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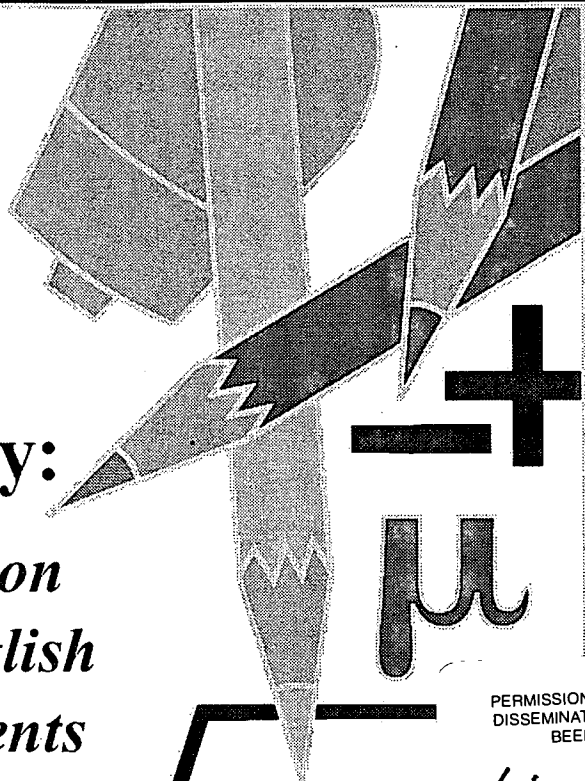
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ABSTRACT

The Texas Successful Schools Study examined the educational practices, school characteristics, and educator characteristics that contributed to the success of seven high-performing elementary schools with high proportions of limited-English-proficient (LEP) and economically disadvantaged students. This technical manual further elaborates the information acquired through the study and the research methods used, for the benefit of educators in other school districts. Following an overview of the origin and scope of the study, its design and methodology are detailed, including descriptions of the qualitative and quantitative methods used, research questions, data sources, study cohorts and comparison groups, and methods of ensuring validity and reliability. Study findings are summarized, and ongoing evaluation is described. Appendices present study questionnaires and interview questions, formulas for descriptive statistics, bar and line graphic presentations, benefits and characteristics of the Multiple Operations Descriptive Longitudinal (MODL) design, research questions and data sources, validities and reliabilities of study instruments, and the study evaluation questionnaire. (Contains 81 references) (SV)

# Technical Manual for The Texas Successful Schools Study:

## *Quality Education for Limited English Proficient Students*



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TEXAS EDUCATION AGENCY

AUSTIN, TEXAS

TECHNICAL MANUAL FOR THE TEXAS  
SUCCESSFUL SCHOOLS STUDY:  
*Quality Education for Limited English Proficient Students*

Program Evaluation Unit  
Office for the Education  
Of Special Populations

Texas Education Agency

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# I. BACKGROUND

## ORIGIN OF THE STUDY

**T**he Texas Successful Schools Study: *Quality Education for Limited English Proficient Students* (Study) was realized through the collaborative efforts of the Texas Education Agency (TEA), the Charles A. Dana Center at the University Texas in Austin, Texas, the Texas A&M University~Corpus Christi, and the seven elementary school campuses comprising the Study cohort. The Study was conducted pursuant to a recommendation made in A Report to the 75<sup>th</sup> Texas Legislature from the Texas Education Agency-December 1996.

The Study evolved from priority goals listed in the TEA's Strategic Plan of December 1996, as a leadership effort to improve the Texas public educational system. The Study will serve to build the capacity of school campuses by reporting on local excellence and achievement accomplished by the seven successful schools. The information acquired through the Study effort has been further elaborated in this Technical Manual in an attempt to provide assistance to all school districts, so that all students may experience academic success and meet the State's standards.

## NEED FOR THE STUDY

The new student enrollment in Texas public schools continues to present significant multiple challenges to the Texas Education Agency (TEA), the State Board of Education, the Texas Legislature, local school boards, administrators, teachers, and the community-at-large. These challenges become more pronounced when consideration is given to the demographic characteristics, e.g., numbers, ethnicity and program-type of the new student enrollment.

According to TEA data contained in the Public Education Information Management System (PEIMS), the total state enrollment in Texas public schools for the four-year period analyzed for the Study increased from 3,601,834 in 1993-94, to 3,891,877 in 1997-98. These figures represented an increase of 290,038 new students in PreKindergarten through Grade Twelve (PreK-12).

In 1997-98, Texas public schools reported 519,921 students enrolled and identified as LEP in Early Education (EE) through Grade Twelve (12). An analysis for a six-year period between 1991-92 and 1997-98 indicates that Texas public schools experienced an increase of 44 percent in the LEP population. The enrollment figures for each of the 20 education service centers in the state indicate that approximately 85 percent of all new LEP student enrollment was evident in six of the 20 service center areas. These areas included: Edinburg in the lower Rio Grande Valley, Houston, Richardson (including the Dallas Metroplex), Ft Worth, El Paso, and San Antonio. Edinburg and El Paso were the only service center areas with school districts along the United States/Mexico border. Although the increase in enrollment indicates an overall growth of 44 percent in the LEP population in the state over a six-year period, it is important to note that 122,526 or 77 percent of the 158,794 new LEP students reported were enrolled in the elementary grades in 1997-98.

According to information available from the State Board for Educator Certification (SBEC) for 1996-97, approximately 95 percent of the total number of teachers assigned to non-bilingual classrooms in Grades 1-6 were certified for the assignment, whereas only 59 percent of the total number of teachers assigned to bilingual classrooms in Grades 1-6 were certified. The remaining 41 percent of teachers, not properly certified, were also products of formal teacher-training programs, such as the college preparation program and the Alternative Certification program.

The Study was conducted by TEA in an effort to assist school districts faced with a continued increase in enrollment, and challenged by a high incidence of LEP students and teacher shortages. Although executive management at TEA recognized that a study would not result in a remedy to every situation that school districts have to address, it was evident that TEA had to provide focused leadership efforts to assist school administrators and policy-makers in their dedicated efforts to meet these challenges. In accepting a shared responsibility, and in keeping with the mission of TEA, the Study was undertaken as a first in a series of studies to focus attention on the education of students with special needs.

## **SCOPE OF THE STUDY**

The Study was assigned to the Program Evaluation Unit in the Office for the Education of Special Populations to examine the significant features of successful school programs for limited English proficient (LEP) students, as evidenced by test results on the Texas Assessment of Academic Skills (TAAS) for a five-year period. Based on overall student, i.e., LEP, former LEP and Non-LEP performance on the TAAS tests, the Study sites were selected on having a rating as either "Recognized" or "Exemplary" schools by the Agency's School Accountability System for each of three years. These included the 1995-96, 1996-97 and 1997-98 school years. In addition to the accountability ratings mentioned, the seven Study sites had to meet established criteria that included the following school characteristics:

- ❖ Schools enrolled more than 40 percent LEP students during the 1996-97 school year
- ❖ Schools enrolled more than 50 percent economically disadvantaged students during the 1996-97 school year, and
- ❖ School had zero TAAS exemptions during the 1996-97 school year

The Study was also designed to address specific research questions that delved into demographics, effective practices in use, characteristics of the seven Study sites, and the educational background and experience of educational personnel assigned to the LEP population in Grades PreK-5. The Study, which was conducted over a 24-month period as part of the Commissioner's Educational Research Initiative, included a review of research studies, journals and public policy documents. The review of the literature regarding the education of language minority children allowed for observations regarding the relationship of the instructional and assessment practices in the seven successful schools to theory found in the literature. The entire Study effort was focused on the following successful schools:

## SUCCESSFUL SCHOOLS

|                         |                          |                    |
|-------------------------|--------------------------|--------------------|
| Bowie Elementary        | Pharr San Juan Alamo ISD | Alamo, Texas       |
| Clover Elementary       | Pharr San Juan Alamo ISD | San Juan, Texas    |
| Castañeda Elementary    | Brownsville ISD          | Brownsville, Texas |
| La Encantada Elementary | San Benito CISD          | San Benito, Texas  |
| Kelly Elementary        | Hidalgo ISD              | Hidalgo, Texas     |
| Scott Elementary        | Roma ISD                 | Roma, Texas        |
| Campestre Elementary    | Socorro ISD              | El Paso, Texas     |



## II. GENERAL DESIGN OF THE STUDY

### STUDY DESIGN

The Study essentially employed the unique framework of a *Multiple Operations Descriptive Longitudinal* [MODL] design, and frequently references the MODL design basically as “multiple operations” in the Study document. This framework differs significantly from traditional *quasi-experimental* designs proposed in the classic sense by Cook and Campbell (1979), among others. A number of reasons for adopting the MODL design were as follows:

- ❖ The Study did not look at causality, prediction, or the testing of hypotheses, which are characteristics of the traditional paradigm. The multiple operations characteristics of the design provided a widened scope to describe outcomes and identify practices, which were aligned with the scope of the Study
- ❖ The adopted design allowed for the creation of several comparison groups, e.g., target, external campus, and peer campus groups, within the boundaries of a framework with descriptive characteristics. The formation of these Study groups differed in underlying assumptions of traditional control groups as may be treated in the *Untreated Control Group Pretest and Posttest Design*. The MODL paradigm allowed the use of comparable groups more along the lines of a number of realistic and similar demographic features, without unrealistic statistical controls. These controls oftentimes pose threats to validities and reliabilities within the traditional research paradigms
- ❖ The MODL approach focused on why the outcomes came about
- ❖ The focus on describing outcomes through a multiple operations approach was predicated on various theories, sources of data, and methodologies among other considerations
- ❖ The flexibility of the design allowed for the descriptive longitudinal comparisons of academic outcomes for two unique cohorts of students drawn from the Study campuses and external campuses
- ❖ The MODL design employed both qualitative and quantitative approaches to illustrate both outcomes and effective practices

### METHODOLOGY

The methodology used for the Study is a multiple operations framework that presents, and as appropriate, clarifies data outcomes. When more than one method is used, there is greater potential for credibility in comparing and confirming findings. The Study approaches to data collecting and analyses of data were both qualitative and quantitative. The qualitative approach to data is typically used to answer questions about the nature of the phenomena with the purpose of describing the phenomena for understanding from the participants' point of view (Lincoln & Guba, 1989; Patton, 1980). From a quantitative perspective, the Study utilized descriptive statistical application including counts, percentages, various graphic and tabular displays, as well as measures of central tendency and variability.

In discerning the significant features of successful schools, the Study employed descriptive methods and incorporated mixed methodology and multiple operations approaches (Tashakkori and Tedlie, 1998; Denzin and Lincoln, 1994; Ragin, 1990; Webb, Campbell, et. al., 1965). Within the framework of the multiple operations design, these descriptive methods do not necessarily seek or explain relationships, test hypothesis, or make predictions. Research aimed at these more powerful purposes may incorporate descriptive methods. The uniqueness of these approaches are in line with the recommendation from the National Academy of Education (1999, p.11), calling, “for new forms of research organization that are focused on practice and on engaging researchers and practitioners together in problem solving and theoretical analysis.”

## APPLICATIONS OF THE DESIGN

The MODL design employed by the Study allowed applications of *multiple theories*, *multiple methods*, *multiple investigators*, and *multiple sources of data*, as described below:

- ❖ *multiple theories*: In addition to considering options within the arena of research design, the MODL design also allowed for reflection on multiple theories discerned from the review of the literature on educating students with special needs. This characteristic of a multiple operations design enhances the overall direction of a study by considering parts of alternative explanations, multidisciplinary considerations, and views of subject populations, outcomes, and practices which are external to prevailing paradigms (Deslauriers, 1991). The employment of multiple theories brings to bear the concept of *Mutual Simultaneous Shaping* (Lincoln and Guba, 1985) where “everything influences everything else,” replacing the empirical reductionism of causality
- ❖ *multiple methods*: One of the applications of multiple operations designs has been the employment of various quantitative and qualitative methods. These multiple methods in turn contribute to the validity of the design and provide for a *triangulation* of outcomes (Lee, 1991; Gable, 1994). The methods employed by the Study included features of both *naturalistic* and *quasi-empirical* models. The multiple operations approach was then able to employ comparison groups without random assignment, and still be able to convey depictions regarding the “why” and “how” of observed phenomena for the Study sites, individually and collectively. Since each methodology by itself had its own inherent strengths and weaknesses, the variety of approaches built upon the collective effectiveness, while minimizing individual shortcomings
- ❖ *multiple investigators*: In addition to providing practical assistance to the Study through divisions of labor, the use of multiple investigators provided a diversity of viewpoints pertaining to methodological approaches and vantage points in examining outcomes (Dufour, 1991). The research teams involved in the reviewing, collecting and analyzing information and data for the Study included the administrative and principal investigating team at TEA, the five-member research team from the Texas A&M University~Corpus Christi, and a third-party professional consulting firm from Austin, Texas
- ❖ *multiple sources of data*: The Study employed a multi-dimensional approach to data-collection from Agency databases, e.g., the Public Education Information Management System [PEIMS] and the Academic Excellence Indicator System [AEIS]. The reliance upon multiple sources of data increases both the validity and reliability of observed outcomes (Trudel and Antonius, 1991)

## QUALITATIVE APPROACHES

The qualitative features of the multiple operations design provided depth and detail that could not have been realized by an exclusive *experimental* or *quasi-experimental* approach. Qualitative features provided enhanced dimensions of response modes to the Study questions. Researchers who utilize qualitative approaches may regard their task as “coming to understand and interpret how the various participants in a social setting construct the world around them” (Glesne & Peshkin, 1992). The design provided a standardized framework for administering measures. Approaches included reviews of information acquired, agency data, and campus documents that relied on the following methods and protocols:

- ❖ Teacher questionnaire and interviews
- ❖ Principal questionnaires and interviews
- ❖ Interviews of district administrators in charge of the district bilingual education program
- ❖ Interviews of parents
- ❖ On-site classroom visits

## TEACHER QUESTIONNAIRE AND ADMINISTRATION

The multiple-methods used in the Study included a questionnaire that was individually administered to teachers, in order to collect information regarding their characteristics and professional opinions, with regard to the program features on respective Study campuses. The pre-survey construction period employed initial principles based on those advanced by Fowler, (1995). These were reviewed and approved by multiple investigators involved with the Study. The criteria included:

- ❖ The meaning of the questions and the nature of the answer mode were to be understood by all respondents
- ❖ Respondents targeted by the questionnaire should be both willing and able to perform the tasks associated with the questions
- ❖ The survey questions had to constitute a protocol for interaction that was consistent for both interviewers and respondents

The questionnaire was completed by teachers of record who were assigned to work with the LEP student population at each of the seven Study sites as identified by the campus principals. When analyzed, the results of the questionnaire showed that there were 101 teacher respondents. Since campus principals determined which teachers were to complete the questionnaire, information was not available to determine the percentage of teachers responding at each of the seven Study sites.

The Program Evaluation Unit designed the teacher questionnaires and interviews in the Office for the Education of Special Populations at TEA [Appendix A]. The teacher questionnaires were field-tested in the fall of 1998 on a sample of 15% of the total number of 101 teachers, in accordance with

recommended criteria for sampling (Babbie, 1979; Fowler, 1995; Converse and Presser, 1989; Kalton, 1983). If the number of involved teachers at all campuses were to be considered the target population, we could calculate the standard error (a measure of sampling error) by using the adapted simple formula:

$$Se = \sqrt{\frac{PQ}{N}}$$

where  $Se$  = Standard error rate

$P$  = Percentage of sample

$Q = 1 - P$

$N$  = Number of cases in the sample.

With this formula, as the sample size increases, the standard error rate decreases. The sample of 15% for field-testing falls well within the one standard error of the parameter.

Field-testing, or the testing of questions of the instrument, looked at how both potential respondents perceived meaning, response level difficulty, respondents' interest and attention, timing, and respondents' "well-being" and comfort levels (Belson, 1981; Converse and Presser, 1989; Bolton, & Bronkhorst, 1996). This pre-testing of the questionnaire adhered to the following guiding questions from Czaja (1998), Fowler (1995), for respondents:

- ❖ Did respondents have difficulty understanding words, terms or concepts?
- ❖ Was the sentence structure too complex? Did respondents understand the question, the task required, and the answer format?
- ❖ Were there significant differences in time needed for respondents to answer specific questions?
- ❖ To what extent did respondents have difficulty in knowing, or in providing answers?
- ❖ Did respondents interpret the question as the researcher intends?
- ❖ Did respondents use different response categories or choices than those offered?
- ❖ Were respondents willing and able to perform the tasks required to provide accurate and complete answers?
- ❖ Were respondents attentive and interested in the questions?

Other guiding questions based on the same preceding sources for field-testing were also incorporated with the other protocols to add to the pre-test validity. These included:

- ❖ Did the sections of the questionnaire and the questions provide a logical flow?
- ❖ Were instructions correct and easy to follow?
- ❖ Was there evidence of question-order effects?
- ❖ Was there evidence of ambiguity?
- ❖ What was the response rate? What were the potential problems indicated by the response rate?

- ❖ Were there any indications of problems regarding the completeness and accuracy of responses?
- ❖ What was the nature of any *skip patterns* that may have emerged?
- ❖ Were respondents' answers within the framework of expected responses?
- ❖ What types of responses were provided for questions with an "other" (please specify) category?
- ❖ Was the level of variation among response categories acceptable?

An error analysis was conducted based on collected responses, which were coded for problems on a grid. Adjustments were made to individual wording, phrasing, and the nature of questions based on pre-testing responses. As a result of the field-testing, the research team revised and expanded the number of questions on the teacher questionnaire. The questionnaires included multiple choice, yes/no, open-ended, and *Likert*-type questions. These are discussed at further length below under *Format of the Teacher Questionnaire*.

The research team relied exclusively on the responses of teachers who indicated that they were assigned to the bilingual education program for at least two of the three years targeted by the Study in addition to the 1998-99 school year when the visits were conducted. This ensured Study consistency in that every teacher included in the Study data set had taught the LEP student population for at least three years.

