson
Español Aumentativo Grant Program	HAABE	Houston Area Association for Bilingual Education	Julie Hodson, Karen Leavitt, Faye Gonzalez, Jeanne Arechiga, Helena Pareja
Español Aumentativo Parenting Program	HAABE	Houston Area Association for Bilingual Education	Raquel Leal & Ray Leal
Español Aumentativo Grant Program & Español Aumentativo Parenting Program	NMASB	Southwestern States School Boards Conference hosted by the New Mexico Association of School Boards	Renate Donovan & Julie Hodson
TRIBES - A New Way of Learning Together	Spring Branch District	Texas Education Agency Grant Funded Inclusion Training	Renate Donovan
Vision Dyslexia and Reading Styles	Spring Branch District	Texas Education Agency Grant Funded Inclusion Training	Julie Hodson

**6. OUTSIDE EVALUATOR'S REPORT**

The following pages contain the outside evaluator's report and statistical chart based on classroom visits, as well as statistical evidence furnished by the district and the ESPA staff.

Evaluation of the  
Spring Branch Independent School District  
Title VII Program

*written by Dr. Judith Walker de Felix,  
University of Houston  
September, 1995*

**Data Collection**

The Spring Branch Independent School District Title VII Program, "¡Español Aumentativo!," was evaluated for the project duration, 1991-1995. The project administrators collected school district data for the external evaluator on the data specified in the proposal. In addition, the external evaluator conducted classroom observations, teacher and student surveys, and analyzed school district data. Project administrators reviewed student class work, student computer work, teachers' lesson plans, curriculum developed, in-service dates and content, and the case worker's field notes, and produced a final report which the external evaluator then reviewed.

**Evaluation of the Objectives**

**OBJECTIVE 1, *Develop, field test, and evaluate instructional strategies.*** The external evaluation documented that the district had met this objective in the following ways.

**Curricular Materials**

Since commercial materials available for preliterate Spanish-speaking adolescents were still minimal, the project produced curricular materials to serve this special population. In Year Four, the ESPA staff together with the Functional Spanish teachers continued to produce materials enhancing the objectives of the grant. The Functional Spanish teachers added multimedia projects to the thematic units in the Functional Spanish Curriculum Guide. A Functional Spanish and a

Social Studies teacher wrote an ESL Social Studies guide integrating thematic units with multimedia. Another Functional Spanish teacher modified for use with ESL students a Career Awareness Guide issued by the district for all ninth graders. An ESPA Grant teacher assistant wrote the first draft for a Teacher's Guide to Using a Bilingual Teacher Assistant. The Co-Project Director and the Case Worker continued to revise the parenting curriculum written in Year Three.

### Achievement

The project students were appropriately excused from the Texas Assessment of Academic Skills (TAAS) because of their Limited English Proficient (LEP) status. Those students who did take the TAAS showed marked improvement (see table 5) from previous years where there were no passing scores.

**Table 5**  
**SPRING 1995 TAAS RESULTS**

	PROJECT	NON-PROJECT
<b>TOTAL</b>	148	64
Scored	75	30
Passed all sections	2	0
Passed writing	9*	0*
Passed reading	10	5
Passed math	7	5
LEP Exempt	56	23
Special Education Exempt	10	7
Other Exemptions	7	4

\* The writing portion of the TAAS was not given to 11 project and 17 non-project students whose reading and math tests were scored. The Texas Education Agency does not require the writing portion of the TAAS for certain grade levels.

In the Comprehensive Evaluative Report, it states that project students did make gains in Spanish and English language skills, not only during the project year but also over the length of the project. The IDEA Oral Language Proficiency Test (IPT) was administered each year to measure oral English skills. English reading and language arts skills were measured with the 3 R's. Scores on both instruments demonstrate that the project students were lower in English at the beginning of each project year. The post-tests each year demonstrate that, in spite of extra attention to Spanish, the project students generally gained as much or more in English as their all-English colleagues.

The data over the four-year project documents that the district was able to serve larger numbers of students each year. In addition, the district was able to increase literacy scores of project students more each year. For example, as seen in table 6, the first cohort achieved 4.1 at the end of one year on the 3 R's; cohort two achieved 4.6 and cohort three achieved 6.1 after one year each. Similarly, after one year the Language Arts scores (in table 8) were 4.6, 6, and 7.47, respectively.

