Evaluation of the Texas Pre-Kindergarten Limited English Proficiency Program: Baseline Findings from the 2008-09 School Year

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Baseline Findings from the 2008-09 School Year

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December 22, 2008

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The Office for Planning, Grants & Evaluation wishes to thank all agency staff who contributed to this report.

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This report is available at the Texas Education Agency's website at
http://www.tea.state.tx.us/opge/progeval/index.html.

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Executive Summary

The Texas Pre-Kindergarten Limited English Proficiency (Pre-K LEP) program was created to address the educational needs of English language learners (ELLs) enrolled in preschool. The goal of the program is to implement successful multi-age programs serving pre-kindergarten children (three-, four-, and five-year olds) that prepare ELLs for success in school. As specified in statute, the Pre-K LEP program must provide opportunities for the acquisition of English while supporting a child's first language through the provision of social services, appropriate training and modeling, and research-based curricula and supplies to enhance the development of both languages. Instruction must be in both languages so children can learn concepts in the language they understand while developing their English skills. Programs must include bilingual education specialists and continued professional development to support the teachers.

The 79th Texas Legislature allocated $1.5 million in state funds to establish the first Pre-K LEP pilot program, which was implemented during the 2006-07 school year. A new pilot program was authorized in 2007 by the 80th Texas Legislature, which allocated an additional $3 million in state funds for the 2008-2009 biennium. In the 2008-09 school year, a total of two school districts, 14 schools, and 546 students are participating in the first year of the new pilot program. In this first year, approximately $559,111 of the $3 million allocated for the 2008-2009 biennium will be expended, representing an average of $1,024 in state funds expended per student.

This report contains baseline results from a legislatively-required evaluation and review of student performance and improvement in the Pre-K LEP pilot program.[1] The report profiles grantees and examines baseline student performance in key measures that predict reading success (vocabulary, letter knowledge, and phonological awareness). Baseline student performance is examined to determine whether results are similar between treatment and

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[1] The evaluation requirement was established in 2007 by the 80th Texas Legislature, House Bill 1, General Appropriations Act, Article III, Rider 47(b).

control groups. If this is true, observed differences between treatment and control groups in evidence during later stages of program implementation could be attributable to the impact of the Pre-K LEP pilot program. Future reports will expand upon these analyses to include an examination of change in student performance over time. This report thus lays the foundation for future analyses that will investigate whether the Pre-K LEP pilot program has an impact on student academic performance.

The following key findings are included in the report:

Campus Characteristics

- Approximately 88% of students at Pre-K LEP schools are Hispanic; 77% are economically disadvantaged; and 74% are classified as at risk of dropping out of school.[2] All of these percentages are substantially higher than corresponding statewide proportions for elementary schools, consistent with the intent of the program to focus on ELLs.

Classroom Characteristics

- In every Pre-K LEP classroom, students were evenly divided between males and females and the vast majority (90%) of students were classified as LEP.
- A smaller percentage of treatment group classrooms (50%) than control group classrooms (67%) offered full day instruction to students.
- Most (67%) treatment group classrooms employed a "90/10" instructional model, with class time conducted in Spanish 90% of the time and in English 10% of the time. By contrast, most (67%) control group classrooms provided instruction in Spanish and English in equal amounts ("50/50" instructional model).

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[2] "Economically disadvantaged" is defined as eligible for free or reduced-price lunch or eligible for other public assistance. A student is identified as at risk of dropping out of school based on state-defined criteria found in Texas Education Code (TEC) §29.081.) This definition includes students who are of limited English proficiency.

Teacher Characteristics

- Approximately 30% of teachers in the treatment group, and 36% of teachers in the control group, were certified to teach in a field related to providing instruction to ELLs.

- On average, teachers in the treatment group had nine years of experience and had been in their current position for seven years. By contrast, control group teachers had an average of 16 years of experience and had been in their current position for an average of 12 years.

Baseline Student Performance

- Statistical differences at baseline between treatment and control groups were observed in English results for three key measures that predict reading success, all of which fall under the category of Phonological Awareness (Listening, Rhyming 1, and Rhyming 2).

- Statistical differences at baseline were also observed in Spanish results for the same three key measures that predict reading success, in addition to an observed statistical difference for student Letter Knowledge.

The presence of differences in classroom and teacher characteristics, and in student performance at baseline, means that treatment and control groups were not comparable at program inception. In terms of student progress monitoring, baseline differences were in favor of students in the control group in every instance, who outperformed students in the treatment group in both English and Spanish versions of the assessments. These differences between groups will need to be adjusted for in future analyses for student performance results to be comparable.

I. Introduction

This report contains baseline results from a legislatively-required evaluation and review of student performance and improvement in the Texas Pre-Kindergarten Limited English Proficiency (Pre-K LEP) pilot program in operation during the 2008-09 school year.[3] The Pre-K LEP program is state funded and provides grants to districts and schools to implement a program that prepares English language learners (ELLs) enrolled in preschool for success in school.

In 2005, the 79th Texas Legislature allocated $1.5 million in state funds to establish the first Pre-K LEP pilot program, which was implemented by the Texas Education Agency (TEA) during the 2006-07 school year. A new pilot program was authorized in 2007 by the 80th Texas Legislature, which allocated an additional $3 million in state funds for Pre-K LEP in the 2008-2009 biennium. In the 2008-09 school year, a total of 14 schools and 546 students participated in the first year of the program.