## FORMAT OF THE TEACHER QUESTIONNAIRE

Of the 65 items on the questionnaire, 16 items pertained to grade level assignments, ethnicity and gender. Fourteen items were used to report on the teacher characteristics across the seven Study sites, and 35 items were used to report on program features and practices. The remaining 35 items were divided into three categories, i.e., Assessment Features (8), Instructional Practices (13) and Implementation Practices (14). Additionally, nine open-ended questions were administered to teachers using a modified *Delphi*-type approach. The method allowed teachers to concentrate on probes for longer periods of time and encouraged their participation. The section on interview methods discusses the *Delphi* approach in greater detail.

Data collected through questionnaires were analyzed by the research team to obtain descriptive statistical outcomes. To calculate these data outcomes, a *Likert*-type response formed the basis of an assigned score associated with each of the questions. *Likert* approaches utilize *ordinal* (rank) scales where the respondent indicates a degree of intensity in agreement, disagreement, or indecision, as expressed by questions or statements. They are the most widely used scale types in the social sciences, are relatively easy to construct, and have high reliabilities (Miller, 1997; Vogt, 1993). The rankings utilized on the *Likert*-type scale follow:

- ❖ All of the Time answers were assigned a value of 5
- ❖ Most of the Time answers were assigned a value of 4
- ❖ Some of the Time answers were assigned a value of 3
- ❖ Rarely answers were assigned a value of 2
- ❖ Never answers were assigned a value of 1

The yes/no/uncertain responses, a *polytomous* (more than two categories) mode, were treated in a different manner, since they were not on a scale basis. These responses were represented by numbers and percentages. Responses for the open-ended questions were summarized with succinct statements.

## INTERVIEWS

One of the MODL approaches involved the use of interviews of teachers, administrators, and parents. Their use has been described by Dexter (1970) as a conversation with a purpose. A major objective is to obtain current constructions of data, reconstructions, or projections of events, activities, organizations, and motivations among other possible information. The structure of interviews can range from open-ended unstructured formats, to focused interviews. Usually, structured or focused interviews becomes the mode of choice in the search for particular information. (Rubin and Rubin, 1995; Silverman, 1993; Strauss, 1980). It was considered that interviews could provide insights to several important questions and contribute to the triangulation, and ultimately, validity of data, by probing in several contexts, such as:

- ❖ What does the program look like on the target campuses?
- ❖ What were the experiences and characteristics of campus staff?
- ❖ What were participants' expectations as outcomes for students?
- ❖ What did respondents know about their program?
- ❖ How did the program function from respondents' points of view?
- ❖ What concerns did respondents convey?
- ❖ Which were the important features as noted by teachers, administrators, and parents?

The structured interviews conducted in the Study were essentially guided by protocols as part of a *quasi-Delphi* approach that was linked to the Study questionnaires. The *Delphi* technique is a pragmatic methodology employed to varying degrees in different fields. It addresses the respondent audience in its traditional form as the collective "consensus of wisdom", and involves them in practically all stages of questionnaire development and administration (Enzer, 1971). The modified approach was limited to the development of focused probes and their application within the interview setting for teachers. This approach allows for the development of different educational scenarios to be projected and evaluated by the participants. Combined with other methods, including the use of questionnaires and case studies, the use of the modified *Delphi* method contributed to a better understanding of the different logic of participants, and contributed to the validation of outcomes pertaining to the educational processes on the seven campuses.

The major methodological goal, as utilized in the Study, was to simulate a discussion process between the teachers from the Study sites, who influenced the daily educational processes at the seven target campuses. Participants in the process were given opportunities to reconsider the responses in conjunction with the information provided by others in order to best characterize the actual trend of outcomes. At two schools, the teacher interview sessions were held after school. Each interview consisted of reviewing the teacher questionnaire's open-ended questions and clarifying any concerns that the teachers had about the Study questions. Generally, teacher interviews were held for about one hour to one and one-half hours.

Interviews were held with the district leadership, campus principals, teachers, and a significant number of the parents of the LEP students at each of the Study sites. School administrator interviews, using the Study interview protocol, were held for about one hour, usually upon entering the school. Most teacher interviews were held during the school day, with the campus principals arranging for teacher aides, other teachers not on duty, or volunteer parents to oversee the classrooms, while the teachers were interviewed by the research team.

Parent interview sessions were conducted at all of the seven school sites. Parents were selected from a list provided by the principal. The list included members of the site-based campus team and the Parent Teacher Association/Organization. A parent interview protocol was administered in English and in Spanish as appropriate; however, most of the interviews were conducted in Spanish. Parent interview sessions lasted for one hour to one and one-half hours.

## **CASE STUDIES**

Case studies, as a qualitative approach of the design, provided reflexive reporting that depicted mutually shaping influences at work on Study campuses. Utilized primarily in descriptive, explanatory and exploratory research, case studies may be singular, or multiple in nature. Their methods do not automatically imply any specific form of data collection which may combine qualitative and quantitative approaches (Chen, 1990; Yin, 1993). Case studies analyze each phenomenon in its natural context, i.e., that which is actually occurring, including the point of view of the participants. In case studies, the researchers spend an extended period of time on-site with the research participants. A substantial amount of data is gathered from a wide variety of sources to present a description of the phenomenon or experience from the perspective of the participants.

Through the approaches inherent in the MODL design, it was possible to profile the characteristics for each campus over a three-year period, while profiling assessment, instructional and implementation practices actually reported, analyzed and observed. The campus profiles were based on teacher questionnaire responses, administrator, teacher, and parent interviews, and on-site classroom observations for 1998-99. The case studies for each campus, individually and collectively, greatly enhanced the total picture of what was actually occurring with limited English proficient students. The success of every school profiled in the Study is documented with information presented in each case study from the perspective of the Study participants, and supplemented by agency data available.

## **ON-SITE VISITS**

Classroom visits were conducted in almost all classrooms in all of the seven Study sites. The classroom observation visits consisted of one research team member visiting in a classroom for approximately 20-30 minutes. The member scripted observations or wrote anecdotes of activities in the classroom that impacted the learning of language minority students. Assigned teachers of record for the LEP population, as well as non-assigned teachers for the LEP population were visited in their classrooms. Observation focused on the instruction of the cognitive, affective and linguistic needs of LEP students. Pursuant to conducting a visit each day, members of the research team convened to share and validate significant features and practices observed that could impact the success of the LEP students. By using this approach, the research team was able to discern

commonalities of observed practices. School visits, classroom visits and all interview sessions were very pleasant and well received by all the participants. Administrators (district and campus), teachers and parents were willing to share their responses candidly and openly.

The campus visits were conducted during March, April and May 1999 by the research team. The on-site visits to the Bowie and Clover campuses in the Pharr-San Juan-Alamo Independent School District were observed by the Agency's Principal Investigator to ensure that the visits adhered to the study procedures. Interviews of campus principals were conducted during the on-site visits by members of the research team at each study site. A calendar for the school visits was developed in consultation with the campus principals as follows:

|             |                               |                          |                    |
|-------------|-------------------------------|--------------------------|--------------------|
| March 11-12 | Visit Castañeda Elementary    | Brownsville ISD          | Brownsville, Texas |
| April 14-15 | Visit Campestre Elementary    | Socorro ISD              | El Paso, Texas     |
| April 29-30 | Visit Scott Elementary        | Roma ISD                 | Roma, Texas        |
| April 29-30 | Visit Kelly Elementary        | Hidalgo ISD              | Hidalgo, Texas     |
| May 04-05   | Visit Clover Elementary       | Pharr-San Juan-Alamo ISD | San Juan, Texas    |
| May 04-05   | Visit Bowie Elementary        | Pharr-San Juan-Alamo ISD | Alamo, Texas       |
| May 06-07   | Visit La Encantada Elementary | San Benito CISD          | San Benito, Texas  |

At least two members of the research team were present at each school during the two-day visit to the Study sites, with the exceptions of Clover Elementary and Bowie Elementary. At these two sites, the research team was expanded to five members to conduct the visits and collect all data in one day at each location as requested by the campus principals. The one-day visits were considered to be less disruptive in these two schools that were making preparations to close a school year.

## QUANTITATIVE APPROACHES

Quantitative approaches involve the numerical representation and analyses of data. The quantification of data can be utilized in both *empirical* and *naturalistic* designs (Brannen, 1992; Greene and Caracelli, 1997; Patton, 1990) Quantitative measurement relies on instruments, statistical approaches, and presentations which provide standard frameworks that can both limit and assign data to predetermined categories of outcomes and analyses. Simply defined, quantitative methods yield greater breadth of data and more accurate descriptions for questions such as "what" and "how much," while qualitative approaches lend greater depth of comprehension and accuracy for the "why" and "how" questions. The following sections describe the quantitative approaches to data employed by the Study. Further detail regarding specific statistical formulas are found in Appendix B of this document.

## DESCRIPTIVE STATISTICAL APPROACHES

Descriptive statistics refer to properties of distributions, such as location, dispersion and shape. Descriptive statistics involve the collecting, categorizing and presenting of data. They are used to



describe the basic features of the data in a study that provide simple summaries about the sample and the measures. Together with simple graphics analyses, they form the basis of virtually every descriptive quantitative analysis of data.

Descriptive statistics are typically distinguished from inferential statistics. With descriptive statistics, one is simply describing what is, or what the data shows. With inferential statistics, there is an attempt to reach conclusions that extend beyond the immediate data; whereas descriptive statistics simply describe the outcomes through the use of numbers. Descriptive Statistics are used to present quantitative descriptions in a manageable form. Descriptive statistics attempts to simplify large amounts of data from multiple measures. Each descriptive statistic reduces data into simpler numeric summaries. The single number describes a large number of discrete events; for example, a student's percentage score in passing TAAS. This single number describes the general performance of a student across a potentially wide-range of performance experiences. Where comparative statistics can describe the relationships between variables, e.g., how changes in one variable relate to changes in another, descriptive statistics depict the values taken on by one variable at a time. In addition to numerical counts and percentages, descriptive approaches for the Study also employed data displays and measures of central tendency as described below. In the discussion of *interjudge reliability* of the teacher questionnaire used in the Study, it is indicated that additional analyses, such as *non-parametric* formulations were performed on a limited *post-hoc* basis. These formulas may be discussed in a future study, since they had not been integrated within the scope of the initial Study.

## DATA DISPLAYS

Various types of data displays were employed by the Study. These displays represented different views of data in numerical terms. They included tables, cross-tabulations, bar, and line graphs. Although line graphs were not utilized in the Study, they were subsequently developed and used by the Program Evaluation Unit and members of the university research team in numerous {over 20} presentations on the Study design and findings at statewide and national workshops/conferences.

- ❖ *Tables* [basic] were utilized to display data through the use of columns and/ or rows. These descriptive displays were both numeric and in narrative form
- ❖ *Cross-Tabulation* is a combination of two (or more) frequency tables arranged in such a way that each cell in the resulting table represents a unique combination of specific values. Usually, the cells also contain percentages. Cross-tabulation allows us to examine frequencies of observations that belong to specific categories on more than one variable. By examining these frequencies, we can identify relations between cross-tabulated variables. The cross-tabulation tables used in the initial analyses of the Study to quantify teacher responses depicted the number of cases having specific combination of values
- ❖ *Bar Graphs* in the Study illustrate student performance outcomes on the TAAS, either between the target and external campus cohorts, or the target and peer campus comparison group. The height (horizontal bar graph), or length (vertical bar graph) of a bar describes the frequency of the observations in that group of students (each group has its own bar). Samples of bar graphs developed for Study presentations are found in Appendix C of this document

- ❖ *Line Graphs* are a visual representation of several sets of related data. The name is given to a graph because of the individual points which are joined by a line or lines. As mentioned above, line graphs were not used in the Study, but were incorporated into presentations made at numerous workshops/conferences. [Appendix C]

### Measures of Central Tendency and Variability

Descriptive statistical approaches to data in the Study, particularly for outcomes from the Teacher Questionnaire, utilized both *measures of central tendency* and *variability*. The narrative that follows describes the nature of these measures and their use.

*Measures of central tendency* are statistical summaries of data. They are intended to reflect a single number, which represent other numbers, and indicate location. Most often used *measures of central tendency* are the *mean*, the *mode*, and the *median* as described below.

- ❖ *Mean* is a particularly informative indicator of central tendency for a variable if it is reported along with its confidence intervals. Usually, there is interest in statistics (such as the mean) from the sample only to the extent to which they are informative about the population. The larger the sample size, the more reliable its mean. The larger the variation of data values, the less reliable the mean.
- ❖ *Mode* of a sample is the value which occurs most frequently in the distribution. It is possible for outcomes to have two, three, or more values, which will occur with the same frequency. In these instances, the outcomes take the form of being bimodal, trimodal, etc.
- ❖ *Median* of a distribution is the value for which one-half (50%) of the observations (when ranked) will lie above that value, and one-half will lie below that value. When the number of values in the distribution is even, the median is computed as the average of the two middle values. Because the median is less sensitive to extreme scores than the mean, this makes it a better measure than the mean for highly skewed distributions. If the distribution of numbers is symmetrical, such as that of the bell curve, the mean and median will be equal. The calculation of the median however, using a *grouped frequency distribution* such as the *Likert-type 5-point rating scale*, constrains responses to a small set of discrete values when the underlying attribute being measured is really a continuous scale.

*Measures of Variability* depict the spread, or dispersion, of outcomes within a grouping. The measures of variability more formally show the deviation of the distribution from a central tendency measure such as the mean. *Standard deviation* and *variance* are the two most utilized measures of variation. Within the Study, the analyses of data employed the *standard deviation*.

*Standard Deviation* is a commonly used measure of variation and dispersion. This statistic tells us how tightly outcomes in a data set are clustered around the mean. The more the scores differ from the mean, the larger the standard deviation. The standard deviation of a population of values is utilized to calculate all of the data in a population. Knowing the mean and standard deviation of a sample, or a population, can provide location for most of the data values.

## BENEFITS

The MODL design provided multiple benefits of multiple methods [Appendix D] and data gathering approaches that allowed investigative and data depiction features, which were *descriptive*, *exploratory*, *explanatory*, and *confirmatory* as described below:

- ❖ *Descriptive* investigations depict phenomena in contrast with *quasi-experimental* studies where environments are controlled and subjects receive various treatments. Using words or numbers, descriptive research depicts conditions as they exist in the particular setting(s). The approaches in the MODL design essentially illustrate settings, activities, participants and extent of participation, and are designed to describe the characteristics of the target population under investigation. Generally, descriptive research designs may be classified as either qualitative and/or quantitative
- ❖ *Exploratory* investigations usually represent the initial steps of a research effort (Tashakkori and Tedlie, 1998). Essentially, researchers who utilize exploratory approaches seek to understand and describe relationships between identified outcomes or phenomena. As the term would suggest, exploratory investigations occur to clarify the scope of the research and help focus the research questions. One of the major benefits of these approaches is the viability to extrapolate ideas and insights. This, in turn, can lead to a familiarization with the problems or concepts under study, and the generation of research questions that are relied upon to guide a research project
- ❖ *Explanatory* investigations traditionally seek to convey an understanding of both anticipated and unanticipated patterns and relationships between observed outcomes. In empirical models, the rate of an event occurring varies according to a set of explanatory variables (Tashakkori and Tedlie, 1998). Although the Study did not employ the rigorous classical empirical assumptions of explanatory investigations (e.g., delineated independent variables), the MODL paradigm incorporated features to help clarify outcomes, rather than investigating causal links. This was accomplished in descriptive formats through the quantitative visual display of data (Miles and Huberman, 1988). These approaches permitted the depiction of experiences from the perspectives of diverse stakeholders and observed points of convergence and divergence in responses. The flexibility of the MODL design, however, allowed for the use of more than one case study to assess explanatory features. This aligns with explanatory, or descriptive studies, that generally require multi-site case studies to search for patterns or themes, and histories and ethnographies to understand the meaning of the experiences of the participants in the culture. Both exploratory and explanatory features of the MODL design helped identify the concepts and the bases for measurement, and were very appropriate for early stages of the research. Explanatory approaches in the MODL design facilitated *triangulation*, or the use of multiple methods (both qualitative and quantitative) to cross-check each other, enhancing confidence in findings (Kerlinger, 1986; Dubin, 1978)

- ❖ *Confirmatory* investigations traditionally employ factor analyses, within the frameworks of empirical designs (Long, 1983). It was not the intention of the Study to incorporate strict interpretations of confirmatory analyses since it did not seek to prove hypotheses, empirical causality, or to employ predictive models. Nevertheless, the MODL design allowed for triangulations and various cross-validations resulting in confirmatory features particularly in qualitative approaches. These included surveys, observations and interviews. Site visits and classroom observations in schools maximized consistency, expanded on the survey outcomes, and also allowed the construction of case studies of individual schools. Results of the Study were additionally confirmed by the presence of comparison groups of students and associated testing outcomes

## RESEARCH QUESTIONS

An initial search and analyses of the literature resulted in listings of preliminary questions. These questions in turn formed a logical chain in identifying “relevant knowledge.” A more comprehensive review of over two hundred sources resulted in a more narrow definition, and the crafting of inherently interdisciplinary research questions pertaining to successful practices in educational settings. A review by multiple investigators further led to further refinement of the guiding questions for the Study, and resulted in a “consensus of wisdom” in support of the finalized form of the questions. [Appendix E] Important considerations ensured that the questions were concise, clear, focused, testable, and interrelated to one another. The research questions adopted for the Study were:

- ❖ What are the LEP, former LEP and non-LEP students’ academic performance as measured by state (Grades 3-5) assessments?
- ❖ What are the district leadership practices that facilitate academic and linguistic growth/success for language minority students?
- ❖ What are the campus leadership practices that facilitate academic and linguistic growth/success for language minority students?
- ❖ What are the characteristics of the teaching staff that facilitate academic and linguistic growth/success for language minority students?
- ❖ What are the effective teaching practices that facilitate academic and linguistic growth/success for language minority students?
- ❖ What are the characteristics of parents and parental involvement on the seven campuses?
- ❖ What are the characteristics of program(s) serving language minority students?

