READ RIGHT FROM THE START:

GEORGIA PRE-K PROFESSIONAL DEVELOPMENT PROJECT

YEAR 2 EVALUATION

(2010-2011)

Report submitted to:

The Rollins Center for Language & Learning

The Atlanta Speech School

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Executive Summary

The Rollins Center for Language & Learning at The Atlanta Speech School has been a leader in providing support to schools, teachers, children and families to foster language and literacy achievement for all children, especially children who are at-risk for or are currently experiencing difficulty in school. Beginning in 2009, Rollins partnered with the Hanson Initiative for Language & Literacy at Massachusetts General Hospital, the United Way of Metropolitan Atlanta, and Bright from the Start to implement *Read Right from the Start: Georgia Pre-K Professional Development Project*—an initiative focused on strengthening and enriching the language and literacy development of young children by providing professional development, coaching, and mentoring to pre-K teachers and teacher assistants in Georgia pre-K classrooms (hereafter referred to as Read Right). In order to evaluate the teacher, classroom, and child outcomes from the project, a group of research faculty at Georgia State University conducted an independent evaluation. This report summarizes findings from Year 2 of the project.

Children and teachers from 20 Georgia pre-K classrooms throughout the metropolitan Atlanta area participated in Year 2 of the evaluation. Teachers were observed providing instruction in their classrooms at the beginning, middle, and end of the school year and participated in focus groups to share their impressions of the program at the end of the year. Children completed several language and literacy tasks at the beginning and end of the school year. Classrooms were located in public elementary schools and private childcare sites and included:

- DeKalb County: Childcare Network 50, LaPetite Academy
- Fulton County: Lake Forest Elementary School (Fulton County Schools), Conley Hill Elementary School (Fulton County Schools), L. O. Kimberly Elementary School (Atlanta Public Schools)
- Gwinnett County: Sunshine Houses 76 and 77
- Rockdale County: J.H. House Elementary School, Peeks Chapel Elementary School, Hightower Elementary School

Consent was obtained for 40 lead and assistant teachers and parent permission was obtained for 294 children to participate in the evaluation protocol in Fall 2010. Of these children (mean age = 54.7 months, SD = 3.5 months), 46.6% were boys, 46.9% were African American (40.8% were Hispanic/Latino), and 38.4% were English Language Learners (ELL) whose primary home language was Spanish (as reported by teachers based on parent responses on enrollment forms and/or student's primary language use in the classroom). Individual student's socio-economic status was not available. Surveys were completed by 165 of the children's primary caregivers and indicated that 34.8% of the respondents had attended at least some college, vocational/ technical school, or obtained an associate's degree (19.2% had obtained at least a college degree).

Analyses for the second year of the project focused on five separate outcomes. First, like the Year 1 evaluation, we measured student performance on various language and literacy tasks and observed teacher's classroom quality and instructional practices. The purpose of these analyses was to examine student and teacher progress over the academic year. Second, because one goal

of Read Right was to improve teachers' knowledge about pedagogical practices that support young children's language and literacy achievement, we examined teachers' performance on a teacher knowledge survey. Third, because some teachers participated in the project for two years, we examined not only changes in their instructional practices but also their students' performance on key language and literacy indicators. Finally, in order to gather some estimation of the long-term effects of children's participation in pre-K classrooms with teachers who had participated in Read Right, we followed some children from Year 1 of the project into kindergarten and measured their language and literacy achievement at the beginning and end of the school year.

Student and Teacher Outcomes during Year 2

Overall, the results are very similar to those reported for Year 1. Both children and teachers exhibited significant growth in the targeted outcome areas. Progress was most evident for children who entered pre-K with poor oral language achievement and children whose primary home language was not English. Moreover, achievement gaps were still present among the children, with children in these two at-risk groups still performing below their typically-achieving peers at the end of pre-K. Finally, compared to Year 1, students made quite impressive gains in phonological awareness skills.

Specifically, at the end of the pre-K year for typically achieving children whose primary language was English:
- 88% performed at or above average on norm-referenced measures of oral receptive vocabulary (as compared to 88% at the beginning of the year);
- 92% performed at or above average on norm-referenced measures of oral expressive vocabulary (as compared to 90% at the beginning of the year);
- 95% performed at or above average on norm-referenced measures of print and alphabet knowledge (as compared to 85% at the beginning of the year);
- 75% performed at or above average on norm-referenced measures of phonological awareness (as compared to 66% at the beginning of the year);
- 87% were able to name at least 12 uppercase letters correctly (as compared to 62% at the beginning of the year);
- 92% were able to write their names with many correct letters (as compared to 60% at the beginning of the year).

Significant progress was observed for children who began pre-K with very low oral language skills. As noted in the Year 1 Evaluation Report, these findings are particularly important because the professional development program focused on helping teachers to improve children's oral language knowledge and use. Among children in this group:
- 38% performed at or above average on norm-referenced measures of oral receptive vocabulary (as compared to 0% at the beginning of the year);
- 52% performed at or above average on norm-referenced measures of oral expressive vocabulary (as compared to 50% at the beginning of the year);
- 70% performed at or above average on norm-referenced measures of print and alphabet knowledge (as compared to 41% at the beginning of the year);

- 43% performed at or above average on norm-referenced measures of phonological awareness (as compared to 32% at the beginning of the year);
- 63% were able to name at least 12 uppercase letters correctly (as compared to 23% at the beginning of the year);
- 72% were able to write their names with many correct letters (as compared to 26% at the beginning of the year).

Finally, children who were ELL also exhibited growth in the targeted outcome areas over the school year, although their means were lower than the children who were not ELL. This result is similar to those reported in the literature for ELL who receive language and literacy instruction in English-only classrooms.

Teachers also showed growth over the school year. Specifically, classroom observation indicated that teachers:

- significantly improved their oral language interactions with children and increased opportunities for emergent reading and writing activities;
- significantly improved the quality of the instructional support they provided children;
- significantly increased their intentional focus on literacy skills;
- significantly improved their ability to implement interactive repeated story book reading activities during large group activities and strategies to "lift the language" during center time activities;
- improved the frequency and quality of their interactions with children around letters, print knowledge, and phonological awareness.

Teacher Knowledge

Teachers' performance on a Teacher Knowledge Survey given at the beginning (Fall 2009) and end (Spring 2011) of Read Right improved significantly, from 58% to 68.4%. Although not at mastery levels (e.g., 80%), these findings suggest that teachers acquired knowledge about children's early literacy and language development, how language works in relation to the acquisition of literacy skills, and best practices for language and literacy instruction.

The Effect of Two Years of Read Right on Instructional Practice

Staffing changes at the participating sites resulted in some teachers participating in Read Right for two full years (2009-2011) and some only participating for one year (2010-2011). Analyses comparing these two groups of teachers' scores on classroom observational tools revealed a complex and nuanced picture of the effects of professional development on classroom practice in pre-K. Specifically:

- Teachers who received two years of Read Right significantly improved their scores on the Book Reading subscale of the ELLCO in the first year of the project and significantly improved their practice on the Language and Writing subscales of the ELLCO during the second year of the project.

- Although teachers who received two years of Read Right improved the quality of their Management and Emotional Support, as evidenced by their CLASS scores, during the first year of the project, a significant change in the quality of their Instructional Support and Literacy Focus (areas targeted by Read Right) occurred during the second year of the project.

- Teachers who received two years of Read Right evidenced considerable improvement in their repeated interactive book reads and these improvements were maintained over the second year of the project.

- According to the fidelity tool, teachers who received two years of Read Right significantly outperformed teachers receiving only one year of Read Right in the quality of their Interactive Repeated Book Reads, marginally outperformed them on Language quality during center time, and performed the same as teachers receiving one year of training on PAC Time implementation.