This report profiles the 2008-09 school year Pre-K LEP grantees and examines baseline student performance on key measures that predict reading success (vocabulary, letter knowledge, and phonological awareness). Future reports will expand upon these analyses to include an examination of change in student performance over time.

Programs to Help English Language Learners Succeed in School

Recent years have seen heightened interest among lawmakers in ways to improve the educational experiences of ELLs enrolled in Texas schools. This is largely the result of recent demographic trends and an awareness that ELLs are among those most at risk of school failure (Ruiz-de-Velasco & Fix, 2000). In the 2007-08 school year, Texas public schools enrolled

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[3] The evaluation requirement was established in 2007 by the 80th Texas Legislature, House Bill (HB) 1, General Appropriations Act, Article III, Rider 47(b).

nearly 4.7 million students. Approximately 46% (2.2 million) of the students were Hispanic, 12% (564,000) were enrolled in kindergarten and earlier grades, and 4.2% (197,400) were enrolled in Pre-K. Hispanic students accounted for 65% (128,310) of the Pre-K enrollment, and 64% (82,500) of these students were identified as LEP (Texas Education Agency, 2008).

Teaching ELLs to become proficient in English is an urgent state challenge and essential to ELL success in school (Alliance for Excellent Education, 2007). The diversity of English language learners and their families in terms of race and ethnicity, home languages, income, educational background, mobility, academic language proficiency, and other variables provides a unique challenge in determining the teaching strategy, curriculum or intervention required by individual students (Francis et al., 2006). ELLs are faced with the challenge of learning to read, write, and speak English while they try to master the subject matter contained in state-approved curricula. Providing these students with an early foundation in school readiness skills is crucial to improving their educational experiences and reducing their risk of dropping out of school.

Longitudinal intervention studies demonstrate the long lasting positive influence of quality pre-kindergarten education and suggest that children who begin formal learning with strong emergent literacy skills learn to read earlier and develop better reading skills, providing the foundation for later academic success (Preschool Curriculum Evaluation Research Consortium, 2008).

The National Literacy Panel on Language-Minority Children and Youth was created in 2002 by the U. S. Department of Education's Institute of Education Sciences to review the qualitative and quantitative research on the development of literacy in language-minority students. Major findings include the following: instruction that provides substantial coverage in the key components of reading has clear benefits for language-minority students; instruction in key components of reading and oral proficiency in English is critical; oral proficiency and literacy in

the first language can be used to facilitate literacy development in English; individual differences contribute significantly to English literacy development and the home language experiences can also have an impact on literacy achievement (August & Shanahan, 2006). This research underscores the importance of providing high quality pre-kindergarten literacy programs that target those students most in need of additional assistance. In Texas, there is a growing awareness of the importance of programs that provide ELLs with the skills they need to succeed in school.

Texas Pre-K Legislative Initiatives

Pre-kindergarten education for high-risk four-year old students in Texas public schools was initially mandated in 1986 under Texas Education Code (TEC) §21.136. Eligibility criteria for Pre-K students were changed in 2008 in the *Revised Texas Prekindergarten Guidelines* (TEA, 2008) and require documentation of eligibility for Pre-K students who do not speak and comprehend the English language. Legislation and appropriations riders passed by the legislature in 2005 and 2007 continued to fund the expansion of Pre-K programs and to promote school readiness integration partnerships for the provision of early education professional development for teachers (TEA, 2008).

Under TEC §28.005, the policy of the state is to ensure the mastery of English by all students. Texas Administrative Code (TAC) Chapter 89 further emphasizes the goal of bilingual education programs to enable LEP students to develop literacy and academic skills in their primary language and in English so they can become competent in the understanding, speaking, reading and writing of both languages. Public Pre-K programs are bound by the rules in TAC Chapter 89 related to bilingual and English as a second language (ESL) programs.

The *Revised Texas Prekindergarten Guidelines* offer detailed descriptions of expected behaviors across multiple skill domains as well as suggestions on ways to deliver experiences

that are developmentally appropriate for all children. It is suggested that the guidelines can and should be used to support learning in a broad range of skills for ELL children, including those receiving instruction in their home language (TEA, 2008).

Initial Pre-K LEP Pilot Program Authorized by the Texas Legislature

The Texas Pre-Kindergarten Limited English Proficiency (Pre-K LEP) pilot program was created to address the educational needs of ELLs enrolled in preschool. The pilot program was initially authorized by the 79th Texas Legislature in 2005, and was the first program to be established in Texas specifically targeting ELLs enrolled in preschool.[4] A total of $1.5 million in state funding was allocated to establish the program.

The goal of the first Pre-K LEP pilot program was to implement successful multi-age programs serving pre-kindergarten ELLs (three-, four-, and five-year olds) that prepare them to succeed in school. As specified in statute, the Pre-K LEP program must provide opportunities for the acquisition of English while supporting a child's first language through the provision of social services, appropriate training and modeling, and research-based curricula and supplies to enhance the development of both languages. Instruction must be in both languages so children can learn concepts in the language they understand while developing their English skills. Programs must include bilingual education specialists and continued professional development for teachers.