## SOURCES OF DATA

The multiple sources of data were elicited from five major sources. These included information from the Academic Excellence Indicator System (AEIS) reports from each of the four years referenced, and data from the Public Education Information Management System (PEIMS) data base. These data addressed campus and individual student performance on the TAAS for each of

the two Study cohorts, as well as the TEA peer campus group comparisons. In addition, data were obtained from interviews, survey questionnaires, and on-site visits to discern student and campus outcomes. Illustration 1 depicts the multiple sources of data features for the design:

**ILLUSTRATION 1**  
**MULTIPLE SOURCES OF DATA**



The AEIS reports are produced annually and contain detailed information, e.g., by subject, by grade, by ethnicity and by program type, regarding student and campus performance on individual campuses (6,000+), and by districts (1,000+) in the state. These comprehensive reports provide information such as student performance, demographic background on students, teacher, program and financial information. Student and campus performance, in addition to dropout rates and attendance, are used in the Texas Accountability System to assign accreditation ratings to campuses and school districts. AEIS reports were downloaded from the TEA web site for each campus in the Study. These reports were used to generate descriptions of the campuses within the Study as well as to validate student and campus performance.

Information regarding student performance included the percentage of students passing and mastering all objectives on each TAAS subtest. This enabled analyses by objective and by grade level for different student groups. It also allowed for the examination of performance by grade level over several years, as well as progress by students as a group (quasi-cohort). These data were used to confirm findings and to expand upon the level of detail contributing to the explanatory characteristics of the design. The outcomes reported in the Study relied exclusively on performance data of students who had been promoted from grade to grade since initial enrollment in Kindergarten as LEP, and as bilingual education program participants.

Principals were also asked to submit data available on oral language proficiency tests in English and Spanish for LEP students in Grades PreK-5, as the students progressed through the bilingual education program. This request for oral proficiency data was made in order to address one of the research questions of the Study, pertaining to the development of linguistic proficiency. In order for these data to be reliable, both pre and post test scores on each LEP student needed to be recorded by the LPACs during a given school year. Since many of the LEP students were administered an oral language proficiency test upon entering, progressing within, and/or exiting the bilingual education program, this process for data collection did not yield consistent and reliable campus data across the seven Study sites, except in one instance. The exception applied to the only campus with a Grade K-3 configuration and the results of the oral language proficiency of the LEP students at that campus [Scott Elementary] are presented in the final Study document.

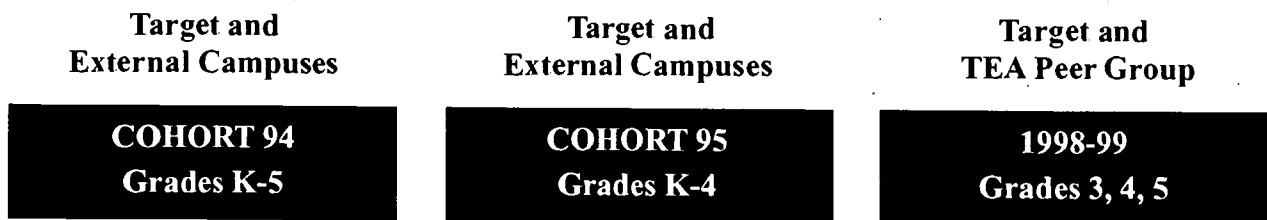
As part of the methodology, Study questions were matched on a grid with available sources of data. The documentation of processes enhanced the conduct of methods and contributed to the validity of the design by ensuring consistent applications.

## STUDENT COHORTS/COMPARISON GROUPS

The MODL approaches included both student cohorts and comparison groups on TAAS performance in examining student outcomes for the years in which data were available. Study [student] cohorts were formed from both target and external campuses based on enrollment in Kindergarten, classifications as LEP, and served in a bilingual education program for either of two years, i.e., 1994 Cohort and 1995 Cohort. Both student cohorts were tracked using a vertical progression model, until the data showed that students had transitioned from LEP to former LEP status. During the 97, 98 and 99 school years, TAAS data became available to assess performance of all students that continued in LEP status, had transitioned to former LEP, or were originally identified in the Study cohorts as never LEP. It is for these three years that Study or target campuses could be compared to the external campuses, whereas target campuses could only be compared with the peer campus group during the 1998-99 school year.

### ILLUSTRATION 2

#### STUDENT COHORTS/COMPARISON GROUPS



Since the MODL design did not employ strict *hypothetical-deductive* approaches, it was not concerned with measuring interventions, or in employing theoretical treatment and control groups. In profiling

student performance, the MODL design took advantage of two opportunities to utilize comparison, and not control groups. One of these opportunities presented itself as an initial limitation of the design. As within any cohort study, students may be lost over a significant period of time. This loss could have been a methodological concern for the Study, especially at the individual campus level. By utilizing the PEIMS data system at TEA, this was not a concern for the Study, since students could be tracked regardless of their location within a public school in Texas, either as LEP or former LEP. There were no problems in identifying the original cohorts of students through the assignment of student identification numbers. In this instance, students who left the target schools, but remained in an “external” campus within the state, actually provided strength to the Study. These students formed a general comparison group in contrast with those that remained in the original target schools participating in the Study.

Once again, it is not inferred, nor was it ever an intent of this Study to contend, that these identified students formed a true comparison, or control group, along the lines of theoretical *experimental*, or *quasi-experimental* designs. Any consideration of an empirically defined control group was further dispelled with the identification of most of the students who had transferred to another campus as being enrolled in a bilingual program.

A second opportunity presented itself with the formation of a TEA comparison campus group associated with each target school cohort. These comparisons between each Study cohort and the TEA peer campus comparison group added further rigor to the descriptive nature of the design. The collective TEA comparison campus groups had been computed by TEA as part of the Academic Excellence Indicator System (AEIS). They were derived by identifying a unique comparison group of 40 campuses, on the basis of six demographic characteristics defined in statute, and found to be statistically related to performance. The characteristics are:

- ❖ Percent of African American students enrolled for 1998-99
- ❖ Percent of Hispanic students enrolled for 1998-99
- ❖ Percent of White students enrolled for 1998-99
- ❖ Percent of economically disadvantaged students enrolled for 1998-99
- ❖ Percent of limited English proficient (LEP) students enrolled for 1998-99; and
- ❖ Percent of mobile students as determined from 1997-98 cumulative attendance

With the incorporation of target, external, and peer campus comparison groups, the MODL design allowed for four (4) different observations over time:

- ❖ Performance of the overall student population on the Study campuses as a composite group
- ❖ Performance of the Study campuses compared to the TEA comparison campus group
- ❖ Performance of the Study campuses examined individually
- ❖ Performance of the cohort group on the Study campuses compared to students in the cohort who transferred to other campuses on an intra or interdistrict basis

## OTHER FEATURES

Although the design of the Study had adopted some characteristics of *positivistic quasi-experimental* approaches, it conformed more in its direction to practices associated with the *naturalistic* inquiry paradigm. The uniqueness of the MODL design allowed for a comprehensive strategy in understanding and describing the nature of the educational and parental participation processes at the seven participating schools. Since the Study was more descriptive in nature, and did not pursue the testing of hypotheses, or the investigation of causality, the stringent controls associated with *quasi-experimental* designs are not evident.

The nature of the Study did not allow for the strict incorporation of *quasi-experimental* methods. For example, the *post-hoc* approaches to selected student data and availability of Study populations mitigated against random selection and assignment. The Study could not realistically consider these cohorts as theoretical classical control groups. Even if such theoretical control groups, governed by canons of *experimental* research were possible in reality, their formation [identification] could have raised challenges under federal and state statutes which prevent the deprivation of an appropriate program, e.g., educational treatment required for students with special needs. Instead, the Study employed contrast groups, i.e., external campus groups and peer campus comparison groups, which were composed of students that were matched with Study cohorts on target campuses, based on similar characteristics.

The next subsections address issues of validity and reliability pertaining to the Study. This manual makes no attempt to address the validities and reliabilities of the TAAS. Information pertaining to the nature and structure of the TAAS, including its background, development, reliability, validity, and other technical features are available in a series of Technical Digests for respective academic years that TAAS was administered. These digests are not included in this manual, but are available by contacting the Student Assessment Division at the Texas Education Agency.

## VALIDITIES

Technically, validity has been usually defined as the extent an instrument is actually designed to measure. As Cronbach (1971; also Chen and Rossi, 1987) had noted decades earlier, validity applies to the interpretation of data of outcomes from specified procedures. The focus on the validity of a design, an observation, or an instrument, reflects whether or not outcomes are true, identified and labeled appropriately. Several types of validities relate to the design of the Study. These include *instrumental*, *internal*, and *theoretical* validities.

- ❖ *Instrumental validity*, also called *criterion* and *pragmatic* validity, traditionally addresses whether or not generated observations from one instrument match those from an alternative measure (Kirk and Miller, 1986; Nunally, 1978;). Within the MODL framework, the definition refers to alternate procedures, rather than to different forms of the same measure. An example is the use of valid structured interviews referenced to the same criterion of a separately administered questionnaire. The employment of pattern identification, tracking, and matching of data outcomes added to the validity of instruments utilized by the Study. (Ragin, 1990; Trochim, 1985; Trudel and Antonius, 1991).



- ❖ *Internal validity* traditionally has been applied to causal studies and causal relationships. Within the MODL framework, it applies to the explanatory features of the paradigm by describing a chain of events that lead to observed conditions, rather than from spurious associations. (Kidder and Judd, 1986). For example, in the multiple case study methodology employed by the design, internal validity was discerned through: A) *pattern matching*, which revealed similarities in outcomes, b) *explanation building*, where the investigation focused on how and why the outcomes occurred across cases that eliminated rival explanations (Yin, 1994; Yin and Moore, 1984; Glaser and Strauss, 1967). This last condition anticipates that the outcomes were not the result of an earlier intervention.
- ❖ *Theoretical validity* occurs when substantial evidence arises to support the correspondence of outcomes to the theoretical paradigm. It also underlies and supports the concept of *instrumental validity*. (Kirk and Miller, 1986). Although the Study did not pursue the testing of hypotheses, there was evidence of *theoretical* or *construct* validity. There was substantial evidence in the Study, for example, to associate student outcomes and successful educational practices at the seven campuses with the Effective School Correlates (1998).

The three tests of validity of the Study are summarized below. Included are some of the Study strategies, based on a model developed by Yin (1994), that contributed to each particular validity of the Study. Each of the Study strategies contributed to the robustness of the design, and were in line with similar general concepts adopted from two sources: 1) the U. S. General Accounting Office (1990) of credibility, trustworthiness, data dependability, and confirmability and 2) Lincoln and Guba, (1985) credibility, transferability, dependability, and confirmability.

**TABLE I**  
**STUDY STRATEGIES FOR THREE TESTS OF VALIDITY**

| Validity                     | Study Strategies   |
|------------------------------|--|
| <i>Instrumental Validity</i> | Standardized methods and protocols<br>Multiple sources of data outcomes<br>Matching data from alternate processes              |
| <i>Internal Validity</i>     | Multiple sources of data outcomes<br>Pattern investigation<br>Logical chain of explanation for data outcomes                   |
| <i>Theoretical Validity</i>  | Multiple sources of data outcomes<br>Establishing chain of corresponding patterns<br>Matching patterned outcomes with paradigm |

## RELIABILITIES

The classic definition of reliability refers to the extent a measure yields the same results after repeated trials (Carmines and Zeller, 1979). Yin (1994) takes the definition further by noting that reliability addresses if another investigator, following the same procedures with comparable populations, would yield similar outcomes. Exclusive *experimental* or *quasi-experimental* designs have a propensity to pursue research intended to be confirmatory as proof of *generalizability*. When all goes well, the outcomes support reliability of an initial study. At times, external validity and reliability have been utilized in the same thought processes by definition of *generalizability*. Using Yin's definition, the independent replication of the event through the same procedures distinguishes it from external validity. In contrast, the multiple operations model allows for several views of both external validity and associated reliability. If one views each of the seven schools as individual entities, subject to the application of multiple investigators, the outcomes in student performance were similar from campus to campus, as were the successful practices associated with the performance. In the instance of the Study, the definition would apply to the stability of the design from one use to the next. From the perspective of the Study, outcomes seemed to support aspects of both *diachronic* and *synchronic* reliabilities:

- ❖ *Diachronic reliability* refers to the stability of observed outcomes over a period of time (Kirk and Miller, 1986). The concept calls for outcomes that need not be exactly identical, but similar over a period of time. Theoretically, in its strictest interpretation, the concept occurs when features and entities remain basically unchanged, posing problems for educational research. Within the context of the Study, the definition is not utilized in its strict isomorphic configuration of outcomes. Outcomes from the Study lend themselves to aspects of the concept over an observed period of time. Study campuses exhibited outcomes of student success over a number of years. Associated with this success over the same period were the applied successful school practices. The extent of their application was not an objective of the Study. Nevertheless, data outcomes revealed the consistent presence of these practices over the same time period for all seven campuses. In addition, some form of external validation of these efforts occurred over these years as these campuses displayed similar patterns of receiving either "Recognized" or "Exemplary" status from the TEA.
- ❖ *Synchronic reliability* refers to the similarity of outcomes within the same period of time. As with diachronic reliability, these outcomes need not be identical, but should reflect consistency (Bickman, 1986). Synchronic validity mimics internal validity where it can be determined through multiple sources of similar outcomes from different measures. However, these measures are consistently applied at different sites. In the instance of the Study, standardized approaches were applicable to all Study sites. Similar patterns of student success and effective educational practices were also evident within a framework of the same delineated periods of time across the seven campuses.

Both *diachronic* and *synchronic reliabilities* are reinforced when *interjudge reliability* is attained. *Interrater reliability*, or *interobserver reliability*, refers to the degree of consistency by observers in their ratings (De Vellis, 1991). This is usually conducted through determining the degree of agreement between respondents. From a qualitative perspective, the Study assessed the degree of

agreement of interview responses and outcomes from administered questionnaires. From a data analysis perspective, consistently small standard deviations indicated the degree of consistent agreement in analyzed responses.

The two tests of reliability for the Study are summarized below. As with the tests of validity, included are some of the Study strategies, based on a model developed by Yin (1994) that contributed to each particular reliability of the Study. Once again, each of the Study strategies contributed to the robustness of the design. These strategies also conformed to the general concepts previously noted.

**TABLE II**  
**STUDY STRATEGIES FOR TWO TESTS OF RELIABILITY**

| Reliability                   | Study Strategies   |
|-------------------------------|--|
| <i>Diachronic Reliability</i> | Applied standardized methods and protocols to individual sites               |
|                               | Multiple sources of data outcomes for a number of years                      |
|                               | Matching consistent data outcomes from individual sites                      |
|                               | Confirming   |
| <i>Synchronic Reliability</i> | Multiple sources of data outcomes within fixed period of time                |
|                               | Inter-site pattern investigations  |
|                               | Establishing chain of corresponding patterns                                 |
|                               | Confirming inferential consistency of data patterns for fixed period of time |

Further discussion of particular validities and reliabilities as they apply to data gathering approaches, such as the Teacher Questionnaire, Interviews, and Case Studies are provided in Appendix F of this document.

### III. SUMMARY OF STUDY FINDINGS

This section is intended to provide a listing of the findings that can be, or have been, documented from data and information contained in **The Texas Successful Schools Study: *Quality Education for Limited English Proficient Students*** final report and *post-hoc* analyses conducted by the Principal Investigator for the Study. As documentation to support the findings, several tables are also included in this section, immediately following the list of findings. Although the Study itself did not have a dedicated research effort to test hypotheses, causality, or seek to explain relationships beyond employing descriptive methods, a further “study of the Study” provided evidence to support the findings as listed below:

1. Hispanic enrollment in Texas increased as a percent of total enrollment from 31 percent in grade 12 to 42 percent in Kindergarten, indicating more Hispanic students are entering at the early grades. Conversely, the proportion of white students steadily decreased from Grade 12 to Kindergarten
2. Minority students represented 89 percent of all new student growth in Texas public schools over the four-year period reported, while non-minority students represented 11 percent of the new enrollment [Table III]
3. An analysis for a six-year period between 1991-92 and 1997-98 indicates that Texas public schools experienced an increase of 44 percent in the LEP population [Table IV]
4. Approximately 85 percent of all new LEP enrollment was evident in six of the twenty service center areas; all in urban or statistical metropolitan areas [Table IV]
5. Seventy-seven percent (77%) of all new LEP students were enrolled at the elementary grade levels in 1997-98. [Table V]
6. The categories utilized for LEP student identification in six of the seven Study sites were “Beginner,” “Intermediate” and “Advanced”
7. The program offering for LEP students was enhanced by coordinating different funding categories that included the Foundation adjusted basic allotment; Bilingual allotment (10% of the adjusted basic allotment), State Compensatory Allotment (20% of the adjusted basic allotment), Title I Regular/Migrant, Title VII Bilingual Education, and the Emergency Immigrant Education Program
8. Based on questionnaire responses, over 91 percent of teachers assigned to the LEP population at the seven study sites were Hispanic
9. Based on the numbers and percentages of actual questionnaire responses received, 85 percent to 100 percent of the teachers were trained in bilingual methods; trained in language assessment; knowledgeable of the benefits of second language learning, and confident in their training to address the needs of LEP students [Table VI]

10. The results of two of the assessment features surveyed for the Study show that there is a tendency to assess English proficiency more often than Spanish proficiency. According to the Rules of the Commissioner, e.g., 19 TAC Chapter 89 SubChapter BB, assessment of LEP students in English is required to reclassify students who meet the required exit criteria to Non-LEP status. This procedural requirement invariably results in a greater effort to assess the English language than there is to assess the Spanish language
11. The results of the questionnaire on instructional practices indicate that there appear to be more teachers that have a system to provide English instruction than those who have a system to provide Spanish instruction. In the absence of an item analysis of the teacher questionnaire by teacher and grade levels, it is not possible to document if the responses were from teachers in the upper grades, e.g., 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup>. It is at these grade levels that LEP students, who have been in the bilingual education program for four and five years, begin their transition to the second language (English). At this transition point, the instructional focus is usually in the English language
12. While it may appear that the number of new teachers hired, in comparison to the number of new students enrolled in Texas public schools, is adequate to address the problem of teacher shortages, such is not the case. When attention is focused on where the new students are enrolling, and who the new students are, the total state picture of teacher increases does not align with the changing student demography [Tables VII-VIII]
13. All of the principals of the seven Study sites were Hispanic women with mid-management, elementary and bilingual education certification. Six of the seven administrators had over 20 years of total experience, and one had between 15 to 19 years experience. All of the principals have had administrative experience with bilingual education programs as part of the administrative responsibilities, and all had more than 5 years experience teaching in a bilingual classroom [Table IX]
14. Texas is experiencing a teacher shortage that is a serious and growing problem. The certification programs are not producing enough teachers, both to staff increased enrollment and replace teachers who are promoted, or leave the profession
15. Bilingual education was provided to the LEP students as integral parts of the regular school program in all seven Study sites
16. The Study sites implemented the appropriate program by focusing on the cognitive, linguistic and academic domains to ensure that LEP students become competent in the comprehension, speaking, reading and composition of the English language
17. The academic performance of 3<sup>rd</sup> Grade LEP students in the seven Study campuses significantly exceeded the performance of 3<sup>rd</sup> Grade LEP students in the cohort comparison group in external campuses
18. The academic performance of former LEP students in 5<sup>th</sup> Grade in the seven Study campuses exceeded the performance of 5<sup>th</sup> Grade former LEP students in the cohort comparison group in external campuses