Language and Literacy Achievement in Kindergarten

Finally, we examined the language and literacy achievement of some children who were enrolled in Read Right classrooms in pre-K during their kindergarten year. Analyses revealed that:

- children exhibited steady growth in vocabulary knowledge from the beginning of pre-K to the end of kindergarten;
- children demonstrated age-appropriate vocabulary, letter recognition, word reading, and spelling achievement at the beginning and end of kindergarten;
- although children demonstrated phonological awareness skills that were slightly below average at the beginning of kindergarten, they began kindergarten with stronger phonological awareness skills than peers in their classrooms. Children in both groups attained age-appropriate achievement by the end of kindergarten.

Summary

Findings from the Year 1 and Year 2 evaluation of Read Right suggest that teachers significantly improved their language and literacy knowledge and practices over the course of two years. Results from teacher observations over two years reveal that teachers were able to change the quality of some practices rather quickly (i.e., repeated book reads), while others took more time to develop (i.e., quality of conversations and language interactions, literacy focus). Encouragingly, this change appeared to transfer to children's development, as measured by standardized literacy and language assessments, and was more evident during the second year of Read Right than the first year. These findings suggest that although teachers take time to improve some of their literacy and language practices, the effects of this change are evident in children's growth and development of literacy and language skills. Although considerable time and effort is expended to change teachers' knowledge and practices, it appears that these changes promote meaningful growth and development in children's language and literacy skills.

Finally, as noted in the Year 1 report, the evaluation team acknowledges that the results and their interpretation are limited by the experimental design. A quasi-experimental design with a

comparison group of children and teachers is necessary to examine the causal relationships between the Read Right intervention and outcomes for teachers, classrooms, and students. In addition, it is important to continue to monitor children's progress through the primary grades, not only to better understand the benefits of the gains they exhibited during their pre-K year but also to support them (and their teachers) as they begin formal literacy instruction so that the gains are not lost. This kind of support would seem particularly important for children who, like many of those in the ELL and low oral language groups in this report, made significant progress during pre-K but still enter kindergarten lacking proficiency in critical early literacy skills.

Introduction

Ample empirical evidence indicates not only that school readiness is fundamental for later academic achievement but also that many children enter school lacking the skills they need to succeed in school (please see the Year 1 Evaluation Report for a brief review of the literature and relevant issues). Pre-K teachers continue to need professional development and support to provide developmentally appropriate, evidence-based, and assessment-informed, high quality early language and literacy instruction. In partnership with the United Way of Metropolitan Atlanta and Bright from the Start, the Rollins Center for Language & Learning at the Atlanta Speech School has responded to these needs by implementing *Read Right from the Start: Georgia Pre-K Professional Development Project* (hereafter referred to as Read Right). Read Right is a professional development initiative focused on strengthening and enriching the language and literacy development of young children by providing training sessions, seminars, coaching, and mentoring to pre-K teachers and teacher assistants. The project was expected to improve outcomes for students and early childhood educators through intensive and extensive on-going professional development that emphasizes the special importance of a language-rich curriculum and classroom as well as instructional strategies that reach all students.

The first of two years of Read Right was completed in June 2010 (please see the Year 1 Evaluation Report for the complete findings). Findings from the evaluation of the first year of the project indicated that both students and teachers exhibited significant growth in the targeted outcome areas. Students showed improved print and alphabet knowledge, expressive and receptive vocabulary skills, and phonological awareness skills. The results were particularly impressive for students who began the pre-K year with very poor oral language skills. In addition, classroom observations indicated that teachers also improved the quantity and quality of their language and literacy instruction. These improvements were most noticeable during storybook reading, print and alphabet knowledge instructional time, and emergent writing activities. The second year of Read Right was focused on helping teachers maintain the gains they had made during the previous year. In addition, teachers were given support to implement new practices, including phonological awareness instruction linked to benchmark data, using assessment data to inform instruction, strategies for teaching English Language Learners and students with poor oral language skills and emergent writing activities.

The following report details findings from the evaluation of teacher, classroom, and student outcomes during the second year of Read Right, conducted independently by researchers from Georgia State University. The first two sets of analyses were similar to those conducted for the Year 1 evaluation. First, student outcomes are summarized, focusing on findings from the entire participant sample, as well two groups of children who were especially at-risk for experiencing reading difficulty later in school: children with very low oral vocabulary knowledge at the beginning of pre-K and children who were English Language Learners (ELL). Then, the teacher and classroom outcomes are summarized, focusing on results from classroom observations and focus group responses.

The final three sets of analyses are new to the evaluation of Read Right. Here, we capitalized on the longitudinal design of the project and explored long-term outcomes from the project. First,

some teachers participated in the project for two years, while others participated for one year. Therefore, we examined differences in their instructional practices. For those teachers who received support for two full years, we examined not only changes in their instructional practices over the course of the project but also their student's performance on key language and literacy indicators. Second, one goal of Read Right was to improve teachers' knowledge about pedagogical practices that support young children's language and literacy achievement. Therefore, for teachers who had received two full years of support, we examined their performance on a teacher knowledge survey that was given in Fall 2009 and Spring 2011. Finally, in order to gather some estimation of the long-term effects of children's participation in pre-K classrooms with teachers who had participated in Read Right, we followed children from Year 1 of the project into kindergarten and measured their language and literacy achievement at the beginning and end of the school year.

Summary of the Evaluation Design, Procedures, and Analytical Approach

The research design for the Year 2 evaluation was similar to that used for the Year 1 evaluation. For clarity, the design is described again below.

The researchers utilized a pre-test/post-test design with norm-referenced assessments whenever possible. Norm-referenced assessments are standardized on a large sample of children across various demographic characteristics (e.g., gender, socioeconomic status, race), and responses can be transformed into a standard score. Standard scores can be used to compare one student's performance on the test to other students in his/her age group. However, for this same reason, standard scores are not always the best indicators of growth in skill over time. Conversely, a scaled score (e.g., raw score) allows one to compare an individual child's performance at different times (e.g., beginning and end of pre-K).

In order to provide the most accurate representation of the participants' performance and progress throughout the academic year, we report both standard scores and scaled (raw) scores. Thus, comparisons of standard scores reported here should be interpreted as the group's mean performance compared to the expected performance of children of the same peer (age) group from the assessment's norm reference group (see test manuals for characteristics of the norm groups for each assessment). Alternatively, comparisons of raw scores reported here should be interpreted as the group's mean performance at the beginning of the academic year compared to the end of the academic year. The student, teacher, and classroom outcomes measured in the evaluation, as well as their scoring characteristics, are provided in Table 1.

All student and teacher assessments used in the evaluation were administered between September-October 2010 (pre-tests) and late March-May 2011 (post-tests). The average time between pre- and post-test administration was 6.28 months. All quantitative analyses detailed in this report involve examination of differences in scores gathered on assessments in the Fall and Spring of the academic school year. In addition, teachers participated in focus groups in Spring 2011, discussing observed changes in classroom climate, effects on teacher-student relationships, reactions to Read Right professional development and coaching, and the perceived impact on student instruction. Note that children who were followed into kindergarten were also tested in

the Fall and Spring of the school year during the same testing periods. No data was collected on kindergarten teachers or classrooms.

Participation in the evaluation was voluntary. Parent permission was obtained for all children and consent was obtained for all teachers prior to the administration of any assessments, consistent with standard protocols for conducting research at Georgia State University. In addition, results from the assessments are reported in group form (as opposed to individual student, teacher, or school) in order to protect the confidentiality of the participants.