The first pilot program was administered by TEA to seven school districts selected to receive grant funds through a competitive Request for Application (RFA) process. These programs began implementation on September 1, 2006 and concluded on August 31, 2007.[5]

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[4] The pilot program was authorized by HB 1, General Appropriations Act, Article III, Rider 52, passed by the 79th Texas Legislature, Regular Session, 2005
[5] These programs were evaluated under a contract with the State Center for Early Childhood Development at the University of Texas Health Science Center at Houston, Children's Learning Institute.

Organizations eligible to apply for grant funds included public school districts; open-enrollment charter schools; Education Service Centers (ESCs); counties, cities, municipalities, Council of Governments (COGs) and state agencies; public nonprofit agencies; or nonprofit community-based organizations. Priority was given to entities that served a higher percentage of LEP children (as defined by TEC §29.052) and who served at least 75% economically disadvantaged children (defined as a child eligible for free or reduced price lunch, or eligible for other public assistance). Grantees were allowed to design their own programs, and expend funds on campuses as they saw fit, as long as they did so to meet the statutory intent of the program.

Current Pre-K LEP Pilot Program Authorized by the Texas Legislature

In 2007, the 80th Texas Legislature authorized a new pilot program and allocated $3 million in state funds for the 2008-2009 biennium.[6] The statutory purpose and goals of the new program were the same as in the first pilot program. TEA used these funds to implement the new pilot program and awarded a two-year grant to the State Center for Early Childhood Development at the University of Texas Health Science Center at Houston, Children's Learning Institute (State Center) to administer the program. TEA's new pilot program began on May 1, 2008 and will conclude on February 28, 2010. The State Center received a $1.5 million grant from TEA to administer the first year of TEA's new pilot program (May 1, 2008 through April 30, 2009), and will receive the same amount to administer the second year of the pilot program (May 1, 2009 through February 28, 2010) once all Year 1 grant funds are expended.

Following review and approval by TEA, the State Center issued a competitive RFA to recruit participating sub-grantees for the first year of the new pilot program in August 2008. Eligibility

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The evaluation report is available at the following website:
http://www.childrenslearninginstitute.org/documents/TEEM-2year.pdf.
[6] The second Pre-K LEP pilot program was authorized in 2007 by the 80th Texas Legislature, HB 1, General Appropriations Act, Article III, Rider 47 and funded with Rider 65 Limited English Proficiency – Student Success Initiative (LEP-SSI) state funds. There were no Pre-K LEP programs in operation for most of the 2007-08 school year.

criteria differed from the first pilot program, with only public school districts and open-enrollment charter schools that were currently implementing pre-kindergarten dual language/bilingual programs (English/Spanish) considered eligible to apply for a sub-grant. Each applicant was required to identify at least five teachers in the district who would participate in the program. The teachers could not have participated in the Texas Early Education Model (TEEM) before and had to provide classroom instruction in both Spanish and English.[7]

Applicants were informed that these teachers' classrooms would be assigned to treatment or control groups for the purposes of evaluating the program. Two school districts (Richardson ISD and McAllen ISD) applied for and were awarded sub-grant funds to implement a Pre-K LEP pilot program. The State Center established the timeline for the sub-grantee programs, which began implementation on September 15, 2008 and will end on July 31, 2009. Year 2 of the State Center's program will begin on September 1, 2009 and conclude on July 31, 2010. The two districts designated 14 schools to implement Pre-K LEP programs (see the Appendix for a list of sub-grantee districts and participating campuses), and a total of 546 students across both districts participated in the program in 2008-09. The State Center informed TEA that approximately $559,111 of the $3 million allocated for the program for the 2008-2009 biennium will be expended in 2008-09. This represents an average of $1,024 in state funds that will be expended on each student participating in the first year of the new pilot program ($559,111 divided by 546).[8]

Description of the Current Pre-K LEP Pilot Program

The State Center adapted elements of the TEEM model to design a new program that meets the unique needs of Spanish-speaking ELLs and is the primary means through which ELLs

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[7] Teachers could use either a 90/10 model (90% Spanish/10% English) or a 50/50 model (50% Spanish/50% English).
[8] Cost per student is inclusive of all program costs, including all State Center personnel costs, mentor salaries, all supplies and materials for teachers and mentors, professional development, licenses for professional development, progress monitoring assessment, data collection, and teacher observations.

enrolled in treatment group classrooms would be served. TEEM is a community-based initiative developed by the State Center under a mandate from the Texas Legislature in 2003.[9] The State Center was directed to explore how better to integrate the delivery of early childhood education for three-, four-, and five-year-old children at risk for school failure. The TEEM model was developed out of this effort.

The TEEM model contains proven components of school readiness, including a high quality, developmentally appropriate, and rigorous curriculum; continuous monitoring of student progress in the classroom; and professional development for teachers, including mentoring, to promote student achievement. TEEM provides dual language/bilingual instructional activities to ELLs and encourages shared resources among government-funded public and private childcare programs, including nonprofit and for-profit childcare centers, public school districts and Head Start.[10] TEEM implements a teacher training program designed by the State Center that is research-based and uses state-approved curricula. All TEEM participating teachers receive professional development, mentoring from school district and community-based partners, and instructional materials, and participate in online professional development courses. Teachers also monitor student progress three times during a school year, measuring how well children perform on three predictors of reading success: vocabulary, letter knowledge, and phonological awareness (listening, rhyming, alliteration, breaking sentences into words, and syllabication).[11] The teachers are then able to pinpoint areas needing improvement, for example, whether students should practice more rhyming skills to help them identify ending sounds of words.