19. The most significant difference in 5<sup>th</sup> Grade academic performance between former LEP students in the seven Study campuses and former LEP students in the cohort of external campuses, was noted when students had been in the bilingual education program for 5 and 6 years. This difference in academic performance in favor of the target LEP population is evidence of the sustained effects of the bilingual education program provided in all of the seven Study schools. [Note: Since the LEP cohorts for the Study were based on Kindergarten enrollment, LEP classification and bilingual education program participation in PreKindergarten were not included in the number of years reflected in the performance graphics in Appendix C.
20. In the *Late-Exit* model, the exiting of LEP students was more evident in Grade 4 and Grade 5, after students had been in the bilingual education program for 6 and 7 years
21. Each of the seven Study sites were above the state average on teacher to pupil ratio in 1997-98; six of the seven sites were also above the state average on teacher to pupil ratio in 1996-97, and five of the seven sites were above the state average on teacher to pupil ratio in 1995-96
22. Three of the Study sites were above the state average on instructional per pupil expenditures for each of the three years targeted by the study; two of the Study sites were below the state average on instructional per pupil expenditures for each of the three years, and the remaining two campuses were below the state average in at least one of the three years targeted by the Study
23. Although all of the seven Study sites reported a teacher-to-pupil ratio above the state average in 1997-98, six of the Study sites were rated as “exemplary,” and one was rated “recognized”
24. Transition criteria from Spanish to English was accomplished by using both languages as mediums of sequential instruction in the affective, cognitive and linguistic domains
25. Transition to all-English language instruction was not evident for LEP students in the “Beginner” level
26. LEP students were classified as English proficient, e.g., Non-LEP when scoring at or above the 40<sup>th</sup> percentile on the English reading and English language arts sections of a norm-referenced assessment instrument, or at the end of the school year in which a student would be able to participate equally in a regular all-English instructional program as evidenced by mastery of the criterion-referenced assessment instrument (TAAS) requirement as found in the *Texas Education Code*
27. Eighty-seven percent (87%) of all teachers reported educational experience ranging from 5 to 20 years; 83 percent of all teachers reported bilingual education experience ranging from 5 to 20 years.
28. Eighty-nine (98%) of the 91 teachers that responded indicated they assessed the levels of both primary language (Spanish) and English to ensure an appropriate instructional focus. Of the 89 teachers, 82 (93%) indicated they did the assessment on an on-going basis during the school year
29. Eighty-seven (87%) to 100 percent of the teachers across the seven Study sites indicated they modified instruction and placement of LEP students upon receiving new information from on-going assessments

30. When responding to allowing LEP students to express themselves in Spanish versus English, the responses indicate almost equal results with 86 (95%) responding "Yes" to Spanish, and 87 (96%) responding "Yes" to English. These results document that both languages were given equitable prestige
31. Principal and district leadership support for LEP students received almost equal responses, with principal support having 84 (94%) "Yes" responses, and district leadership support having 82 (93%) "Yes" responses
32. Eighty-five percent (85%) of the teachers surveyed indicated that parental involvement helped LEP students advance in academic development, and 75% of the same teachers rated parental involvement as helping LEP students advance in their language development
33. The cumulative total for training that was viewed as having most impact on the teachers' professional development was the local district training, when the district brought in "experts" in the field of bilingual education or other curriculum areas. District staff development provided by the teachers' district staff was rated as second highest, followed by university preparation [Table X]
34. Teacher preparation, staff training and administrative support were ranked by teachers as the three top factors that contributed to LEP student success [Table XI]
35. The success of the seven Study sites can be attributed to teacher and principal characteristics/ experience, campus and district leadership and support, and focused staff development. Value-added characteristics that contributed to enhancement of programs for LEP students include appropriate assessment features, effective instructional and implementation practices, and comprehensive parent involvement

**TABLE III**

**ETHNIC BREAKDOWN OF NEW ENROLLMENT (1993-94 TO 1997-98)**

| Ethnicity             | Gains in New Enrollment | Representative Percentage of Total Gains |
|-----------------------|-------------------------|--|
| White                 | 32,332                  | (11%)                                    |
| Hispanic              | 195,564                 | (67%)                                    |
| African American      | 44,999                  | (16%)                                    |
| Asian/Native American | 17,143                  | (06%)                                    |
| <b>TOTAL</b>          | <b>290,038</b>          | <b>(100%)</b>                            |

\* Source: TEA: Public Education Information Management System [PEIMS]

Table III shows that White students represented 11 percent of new student enrollment (290,038) from 1993-94 to 1997-98; Hispanics accounted for 67 percent of new student growth; African American students represented 16 percent of the increase, and Asian and Native American

enrollments combined represented 6 percent of the growth. When considering the demographic characteristics of the student data presented in Table III, it should be noted that minority students represented 89 percent of all new student growth in Texas public schools over the four-year period analyzed, while non-minority students represented 11 percent of new enrollment.

**TABLE IV:  
GEOGRAPHIC CONCENTRATION OF  
LEP POPULATION BY EDUCATION SERVICE CENTER**

| Region           | 1991-92        | 1997-98        | Plus or (Minus) | Percentage   | *Percentage of State Growth |
|------------------|----------------|----------------|-----------------|--------------|-----------------------------|
| 1 Edinburg       | **99,918       | 115,842        | 15,924          | 16           | 10.000                      |
| 2 Corpus Christi | 8,612          | 6,608          | (2,004)         | (23)         | N/A                         |
| 3 Victoria       | 1,777          | 2,696          | 919             | 52           | .006                        |
| 4 Houston        | **80,516       | 129,715        | 49,199          | 61           | 31.000                      |
| 5 Beaumont       | 1,531          | 2,567          | 1,036           | 68           | .007                        |
| 6 Huntsville     | 2,927          | 6,674          | 3,747           | 128          | .020                        |
| 7 Kilgore        | 3,235          | 8,094          | 4,859           | 150          | .030                        |
| 8 Mt. Pleasant   | 785            | 2,075          | 1,290           | 164          | .008                        |
| 9 Wichita Falls  | 489            | 1,142          | 653             | 134          | .004                        |
| 10 Richardson    | **40,344       | 78,335         | 37,991          | 94           | 24.000                      |
| 11 Ft. Worth     | **15,643       | 32,463         | 16,820          | 107          | 11.000                      |
| 12 Waco          | 2,253          | 5,853          | 3,600           | 160          | .020                        |
| 13 Austin        | 11,144         | 18,092         | 6,948           | 62           | .040                        |
| 14 Abilene       | 1,301          | 1,465          | 164             | 12           | .001                        |
| 15 San Angelo    | 3,008          | 3,695          | 687             | 23           | .004                        |
| 16 Amarillo      | 4,202          | 6,599          | 2,397           | 57           | .015                        |
| 17 Lubbock       | 4,950          | 4,873          | (77)            | (.015)       | N/A                         |
| 18 Midland       | 8,806          | 10,515         | 1,709           | 19           | .011                        |
| 19 El Paso       | **36,932       | 48,267         | 11,335          | 31           | .070                        |
| 20 San Antonio   | **32,754       | 34,351         | 1,597           | .05          | .010                        |
| <b>TOTALS</b>    | <b>361,127</b> | <b>519,921</b> | <b>158,794</b>  | <b>***44</b> | <b>100.000</b>              |

Source: TEA PEIMS Fall 1991-92—1997-98

\* Percentages may not equal 100 due to rounding

\*\* Regions with highest concentration of LEP students (306,107) equal to 85 percent of state total of 361,127 in 1991-92

\*\*\* Although total state growth was 44 percent overall, these same regions maintained the highest concentration of LEP students as they continued to enroll 84 percent of all new LEP students



**TABLE V**  
**GRADE SPAN DISTRIBUTION OF**  
**LEP STUDENT POPULATION IN TEXAS**

| Grade Spans   | Enrollment     |                | Numbers and Percentages of Increases |                                   |
|---------------|----------------|----------------|--------------------------------------|-----------------------------------|
|               | 1991-92        | 1997-98        | C                                    | D                                 |
|               | A              | B              | Total LEP Student Increases          | *% of Total LEP Student Increases |
| EE-EL/PreK-5  | 249,147        | 371,673        | +122,526                             | 77%                               |
| MS 6-8        | 57,301         | 81,729         | +24,428                              | 15                                |
| HS 9-12       | 54,679         | 66,519         | +11,840                              | 8%                                |
| <b>TOTALS</b> | <b>361,127</b> | <b>519,921</b> | <b>+158,794</b>                      | <b>100%</b>                       |

Source: TEA POCKET EDITION 1991-92—97-98; PEIMS Fall Data 1991-92—97-98

\* Percentage is calculated by dividing total for each grade span in column (C) by total for all grade spans (158,794) in column (C)

**TABLE VI**  
**TEACHER CHARACTERISTICS**

|           |    |       |   |
|-----------|----|-------|---|
| Yes       | 88 | 94.6% | 3. I am trained in bilingual methods and materials 1) Uncertain 2) No, or 3) Yes  |
| No        | 1  | .1%   |   |
| Uncertain | 1  | 1.1%  |   |
| Missing   | 3  | 3.2%  |   |
| Total     | 93 | 100%  |   |
| Yes       | 76 | 81.7% | 4. I am trained in language assessment: 1) Uncertain 2) No, or 3) Yes   |
| No        | 6  | 6.5%  |   |
| Uncertain | 4  | 4.3%  |   |
| Missing   | 7  | 7.5%  |   |
| Total     | 93 | 100%  |   |
| Yes       | 91 | 97.9% | 5. I understand the benefits of second language learning for limited English Proficient students: 1) Uncertain 2) No, or 3) Yes |
| No        | 0  | n/a   |   |
| Uncertain | 0  | n/a   |   |
| Missing   | 2  | 2.2%  |   |
| Total     | 93 | 100%  |   |
| Yes       | 86 | 92.5% | 6. I am confident in my training to address the needs of limited English proficient students: 1) Uncertain 2) No, or 3) Yes     |
| No        | 2  | 2.2%  |   |
| Uncertain | 1  | 1.1%  |   |
| Missing   | 4  | 4.3%  |   |
| Total     | 93 | 100%  |   |

**TABLE VII**  
**ETHNIC BREAKDOWN OF NEW TEACHER INCREASES IN TEXAS**  
**(1993-94 TO 1997-98)**

| <b>Ethnicity</b>      | <b>Gains in New Hires</b> | <b>Representative Percentage of Total Gain</b> |
|-----------------------|---------------------------|--|
| White                 | 17,190                    | 50%  |
| Hispanic              | 7,726                     | 28%  |
| African American      | 2,100                     | 8%   |
| Asian/Native American | 981                       | 4%   |
| <b>TOTAL</b>          | <b>27,997</b>             | <b>100%</b>                                    |

**TABLE VIII**  
**COMPARISON OF NEW STUDENT ENROLLMENT**  
**TO NEW TEACHER INCREASES IN TEXAS**

| <b>Ethnicity</b>      | <b>New Enrollement Total for 1997-98</b> | <b>New Teacher Totals 1997-98</b> | <b>Difference Shortage/Surplus</b> |
|-----------------------|--|-----------------------------------|------------------------------------|
| White                 | 32,332 (11%)                             | 17,190 (61%)                      | +55%                               |
| Hispanic              | 195,564 (67%)                            | 7,726 (28%)                       | -39%                               |
| African American      | 44,999 (16%)                             | 2,100 (8%)                        | -8%                                |
| Asian/Native American | 17,143 (0.6%)                            | 981 (4%)                          | +3.4%                              |
| <b>TOTALS</b>         | <b>290,038</b>                           | <b>27,997</b>                     | <b>N/A</b>                         |

**TABLE IX**  
**PROFILE OF CAMPUS ADMINISTRATORS AT STUDY SITES**

| <b>Campus</b> | <b>Highest Degree</b> | <b>Certification</b>   | <b>Yrs. in Prof. Ed.</b> | <b>Yrs. in Adm.</b> | <b>Yrs. in Bilingual Adm.</b> | <b>Yrs. Teaching Experience</b> | <b>Yrs. Experience in Teaching Bilingual Ed.</b> |
|---------------|-----------------------|--|--------------------------|---------------------|-------------------------------|---------------------------------|--|
| Bowie         | Masters +             | *Mid-Mgmt.<br>Bilingual<br>Elem. Ed.                                   | 20+<br>years             | 15-19<br>years      | 15-19<br>years                | 5-9<br>years                    | 5-9<br>years                                     |
| Campestre     | Masters +             | Mid-Mgmt.<br>Bilingual<br>Elem. Ed.<br>Secondary<br>Ed.<br>(Spanish)   | 15-19<br>years           | 5-9<br>years        | 5-9<br>years                  | 10-14<br>years                  | 5-9<br>years                                     |
| Castañeda     | Masters +             | Mid-Mgmt.<br>Bilingual<br>Elem. Ed.                                    | 20+<br>years             | 10-14<br>years      | 10-14<br>years                | 15-19<br>years                  | 10-14<br>years                                   |
| Clover        | Masters +             | Mid-Mgmt.<br>Bilingual<br>Elem. Ed.<br>Early Child.                    | 20+<br>years             | 5-9<br>years        | 5-9<br>years                  | 20+<br>years                    | 15-19<br>years                                   |
| LaEncantada   | Masters +             | Mid-Mgmt.<br>Bilingual<br>Elem. Ed.                                    | 20+<br>years             | 5-9<br>years        | 5-9<br>years                  | 10-14<br>years                  | 10-14<br>years                                   |
| Kelly         | Masters +             | Mid-Mgmt.<br>Bilingual<br>Elem. Ed.                                    | 20+<br>years             | 10-14<br>years      | 10-14<br>years                | 20+<br>years                    | 10-14<br>years                                   |
| Scott         | Masters +             | Mid-Mgmt.<br>Bilingual<br>Reading<br>Elem. Ed.<br>Sp. Ed.<br>(Spanish) | 20+<br>years             | 20 +<br>years       | 20+<br>years                  | 5-9<br>years                    | 20+<br>years                                     |

\*Mid-Management

**TABLE X**  
**RANK AND ORDER OF**  
**PROFESSIONAL DEVELOPMENT OPPORTUNITIES**

| <b>Response</b>                              | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>Cumulative Total</b> |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------------------|
| Local Staff Development Contract Experts     | 16       | 31       | 8        | 13       | 11       | 0        | 2        | 0        | 0        | 587 pts.                |
| Staff Development District Staff             | 19       | 19       | 16       | 13       | 7        | 2        | 0        | 1        | 0        | 558 pts.                |
| Univ. Teacher Preparation                    | 27       | 8        | 14       | 7        | 10       | 7        | 2        | 2        | 4        | 539 pts.                |
| ESC-Staff                                    | 4        | 17       | 20       | 22       | 12       | 4        | 1        | 1        | 1        | 526 pts.                |
| ESC-Contract Experts                         | 11       | 7        | 18       | 15       | 20       | 1        | 0        | 1        | 1        | 438 pts.                |
| Staff Development Professional Organizations | 1        | 4        | 2        | 0        | 13       | 30       | 4        | 2        | 6        | 262 pts.                |
| Other Annual State Conferences               | 2        | 1        | 2        | 4        | 3        | 1        | 14       | 29       | 1        | 184 pts.                |
| TEA-Sponsored State Conferences              | 0        | 2        | 5        | 0        | 1        | 7        | 20       | 6        | 9        | 165 pts.                |
| National Conferences                         | 0        | 3        | 0        | 0        | 2        | 4        | 2        | 11       | 31       | 109 pts.                |

**TABLE XI**  
**FACTORS CONTRIBUTING TO LEP STUDENTS'**  
**SUCCESS/RANKING OUTCOMES**

|                                      | <b>First Place</b> | <b>Second Place</b> | <b>Third Place</b> | <b>Fourth Place</b> | <b>Fifth Place</b> | <b>Total Points</b> |
|--------------------------------------|--------------------|---------------------|--------------------|---------------------|--------------------|---------------------|
| Teacher Preparation                  | 29                 | 30                  | 14                 | 7                   | 2                  | 323                 |
| Staff Training                       | 31                 | 19                  | 10                 | 9                   | 4                  | 283                 |
| Administrative Support               | 9                  | 2                   | 15                 | 13                  | 18                 | 142                 |
| Parental Involvement                 | 5                  | 4                   | 5                  | 16                  | 16                 | 104                 |
| Grouping for Instructional Purposes  | 7                  | 3                   | 8                  | 4                   | 6                  | 85                  |
| Latitude/ Empowered In Teaching      | 2                  | 10                  | 0                  | 7                   | 8                  | 72                  |
| Materials and Resources              |                    |                     | 9                  | 14                  | 5                  | 60                  |
| Team Teaching                        | 2                  | 3                   | 4                  | 2                   | 3                  | 41                  |
| Structured Schedule                  |                    |                     | 10                 | 3                   | 5                  | 41                  |
| Technology                           |                    |                     | 5                  | 2                   | 11                 | 30                  |
| Team Planning                        | 1                  | 1                   | 2                  | 2                   | 0                  | 19                  |
| Ongoing Feedback to Students/Parents |                    |                     |                    | 2                   | 2                  | 6                   |
| Assessment                           |                    |                     |                    | 1                   | 1                  | 3                   |

## IV. EVALUATION OF THE STUDY

Part of the Study design allows for the use of an evaluation questionnaire to elicit feedback on a continuous basis, as may be provided by educators and non-educators, who read or use the Study on an intrastate and interstate basis. A copy of the evaluation form is found at the end of the Study to be returned to TEA by one of several means as described herein.