Table 1. *Student, teacher, and classroom outcomes and measures.*

Student Effect	Assessment	Scoring
Oral Receptive Vocabulary	Peabody Picture Vocabulary Test-4th Edition (PPVT-4) ELL only: Test de Vocabulário en Imágenes Peabody (TVIP)	Standardized measure, Mean=100, SD=15
Oral Expressive Vocabulary	Test of Preschool Early Literacy (TOPEL): Definitional Vocabulary	Standardized measure, Mean=100, SD=15
Phonological Awareness	TOPEL: Phonological Awareness ELL only: Rhyme Awareness Task-Spanish	TOPEL: Standardized measure, Mean=100, SD=15 Spanish Rhyme Task: Raw score range 0-10
Storytelling (narrative skills)	Narrative Assessment Protocol (NAP) Complex Oral Syntax High Point Analysis (Narrative Quality)	NAP Syntax: Raw score range=0-36 High Point Analysis: 0-7
Story (Listening) Comprehension	NAP	NAP: Raw score range=0-7
Print and Alphabet Knowledge	TOPEL: Print Knowledge PALS-PK: Uppercase Letters, Lowercase Letters, and Letter Sounds	TOPEL: Standardized measure, Mean=100, SD=15 PALS-PK: Raw score range 0-26; end of year benchmarks for Uppercase=12-21
Emergent Writing	PALS-PK: Name Writing	Raw score range 0-7; end of year benchmarks=5-7
General Early Literacy Achievement	Get Ready to Read! ELL only: Get Ready to Read!-Spanish	Raw score range 0-20; end of year benchmark: 16=ready to benefit from formal reading instruction in kindergarten
Teacher/Classroom	**Assessment**	
Instructional Practices	Classroom Fidelity Observations	Raw scores range=0-3
Classroom Quality	Early Language & Literacy Classroom Observation-2 (ELLCO) Classroom Assessment Scoring System (CLASS)	ELLCO: Raw score range=0-5 CLASS: Raw score range=0-7
Teachers' Literacy and Language Pedagogy Knowledge	Teacher Knowledge Questionnaire	TKQ: Raw score range = 0-53.
Teacher Perceptions	Focus Groups	N/A

Student Outcomes

During the second year of Read Right, 236 children across 10 sites (20 classrooms) participated in the evaluation (see Table 2). As in the Year 1 Evaluation Report, students were combined into two groups: children who were not English Language Learners (Non-ELL group) and children who were English Language Learners (ELL group). In addition, outcomes were also examined for a subsample of children in the Non-ELL group who began pre-K with very low oral language skills (Low Oral Language group), as indicated by standard scores below 80 on the PPVT-4. Also, assessments were given in Spanish and English to the ELL children in the fall and spring. However, only fall scores are reported because many children either could not or did not want to be assessed in Spanish at the end of the year.

Also, note that extensive descriptions of the assessments were provided in the Year 1 Evaluation Report and thus are not included here. Additional student performance data are available in the Appendix.

Table 2. *Student participants by school.*

School	Number (*N*)	N with Fall and Spring scores
Childcare Network 50 (1 classroom)	20	15
Conley Hills Elementary (3 classrooms)	29	19
Hightower Elementary (1 classroom)	17	16
J. H. House Elementary (1 classroom)	18	16
L. O. Kimberly Elementary (3 classrooms)	46	37
La Petite Academy (2 classrooms)	15	12
Lake Forest Elementary (2 classrooms)	38	34
Peek's Chapel Elementary (1 classroom)	14	12
The Sunshine House #76 (3 classrooms)	54	42
The Sunshine House #77 (3 classrooms)	43	33
Total	**294**	**236**

Oral Receptive Vocabulary

Peabody Picture Vocabulary Test (PPVT-4) & Test de Vocabulário en Imágenes Peabody (TVIP)

The PPVT-4 (Dunn & Dunn, 2007) was given to all children. The TVIP (Dunn, Padilla, Lugo, & Dunn, 1986) was also administered to children who were ELL and the primary language spoken at home was Spanish. The figures below provide the mean standard and raw score performances of children in the Non-ELL, ELL, and Low Oral Language groups at the beginning and end of pre-K. As shown in Figures 1, 2, and 3:

- Children in the ELL and Low Oral Language groups significantly increased their raw and standard scores on the PPVT-4 from fall to spring, indicating significant growth in receptive vocabulary skills.

- Compared to the beginning of the year, a significantly greater number of children in the ELL and Low Oral Language groups performed at or above average (i.e., at or above expectations for most 4-5 year olds) at the end of the year:
    – ELL group: increased from 8.9% in fall to 24.5% in spring
    – Low Oral Language group: increased from 0% in fall to 37.9% in spring

- Children who were in the ELL and Low Oral Language groups performed significantly more poorly than children in the Non-ELL group in fall and spring.

- Children in the ELL group entered pre-K with low-average receptive vocabulary scores in Spanish (as indicated by the TVIP). This finding suggests that the ELL's oral language skills in Spanish were greater than their English-speaking peers who entered pre-K with very low oral language skills. Thus, it is possible that a lack of English language proficiency was a greater hurdle for many of these children than low oral language abilities.