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[9] The TEEM model was authorized in 2003 by the 78th Texas Legislature, Senate Bill (SB) 76 and reauthorized in 2005 by the 79th Texas Legislature, SB 23.

[10] For more on the TEEM model, see the following website: http://www.childrenslearninginstitute.org/our-programs/program-overview/TX-state-center/implementation/current-implementation-teem.html.

[11] Beginning of Year (BOY) progress monitoring occurred in October/November 2008; Middle of Year (MOY) progress monitoring will occur in February 2009; End of Year (EOY) progress monitoring will occur in May 2009.

Program Design

To facilitate evaluation of the program, the State Center assigned every teacher participating in the program to either a treatment or control group. Districts selected 24 classrooms to participate, with 12 classrooms assigned by the State Center to each group. (See the Appendix for a list of the number of treatment and control classrooms for each participating school.) Each classroom had one teacher and one teacher aide providing instruction to students.

Teachers in both treatment and control classrooms received student progress monitoring tools and training in how to use Personal Digital Assistants (PDAs) to record the data needed to measure student progress. The PDA is a hand-held, wireless data entry device that transmits student progress monitoring data to a wireless vendor. The vendor stores the data and reports student progress information back to the school or teacher in spreadsheet form. For each PDA progress monitoring session, teachers spend approximately 15-20 minutes per child monitoring student progress.

PDA training for teachers in Richardson ISD occurred in mid-September 2008 and was provided by the State Center. PDA training for teachers in McAllen ISD occurred in late October 2008 and was provided by the school district's PDA wireless provider. The PDA software assigns each student a performance level from 1 to 3 (low to high) in relation to the overall performance of all students in the classroom. The participation of teachers in the control classrooms was limited to the PDA training and student progress monitoring. Control group teachers were free to use any means at their disposal to assist students, but did not receive training or access to TEEM-related curricula.[12]

In addition to the PDA training, teachers in treatment classrooms also received training in implementing the TEEM model. In mid-November 2008, the State Center offered a three-day

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[12] Control group teachers will be surveyed in spring 2009 to investigate the range of instructional methods that were employed in their classrooms.

professional development conference for mentors and treatment group teachers. The first day

offered training to mentors who would work with teachers in the classroom implementing the

TEEM model. This was followed by two days of training with both the mentor teachers and the

treatment classroom teachers in attendance. The training provided the following information to

teachers:

- an overview of the program
- an opportunity to meet mentors
- training on literacy strategies, including specific strategies for working with ELLs
- training in how to work with groups effectively (three levels of groups identified based on progress monitoring)
- training in how to link the supplemental curricula activities as appropriate to each student's performance level
- an opportunity for teachers and mentors to set dates for required bi-weekly training sessions to occur over the next six months (teachers are expected to meet with their mentor 12 times during the school year)

Following this professional development conference, teachers and mentors meet for 12 bi-

weekly training sessions that occur over a six-month period. Each session covers a single topic

and is linked to an online training module. Online modules include video-based case studies of

classroom practice; materials highlighting the latest research findings, and activities designed to

help teachers apply what they are learning in the classroom. Only at the end of these sessions

in May 2009 will teachers have received the full range of professional development trainings.

Topics covered during these follow-up training sessions include:

1) Classroom Management
2) Phonological Awareness
3) Letter Knowledge
4) Vocabulary/Oral Language
5) Read Aloud/Comprehension
6) Written Expression

Each topic is covered during two full day sessions and focuses on how to teach the content area

in both English and Spanish. As an incentive to complete these trainings, the State Center

offers teachers $1,000 if they attend at least 80% (or 10) of the sessions and complete at least 80% (or 10) of the online modules.[13]

Each school district assigned an employee with early literacy training experience to serve as a mentor. Richardson ISD assigned an existing employee and McAllen ISD hired a new person for this role. Mentors lead each of the bi-weekly training sessions and are also expected to spend approximately six hours per month with each teacher in the classroom for observing teacher/student interactions and providing guidance in implementing the TEEM model.

After each progress monitoring session, teachers in treatment classrooms are encouraged to use their PDA data to guide curriculum activities developed by the State Center targeted to the performance level of each student. These curricula were developed specifically to meet the unique needs of Spanish-speaking ELL students, and follow the guidelines of the TEEM model and the professional development provided to treatment group teachers. For each activity provided to teachers, there are appropriate modifications to the activity depending on whether the teacher is working with a Level 1, Level 2, or Level 3 student. The goal of the activity is to help each child progress through the levels. Teachers in the control group do not have mentors and do not participate in any of these professional development activities. They also do not have access to the curriculum activities developed by the State Center.

Progress monitoring by teachers was initially scheduled to take place in September 2008, January 2009, and May 2009. Due to the impact of Hurricane Ike (September 2008), the first round of student progress monitoring and assessments was delayed. The State Center administered standardized student assessments in September 2008 and will administer the same assessments in May 2009. Richardson ISD completed its Round 1 PDA data collection on October 30, 2008. McAllen ISD completed its data collection on November 13, 2008.