In the fourth year, the district mandated a change in test instruments from the 3R's to ITBS (Iowa Test of Basic Skills). Due to this change, valid conclusions can not be drawn. The benefit of changing to the ITBS is that: (a) it is a more current test; (b) its norms are more current, (c) the district is measuring academic growth in mathematics for LEP students. In the tables that follow, comprehensive data for years one through three will be followed by Year Four data as measured on the ITBS (see tables 6-10).

**Table 6**  
**3 R's Reading Pre and Post Scores for Each Year**

Cohort	Number	1991	1992	1993	1994
Project 1	66	1.6	4.1	5.1	5.8
Control 1	13	2.5	5.7	3.6	6
Project 2	93		1.7	4.6	5.6
Control 2	18		3	4.6	3.2
Project 3	99			4	6.1
Control 3	36			2.9	4.4

**Table 7**  
**1995 ITBS READING TEST SCORES**

Cohort	Number	Scores
Project 1	21	4.3
Control 1	7	5.6
Project 2	33	6.6
Control 2	11	7
Project 3	55	5.2
Control 3	17	6.5
Project 4	103	3.5
Control 4	35	7.5

Table 8

3 R's Language Arts Pre and Post Scores for Each Year

Cohort	Number	1991	1992	1993	1994
Project 1	66	1.8	4.6	7	10
Control 1	13	4.7	5	3	11
Project 2	93		4.1	6	8
Control 2	18		3	4	5
Project 3	99			2	7.47
Control 3	36			7	6.58

Table 9

1995 ITBS LANGUAGE ARTS TEST SCORES

Cohort	Number	Scores
Project 1	23	6.2
Control 1	7	8.6
Project 2	34	9.6
Control 2	11	7.1
Project 3	58	7.8
Control 3	17	5.1
Project 4	103	4.6
Control 4	36	8.4

Table 10

1995 ITBS MATHEMATICS TEST SCORES

Cohort	Number	Scores
Project 1	22	8.8
Control 1	7	17.7
Project 2	34	13.1
Control 2	11	11.5
Project 3	58	13.1
Control 3	15	13.6
Project 4	101	9.9
Control 4	36	13.8

The district continued to use the IDEA Oral Language Proficiency Test (IPT) to measure oral English skills. The number of students documented in table 11 represent the number of students in the Español Aumentativo Grant Study who are still enrolled in the Spring Branch Independent School District.

Table 11

Oral IPT Pre and Post for Each Year

Cohort	Number	1991	1992	1993	1994	1995
Project 1	38	1.5	2.2	2.9	3.9	4.9
Control 1	7	1.9	3.6	4.3	4.7	6.1
Project 2	46		1.4	2.1	3.2	4.6
Control 2	12		1.3	2.3	2.3	3.3
Project 3	73			1.3	2.0	3.1
Control 3	14			1.9	2.9	4.1
Project 4	108				1.3	1.8
Control 4	43				3.4	4.3

Additional data was obtained in cooperation with Cheri Stachowiak, the Title VII Math Grant Resource Teacher. Forty Functional Spanish students were pre-tested in January and post-tested in May of 1995 as part of the Math Grant. The results are as follows:

- a) During a five month period, fifteen students who had sheltered mathematics instruction in English made almost a six months gain in mathematics knowledge.
- b) Nine students who were in a regular math class after one year of sheltered math instruction in Spanish, showed a two month gain in academic math achievement after five months of instruction.
- c) Nineteen students who were mainstreamed into regular mathematics classes on their chronological grade level did not make any progress and showed a loss of almost one month compared to their pretest score.

The district will continue to study LEP student achievement in mathematics in order to make more informed curricular decisions in the future.

Although they began the school year significantly lower in Spanish than the control group, project students made considerable gains in Spanish skills. The average increase on the local Spanish test ranged from 12 to 25 in Year One; 15 to 21 in Year Two; 10 to 23 in Year Three; and 10 to 21 in Year Four .

The data in table 12 illustrates the average amount of points gained on a diagnostic reading comprehension test. The test given is based on the SABE (Spanish Assessment of Basic Education). Each group of students were pre and post-tested during the school year that they were in a Functional Spanish class. Year Four test results compare favorably with the previous three years (see table 12.)