Figure 1: Mean fall and spring standard scores on the PPVT-4 and TVIP by language group.
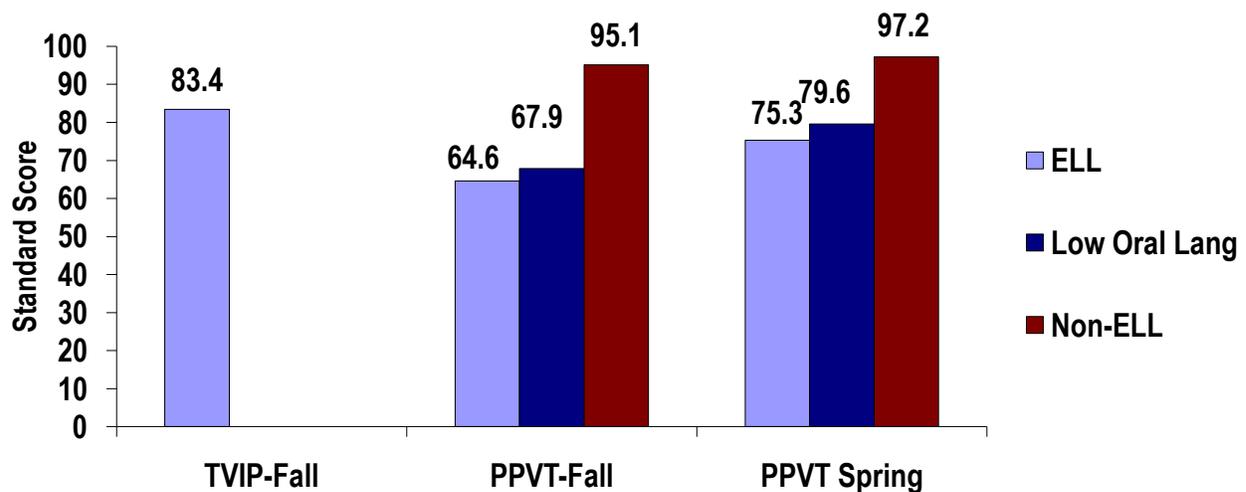
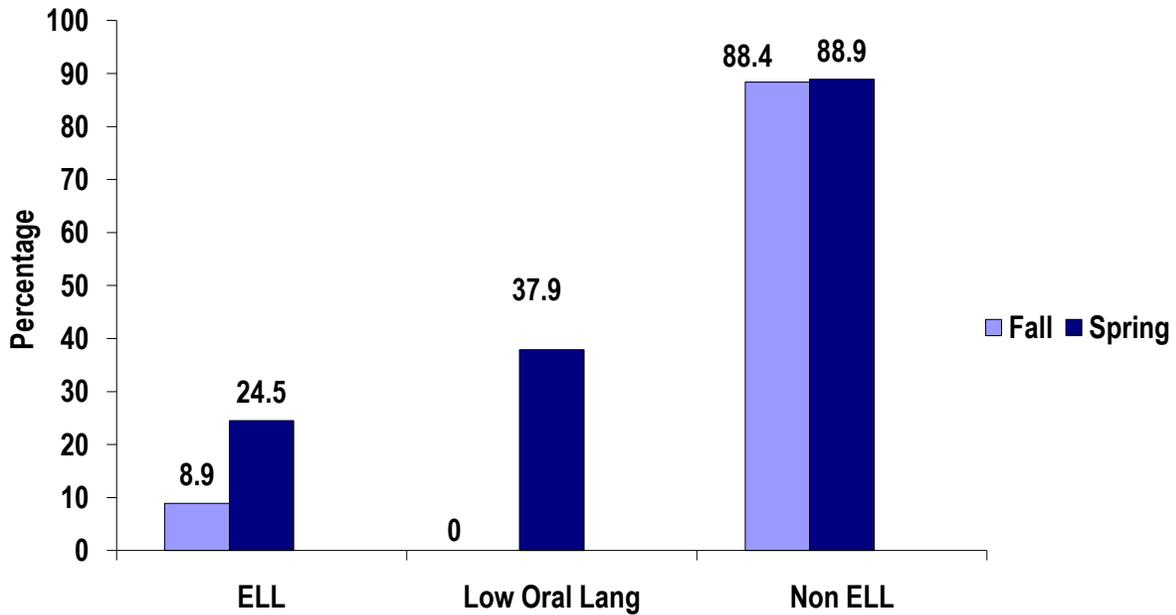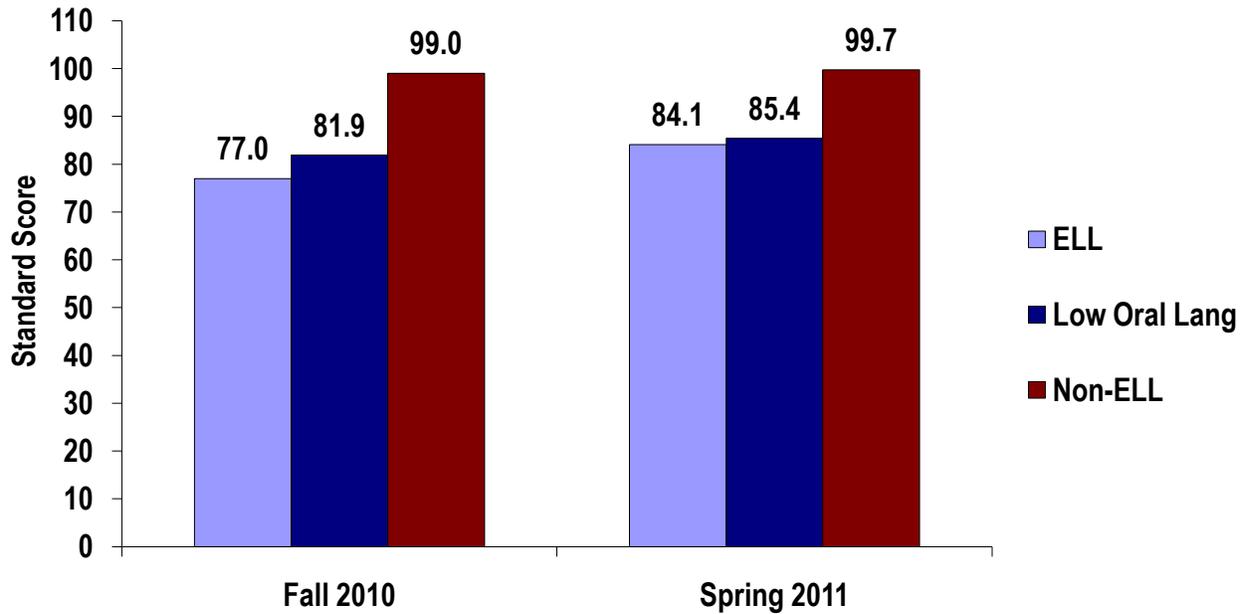*Figure 2: Mean growth in PPVT-4 raw scores from fall to spring by language group.*
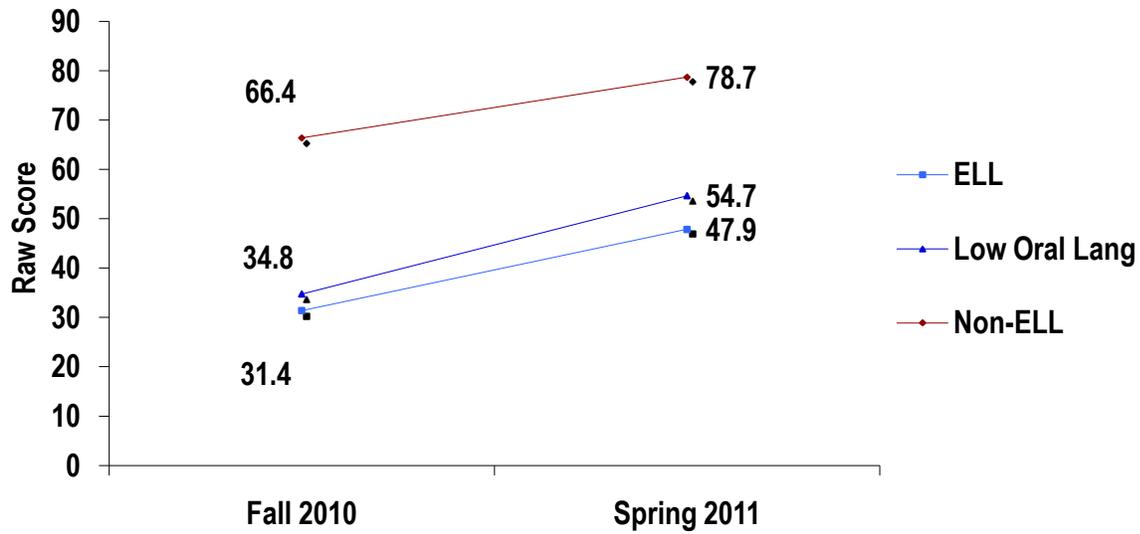
Figure 3: Mean percentage of children who scored at or above average on PPVT-4 (standard score = 85 or greater).

Oral Expressive Vocabulary

Test of Preschool Early Literacy (TOPEL): Definitional Vocabulary subtest

The Definitional Vocabulary subtest of the TOPEL (Lonigan, Wagner, Torgesen, & Rashotte, 2007) was given to all children. The figures below provide the mean standard and raw score performances of children in the Non-ELL, ELL, and Low Oral Language groups at the beginning and end of pre-K. As shown in Figures 4, 5, and 6:

- Only children in the ELL group significantly increased their raw and standard scores from fall to spring, indicating significant growth in expressive vocabulary skills.

- Compared to the beginning of the year, a significantly greater number of children in the ELL performed at or above average (i.e., at or above expectations for most 4-5 year olds) at the end of the year:
    - ELL group: increased from 31.7% in fall to 53.9% in spring

- Children who were in the ELL and Low Oral Language groups performed significantly more poorly than children in the Non-ELL group in fall and spring. This finding is analogous to the PPVT-4 findings and suggests that a lack of English language proficiency was a greater hurdle for many of these children than low oral language abilities.