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[13] The $1,000 incentive pay is in the form of extra duty pay and must be budgeted for by sub-grantees in their grant application.

Methodology

This report uses TEA administrative data as well as all available baseline data on grantees and students collected by the State Center during the first round of PDA progress monitoring. It contains descriptive information only on student and grantee characteristics, and compares the performance of treatment and control students at baseline. Future reports will incorporate data from later rounds of PDA progress monitoring and will examine program impacts. Thus, this report lays the foundation for future analyses that will investigate whether the Pre-K LEP program has an impact on student academic performance.

Research Questions

At this stage, the primary research question is: does the initial performance of students in treatment and control groups differ? Given that the first round of progress monitoring for all students took place at the beginning of implementation, it is expected that baseline performance results for treatment and control students would be similar. If this is true, and other factors equal, observed differences between treatment and control groups in evidence during later stages of program implementation would be directly attributable to the impact of the Pre-K LEP program.

This report seeks to answer the question of pre-treatment performance differences between groups, and addresses several related questions:

Profile of Pre-K LEP Campuses
    a. What are the characteristics of campuses in treatment and control groups?
    b. What are the characteristics of classrooms participating in the program?
    c. What are the characteristics of teachers assigned to treatment and control groups?

Baseline Student Performance Results
    a. How did Pre-K LEP students perform during the initial round of progress monitoring?
    b. Was there a statistically significant performance difference at baseline between students in treatment and control groups?

II. Profile of Pre-K LEP Schools

Campus Characteristics

An examination of Pre-K LEP school characteristics in 2007-08 reveals that these schools are comprised of predominantly Hispanic student populations, indicating that campuses selected for the program are in line with program goals to to focus on the needs of ELL students.[14]

Pre-K LEP schools differ from other elementary schools statewide along several demographic dimensions. Table 1 depicts basic demographic information for the Pre-K LEP grantee schools combined and compares them with all public elementary schools statewide. On average, Pre-K LEP schools had student populations that were overwhelmingly Hispanic (87.8%), economically disadvantaged (75.0%), and classified as at risk of dropping out of school (72.4%). By contrast, elementary schools in Texas, as a group, have smaller percentages of students that are Hispanic (50.6%), economically disadvantaged (61.5%), and classified as at risk of dropping out of school (48.8%). Pre-K LEP schools are slightly larger than all elementary schools statewide (an average of 607 students compared to 531 students, respectively).

Table 1. Pre-K LEP Campus Characteristics, 2007-08 School Year

Characteristic	Pre-K LEP Grantee Campuses	State
Hispanic	87.8%	50.6%
African American	3.7%	13.8%
White	6.4%	31.9%
Economically Disadvantaged	75.0%	61.5%
At-Risk	72.4%	48.8%
Average Number of Students	607	531

N=14 sub-grantee campuses
Source: Public Education Information Management System (PEIMS) data, Texas Education Agency, 2008.
Note: One school is not included in these results. This is a new campus that opened in August 2008. Demographic data from the 2008-09 school year will be available in March 2009.

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[14] 2008-09 campus, teacher, and student data will not be available until March 2009. Future reports will update all results in this report with data from the 2008-09 school year.

Classroom Characteristics

The State Center compiled information about key characteristics of classrooms in treatment and control groups. The data include the bilingual instructional model used in each classroom, the time of day that classes were conducted, and the number of students in each classroom by gender and LEP status.

On average, the number of students per classroom was similar between treatment and control groups (22 students and 24 students, respectively). Teachers participating in the program provided instruction to these students at varying times during the day, with control group classrooms more likely to provide full day instruction. In the treatment group, one-half (50%) of classrooms offered full day instruction to students, with 25% of classrooms providing half day instruction in the morning and 25% providing half day instruction in the afternoon (Table 2). By contrast, two-thirds (67%) of control group classrooms provided full day instruction. Only 17% of these classrooms provided half day instruction in the morning, and 17% provided half day instruction in the afternoon.

To be eligible for the program, sub-grantee applicants had to guarantee that teachers provide instruction to students in a bilingual setting. Applicants were free to use any mix of Spanish and English during class time, as long as both languages were utilized in instruction. As shown in Table 2, most (67%) treatment group classrooms used a "90/10" instructional model, with class time conducted in Spanish 90% of the time and in English 10% of the time. By contrast, the majority of control group classrooms provided instruction in Spanish and English in equal amounts ("50/50" model).

Table 2. Pre-K LEP Classroom Characteristics, 2008-09 School Year

Group	Average Number of Students per Classroom	Class Time			Instructional Model	
		Full Day	Half Day Morning	Half Day Afternoon	90/10	50/50
Treatment	22	50.0%	25.0%	25.0%	66.7%	33.3%
Control	24	66.7%	16.7%	16.7%	33.3%	66.7%

N=24.
Source: Data on classroom characteristics compiled by the State Center for Early Childhood
　　　　Development, 2008.
Note:　The number of classrooms in treatment (N=12) and control (N=12) groups is the same.

Overall, student demographic characteristics were fairly uniform between treatment and control classrooms. As depicted in Table 3, students participating in the program were almost evenly split between males and females in both groups, with a slightly higher percentage (94%) of students in the control group characterized as LEP than students in the treatment group (85%).