Table 12  
**STUDENT ACHIEVEMENT IN SPANISH  
 YEARS ONE THROUGH FOUR**

Year 1		Year 2		Year 3	Year 4
School	Average increase in score	One Change of School	Average increase in score	Average increase in score	Average increase in score
NHS	13		17	11	10
MHS	12	SWHS	21	13	14
SWMS	25		15	23	20
SOMS	16		16	17	21
LMS	20		16	17	21
NMS	21		18	10	17
<b>Average</b>	<b>18</b>		<b>17</b>	<b>15</b>	<b>17</b>

**Attendance**

Data showed that project students have their best attendance during the year they are in the Functional Spanish class. Also, an increase in the number of days absent correlates to the number of years both the project and the non-project students are in school.

**School Retention**

Retention for Year Four between project and control schools was comparable at 9.6% which is well below the national drop out rate of 43% for Hispanic immigrants as reported by the National Center for Education Statistics (1993).

**Classroom Instruction**

To document the instructional strategies employed, pre and post classroom process data were collected on all staff in project and control school classrooms. There was a fairly large turnover of project staff from Year One to the project's

completion, primarily because of teachers' family demands. New Functional Spanish, ESL, and math teachers from each school who had the highest number of the target population were observed each year. During Year One sheltered science teachers were observed. There were no special science classes offered to the target population during Years Two, Three or Four.

Stratified sampling techniques were used in all the classrooms so that four students in each class were randomly chosen to be included in the student sample. The sexes of those observed were equally divided.

Teacher and student classroom process data were collected from the **Teacher Roles Observation Schedule (TROS)** (Waxman, Wang, Lindvall, & Anderson, 1983). It is a systematic observation schedule designed to document observed teacher behaviors in the context of on-going classroom instructional and learning processes. Individual teachers are observed with reference to: (a) their interactions with teachers and/or peers and the purpose of such interactions, (b) the settings in which the observed behaviors occur, (c) the types of materials with which the participants are working, and (d) the types of activities in which they engage. Each teacher was observed for ten thirty-second intervals at four separate times during each data collection period. The instrument has been found to be reliable and valid in previous studies (Wang, 1986, 1987; Wang & Walberg, 1985, 1986).

Findings from the **TROS** are summarized in Table 16 at the end of the evaluation report. In the areas that are related to effective teaching the means for the project school teachers are consistently higher. Probably because of the small sample size, the differences were statistically significant in three of these areas and tended toward a practical significance in another area. In the category *Showing Personal Regard*, project teachers performed significantly higher ( $p < .05$ ). This finding is significant to the project's success because preliterate adolescents have to learn as much in middle school as regular students have learned in their previous six years. Project students are less likely to have developed organizational skills, to

have patience for school work, or to have well-developed self esteem in academic settings. Secondary teachers are not as accustomed as elementary teachers to developing those skills. By showing personal regard for the students, it appears that the teachers helped lay the foundations which enable project students to learn more in the short amount of time they had.

The second area with significant differences was *Student to Student Interactions* ( $p < .05$ ). It appears that the project teachers used strategies important for language development by having students communicate among themselves. They also used significantly more varied activities, as shown by their higher score in the Other category ( $p < .05$ ). Generally teachers who score high in this category are involved in innovative practices not expected by the instrument's authors. Since the project teachers had been given in-services on innovative practices, this finding documents that the teachers were attempting innovative ways of teaching for this difficult student population.

*Restructuring Specific Learning Tasks and Contact in Exploratory Activities* were categories that showed a practical significance ( $p = .17$ ;  $p = .14$ ). Observers noted that project teachers spent more time in instructional activities and less in managerial activities than the non-project teachers. More class time in instructional settings insures greater time for teachers to give feedback to students. Feedback is always important for learning. However, for this student population it may be critical. Due to limited school experience, these students may be unsure of teachers' expectations and their own abilities in school.

The **Post Classroom Observation** scale addresses interaction, activities, and higher level thinking skills. These findings are summarized in Table 17. *Student to Student Interactions* were observed at a significantly higher level in the project classrooms ( $p < .05$ ). This type of interaction allows students to develop their speaking skills as well as social skills, which are usually lacking in this student population. Project classes approach significance with the higher level thinking

skills development in three categories: *Students Evaluate Others* ( $p=.06$ ); *Has Time for Reflection* ( $p=.12$ ); *Help Others Analyze/Solve Problems*. Since classrooms that work with this level of student do not usually go beyond the basic interactions of knowledge and comprehension, this can be considered as an indicator of the staff's implementation of district and grant provided in-service.