Figure 4: Mean fall and spring standard scores on the TOPEL Definitional Vocabulary by language group.
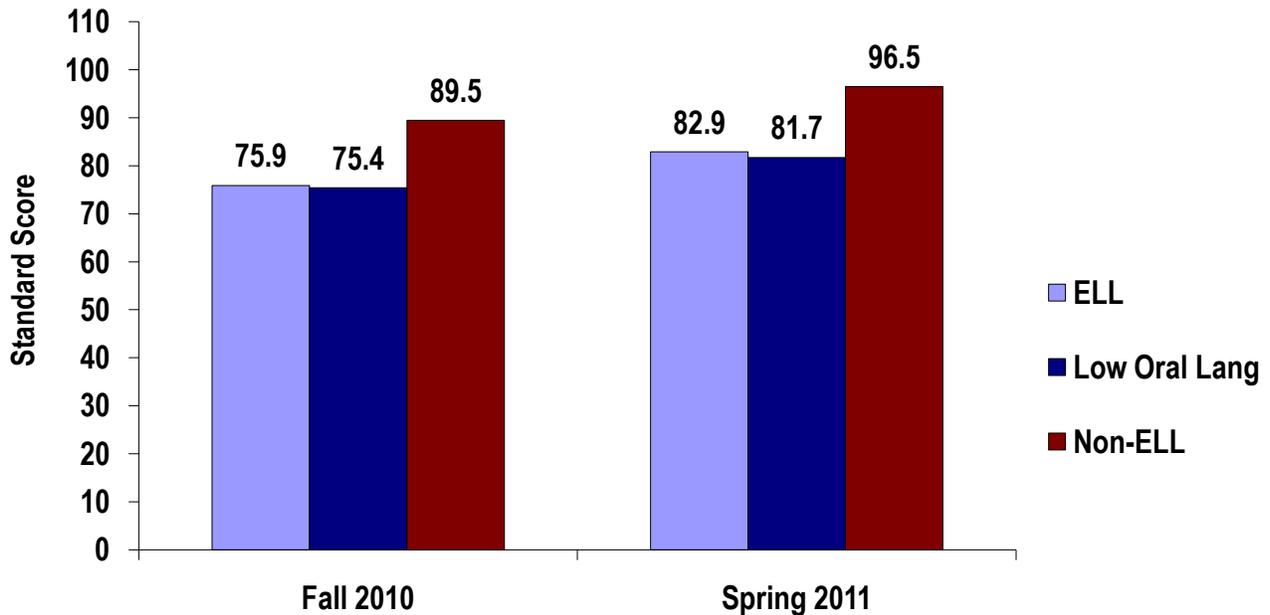
Figure 5: Mean growth in TOPEL Definitional Vocabulary raw scores from fall to spring by language group.
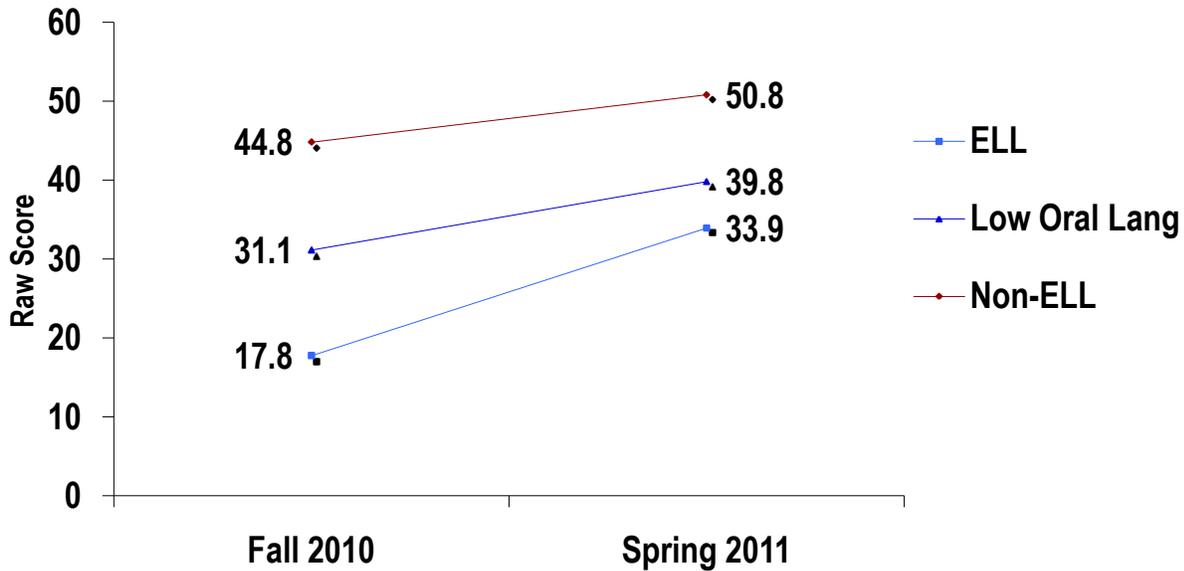
Figure 6: Mean percentage of children who scored at or above average on TOPEL Definitional Vocabulary (standard score = 85 or greater).
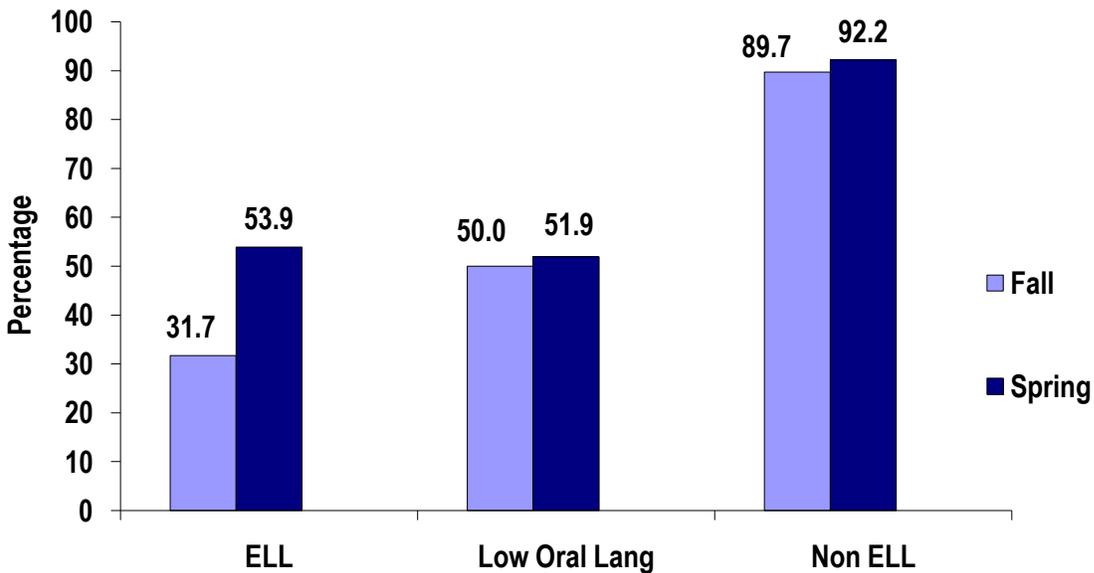
Phonological Awareness

TOPEL: Phonological Awareness subtest

The Phonological Awareness subtest of the TOPEL was given to all children. The figures below provide the mean standard and raw score performances of children in the Non-ELL, ELL, and Low Oral Language groups at the beginning and end of pre-K. As shown in Figures 7-9:

- Children in all three groups significantly increased their raw and standard scores from fall to spring, indicating significant growth in blending and segmenting skills.

- Compared to the beginning of the year, a significantly greater number of children in each group performed at or above average (i.e., at or above expectations for most 4-5 year olds) at the end of the year:
    - Non-ELL group: increased from 65.7% in fall to 74.8% in spring
    - ELL group: increased from 32% in fall to 41.9% in spring
    - Low Oral Language group: increased from 32.3% in fall to 42.9% in spring

- Children who were in the ELL and Low Oral Language groups performed significantly more poorly than children in the Non-ELL group in fall and spring.

Figure 7: Mean fall and spring standard scores on the TOPEL Phonological Awareness by language group.