Table 3. Pre-K LEP Student Characteristics, 2008-09 School Year

Characteristic	Treatment Group		Control Group		Total	
	Number	Percent	Number	Percent	Number	Percent
Male	129	49.2%	144	50.7%	273	50.0%
Female	133	50.8%	140	49.3%	273	50.0%
Limited English Proficient	222	84.7%	268	94.4%	490	89.7%
Total	262	100.0%	284	100.0%	546	100.0%

Source: Data on classroom characteristics compiled by the State Center for Early Childhood
　　　　Development, 2008.

Teacher Characteristics

Every teacher participating in the program is Hispanic and all but one (95%) is female. As depicted in Table 4, the largest group of teachers in the treatment (30%) and control (36%) groups were certified in a field related to providing instruction to ELLs (Bilingual Ed – Supplemental Spanish; Bilingual Spanish; Bilingual/English as a Second Language).[15] The next most-common type of certification for teachers in both groups was certification to teach in a

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[15] Teachers can be certified to provide ELL instruction in both a bilingual and an English-only setting. The rules governing the instruction of ELLs are found in TAC Title 19, Part 7, Rule §233.6.

Self-Contained classroom (18% of teachers in the treatment group and 27% of teachers in the control group) and certification in Early Childhood Education (12% and 23%, respectively).

Table 4. Pre-K LEP Teacher Certifications, 2007-08 School Year

Certification Field	Treatment Group Certifications		Control Group Certifications	
	Number	Percent	Number	Percent
Bilingual Ed – Supplemental Spanish	1	5.9%	0	0.0%
Bilingual Spanish	3	17.6%	4	17.4%
Bilingual/English as a Second Language	1	5.9%	5	21.7%
Early Childhood Education	2	11.8%	5	21.7%
English	0	0.0%	1	4.3%
Generalist	2	11.8%	0	0.0%
Generic Special Education	1	5.9%	0	0.0%
Physical Education	2	11.7%	1	4.3%
Reading	1	5.9%	0	0.0%
Self-Contained	3	17.7%	6	26.1%
Speech Communications	0	0.0%	1	4.3%
Visually Handicapped	1	5.9%	0	0.0%
Total Number of Certifications	17	100%	23	100%

N=15 teachers
Source: State Board of Educator Certification (SBEC) data and Public Education Information
 Management System (PEIMS) data, Texas Education Agency, 2008.
Note: These data can be duplicative because teachers can hold more than one teaching certification.
 Complete certification data for the 2008-09 school year will be available in September 2009.
 Data for 4 of the 19 teachers participating in the program was not found in SBEC data or PEIMS
 data.

Interestingly, teachers in the control group were more experienced overall, and had spent more time on the job, than their counterparts in the treatment group. As depicted in Table 5, control group teachers had spent an average of 11 years in their current position and had an average of 15 years of teaching experience. By contrast, treatment group teachers had been in their positions for an average of seven years, and had an average of nine years of teaching experience.

Table 5. Pre-K LEP Teacher Experience and Tenure, 2007-08 School Year

Characteristic	Treatment Group	Control Group
Average Years in Current Position	7	11
Average Years of Teaching Experience	9	15

N=15 teachers
Source: Public Education Information Management System (PEIMS) data, Texas Education Agency,
2008.
Note: Complete teacher data for the 2008-09 school year will be available in March 2009. Data for 4 of
the 19 teachers participating in the program was not found in PEIMS data.

Summary of Findings

Overall, student demographic characteristics were similar between classrooms in treatment and control groups. In every classroom, students were evenly divided between males and females, and the vast majority of students in both groups were classified as LEP. Teacher certification characteristics were also similar: the most common certifications held by teachers in both groups were certifications in a field related to ELL instruction or Early Childhood Education.

By contrast, there were notable differences in other classroom characteristics that could make it difficult to draw causal inferences about student performance between groups when change over time is observed. A smaller percentage of treatment group classrooms than control group classrooms offered full day instruction to students, and teachers in the treatment group were less experienced and had spent less time in their current position than control group teachers. These differences could influence student outcomes and will need to be adjusted for in future analyses of student performance.

III. Baseline Student Performance Results

This section presents baseline findings on student performance in English and Spanish using PDA progress monitoring data collected by teachers in October/November 2008 and submitted to TEA by the State Center in November 2008. This first round of progress monitoring occurred near the beginning of the school year and measures student ability when Pre-K LEP programs were in the early stage of implementation. As such, these results cannot be used to evaluate directly the impacts of the program, but instead provide a foundation for future analyses that will examine the effect of the Pre-K LEP program on observed changes in student performance over time.

As described earlier, Pre-K LEP teachers monitor student progress in English and/or Spanish using several measures that predict future reading success. Teachers use an assessment system developed by the State Center called the CIRCLE-Phonological Awareness, Language, and Literacy System (C-PALLS) to monitor student progress. C-PALLS is specifically designed for children in pre-school settings. It consists of a one-minute letter naming subtest, a one-minute vocabulary screener, and a phonological awareness screener comprised of seven different measures that takes approximately seven minutes to complete. Every measure was assessed by the State Center for inter-rater reliability and internal consistency and found to be both reliable and valid.[16]

During each round of progress monitoring, teachers observe students and enter a score for each measure into their hand-held PDAs. The software records the data entered by teachers and generates a composite score representing overall performance on the Phonological Awareness screener.