**OBJECTIVE 2, *Identify and recruit parents for involvement***, was also met. Over the project there was exceptionally strong support for parents through the case worker. During Year Two, family computer night was scheduled with paid faculty to direct the program. Poor turnout at this event caused that part of the program not to be repeated. The last meeting was a dinner catered by one of the district schools. Attendance was very high and included two of the district school board members. The parenting program was coordinated with the Drug Free Schools program, which donated training and materials for the parent meetings. Project personnel translated and made cultural adjustments to those materials, which were then disbursed at the meetings.

Parent meetings for this project have been so successful that pressure was exerted on the district to extend the parent program throughout the district. Ray Leal was contracted as a facilitator for the meetings; in the final project year he was employed as a Parent Coordinator for the Spring Branch Independent School District due to this project's success with involvement of the Hispanic community.

Over the term of the project, parental involvement grew from an average of nine parents at activities during Year One to an average of 54 during Year Four (see table 13).

Table 13

Español Aumentativo Parent Meetings  
 Attendance Report  
 7:30 PM - 9:00 PM  
 School year 1994 -95

Date	Subject	Total # of Parents	Total # of Students	Total
09/08/94	School Programs & Discipline Policies	50	20	70
10/06/94	Raising Responsible Young Adults	52	15	67
11/10/94	Taking Charge and Letting Go	35	10	45
12/01/94	Building Self Esteem	60	40	100
01/12/95	Building Positive Relationships	32	12	44
02/02/95	Drugs & Alcohol	38	12	50
03/02/95	Violence in the Community	55	18	73
04/06/95	AIDS Prevention	49	40	89
05/11/95	Final Celebration	111	84*	195
	<b>Average</b>	<b>54</b>	<b>28</b>	<b>81</b>

\*Students did not sign in. This is an estimate.

The parental involvement activities spread to other schools in the district. In Year Four, staff started bilingual parent meetings on a non-project campus for the first time. With the help of case worker Raquel Leal, the number of Spanish-speaking parents who attended outnumbered those speaking English and other languages. The case worker supported parental involvement efforts on other campuses and for other departments as requested (see table 14).

**Table 14**  
**Parent Involvement Efforts**  
**Supported by ESPA Case worker, 1994-95**

Location	Type of Parental Involvement Efforts
Landrum Middle School	Recruiting of Hispanic parents to help start a Parent Teacher Association
Northbrook High School	Community Health Fair -Parental Involvement Booth - Handouts in Spanish
Northbrook Middle School	Saturday Community Health Fair - Parental Involvement Booth - Handouts in Spanish
Northbrook Middle School's Summer School	Summer Nights Parent Meetings in Spanish - Six Sessions in cooperation with Title I Staff
Ridgecrest Elementary	Parenting for Prevention of Drug & Alcohol Abuse: Padres Con Poder Program, Meetings in Spanish
Sherwood Elementary	Home visits with Title I Staff as requested by Building Principal
Spring Branch Education Center Alternative School	Family Ropes Program, Title I Program
Spring Branch Independent School District Community Youth Services	Home visits in cooperation with Community Youth Services Staff as requested for crisis intervention in Spanish speaking families; Phone Consultations
Spring Branch Independent School District Student Services	Revision of the "Recursos para la comunidad" brochure in cooperation with Title I Staff
Spring Branch Independent School District Title I Program	Recruiting parents and conducting Title I Advisory Committee Meetings in cooperation with Title I Staff
Spring Branch Middle School	Bilingual Parent Meetings in cooperation with Community in Schools Staff
Spring Oaks Middle School	Seven Parent meetings in Spanish - Community Health Fair; - Parent Involvement booth - handouts in Spanish
Spring Woods Middle School	Parent Meetings in Spanish
Woodview Elementary	Parent meetings in Spanish in cooperation with Title I Staff

During the four years of the ESPA grant, the level of Hispanic parent involvement throughout the district has continued to increase. Successful interactions have created an awareness among district staff of the need to break through the communication barrier with bilingual staff. The achievement in this realm cannot be overemphasized. Spring Branch is a school district that was initially developed as a "white flight" district. As it has undergone changes during the last 15 years, community attitudes have not kept pace with demographic changes. School administrators, however, continue to want the best for all students. Many have learned a great deal from the success of this project. As parents become more involved in the schools, students should be more successful.

**OBJECTIVE 3, Provide staff development, including specific instructional strategies and techniques for preliterate students, was also achieved.** Throughout years 1-3 the district provided a wide range of in-service opportunities, including workshops and formal course work (see table 15).