Figure 8: Mean growth in TOPEL Phonological Awareness raw scores from fall to spring by language group.
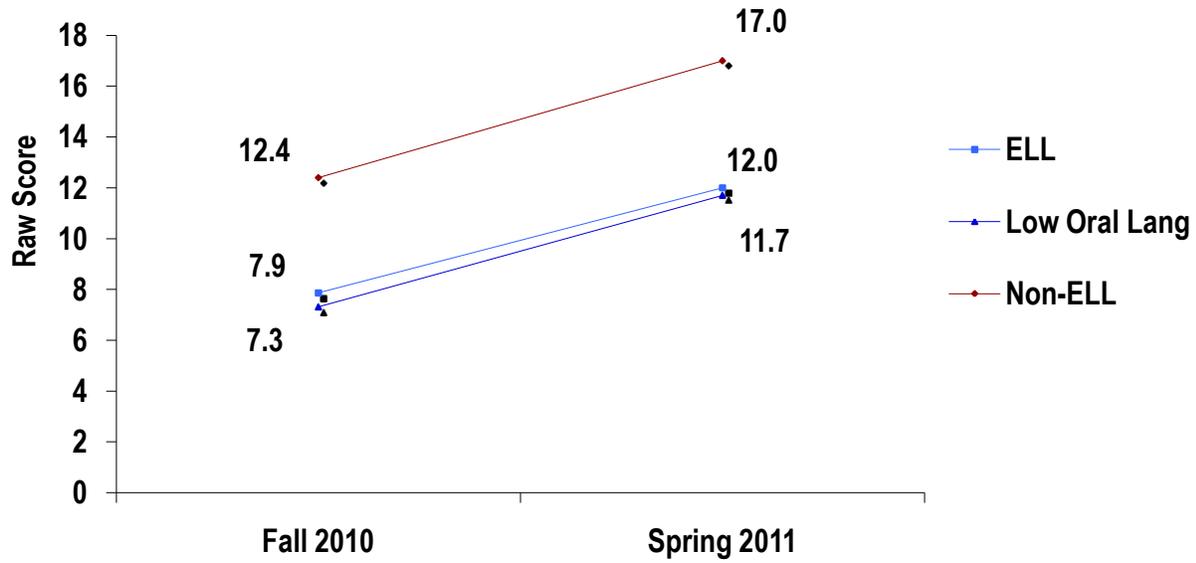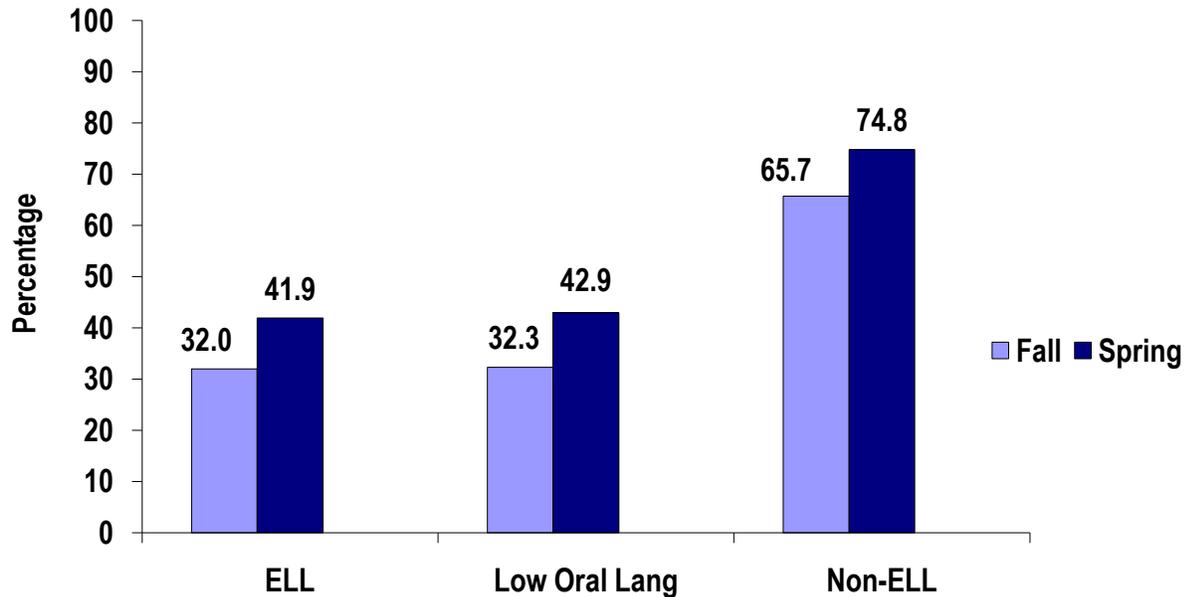

Figure 9: Mean percentage of children who scored at or above average on TOPEL Phonological Awareness (standard score = 85 or greater).

Story Comprehension and Storytelling Ability

Narrative Assessment Protocol (NAP)

As a final measure of oral language abilities in context, we examined children's complex oral syntax production, story telling, and comprehension skills using the Narrative Assessment Protocol (NAP; Pence, Justice, & Gosse, 2007). While all children were given this task in English, children who were ELL were also given a Spanish version of this task. The figures below provide the mean raw score performances of children in the Non-ELL, ELL, and Low Oral Language groups at the beginning and end of pre-K. As shown in Figures 10-12:

- Children in all three groups significantly increased their raw scores for Complex Oral Syntax from fall to spring, indicating significant growth in spoken oral language skills.

- Children in the ELL group significantly increased their raw scores for Story Comprehension from fall to spring, indicating significant growth in narrative understanding.

- Children in the Low Oral Language and ELL groups significantly increased their raw scores for Narrative Quality from fall to spring, indicating significant growth in storytelling skills.

- Children who were in the ELL and Low Oral Language groups performed significantly more poorly on each measure than children in the Non-ELL group in fall. However, there were no differences in story telling skill between children in the Non-ELL and Low Oral Language groups at the end of the school year.

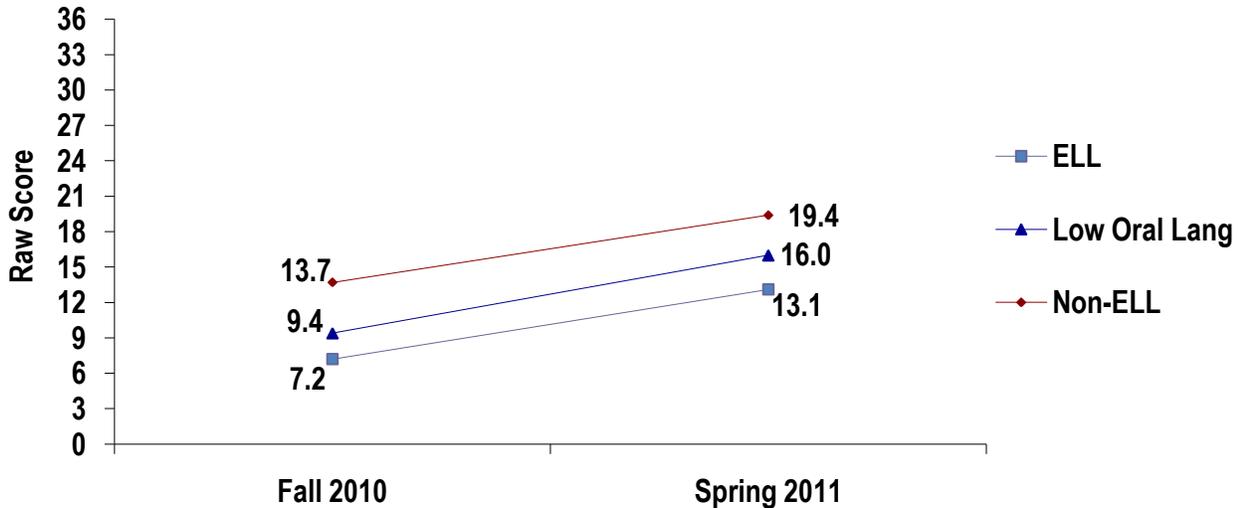*Figure 10: Mean growth in NAP Complex Oral Syntax raw scores from fall to spring by language group.*