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[16] Technical documentation on the C-PALLS system is available from the State Center. See "Technical Support Instrument Description," State Center for Early Childhood Development at the University of Texas Health Science Center at Houston, Children's Learning Institute, Houston, TX, 2008.

Table 6 presents the measures employed by the C-PALLS system to monitor student progress.

T-tests were conducted for each of the measures to determine whether statistically significant

differences in student performance at baseline were in evidence between treatment and control

groups.

Table 6. Measures Used in Pre-K LEP Student Progress Monitoring

Measure	Definition	Scale
Letter Knowledge	Number of upper- and lower-case letters correctly identified in one minute	52 possible letter combinations
Vocabulary	Number of words correctly identified in one minute	72 possible words
Phonological Awareness		
Listening	Number of two-word comparisons in which the student correctly identifies whether they're the same word	5 possible comparisons
Rhyming 1	Number of two-word comparisons in which the student correctly identifies whether they rhyme	9 possible comparisons
Rhyming 2	Number of words the student is able to correctly identify another word that rhymes	5 possible words
Alliteration	Number of two-word comparisons in which the student correctly identifies whether the first sounds match	7 possible comparisons
Syllabication	Number of words correctly broken down into syllables	7 possible words
Words in a Sentence	Number of words in a sentence correctly identified when the sentence is read aloud to the student	5 possible sentences
Onset Rime	Number of words correctly identified when presented with the phonological components (English version only)	5 possible words
Composite Score	The sum of all phonological awareness subtests (7 English; 6 Spanish)	81 possible points

Source: CIRCLE – Phonological Awareness, Language, and Literacy System (C-PALLS), State Center for Early Childhood Development at the University of Texas Health Science Center at Houston, Children's Learning Institute, 2008.
Note: Assessments for all measures are conducted in English and Spanish, except for Onset Rime assessments, which are only available in English.

As depicted in Table 7, baseline English performance between students in treatment and control

groups was the same for six of the nine measures. Statistical differences at baseline were

observed for three measures, all of which fall under the category of Phonological Awareness:

Listening, Rhyming 1, and Rhyming 2 (all differences were less than one point). There was also

a statistically significant difference between groups in the Phonological Awareness composite

measure (a difference of 2.2 points).

Table 7. Baseline Student Performance in English by Comparison Group, 2008-09 School Year

Measure	Treatment Group		Control Group		Difference (a-b)
	Number of Students Assessed	Mean Score (a)	Number of Students Assessed	Mean Score (b)	
Letter Knowledge	197	8.3	125	8.8	-0.5
Vocabulary	197	13.1	119	14.9	-1.8
Listening	187	3.4	122	3.9	**-0.5****
Rhyming 1	186	4.6	122	5.3	**-0.7****
Rhyming 2	187	0.4	122	0.8	**-0.4***
Alliteration	188	3.5	122	3.5	0.0
Words in a Sentence	186	1.3	121	1.4	-0.1
Syllabication	186	3.9	122	4.3	-0.4
Onset Rime	186	1.3	122	1.1	0.2
Composite Score	188	18.2	122	20.4	**-2.2****

N=546

Source: Student progress monitoring data, State Center for Early Childhood Development at the
University of Texas Health Science Center at Houston, Children's Learning Institute,
2008.

Note: Asterisk denotes statistical significance (*$p<.05$; **$p<.01$).

Similar results were found for baseline Spanish performance (see Table 8). Statistically

significant differences (less than one point difference each) were observed for the same three

Phonological Awareness measures and also for Letter Knowledge (1.5 point difference). A

statistically significant difference was also observed for the composite measure.

**Table 8. Baseline Student Performance in Spanish by Comparison Group,
2008-09 School Year**

Measure	Treatment Group		Control Group		Difference (a-b)
	Number of Students Assessed	Mean Score (a)	Number of Students Assessed	Mean Score (b)	
Letter Knowledge	226	4.2	264	5.7	**-1.5***
Vocabulary	224	16.0	261	16.6	-0.6
Listening	225	3.6	270	4.1	**-0.5****
Rhyming 1	225	4.3	268	4.9	**-0.6****
Rhyming 2	224	0.3	266	0.6	**-0.3****
Alliteration	223	2.9	268	3.4	**-0.5****
Words in a Sentence	222	1.0	268	1.0	0.0
Syllabication	223	3.7	267	3.8	-0.1
Onset Rime	N/A	N/A	N/A	N/A	N/A
Composite	225	16.0	271	17.6	**-1.6****

N=546
Source: Student progress monitoring data, State Center for Early Childhood Development, 2008.
Note: There is no Spanish-language version of the Onset Rime measure in the State Center's C-PALLS
          system. Asterisk denotes statistical significance (*p<.05; **p<.01).

The only measures for which no statistical differences could be detected in either language were Vocabulary, Words in a Sentence, and Syllabication. Although differences between groups were small, the presence of statistical differences in all of the other measures indicates that treatment and control groups were not comparable for student performance at baseline. In every instance, the differences were in favor of students in the control group, who outperformed students in the treatment group in both English and Spanish versions of the assessments. These differences between groups will need to be adjusted for in future analyses of student performance.