The evaluation section, copy of which can be found in Appendix G of this document, consists of three parts. The first part addresses respondents' residence within and outside of Texas. Part I solicits information from respondents regarding types of employment, or whether respondents are parents, guardians, and retirees. Part II has been developed to collect data regarding years of experience respondents had in various sectors and levels of education. The six categorical response modes range from zero (0) years to over twenty years (20+) of experience. Part III is divided into five subsections. All respondents are requested to complete the first subsection of Part III. This subsection asks five (5) questions to ascertain respondents' opinions of the Study. The ten questions in the second subsection are intended only for school district administrators (Central Administration), which are designed to collect the opinions and views of the Study from these respondents. The twelve (12) questions of the third section are similar to those in the two preceding subsections, but are intended only for school district campus administrators. These three sections provide a *polytomous* mode of response (Yes/ No/ No Opinion). The fourth subsection of Part III, allows the school district and campus administrators to rank the contents of the Study in order of priority, from one (1) as the highest, to ten (10) as the lowest rank. The fifth subsection, which uses an open-ended response mode, elicits optional additional comments from all respondents.

Additionally, an interactive format of the evaluation form was developed and placed on the TEA website as part of the Study PDF format. Both the Study and Interactive Evaluation can be downloaded from the website by going to <http://www.tea.state.tx.us/tss>. This interactive format is described below.

The Interactive Evaluation form is an innovative approach in obtaining feedback about the Study. The question and response mode of the form consists of the same three major parts found in the published copy of the Study. The responses can be entered on the interactive web page, or mailed in as a hard copy of a downloaded version of the evaluation form. Upon accessing the evaluation form, respondents are then guided through a series of screens. As respondents answer questions that may apply in the different parts, they are then prompted forward to the next screen until the evaluation is completed. The screens are respondent-sensitive so that particular sectors, such as teachers, school district, or campus administrators are prompted to their respective subsections. Evaluation data received are quantified, together with those responses from mailed questionnaires on an ongoing basis. It is anticipated that an annual summary report will be published by the Program Evaluation Unit. The summary report will be based on the evaluation responses obtained from persons who have utilized and benefited from the Study report.

Through the Agency's webtrend reporting system, the Program Evaluation Unit is able to obtain periodic reports to monitor the number of times that the Study is accessed and downloaded via the web site. Since the posting of the Study on the TEA web site in September 6, 2000, reports indicate that the Study has had over eleven thousand (11,000) downloads of the entire Study document of 212 pages.

APPENDIX A

**STUDY QUESTIONNAIRES  
AND INTERVIEWS**



**Texas Education Agency  
Successful Schools Study**

**TEACHER QUESTIONNAIRE**

Using a #2 pencil only, fill-in each oval completely. Please complete the Successful Schools Survey Form using the various Likert Scales found in the various sections of the form.

1. My highest educational level is best described as (Mark only one selection):
  - 1 = Non-degreed
  - 2 = Associate
  - 3 = Bachelor
  - 4 = Masters
  - 5 = Masters Plus Additional Hours
  - 6 = Doctorate
  
2. I am assigned to the following grade level (Mark only one selection):
  - PK
  - K
  - 1st grade
  - 2nd grade
  - 3rd grade
  - 4th grade
  - 5th grade
  
3. Total number of professional years in Education:
  - Less than 5 yrs.
  - 5-9 yrs.
  - 10-14 yrs.
  - 15-19 yrs.
  - 20+yrs.
  
4. How many years have you taught in Bilingual Education?
  - Less than 5 yrs.
  - 5-9 yrs.
  - 10-14 yrs.
  - 15-19 yrs.
  - 20+yrs.
  
5. What type of class/structure did you teach in during the 95-96 school year (Select only one)?
  - Self-contained
  - Departmentalized
  - Resource
  - Multi-age
  - Other
  
6. What type of class/structure did you teach in during the 96-97 school year (Select only one)?
  - Self-contained
  - Departmentalized
  - Resource
  - Multi-age
  - Other

7. What type of class/ structure did you teach in during the 97-98 school year? (Select only one)
  - Self-contained
  - Departmentalized
  - Resource
  - Multi-age
  - Other
8. How many of your classes involved limited English proficient (LEP) classes?
  - All
  - Three-fourths
  - Half
  - One-fourth
  - None
9. What is your proficiency level in Spanish?
  - Very Fluent
  - Fluent
  - Average
  - Below Average
  - No fluency

The following items (10-21) are to be answered with Y=Yes, N=No, or U=Uncertain

10. I am assigned to a bilingual education class.
11. I was assigned to Bilingual Education during the 95-96 school year.
12. I was assigned to Bilingual Education during the 96-97 school year.
13. I was assigned to Bilingual Education during the 97-98 school year.
14. I possess a Bilingual Teacher Certificate.
15. I possess an ESL Teacher Certificate.
16. I possess an Elementary Teacher Certificate.
17. I possess a Secondary Teacher Certificate.
18. I possess a Supervisor Certificate.
19. I possess a Mid-Management Certificate.
20. I possess a Diagnostician Certificate.
21. I possess a Certificate that is not mentioned in this survey.
22. My ethnic background is
  - Hispanic
  - Caucasian (Non-Hispanic)
  - African American
  - Other

23. My gender is M = Male F = Female

Please fill in the oval completely using the following: Y=Yes N=No U=Uncertain

24. I am trained in bilingual methods and materials.

25. I am trained in language assessment.

26. I understand the benefits of second language learning for limited English proficient students.

27. Parents of limited English proficient students at our campus understand the benefits of our special programs.

28. I used Spanish most of the time to teach my limited English proficient students.

29. I grouped my limited English proficient students for Spanish according to language proficiency in their primary language (Spanish).

30. I grouped my limited English proficient students for English instruction according to language proficiency in their second (English)

31. Limited English proficient students in my classes were allowed to express themselves in their primary language (Spanish) during teacher and group interaction.

32. Limited English proficient students in my classes were encouraged to express themselves in their second language (English) during teacher and group interaction.

33. I assessed the levels of both primary language (Spanish) and English to ensure appropriate instructional focus.

34. The language levels of my limited English proficient students were assessed on an ongoing basis during the school year.

35. Upon receiving new information from the ongoing language assessments, I modified my instruction and placement of my limited English proficient students.

36. The academic levels of my limited English proficient students were assessed on an ongoing basis during the school year.

37. I introduced concepts in the primary language (Spanish) and extended or enriched in English.

38. I am confident in my training to address the needs of limited English proficient students.

39. I was trained through a university/college teacher-training program that prepared teachers to work with the limited English proficient student population

40. I was trained primarily through staff development and in-service to work with the limited English proficient population.

41. My principal provided adequate support for my limited English proficient students.

42. The District leadership provided adequate support for my limited English proficient students.

43. I participated in program decision-making affecting my limited English proficient students.

Using the following scale, please indicate the level of implementation of each of these strategies as follows:

A=All of the Time; M=Most of the Time, S=Some of the Time; R=Rarely, N=Never

46. I provide second language instruction, which develops understanding, speaking, reading, and writing skills in English.
47. I provide language arts in Spanish, which includes understanding, speaking, reading, and writing skills.
48. I provide instruction in Spanish in math, science, social studies, and health.
49. I include the teaching of culture in all aspects of the instructional program.
50. I have a system to provide English instruction to the students with varying levels of language proficiency and academic experience.
51. I have a system to provide Spanish instruction to the students with varying levels of language proficiency and academic experience.
52. I group students according to Spanish language ability for Spanish language arts instruction.
53. I group students according to English language ability for English language arts instruction.
54. I assess the students' oral and written proficiency in English on an ongoing basis.
55. I assess the students' oral and written proficiency in Spanish on an ongoing basis.
56. I have a classroom environment that reflects the students' culture and learning in two languages.
57. I have meaningful parent participation in my class.
58. I am aware of my students' English language ability early in the school year.
59. I am aware of my students' Spanish language ability early in the school year.
60. I have clear time allotments for time on task for the content to be taught in English.
61. I have clear time allotments for time on task for the content to be taught in Spanish.
62. I encourage my students to take responsibility for their own class work.
63. I prepare my students for lessons by reviewing, outlining, explaining objectives, and summarizing.
64. I adjust my teaching pace according to the students' perceived needs.
65. I am positive, optimistic, and have high expectations of my students.

Please answer the following

1. Of those listed below which training opportunities/participation has contributed the most to your professional development to teach limited English proficient students? Please Rank and Order starting with 1,2,3, all the way to 9 with number 1 being the one you feel has most effectively contributed to your professional growth.

- \_\_\_\_\_ university training as part of the teacher preparation program
- \_\_\_\_\_ local in-service /staff development provided by school district staff
- \_\_\_\_\_ local in-service/staff development provided by “experts in the field” under contract
- \_\_\_\_\_ staff development offered by staff of your respective education service centers
- \_\_\_\_\_ staff development offered by your respective service center using “experts in the field” under contract
- \_\_\_\_\_ staff development offered by professional organizations in the area. List organization (s) \_\_\_\_\_
- \_\_\_\_\_ state conferences: co-sponsored by the Texas Education Agency, such as Migrant, ACET, etc
- \_\_\_\_\_ other annual state conference(s) List conference(s) \_\_\_\_\_
- \_\_\_\_\_ other national conference(s) List conference(s) \_\_\_\_\_

2. What five things contributed the most to the academic success of your limited English proficient students? (Examples: staff training, teacher preparation, materials latitude in teaching, structured schedule, parent involvement, administrative support, grouping for instructional purposes, team-teaching, instructional technology, resources, other. Please rank them in order by what you consider as most important first, second important next, and so on.)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Please answer the following. (If you need more space, continue on the back of the sheet. Remember to identify each response on the back with appropriate question number)

1. What program(s) at your campus contributed to the academic success of your limited English proficient students?
2. What approaches/practices have you utilized to ensure language development of your limited English proficient students?
3. a) What approaches/practices have you utilized to ensure the academic success of your limited English proficient students?  
b) What specific training have you received that has contributed to your professional development to impact on the academic development of the limited English proficient students in your classroom?

4. a) How long did your limited English students remain in the program (s) that contributed to their academic success? (One year, two years, three years, etc.)  
b) Why?
5. What can your education service center and the Texas Education Agency Do to help educators and administrators do an even better job of educating the language minority populations in Texas?
6. What are the most effective ways parents worked with the limited English Proficient students at your campus?
7. How did you utilize parents with your limited English proficient students in your classroom?
8. In what ways did your campus administration contribute to the success of your Limited English proficient students?

Please feel free to use this space for any additional comments:

## PRINCIPAL QUESTIONNAIRE

**Instructions to all respondents:** Please respond to each of the questions and items indicated below. Please be assured that the identity of individual *principals will be held in confidentiality*. **Your responses are not based on the current school year.** Your responses are to be based **on the 1996-97 school year.** Please complete this questionnaire, place it in the envelope upon completion and seal it. A member of TEA's Study team will visit on-site on the designated date to assist you in the completion of this document and collect the information. Your professional contributions and time devoted to the Study are greatly appreciated. Thank you for your efforts.

Name \_\_\_\_\_ District \_\_\_\_\_

Campus Name: \_\_\_\_\_

Current Position: \_\_\_\_\_

Ethnicity: \_\_\_\_\_ Gender: Male Female

Education Level: Bachelor\_\_\_ Master\_\_\_ Master+\_\_\_ Doctorate\_\_\_

Certification: Administration (Please list certification(s)): \_\_\_\_\_

Bilingual Education \_\_\_\_\_ Other (Please list:) \_\_\_\_\_

Total number of professional years in Education: less than 5 yrs. \_\_\_ 5-9 \_\_\_ 10-14 \_\_\_ 15-19 \_\_\_ 20+ \_\_\_

Total number of years in Administration: less than 5 yrs. \_\_\_ 5-9 \_\_\_ 10-14 \_\_\_ 15-19 \_\_\_ 20+ \_\_\_

Administrative experience in Bilingual Education: less than 5 yrs. \_\_\_ 5-9 \_\_\_ 10-14 \_\_\_ 15-19 \_\_\_ 20+ \_\_\_

Administrative experience at this campus: less than 5 yrs. \_\_\_ 5-9 \_\_\_ 10-14 \_\_\_ 15-19 \_\_\_ 20+ \_\_\_

Total number of years of Teaching experience: less than 5 yrs. \_\_\_ 5-9 \_\_\_ 10-14 \_\_\_ 15-19 \_\_\_ 20+ \_\_\_

Teaching experience in Bilingual Education: less than 5 yrs. \_\_\_ 5-9 \_\_\_ 10-14 \_\_\_ 15-19 \_\_\_ 20+ \_\_\_

Please answer the following (If you need more space, continue on the back of the sheet. Please remember to identify each response on the back with the appropriate question number).

1. What program(s) contributed to the academic success of the limited English proficient (LEP) students in your campus?
2. What made your teachers successful with their LEP students?
3. What approaches/practices have you utilized through site-based decision-making that contributed to the success of your limited English proficient students?

4. a) What specific training have you received that has contributed to your professional development to impact on the language development of the language-minority population in your classroom?
- b) What specific training have you received that has contributed to your professional development to impact on the academic development of the language-minority population in your classroom?
5. a) How long did your LEP students remain in the program(s) that contributed to their academic success?
- b) Why?
6. What can your education service center and the Texas Education Agency do to help you and your staff do an even better job of educating your LEP students?
7. What are the most effective ways parents worked with the limited English proficient students in your campus?
8. Please share your views on the use of both the first language, Spanish, and the second language, English, in class settings:

Please answer the following:

1. Of those listed below, which training opportunities/participation has contributed the most to your professional development as a campus principal in charge of limited English proficient students? Please Rank and Order starting with 1, 2, 3, etc. Rank and Order only those that you feel were effective in contributing to your professional growth:
  - \_\_\_ university training as part of the mid-management/administrator preparation program
  - \_\_\_ local in-service staff development provided by school district staff
  - \_\_\_ local in-service staff development provided by "experts in the field" under contract with the school district
  - \_\_\_ staff development offered by staff of your respective education service center
  - \_\_\_ staff development offered by your respective education service center using "experts in the field" under contract with the education service center
  - \_\_\_ staff development offered by professional associations in the area List association(s)
  - \_\_\_ state conferences co-sponsored by the Texas Education Agency, such as Migrant, ACET, TEPSA, TASA, etc.
  - \_\_\_ annual state conference(s) List conference(s)
  - \_\_\_ annual national conference(s) List conference(s)



1. Of those listed below, which training opportunities/participation have contributed the most to the professional development of teachers working with limited English proficient students? Please Rank and Order starting with 1, 2, 3, etc. Rank and Order only those that you feel have effectively contributed to their professional growth:

- university training as part of the teacher preparation program
- local in-service staff development provided by school district staff
- local in-service staff development provided by "experts in the field" under contract
- staff development offered by staff of your respective education service center
- staff development offered by your respective education service center using "experts in the field" under contract
- staff development offered by professional association(s) in the area
- state conferences co-sponsored by the Texas Education Agency, such as Migrant, ACET, TEPSA, TASA, etc.
- annual state conference(s) List conference(s)
- annual national conference(s) List conference(s)

3. What five things contributed the most to the academic success of limited English proficient students on your campus? (Examples: staff training, teacher preparation, materials, latitude in teaching, parent involvement, instructional technology, grouping for instructional purposes, administrative support, resources, other. Please rank them in order by what you consider as most important first, second important next, and third as last.)

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_

Please feel free to use this space for any additional comments:

**SUCCESSFUL SCHOOLS STUDY 1999  
PARENT FOCUS GROUP INTERVIEW**

1. Please help us identify why children find academic success in this school. What do you do at home to contribute your children's success?

Por favor ayúdenos a identificar las razones porque los niños de esta escuela han encontrado buen éxito, académico. ¿Qué hacen en casa con sus niños para contribuir al éxito académico?

2. What is it that the school does to contribute to your children's success?

¿Qué es lo que hace la escuela para contribuir al éxito académico de sus niños?

3. What is it that the principal does to contribute your children's success?

¿Qué es lo que hace el director de la escuela para contribuir al éxito académico de sus niños?

4. What is it that the teacher does to contribute your children's success?

¿Qué es lo que hace la maestra de su niño para contribuir al éxito académico de sus niños?

5. What is it that the bilingual program does to contribute your children's success?

¿Qué es lo que hace el programa bilingüe de la escuela para contribuir al éxito académico de sus niños?

6. Do you have anything else to add?

Hay algo más que quieran comentar?

Texas Education Agency

**SUCCESSFUL SCHOOLS STUDY 1999  
DISTRICT INTERVIEW**

1. What program(s) contributes to the academic success of the limited English proficient (LEP) students at this campus?
2. What has made the teachers successful with their LEP students?
3. What specific training has the district provided that has contributed to the professional development to impact on the language development of the language minority population in the district?
4. What specific training has the district provided that has contributed to the professional development to impact on the academic development of the language minority population in the district?
5. How long do the LEP students remain in the program(s) that has contributed to their academic success?

Why?

6. What can your education service center and the Texas Education Agency do to help you and your staff do an even better job of educating your LEP students?
7. What are the most effective ways parents worked with the limited English students at this campus?

Please share your views on the use of the first language, Spanish, and the second language, English, in class settings.

**APPENDIX B**

**FORMULAS FOR  
DESCRIPTIVE STATISTICS**

## FORMULAS FOR DESCRIPTIVE STATISTICS

The narrative of the Study and this manual adopted a general style in order to communicate to diverse audiences. Along these lines, the intent of this section is to communicate the nature of formulas utilized in the descriptive statistical applications to the non-research audience (MacColl and White 1998). These formulas are divided into two groupings: 1) *Measures of Central Tendency*, and 2) *Measures of Variation*, which have been discussed in the section on *Quantitative Approaches*. Sources for this section include but have not been limited to Jaeger, (1990), Glass and Hopkins (1984), and Vogt (1993), among others. Formulae for the limited *post-hoc* analyses, including *non-parametric* approaches, will be featured in subsequent studies as may be conducted.