Figure 11: Mean growth in NAP Story Comprehension raw scores from fall to spring by language group.
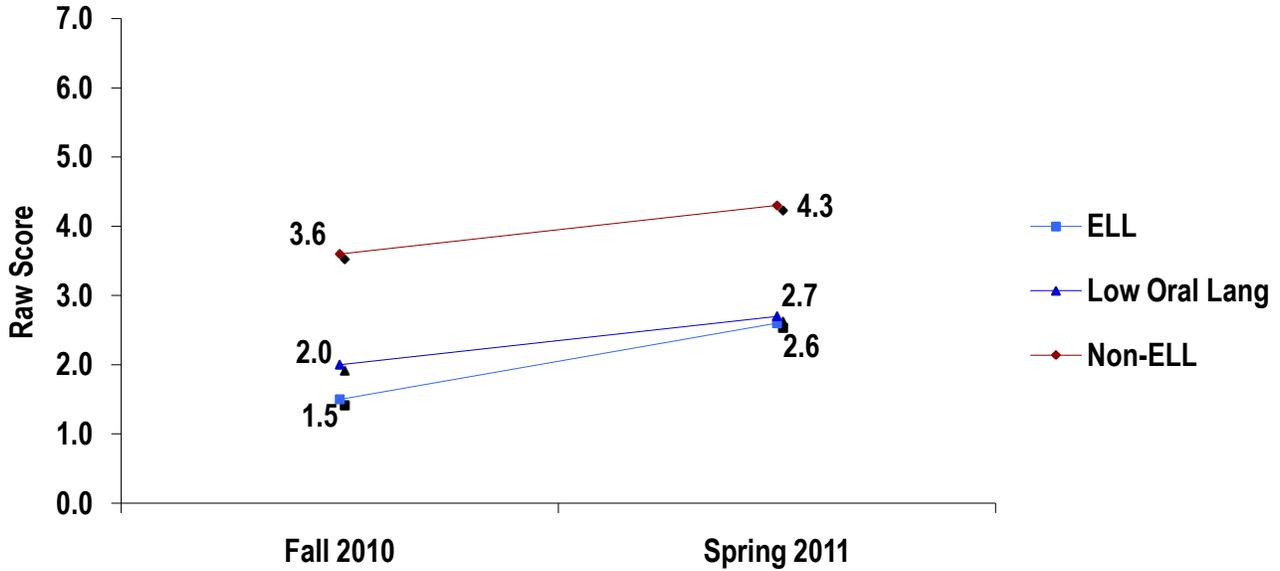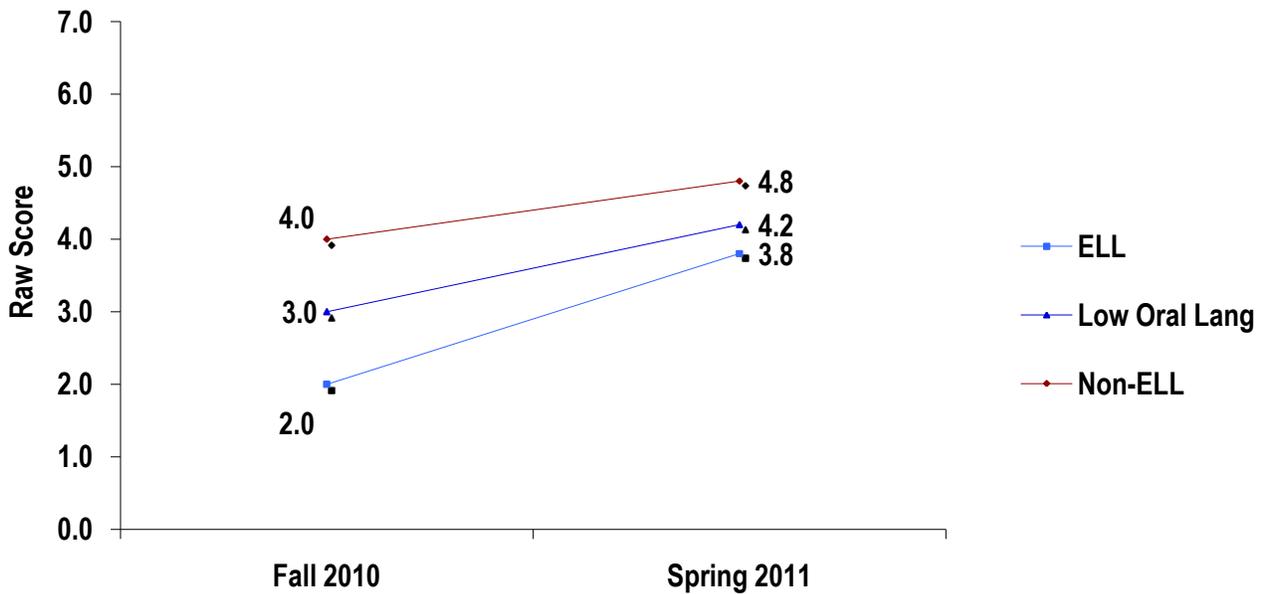

Figure 12: Mean growth in NAP Narrative Quality (High Point Analysis) from fall to spring by language group.

Print and Alphabet Knowledge

TOPEL: Print Knowledge subtest & PALS-PK: Uppercase Letters subtests

All children were given the Print Knowledge subtest of the TOPEL and the Uppercase Letters subtest of the PALS-PK. The figures below provide the mean standard and raw score performances of children in the Non-ELL, ELL, and Low Oral Language groups at the beginning and end of pre-K. As shown in Figures 13-18:

- Children in all three groups significantly increased their raw and standard scores on the Print Knowledge subtest and their raw scores on the PALS-PK from fall to spring, indicating significant growth in alphabet knowledge and print conventions.

- Compared to the beginning of the year:
  - a significantly greater number of children in each group performed at or above average (i.e., at or above expectations for most 4-5 year olds) on the Print Knowledge subtest of the TOPEL at the end of the year:
    - Non-ELL group: increased from 84.6% in fall to 94.8% in spring
    - ELL group: increased from 38.3% in fall to 67% in spring
    - Low Oral Language group: increased from 40.6% in fall to 70% in spring

  - and on the Uppercase Letters subtest of the PALS-PK (i.e., knew 12 or more letters) at the end of the year:
    - Non-ELL group: increased from 61.5% in fall to 87.1% in spring
    - ELL group: increased from 24.2% in fall to 61.1% in spring
    - Low Oral Language group: increased from 23.3% in fall to 63% in spring

- Children who were in the ELL and Low Oral Language groups performed significantly more poorly on both measures than children in the Non-ELL group in fall and spring.

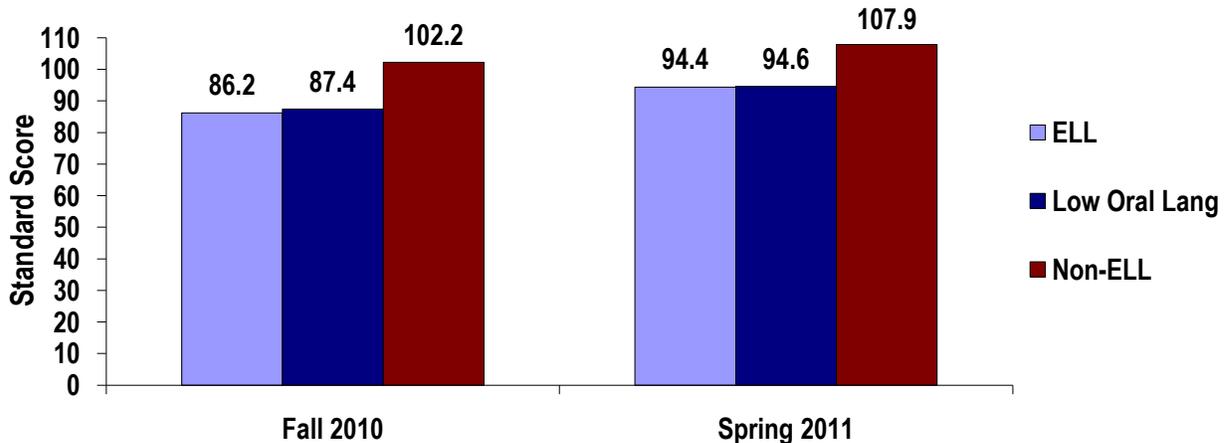*Figure 13: Mean fall and spring standard scores on the TOPEL Print Knowledge by language group.*