IV. Discussion

This report presents baseline findings from an evaluation of the Texas Pre-K LEP pilot program. The analyses support the following observations about the program:

- *Approximately $1,024 in state funds will be expended on each student participating in the Pre-K LEP pilot program during the 2008-09 school year.* The State Center was awarded $3 million in grant funds to administer the Pre-K LEP program during the 2008-2009 biennium. Two school districts applied for and were awarded sub-grants to participate in the first year of the pilot program, with a total of 14 schools and 546 students participating in the program that year.

- *Pre-K LEP schools differ from elementary schools statewide along several demographic dimensions.* Pre-K LEP schools have student populations that are overwhelmingly Hispanic and have higher percentages of students classified as economically disadvantaged and at risk of dropping out of school, compared to all elementary campuses statewide.

- *Student demographic characteristics were similar between classrooms in treatment and control groups.* In every classroom, students were evenly divided between males and females and the vast majority of students were classified as LEP.

- *Overall, there were some notable differences in classroom characteristics between treatment and control groups.* Although a majority of teachers in treatment and control groups were certified in a field relevant to providing instruction to ELLs, a smaller percentage of treatment group classrooms than control group classrooms offered full day instruction to students. Teachers in the treatment group were less experienced and had spent less time in their current position than control group teachers. As well, most treatment group classrooms were using a 90/10 instructional model, with class time

conducted in Spanish 90% of the time. By contrast, most control group classrooms

provided instruction in Spanish and English in equal amounts.

- *Statistical differences at baseline were detected on several measures that were used by teachers to assess student performance.* Statistical differences at baseline were observed in English results on three measures, all of which fall under the category of Phonological Awareness (Listening, Rhyming 1, and Rhyming 2). The same results, in addition to an observed statistical difference for the Letter Knowledge measure, were found for baseline Spanish results.

Study Limitations and Next Steps

The fact that treatment and control groups were not comparable at baseline has important

implications for future evaluation efforts. First, the presence of statistical differences between

groups in baseline student performance will need to be adjusted for in future analyses of Pre-K

LEP student performance. More problematic are the notable differences between groups in

classroom and teacher characteristics that cannot be adjusted for. Instructional model, time of

instruction, and teacher experience and tenure were all confounded with the assignment of

schools to treatment or control groups. It will be difficult to distinguish between the impact of

these factors and the interventions provided by the State Center on student performance. The

comparatively small number of schools and students participating in the program is another

problem. Ideally, the analysis dataset would include a substantially larger number of

participating schools and students, but this would entail expansion of the program beyond

current participation levels.

It is important to keep all of these limitations in mind when interpreting results that will be

published in the next evaluation report (forthcoming in spring 2009). The next report will utilize

two rounds of PDA data collection (baseline data and data collected in February 2009) and will

present findings from an examination of change in student performance over time. To the extent possible, that analysis will adjust for all possible covariates that might account for change in student performance. Nevertheless, the small number of participating schools and students, and the presence of multiple causal factors confounded with the assignment of treatment and control groups, will make it very difficult to distinguish between program effects and the impact of other sources of change in student performance.

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Appendix
List of Sub-Grantee School Districts and Participating Campuses

District	School	Group	Classroom Number	Model	Class Time
McAllen	Bonham Elementary	Treatment	1	50/50	Daytime
McAllen	Bonham Elementary	Treatment	2	50/50	Daytime
McAllen	Castaneda Elementary	Control	1	50/50	Daytime
McAllen	Garza Elementary	Control	1	50/50	Daytime
McAllen	Jackson Elementary	Control	1	50/50	Daytime
McAllen	Jackson Elementary	Control	2	50/50	Daytime
McAllen	Crockett Elementary	Control	1	90/10	Daytime
McAllen	Houston Elementary	Control	1	90/10	Daytime
McAllen	Houston Elementary	Control	2	90/10	Daytime
McAllen	Navarro Elementary	Control	1	90/10	Daytime
McAllen	Perez Elementary	Treatment	1	90/10	Daytime
McAllen	Perez Elementary	Treatment	2	90/10	Daytime
McAllen	Hendricks Elementary	Treatment	1	90/10	Daytime
McAllen	Wilson Elementary	Treatment	1	90/10	Daytime
Richardson	Mark Twain	Control	1	50/50	Morning
Richardson	Mark Twain	Control	2	50/50	Afternoon
Richardson	Dobie Primary	Treatment	1	50/50	Morning
Richardson	Dobie Primary	Treatment	2	50/50	Afternoon
Richardson	Dobie Primary	Treatment	3	50/50	Morning
Richardson	Dobie Primary	Treatment	4	50/50	Afternoon
Richardson	Lake Highlands	Treatment	1	50/50	Morning
Richardson	Lake Highlands	Treatment	2	50/50	Afternoon
Richardson	Dover Elementary	Control	1	50/50	Morning
Richardson	Dover Elementary	Control	2	50/50	Afternoon

Source: Data on classroom characteristics compiled by the State Center for Early Childhood
   Development, 2008.

The cover art titled ***Everyone Can Learn*** by **Rita Yeung**, from Garland High School in the Garland Independent School District, was included in the 2007-2008 Texas PTA Reflections art exhibit. The exhibit featured award-winning pieces displayed at the Texas Education Agency, the Texas Commission on the Arts, and the Legislative Budget Board from April 21 through August 29, 2008.