### Measures of Central Tendency

- *Mean*: The *arithmetic mean* is generally referred to as the average: When the term “mean” occurs without a modifier, it is assumed to refer to the arithmetic mean. The mean is the sum of all values which are then divided by the number of values. The formula for the total *population* mean is:

$$\mu = (\Sigma x)/n$$

where:

$\mu$  = **population** mean

$\Sigma X$  = sum of values

$n$  = number of values

If the scores are from a **sample**, the formula becomes:

$$M = (\Sigma x)/n$$

where:

$X$  = sum of values

$n$  = number of values.

The formula for  $M$  is the same as the formula for  $\mu$ .

- *Median*: The *median* is considered the *middlemost* value when all the observed values are arranged in numerical ascending order or descending. As mentioned earlier, *median* is a better measure of central tendency than the *mean* when there are **standard** deviations in the data set.

Based on the formula from the University of Alberta *Instructor Designed Questionnaire System* (1999), which was refined from the model developed by the University of Michigan, the formula then becomes:

$$\text{Median} = L + I * \frac{N/2 - F}{f}$$

where:

**L** = lower limit of the interval containing the median

**I** = width of the interval containing the median

**N** = total number of respondents

**F** = cumulative frequency corresponding to the lower limit

**f** = number of cases in the interval containing the median

An alternative formulation is:

$$\text{Median} = L + \left(\frac{I}{f}\right) \left(\frac{n}{2} - C_u f\right)$$

where

**L** = beginning of the interval for the range that contains the median value

**I** = interval/range length ( **I** = range high - range low + 1 )

**f** = number of cases in the interval containing the median

**n** = total observations for the table (sum of frequencies)

**C<sub>u</sub>f** = cumulative frequency of the ranges to the lower limit

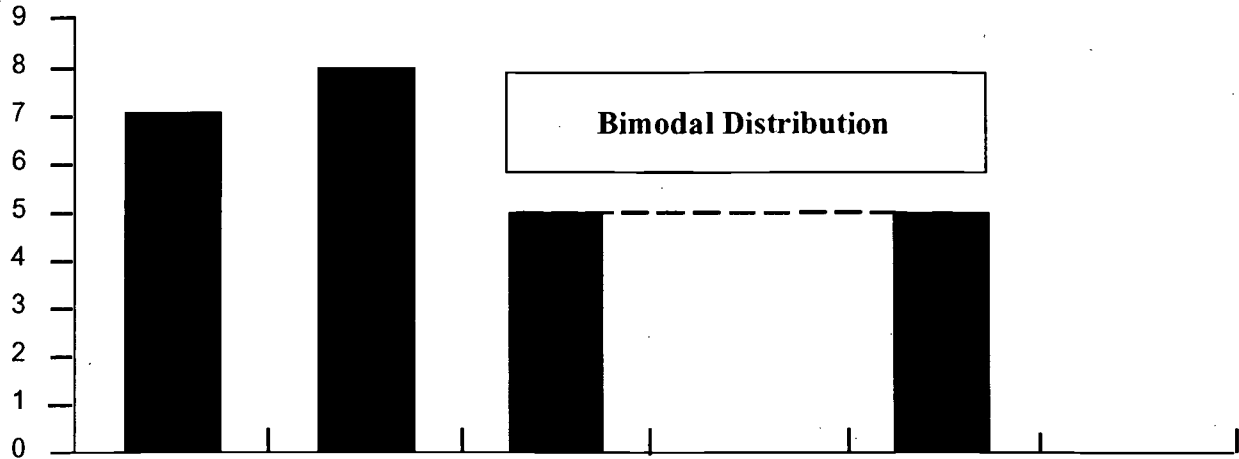
➤ *Mode*: The mode is the observed value that occurs most often in the data set (i.e. the value with the highest frequency). It is often used to estimate which specific value is most likely to occur in the future. However, a data set may have more than one mode. A data set is described as:

❖ *Unimodal* if it has only one mode

❖ *Bimodal* if it has two modes

❖ *Multimodal* if it has more than two modes (*trimodal*, *quadramodal*, etc).

Below is an example of a bimodal distribution:



### Measures of Variation

- ❖ *Standard Deviation*: Probably the most utilized measure of *central tendency*, the *standard deviation* is a measure of the spread of values around the mean. It is also the most stable of *measures of variability*. The *population* standard deviation is computed as:

$$\sigma = \sqrt{\frac{\sum (x - \mu)^2}{N}}$$

where:

$\sigma$  = **population** standard deviation

$\Sigma$  = the sum

$x$  = each individual measurement

$\mu$  = the **population** mean

$N$  = the population size.

The *sample estimate* of the population standard deviation is computed as:

$$s = \sqrt{\frac{\sum (x - \bar{X})^2}{n - 1}}$$

where:

$S$  = *sample estimate* standard deviation

$\Sigma$  = the sum

$\bar{X}$  = each individual measurement

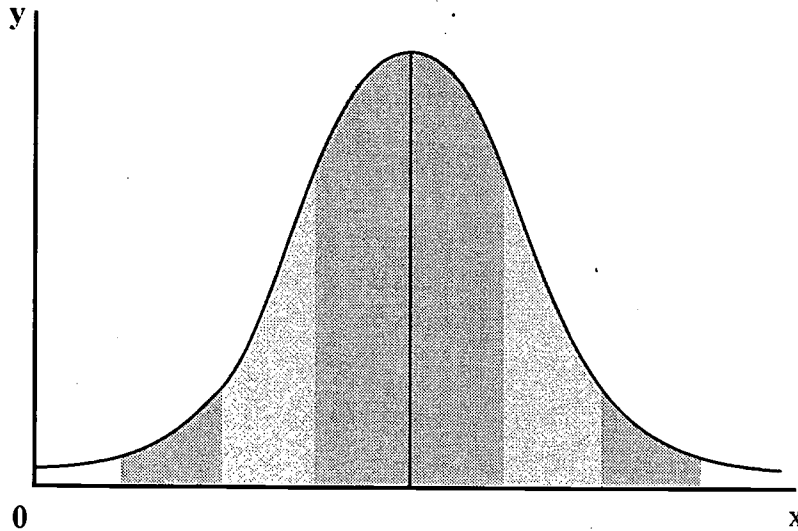
$\bar{X}$  = the sample mean

$X - \bar{X}$  = the residual for each measurement.

$n$  = the sample size.

An example of a normal curve with standard deviations is illustrated below.

*Standard Deviations within Normal Curve*



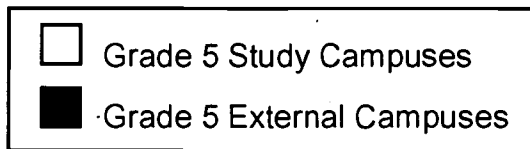
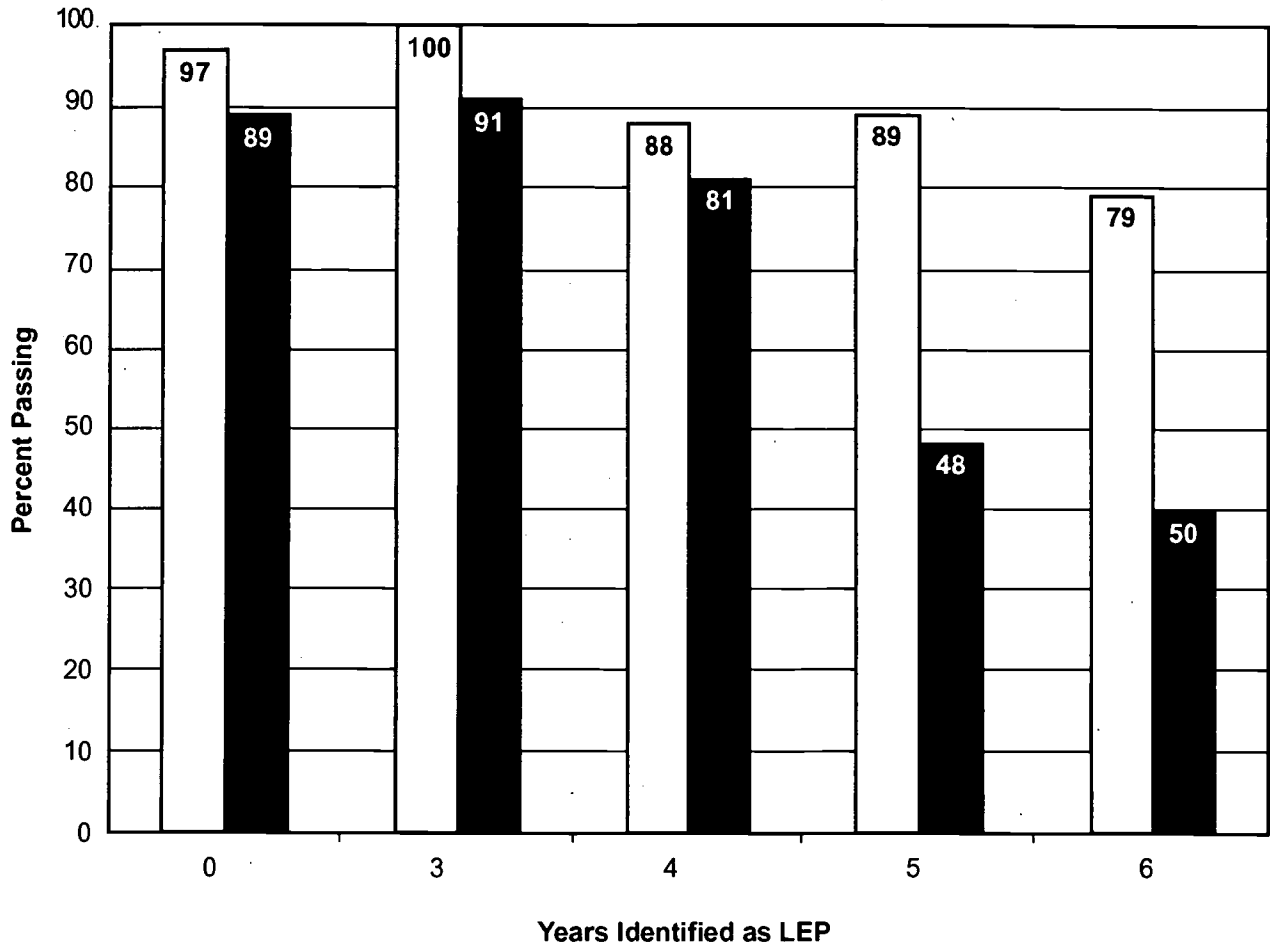


**APPENDIX C**

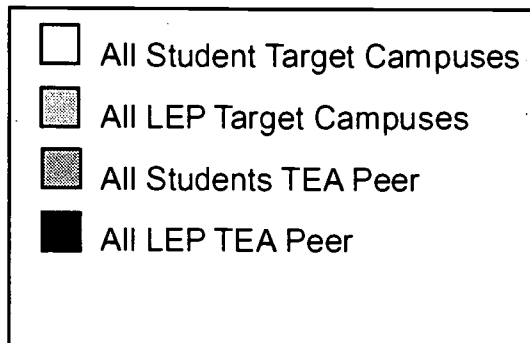
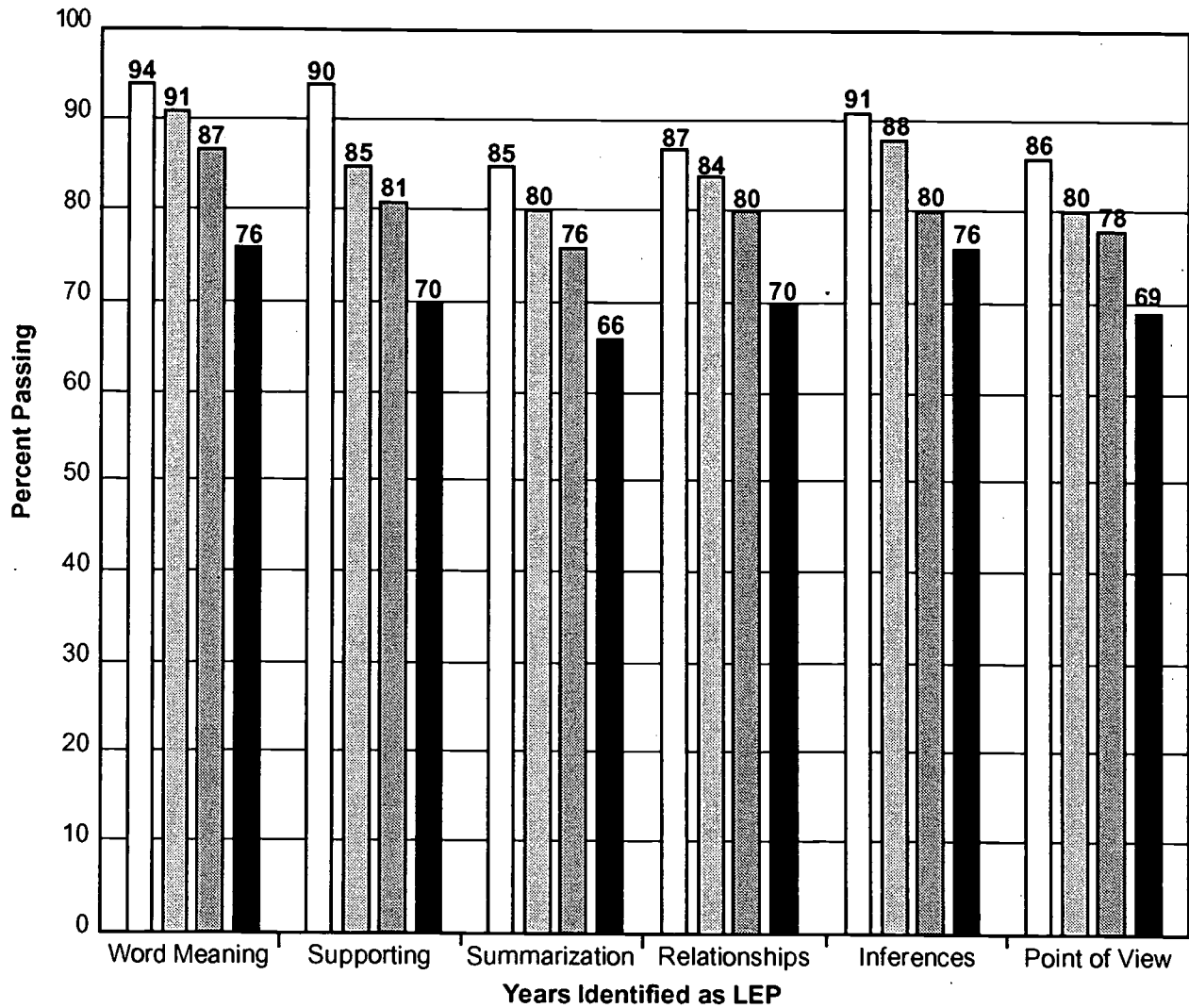
**BAR AND LINE**

**GRAPHIC PRESENTATIONS**

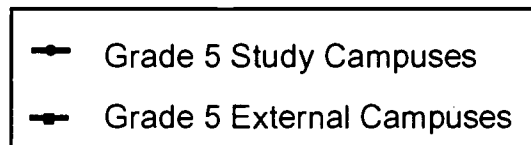
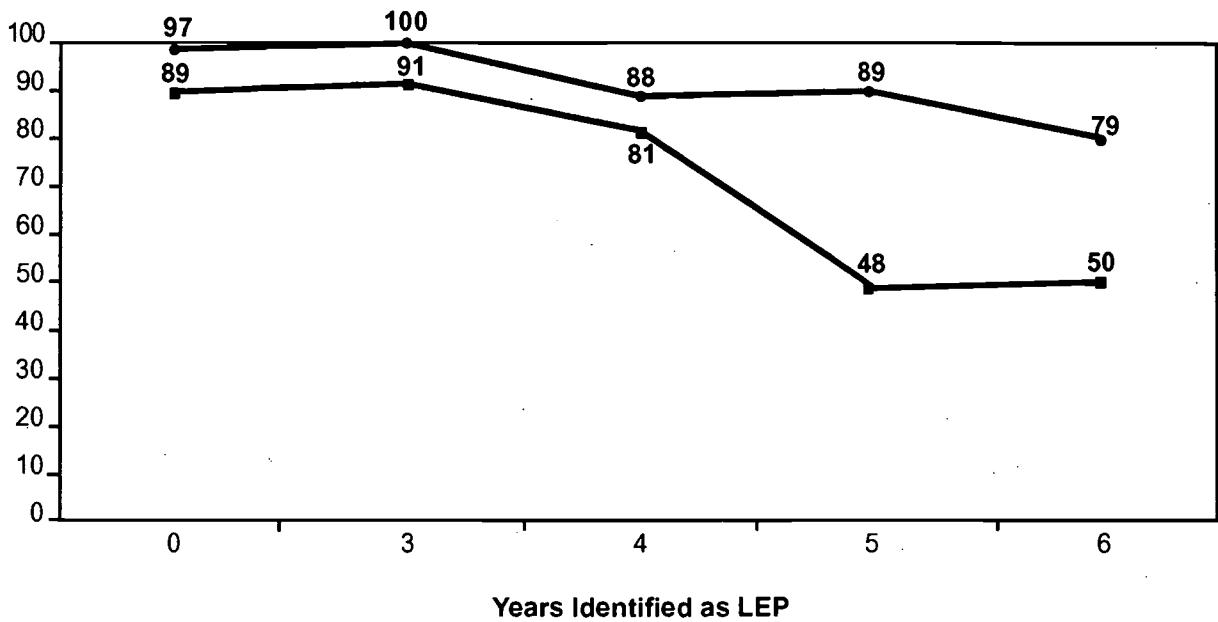
**PERCENTAGE OF FORMER LEP STUDENTS PASSING GRADE 5 TAAS (1999)  
READING AT THE 70% LEVEL  
(1994 COHORT)**