**Table 15  
Staff Development Summary Report  
Years One Through Four**

Item	91 - 92	92 - 93	93 - 94	94-95	Total	Staff involved
# of college credit hours earned	63	52	36	n/a	151	40
# of professional development hours earned	489	615.25	90.75	112	1307	105
# of different conferences attended	8	9	12	8	37	20
Total # of days spent at conferences	24	24	64	34	146	20
# of conferences presented at	3	5	6	6	20	5
Days spent in workshops	5	13	27	35	80	45
In-kind contributions	171	140	689.5	399	1399.5	114 +

Again, the achievements in the area of acceptance of the growing Spanish-speaking population is the area that should be emphasized. District administrators now look to the project administrators to provide in-service on multicultural education, particularly strategies for instruction and building rapport with limited English proficient students. The outcomes listed in the district's report document the positive effects of this project.

### Summary Of The Evaluation Findings

There were four major strengths that prevailed throughout the project. First was the district's support of parental programs. Normally secondary schools are not as interested in parental involvement as are elementary schools. The success of this project is due to the extra efforts of the staff. For example, the case worker, Raquel Leal, spent a great deal of time in the community, including meeting with parents, networking with school administrators, and securing door prizes for the meetings. Times were arranged to benefit a variety of parent schedules as well. Including a population of parents that had formerly been excluded should lead to a systemic change in the education of Spanish-speaking students in the entire district.

The second strength of the project is the professional staff. The analysis of data found very little difference between project and control teachers in key areas, even though the project students had significantly more problems with classroom conduct. On the whole, the Spanish skills of the project teachers were exceptionally strong. Many were native speakers and capable of understanding cultural and linguistic differences among the diverse students. Over the course of the project differences were found in areas important to LEP students' success, namely increased opportunity to work together and get feedback from the teacher.

The third commendable area is the increase in student achievement. In both project and control schools students had difficulty paying attention, staying on task, and completing the work. With little or no prior socialization in a school setting,

the preliterate students were unable to meet usual classroom attention and decorum. Later in the school year, some district personnel noted a marked improvement in the socialization skills of those students going through the project over the somewhat lower level of those who had not been given the treatment. Students increased in both Spanish and English literacy skills, and each year the average achievement in English literacy improved. Students continued to increase their English literacy even after leaving the project.

Finally (and probably the most important) the external evaluation team found the district to be operating at the highest professional levels. Observers were able to collect data in both project and non-project schools. Because of their support of the evaluation team, it was possible to document precisely what occurred in the classrooms during the four-year project. It was also possible to disseminate the success of project activities to other districts because of the care the district has taken to document each aspect of the project. Administrators of the non-project schools should be commended for participating in the evaluation in spite of receiving no external support for their efforts. Project school administrators are to be commended for implementing an innovation that has contributed not only to the education of their own students but also to the education of students in programs that have been modeled on this one. The Principal Investigator and Project Director also have done an exceptional job of documenting every aspect of the project. With their care and organization, it will be possible to replicate the project at other sites.

Overall the project successfully met all of its objectives and should be institutionalized.