**PERCENTAGE OF FORMER LEP STUDENTS PASSING GRADE 5 TAAS (1999)  
READING AT THE 70% LEVEL  
(1994 COHORT)**



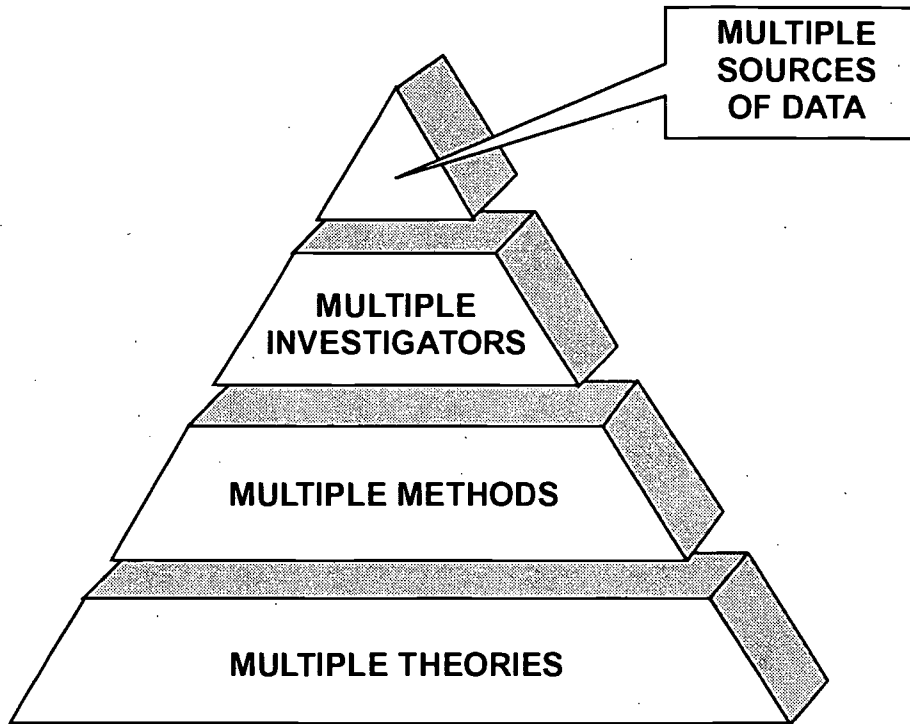
**PERCENTAGE OF FORMER LEP STUDENTS PASSING GRADE 5 TAAS  
READING ATT THE 70% LEVEL  
BY YEARS IDENTIFIED AS LEP (1994 COHORT)**



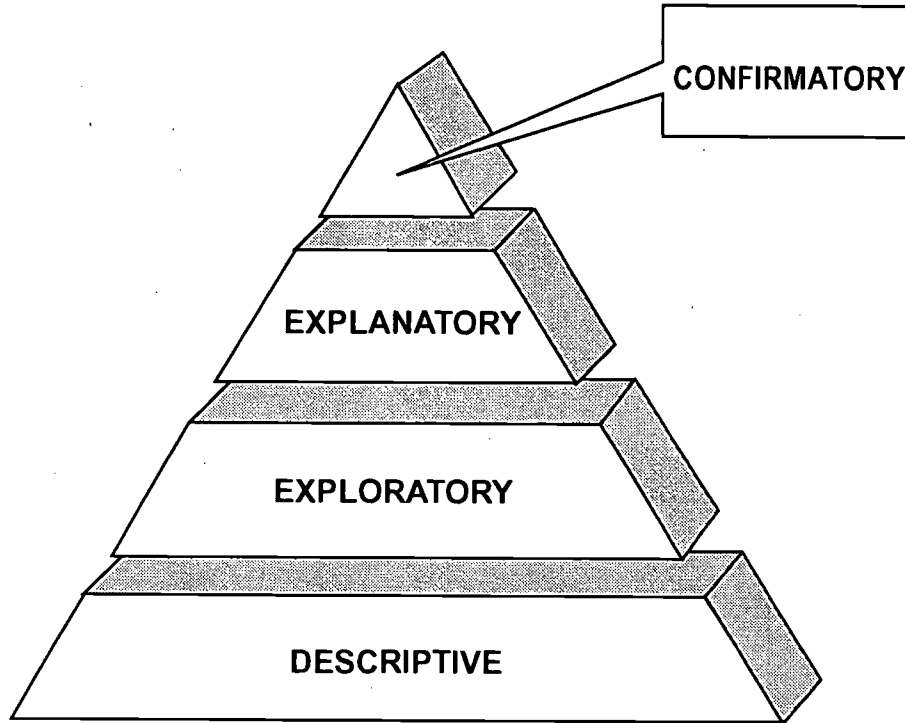
**APPENDIX D**

**BENEFITS AND  
CHARACTERISTICS OF  
THE MODL DESIGN**

**MULTIPLE OPERATIONS:  
FOUR WAYS OF TRIANGULATION**



**MULTIPLE OPERATIONS:  
BENEFITS FOR THE STUDY**



**APPENDIX E**

**RESEARCH QUESTIONS  
AND DATA SOURCES**



## RESEARCH QUESTIONS ADDRESSED BY MJOR SOURCES OF DATA AND INFORMATION

| Questions   | Interviews | Surveys | Site Visits | Campus & Student TAAS Data | AEIS Campus Report |
|---|------------|---------|-------------|----------------------------|--------------------|
| What are the LEP, former LEP and Non-LEP students' academic performance as measured by state (Grades 3-5) assessments?                    |            |         |             | ✓                          | ✓                  |
| What are the district leadership practices that facilitate academic and linguistic growth/success for language minority students?         | ✓          | ✓       | ✓           |                            |                    |
| What are the campus leadership practices that facilitate academic and linguistic growth/success for language minority students?           | ✓          | ✓       | ✓           | ✓                          | ✓                  |
| What are the characteristics of the teaching staff that facilitate academic and linguistic growth/success for language minority students? | ✓          | ✓       | ✓           |                            | ✓                  |
| What are the effective teaching practices that facilitate academic and linguistic growth/success for language minority students?          | ✓          | ✓       | ✓           | ✓                          | ✓                  |
| What are the characteristics of parents and parental involvement on the seven campuses?   | ✓          | ✓       | ✓           |                            |                    |
| What are the characteristics of program(s) serving language minority students?  | ✓          | ✓       | ✓           |                            | ✓                  |
| What is the relationship between campus practices and theory?*  | ✓          | ✓       | ✓           | ✓                          | ✓                  |

\* Includes secondary information from the review of the literature including state policy documents, related readings, and other national, state, and local studies.

**APPENDIX F**

**VALIDITIES AND  
RELIABILITIES OF  
STUDY INSTRUMENTS**

## TEACHER QUESTIONNAIRE

The questionnaire appeared to meet the criteria for a number of tests for validity and reliability. These criteria were in line with those recommended by Fowler (1995), Guba (1981), and Schofield (1990). Some of these included:

- ❖ *Construct Validity* in the questionnaire was accomplished in several ways. First, the pattern of outcomes were uniform across sectors of teachers from the seven campuses. Second, the outcomes coincided with those derived from other sources adding to *convergent validity* which is a test for *construct validity*. Third, preliminary *post-hoc* correlation analyses showed in selected items that similar questions resulted in comparable outcomes. Fourth, the correlations also indicated that measures that were unrelated to one another were unassociated (this establishes *discriminant validity*, the second test for *construct validity*). There is no single measure of construct validity. Construct validity is based on the accumulation of knowledge about the instrument and its relationship to other data gathering tools and operations (Fowler, 1995; Andrews, 1984)
- ❖ *Instrumental validity* was apparent through the various operational stages of the questionnaire, including field testing administrations of the instrument, collection of data, and their analyses. In addition, the responses of the questionnaire were referenced to the same criterion of separately administered of valid structured interviews. The employment of pattern identification, tracking, and matching added to the validity of the questionnaire (Ragin, 1990; Trochim, 1985; Trudel and Antonius, 1991)
- ❖ *Interjudge reliability*, or *interrater*, or *interobserver reliability* refers to the degree of consistency by observers in their ratings (De Vellis, 1991). The attainment of *interjudge reliability* reinforced, in turn, *synchronic reliability*. This was accomplished through determining the degree of agreement of outcomes from administered questionnaires. From a data analysis perspective, statistical outcomes indicated the degree of consistent agreement in processed responses. Initial *post-hoc* analyses reaffirmed this consistency. This was reinforced by a preliminary *post-hoc* correlation analysis which showed in selected items that similar questions resulted in comparable outcomes also indicating both intra and inter-rater reliabilities

Table F1 in the following page presents an overview of the Study interventions employed that contributed to two types of validity and one type of reliability associated with the questionnaires.

**TABLE F1**  
**STUDY STRATEGIES OF VALIDITY**  
**AND RELIABILITY FOR QUESTIONNAIRES**

| TESTS                          | STUDY INTERVENTIONS   |
|--------------------------------|---|
| <i>Construct Validity</i>      | Review and analyses of draft Information by multiple investigators                            |
|                                | Identifying uniform patterns of outcomes from questionnaire                                   |
|                                | Establishing a chain of evidence and patterned outcomes                                       |
|                                | Comparison of questionnaire outcomes with those from interviews                               |
|                                | Evidence of <i>convergent</i> and <i>discriminant</i> validities via <i>post hoc</i> analyses |
| <i>Instrumental validity</i>   | Standardized field testing, data gathering and approaches to analyses                         |
|                                | Pattern identification from administrations of questionnaires                                 |
|                                | Matching of patterns and outcomes with those from interviews                                  |
|                                | Systematic explanation building based on multiple outcomes                                    |
| <i>Intertjudge reliability</i> | Identification and matching of patterned outcomes from interviews                             |
|                                | Systematic review of data outcomes by multiple investigators                                  |
|                                | Identifying consistent patterns of questionnaire outcomes                                     |
|                                | Matching corresponding patterned of outcomes from respondents                                 |
|                                | Confirming outcomes by initial <i>post-hoc</i> analyses (inter-/intra-ratings)                |

## INTERVIEWS

The incorporation of interviewing as part of a diversity of approaches is in line with research which views it as a “validity check” through field research (Webb, 1966; Kirk and Miller, 1986). By way of corroborating outcomes from other sources of data, interviewing contributed to the robustness of the design. The collective format of the teacher and interviews allowed for “conversation with purpose” (Denzin and Lincoln, 1994; Dexter, 1970 Jacobson, 1988). Several types of validities and reliabilities appear to apply to the interviews. The validities, reliabilities, and criteria for interviews are as follow:

- ❖ *Construct Validity* for interviews was primarily accomplished by the establishment of correctly defined and consistently applied protocols for the concepts under study. The application of pattern matching contributed to increased *construct validity*. This idea of using pattern matching as a rubric for assessing construct validity originated with Trochim (1985, 1989). As with the Teacher Questionnaire, the outcomes from interviews coincided with those derived from other sources adding to *convergent validity* which is a test for *construct validity*. no plausible alternative theories accounted for the observed patterns. Cronbach (1971) later argued for an extended concept of *construct validity* which “pertains to qualitative summaries as well as numerical scores.... it is an open process where to validate is to investigate” (p. 433; also Kvale, 1995). These summaries were augmented by field notes and an “audit trail” of processes. Multiple approaches and outcomes from questionnaires and case studies reinforced the valid association of these measures with concepts. Multiple investigators reviewed chains of evidence produced as outcomes

- ❖ *Internal Validity* for interviews occurred by applying pattern-seeking and matching methods across cases. The consistent application of *Delphi-like* approaches added to the validity by providing for *member checks*, which brought the outcomes and interpretations back to respondents to determine whether they were plausible. Additional peer examination allowed colleagues to comment on findings as they emerged (Denzin, 1970; Merriam, 1998; 1988). Explanation building was consistently applied to outcomes (Adèr and Mellenberg, 1999; Connaway, 1996). Data were viewed both as a continuity, and as separate cases within fixed time periods
- ❖ *Interjudge reliability* for interviews was reinforced by Delphi-like approaches which provided a mechanism for respondents to ascertain plausibility of outcomes (Enzer, 1971; The Interdisciplinary Center Comparative for Research in the Social Sciences, 1999). *Interjudge reliability* was accomplished through determining the degree of consistent agreement from analyzed responses. These outcomes were reviewed by a number of investigators who reinforced the reliability of outcomes through their concurrence (Creswell, 1994; Gazel, et. al., 1998; Bloland, 1992; Fetterman, 1988).

Table F2 below presents an overview of the Study intervention employed that contributed to two types of validity and one type of reliability associated with the conducted interviews.

**TABLE F2**

**STUDY STRATEGIES OF VALIDITY AND RELIABILITY FOR INTERVIEWS**

| <b>TESTS</b>                  | <b>STUDY INTERVENTIONS</b>  |
|-------------------------------|---|
| <i>Construct Validity</i>     | Standardized approaches and augmented summaries                           |
|                               | Established chain of evidence and patterned outcomes                      |
|                               | Matching patterned concurrence of outcomes with those from questionnaires |
| <i>Internal Validity</i>      | Review and comparisons of outcomes by multiple investigators              |
|                               | Pattern Matching across and within cases                                  |
|                               | Member checks and additional peer evaluation                              |
|                               | Systematic analyses, reviews, and logical explanation building            |
| <i>Interjudge reliability</i> | Identification and matching of patterned outcomes from interviews         |
|                               | Systematic review of data outcomes by multiple investigators              |
|                               | Establishing consistent patterns of interview outcomes                    |
|                               | Matching corresponding patterned of outcomes from respondents             |

**CASE STUDIES**

If similar themes are noted in data collection from the different sources, the credibility of the interpretations is enhanced. This multiple case study research explored the characteristics of the district leadership in providing support for bilingual education at the campus level for the campus administrators, for the teachers, and for the parents whose limited English proficient students attended the seven successful schools. Yin (1994), proposed a schematic for determining three (3) validities

and a general definition of reliability of applied case studies. These criteria were adopted as shown in its modified form below. Essentially, all of these criteria had been met by the Study:

- ❖ *Construct Validity* was primarily accomplished the establishment of correctly defined and consistently applied operational measures for the concepts under study. Multiple sources of evidence encouraged convergent lines of inquiry. Multiple investigators reviewed chains of evidence produced as outcomes. Multiple case approaches, in turn, reinforced the valid association of these measures with concepts by observed similarities with specific time frames, and across campuses
- ❖ *Internal Validity* occurred by applying analytical pattern-seeking and matching methods across cases. Explanation building was carefully and consistently applied to outcomes. Data were viewed both as a continuity and as separate cases within fixed time periods. The convergence of multiple sources of evidence to similar degrees across campuses contributed to the internal validity of the case studies
- ❖ *External Validity* is considered the greatest weakness of *experimental* designs, because generalizability does not go much beyond the laboratory setting. Conversely, *naturalistic* approaches can lend themselves to much greater degrees of external validity. The criteria for meeting the test of this validity through interviews was perceived through the use of multiple case-studies, and the observed similarities within time-frameworks of outcomes. These outcomes lent themselves to a generalizability across cases (Kirk and Miller, 1986; Sadler, 1985).
- ❖ *Reliability* according to the applied definition from Yin (1994), infers replication of outcomes. The MODL design also treated cases as individual entities without contact with one another, and over periods of delineated time. As with *internal validity*, The convergence of multiple sources of evidence to similar degrees across campuses contributed to the *reliability* of the case studies. Since patterned outcomes were similar over these periods, it is contended that the application of case studies met this test of reliability.

The study strategies utilized for case study validity and reliability based on Yin (1994) are summarized in Table F3 below.

**TABLE F3**

**STUDY STRATEGIES OF VALIDITY AND RELIABILITY FOR CASE STUDIES**

| <b>TESTS</b>              | <b>STUDY INTERVENTIONS</b>                            |
|---------------------------|---|
| <i>Construct Validity</i> | Use of multiple sources                               |
|                           | Established chain of evidence                         |
|                           | Review of draft information by multiple investigators |
| <i>Internal Validity</i>  | Pattern matching                                      |
|                           | Explanation building                                  |
|                           | Analyses over time periods                            |
| <i>External Validity</i>  | Replication logic in multiple case studies            |
| <i>Reliability</i>        | Case study protocols                                  |
|                           | Case study data base                                  |

**APPENDIX G**

**EVALUATION OF THE STUDY**

## EVALUATION FORM FOR THE TEXAS SUCCESSFUL SCHOOLS STUDY

The Evaluation Form for the Study has been included as part of the final report of the successful Schools Study to assist the Program Evaluation Unit in obtaining feedback regarding the Study. We encourage all persons who review and use the Study to help us by providing feedback in the areas listed below. Thank you for taking time to fill out this evaluation form and to share your views on the Study. Your responses are very important to this agency effort. We intend to utilize your responses as we consider possible expansion of the Study and future study efforts.

All persons who review/read the contents of The Texas Successful Schools Study are encouraged to respond to each part of the form as per instructions noted. Upon completion of the form, please mail it to either:

Oscar M. Cárdenas, Study Administrator  
or  
Stan Seidner, Program Director  
at the  
Program Evaluation Unit  
Office for the Education of Special Populations  
Texas Education Agency  
1701 N. Congress Avenue  
Austin, Texas 78701-1494

Or fax the completed form to (512) 463 7441.

**Please complete the following information for our mailing list:**

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Mailing address: \_\_\_\_\_

E-Mail address: \_\_\_\_\_



**PART IA:** Please respond to the appropriate item below:

|   |
|---|
| <p>I CURRENTLY RESIDE: IN TEXAS    OUTSIDE OF TEXAS</p> <p>PLEASE INDICATE CITY AND STATE: _____</p> <p>1. I currently work at a: <input type="checkbox"/>Federal Agency   <input type="checkbox"/>State Education Agency   <input type="checkbox"/>Other State Education Agency</p> <p style="padding-left: 100px;"><input type="checkbox"/>University   <input type="checkbox"/>College   <input type="checkbox"/>Technical School   <input type="checkbox"/>Proprietary School</p> <p style="padding-left: 100px;"><input type="checkbox"/>Public School   <input type="checkbox"/>Private School   <input type="checkbox"/>Charter School   <input type="checkbox"/>Education Service Center</p> <p style="padding-left: 100px;"><input type="checkbox"/>Other (Please describe): _____</p> <p>2. I am self-employed <input type="checkbox"/></p> <p>3. I am an elected or appointed official (if applicable)   <input type="checkbox"/>Municipal (local)    <input type="checkbox"/>County</p> <p style="padding-left: 40px;">(Please designate governmental level)                      <input type="checkbox"/>State                      <input type="checkbox"/>Federal</p> <p>4. I am responding as a parent or guardian with a child in school <input type="checkbox"/></p> <p>5. I am responding as a retired educator <input type="checkbox"/></p> |
|---|

**PART IB:** Please respond to appropriate item below:

|  |
|--|
| <p>1. I am currently a/an: <input type="checkbox"/>Administrator   <input type="checkbox"/>Campus Administrator   <input type="checkbox"/>Teacher</p> <p style="padding-left: 100px;"><input type="checkbox"/>Professor   <input type="checkbox"/>Teacher aide    <input type="checkbox"/>Consultant   <input type="checkbox"/>Other _____</p> |
|--|

**PART II:** Please indicate your years of experience in education with an X in the appropriate box for each listed item.

| YEARS OF EXPERIENCE                       | 0 | 1-4 | 5-9 | 10-14 | 15-19 | 20+ |
|---|---|-----|-----|-------|-------|-----|
| Elementary                                |   |     |     |       |       |     |
| Secondary                                 |   |     |     |       |       |     |
| Bilingual Education                       |   |     |     |       |       |     |
| English as a Second Language              |   |     |     |       |       |     |
| Administration                            |   |     |     |       |       |     |
| Administration of Bilingual/ESL Programs  |   |     |     |       |       |     |
| Supervision                               |   |     |     |       |       |     |
| University Training of Bilingual Teachers |   |     |     |       |       |     |
| University Training of ESL Teachers       |   |     |     |       |       |     |

**PART III:**

**All Respondents, please respond with an X to reflect your opinions**

- This type of study was needed  Yes  No  No Opinion
- The study will be helpful to both educators and administrators in working with all children  Yes  No  No Opinion
- The study helped me understand why the use of the home language is important to children's success  Yes  No  No Opinion
- I will recommend the study to other persons to support my school district's efforts to achieve success  Yes  No  No Opinion
- More studies of this type on other children with special needs should be done by school districts and the state education agency.  Yes  No  No Opinion

**School District Administrators only, please respond with X to reflect your opinion**

- This type of study was needed state education agency.  Yes  No  No Opinion
- The study will be helpful to both educators and administrators in working with all children  Yes  No  No Opinion
- This study will be of assistance to me as we work to improve the quality of programs for students with special needs  Yes  No  No Opinion
- This study will be of assistance to district administrators in assessing and improving current practices and programs  Yes  No  No Opinion
- The report is easy to follow  Yes  No  No Opinion
- The case studies will be helpful to focus on districtwide staff training  Yes  No  No Opinion
- The study or salient features of the report should be shared with district staff  Yes  No  No Opinion
- There are effective practices and program features that can be replicated  Yes  No  No Opinion
- The agency should conduct other studies of this nature to assist school districts in achieving both quality and excellence in education for all children  Yes  No  No Opinion
- The study serves as an effective resource guide regarding research and approaches to second language learning  Yes  No  No Opinion

**School District Campus Administrators only, please respond with X to reflect your opinion**

- This type of study was needed  Yes  No  No Opinion
- The study will be helpful to both teachers and parents in working with all our children  Yes  No  No Opinion
- This study will be of assistance to me as we work to improve the quality of programs for students with special needs in our campus  Yes  No  No Opinion
- This study will be of assistance to us in assessing, redirecting or improving current practices and programs  Yes  No  No Opinion
- The report is easy to follow  Yes  No  No Opinion
- The case studies will be helpful to focus on campus staff training  Yes  No  No Opinion
- The study or salient features of the report will be shared with campus staff  Yes  No  No Opinion
- There are effective practices and program features that we are interested in replicating or adapting  Yes  No  No Opinion
- The agency should conduct other studies to assist school districts in achieving both quality and excellence in education for all children  Yes  No  No Opinion
- The study serves as an effective resource guide regarding research and approaches to second language learning  Yes  No  No Opinion
- In my professional opinion, this study can have a great impact on teaching and learning for all children  Yes  No  No Opinion
- The study report is too massive to use as a resource manual for training and instruction  Yes  No  No Opinion

**SCHOOL DISTRICT AND CAMPUS ADMINISTRATORS ONLY**

**Priority Rankings of Study Content**

Please indicate which sections or appendices of the report you think will be most helpful in your present capacity by assigning priority rankings (from 1 as highest to 10 as lowest) below:

- |  |  |
|--|--|
| <input type="checkbox"/> Executive Summary           | <input type="checkbox"/> Scope of the Study, Research Design and Methodology |
| <input type="checkbox"/> Introduction and Background | <input type="checkbox"/> Enrollment and Teacher Statistics                   |
| <input type="checkbox"/> Need for the Study          | <input type="checkbox"/> Staf Characteristics                                |
| <input type="checkbox"/> Findings                    | <input type="checkbox"/> Composite Study Results                             |
| <input type="checkbox"/> Student and Cmpus           | <input type="checkbox"/> Student Performance Analysis                        |
| <input type="checkbox"/> Performance                 | <input type="checkbox"/> Study Questionnaire                                 |

Additional Comments you may wish to share

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On behalf of the Office for the Education of Special Populations, we convey our appreciation for sharing your time and views with us on this important Statewide Leadership effort and other studies that may be conducted

For questions on the Evaluation Form or the Successful Schools Study report, please contact:

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# REFERENCES

- Adèr, H., & Mellenberg, G. J. (1999). *Research Methodology in the Social, Behavioral, and Life Sciences*. Thousand Oaks, California: Sage Publications.
- Andrews, F. M. (1984). "Construct Validity and Error Components of Survey Measures: A Structural Modeling Approach". *Public Opinion Quarterly*, vol. 48, no. 2, pp. 409-422.
- Babbie, E. R. (1979). *The Practice of Social Research*. Belmont, CA.: Wadsworth .
- Belsson, W. R. (1981). *The Design and Understanding of Survey Questions*. Alershot, England: Gowan.
- Bickman, L. (Ed.). (1986). *Using Program Theory in Evaluation. New Directions for Program Evaluation*. San Francisco, CA: Jossey-Bass.
- Bloland, P. A. (1992). *Qualitative Research in Student Affairs*. Los Angeles, CA: University of California at Los Angeles. (ERIC Document Reproduction Service No. ED 347 487).
- Bogdan, R. & Biklen, S. (1982). *Qualitative Research In Education*. Boston: Allyn & Bacon.
- Bolton, R N & Bronkhorst, T M (1996). "Questionnaire pretesting: computer-assisted coding of concurrent protocols". In Schwarz, N & Sudman, S (eds). *Answering Questions: Methodology for Determining Cognitive and Communicative Processes in Survey Research*. San Francisco: Jossey-Bass Publishers, pp. 37-64.
- Brannen, J. (1992). "Combining Qualitative and Quantitative Approaches: An Overview". In Brannen, J. (Ed.), *Mixing Methods: Qualitative and Quantitative Research*. Brookfield, VT: Ashgate, pp. 3-37.
- Carmines, E. G. & Zeller, R. A. (1988). *Reliability and Validity Assessment*. Thousand Oaks, CA.: Sage Publications.
- Chen, H.T. (1990). *Theory-Driven Evaluations*. Thousand Oaks, CA.: Sage Publications.
- \_\_\_\_\_ & Rossi, P.H. (1987). "The Theory-Driven Approach to Validity". *Evaluation and Program Planning*, v10, pp. 95-103.
- Converse, J. & Presser, S. (1989). *Survey Questions: Handcrafting the Standardized Questionnaire*. Newbury Park CA.: Sage Publications.
- Connaway, L.S. (1996). "Focus Group Interviews: A Data Collection Methodolgy". *Library Administration and Management*, v10, no. 4, pp. 231-239.
- Cook. T. D. & Campbell, D. T. (1979). *Quasi-Experimentation: Design And Analysis Issues for Field Settings*. Chicago: Rand McNally.

Creswell, J.W. (1994). *Research Design: Qualitative And Quantitative Approaches*. Thousand Oaks, CA.: Sage Publications.

Cronbach, L. J. (1971). "Test Validation". In Thorndike, R. L. (ed.). *Educational Measurement*. Washington D.C.: American Council on Education, pp. 403-507.

\_\_\_\_\_. & Associates. (1980). *Toward reform of program evaluation*. San Francisco, CA: Jossey-Bass.

Czaja, Ron. (1998). "Questionnaire Pretesting Comes of Age", *Marketing Bulletin*, vol. 9, pp. 52-66.

Denzin, S. K. (1970). *The Research Act: A Theoretical Introduction to Sociological Methods*. Chicago: Aldine.

\_\_\_\_\_. & Lincoln, Y. S. (1994). *Handbook of Qualitative Research*. Thousand Oaks, CA.: Sage Publications.

DeVellis, R. F. (1991). *Scale Development: Theory and Applications*. Newbury Park, CA: SAGE Publications.

Deslauriers, J.P., *Recherche qualitative: Guide pratique*. Montréal: Mc Graw Hill, 1991.

Dexter, L. A. (1970). *Elite and Specialized Interviewing*. Evanston, IL.: Northwestern University Press.

Dubin, R., 1978. *Theory Building*. New York: The Free Press.

Dufour, S., et. al. *L'enquête de terrain en sciences sociales: L'approche monographique et les méthodes qualitatives*, Montréal: Éditions St- Martin, 1991.

Effective school correlates [N.A.], (January, 1998). *The Effective School Report*, p. 5.

Enzer, S. (1971). "Delphi and Cross-Impact Techniques: An Effective Combination for Systematic Futures Analysis". *Futures*, vol. 3, no.1, pp. 48-61.

Fowler, F. J. (1995): *Improving Surveys Questions. Design and Evaluation*. Newbury Park, CA: Sage Publications.

Gable, G. (1994). "Integrating Case Study and Survey Research Methods: An Example in Information Systems". *European Journal of Information Systems*, vol. 3, no. 2, pp. 112-126.

Gazel, R. C., et. al. ( 1998 ): "Interview Mode Choice by Survey Respondents: A Methodological Analysis". *Social Science Computer Review*: vol. 16, no. 2, pp. 185-191.

- Glaser, B. & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.
- Glass, G. V. & Hopkins, K. W.. (1984). *Statistical Methods in Education and Psychology*. 2<sup>nd</sup> edition. Englewood Cliffs, N.J.: Prentice Hall .
- Glesne, C. & Peshkin, A. (1992). *Becoming Qualitative Researchers*. White Plains, N.Y.: Longman.
- Greene, J., & Caracelli, V. (Eds.). (1997). *Advances in Mixed-Method Evaluation: The Challenges and Benefits of Integrating Diverse Paradigms*. San Francisco: Jossey-Bass.
- Guba, E. G. (1981). "Criteria for Determining the Trustworthiness of Naturalistic Inquiry", *Educational Communication and Technology Journal*, vol. 30, pp. 233-252.
- Howard, B.S. & Mendelow, A.L. (1991). "Discretionary Use of Computers: An Empirically Derived Explanatory Model". *Decision Sciences*, vol. 22, pp. 241-265.
- Jacobson, R. (1989). "Qualitative Assessment of Children's Language Choice". In Seidner, S. ed., *Issues of Language Assessment. Vol. III: Language Assessment and Public Policy*. Springfield, IL.: Illinois State Board of Education, pp. 17-27.
- Jaeger, R. M. (1990). *Statistics: A Spectator Sport*. Newbury Park, CA: Sage Publications.
- Kalton, G. (1983). *Introduction to Survey Sampling*. Newbury Park, CA: Sage Publications.
- Kerlinger, F.N., 1986. *Foundations of Behavioral Research*. New York: Holt, Rinehart & Winston.
- Kidder, L. & Judd, C.M. (1986). *Research Methods in Social Relations*. Newbury Park, CA: Sage Publications.
- Kirk, J. , & Miller, M. (1986) *Reliability and Validity in Qualitative Research*. Newbury Park, CA: Sage Publications.
- Kvale, S. (1995). "The Social Construction of Validity", *Qualitative Inquiry* vol. 1, no. 1, pp. 19-40.
- Lee, A. S. "Integrating Positivist and Interpretive Approaches to Organizational Research," *Organization Science*. vol.. 2, 1991, pp. 342-365.
- Lessard-Hebert, M. *et al*(1990). *Recherche qualitative: fondements et pratiques*. Montréal: Agence d'ARC, 1990.
- Lincoln, Y. & Guba, E. (1989). *Fourth Generation Evaluation*. Newbury Park, CA: SAGE Publications.



- \_\_\_\_\_ . (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- Long, J. S. (1983). *Confirmatory factor analysis*. Beverly Hills, CA: Sage Publications.
- MacColl, G. S. & White, K. D. (1998). *Communicating Educational Research Data to General Nonresearcher Audiences*. College Park, MD: ERIC Clearinghouse on Assessment and Evaluation (ERIC Document Reproduction Service No. ED422406).
- Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education*. San Francisco: Jossey-Bass.
- \_\_\_\_\_ (1988). *Case Study Research In Education: A Qualitative Approach..* San Francisco: Jossey-Bass.
- Miles, M. & Huberman, A. (1994). *Qualitative Data Analysis: A Sourcebook Of New Methods* (2nd ed.). Beverly Hills: Sage Publications.
- \_\_\_\_\_ (1988). "Drawing valid meaning from qualitative data: Toward a shared craft." In Fetterman, D. M. (Ed.), *Qualitative approaches to evaluation in education: The silent Scientific Revolution*. NY: Praeger, pp. 222-244.
- Miller, D. C. (1997). *Handbook of Research Design and Social Measurement*. Newbury Park, CA. : Sage Publications.
- National Academy of Education. (1999). *Recommendations Regarding Research Priorities*. Washington, D. C.: Author.
- Nunally, J. (1978). *Psychometric Theory*. New York: McGraw-Hill.
- Patton, M. Q. (1997). *Utilization Focused Evaluation* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- \_\_\_\_\_ . (1994). "Developmental evaluation". *Evaluation Practice*, vol. 15, pp. 311-319.
- \_\_\_\_\_ . (1990). *Qualitative Evaluation and Research Methods*, 2nd Edition, Newbury Park, CA: Sage.
- Ragin, C. C. (1990). *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*, Berkeley and London: University of California Press.
- Rubin, H. & Rubin, I. (1995). *Qualitative Interviewing*. Newbury Park, CA.: Sage Publications.
- Sadler, D. R. (1985). "Evaluation, Policy Analysis and Multiple Case Studies: Aspects of Focus and Sampling". *Educational Evaluation and Policy Analysis*, vol.7, pp.143-149.

Schofield, J. W. (1990). "Increasing the Generalizability of Qualitative Research". In Eisner, E. W. and Peshkin, A. eds. *Qualitative Inquiry in Education: The Debate Continues*. New York: Teachers College Press, pp. 201-232

Silverman, David. (1993). *Interpreting Qualitative Data*. Newbury Park, CA: Sage Publications.

Smith, T. W. (1984). "Non-attitudes: A Review of Evaluation". In Turner, C.F., and Martin, E., eds. *Surveying Subjective Phenomena*. Vol. 2. New York: Russell Sage. pp. 214-243.

Sternthal, B., et. al. (1987). "Confirmatory versus Comparative Approaches to Judging Theory Tests". *Journal of Consumer Research*, vol. 14, 114-125.

Strauss, Anselm. (1987). *Qualitative Analysis for Social Scientists*. Cambridge: Cambridge University Press.

Tashakkori, A. & Teddlie (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA. : Sage Publications.

Trochim, W. (1989). "Outcome Pattern Matching and Program Theory". *Evaluation and Program Planning*, vol. 12, pp. 355-366

\_\_\_\_\_. (1985). "Pattern Matching, Validity, and Conceptualization in Program Evaluation". *Evaluation Review*, vol.9, no. 5, pp. 575-604.

Trudel, R. and Antonius, R. (1991). *Méthodes qualitatives appliquées aux sciences humaines*, Montréal: Centre éducatif et culturel inc.

The Interdisciplinary Centre Comparative for Research in the Social Sciences. (1999). *Delphi Survey - First Wave*. Vienna: Author.

Tukey, J. W. (1980). "We Need Both Exploratory and Confirmatory". *The American Statistician*, vol. 34, pp. 23-25.

\_\_\_\_\_. (1977). *Exploratory Data Analyses*. Addison-Wesley Publishing Company, Inc., 1977.

University of Alberta, *Instructor Designed Questionnaire Reports: Calculating the Median*. Alberta: Author, 1999.

Vogt, P. V. *Dictionary of Statistics and Methodology*. Newbury Park, CA.: Sage, 1993.

Webb, E. J., et. al. (1966). *Unobtrusive Measures*. Chicago: Rand McNally.

Yin, R. K. (1994). *Case Study Research: Design and Methods*. Thousand Oaks, CA.: Sage Publications.

\_\_\_\_\_. (1993). *Applications of Case Study Research*. Thousand Oaks, CA.: Sage Publications.

\_\_\_\_\_ & Moore, J. L. (1984). *The Utilization of Research: Lessons from a Multi-Disciplined Field*. Washington D.C.: COSMOS Corporation.

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- (1) acceptance policies on student transfers from other school districts;
- (2) operation of school bus routes or runs on a nonsegregated basis;
- (3) nondiscrimination in extracurricular activities and the use of school facilities;
- (4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;
- (5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;
- (6) nondiscriminatory practices relating to the use of a student's first language; and
- (7) evidence of published procedures for hearing complaints and grievances.

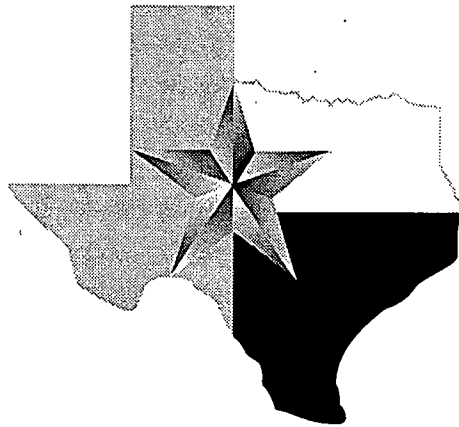
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