Table 16  
1995 Comparison of Teacher Classroom Behavior

	Program	Program	Compa- rison	Compa- rison	
	(n=19)		(n= 8 )		
	MEAN	SD	MEAN	SD	P
<b>Interaction</b>					
1. No interaction	8.98	12.4	2.88	8.2	0.21
2. Interaction with other adults	3.12	6.2	3.41	9.6	0.0
3. Interaction with student(s)/Instructional	76.75	17.7	78.04	19.7	0.86
4. Interaction with student(s)/Managerial	9.52	9.7	15.67	10.5	0.15
5. Interaction with student(s)/Personal	1.63	4.9	0.00	0.0	0.0
<b>Setting</b>					
6. Teacher's desk	16.26	17.5	5.33	10.4	0.11
7. Student's desk	5.26	10.1	14.78	24.0	0.31
8. Small group	0.00	0.0	5.36	15.15	0.35
9. Whole class	48.84	30.2	48.96	33.2	0.99
10. Traveling	25.78	23.0	25.96	16.5	0.98
11. Other	3.85	9.9	00.00	0.0	0.0
<b>Subject Area</b>					
12. Reading	00.00	00.0	00.00	00.0	
13. Mathematics	21.05	41.9	50.00	53.5	
14. ESL (Language Arts)	31.57	47.8	50.00	53.5	
15. Science (none offered)	00.00	00.0	00.00	00.0	
16. Social Studies (none observed)	00.00	00.0	00.00	00.0	
17. OTHER (Functional Spanish )	47.37	51.30	00.00	00.0	
<b>Purpose of Interaction</b>					
18. Responding to student signal	86.32	21.1	82.50	27.1	0.69
19. Discussing student's work plans/progress	25.79	20.6	26.25	38.1	0.98
20. Determining the difficulty of the task	6.31	11.2	25.00	46.6	0.29
21. Communicating the task's procedures	46.84	21.1	60.00	33.8	0.23
22. Communicating the task's criteria for success	23.68	30.6	31.25	30.9	0.56
23. Focusing on the task's content	83.16	20.1	77.50	19.8	0.51
24. Restructuring specific learning task	2.10	9.2	11.25	16.4	0.17
25. Helping student complete work on time	18.42	19.2	20.00	25.6	0.86
26. Checking student's work	41.05	26.2	55.00	32.9	0.25
27. Encouraging self-management	16.31	25.6	30.00	29.8	0.23
28. Encouraging students to help each other	7.37	17.6	10.00	10.7	0.69
29. Encouraging students to succeed	60.52	22.5	73.75	30.7	0.22
30. Encouraging extended student responses	8.95	14.9	13.75	19.2	0.48
31. Showing personal regard for student	9.47	17.5	27.50	20.5	0.02*
32. Contact with student in exploratory activity	21.05	29.9	8.75	12.5	0.14
33. Showing interest in student's work	5.26	11.2	18.75	25.3	0.18
34. Praising student behavior	1.05	4.5	5.00	9.2	0.28

35. Praising student performance	21.57	26.7	33.75	29.2	0.31
36. Correcting student behavior	12.63	14.8	15.00	18.5	0.73
37. Correcting student performance	12.63	24.2	16.25	25.3	0.73
38. Other (specify)	27.36	24.5	5.00	9.25	0.01*
<b>Nature of Interaction</b>					
39. Questioning	5.23	4.6	8.25	5.7	0.16
40. Explaining	23.48	5.2	23.64	7.6	0.95
41. Cueing or promoting	5.23	5.9	5.01	5.8	0.93
42. Demonstrating	3.16	4.8	1.73	3.2	0.45
43. Modeling	3.12	5.1	1.23	2.3	0.19
44. Commenting	30.11	4.3	25.93	12.6	0.39
45. Listening	29.65	6.2	34.19	10.2	0.16

\* indicates a statistical significance ( $p < .05$ )

◇ Indicates a practical significance.

The small and uneven size of the sample can have an effect on the data results.

Table 17

1995 Post Classroom Observation

		PROJECT		COMPARISON		
		MEAN	SD	MEAN	SD	
	<b>INTERACTION</b>					
1.	Total Class	40.79	27.9	46.88	38.8	0.64
2.	Small Groups	19.73	21.4	21.87	20.9	0.81
3.	Teacher to Student (1:1)	14.47	12.7	12.50	18.9	0.75
4.	Student to Student (1:1)	10.53	19.2	00.0	00.0	0.02 *
5.	Individual or Independent	17.11	18.7	18.75	22.2	0.85
	<b>ACTIVITIES</b>					
6.	Lecture	17.11	11.9	12.50	18.9	0.45
7.	Discussion	27.63	16.4	21.88	20.9	0.44
8.	Seatwork	31.58	20.1	31.25	17.7	0.96
9.	Group Tasks	17.11	26.4	06.25	11.6	0.150
10.	Other	13.16	25.5	28.13	33.9	0.22
	<b>HIGHER LEVEL THINKING</b>					
11.	Teacher Models Process	40.79	30.3	31.25	22.2	0.43
12.	Students Explain Problem Solving process	21.05	17.2	25.00	18.9	0.60
13.	Students Evaluate Own thinking	14.47	15.2	15.63	18.6	0.87
14.	Students Evaluate Others	13.16	12.8	03.12	08.8	0.060
15.	Teaches Problem Solving Strategies	28.94	20.9	25.00	18.9	0.65
16.	Has time for Reflection	39.47	17.3	28.13	16.0	0.12 0
	<b>INTERACTION</b>					
17.	Work in pairs	26.32	29.4	34.37	32.6	0.53
18.	Respond to others	35.53	19.2	31.25	32.0	0.67
19.	Help others to analyze/solve problems	27.63	21.9	15.63	18.6	0.18 0

\* indicates a statistical significance (p <.05)

0 Indicates a practical significance.

The small and uneven size of the sample can have an effect on the data results.