Figure 14: Mean growth in TOPEL Print Knowledge raw scores from fall to spring by language group.
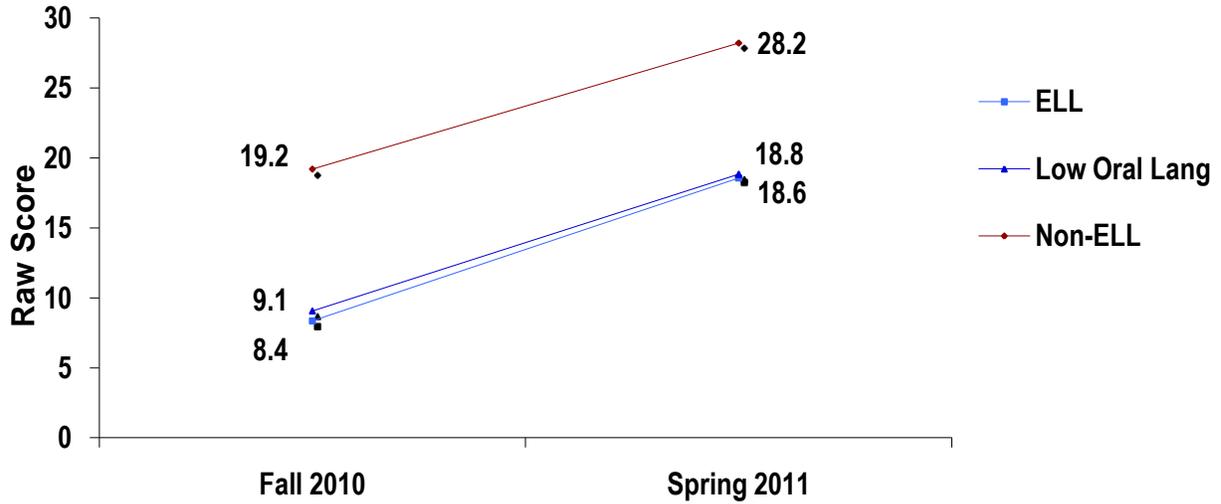

Figure 15: Mean percentage of children who scored at or above average on TOPEL Print Knowledge (standard score = 85 or greater).
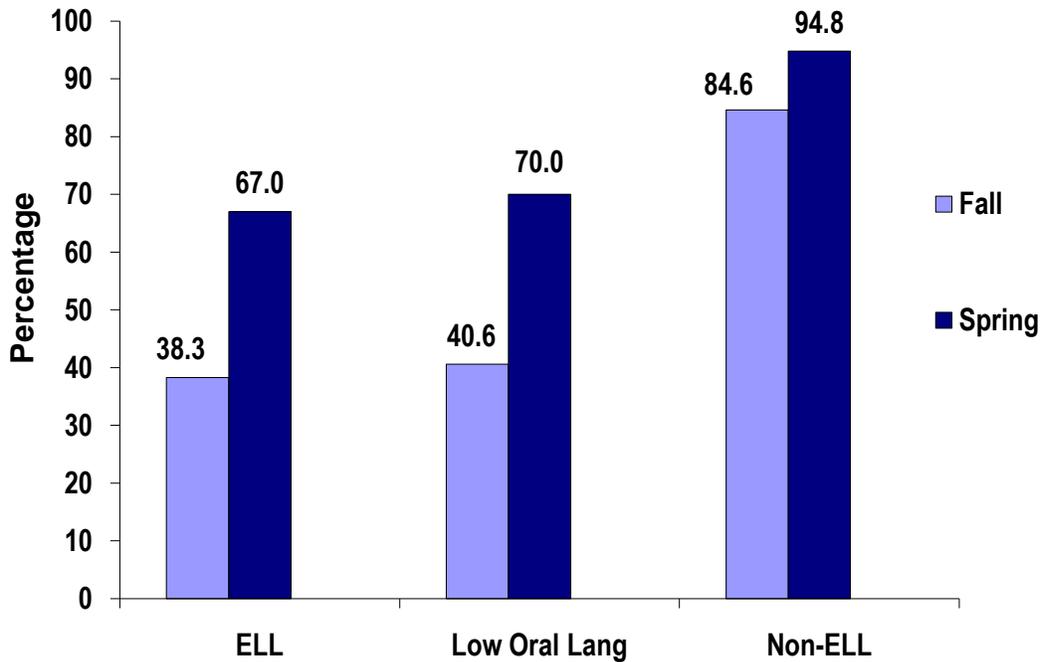
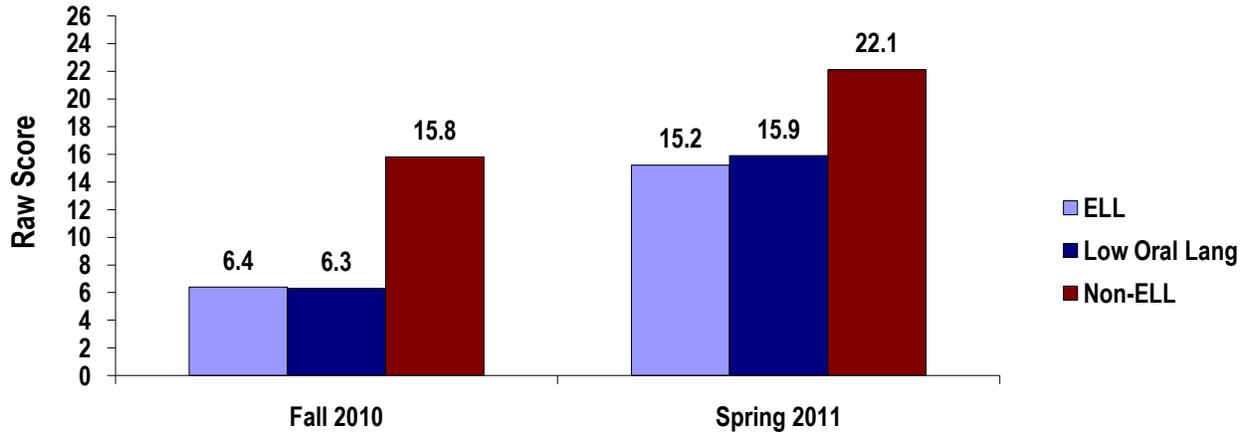*Figure 16: Mean fall and spring raw scores on PALS-PK Uppercase Letters by language group.*

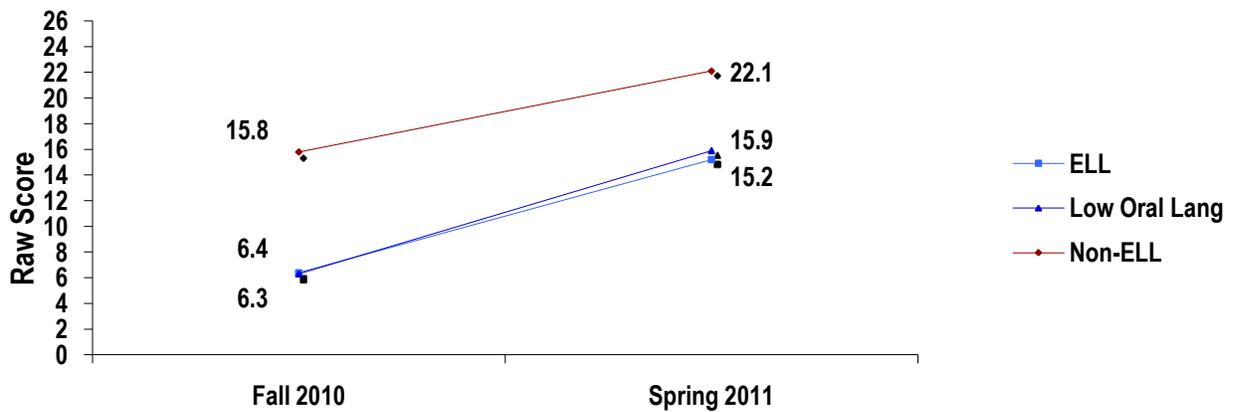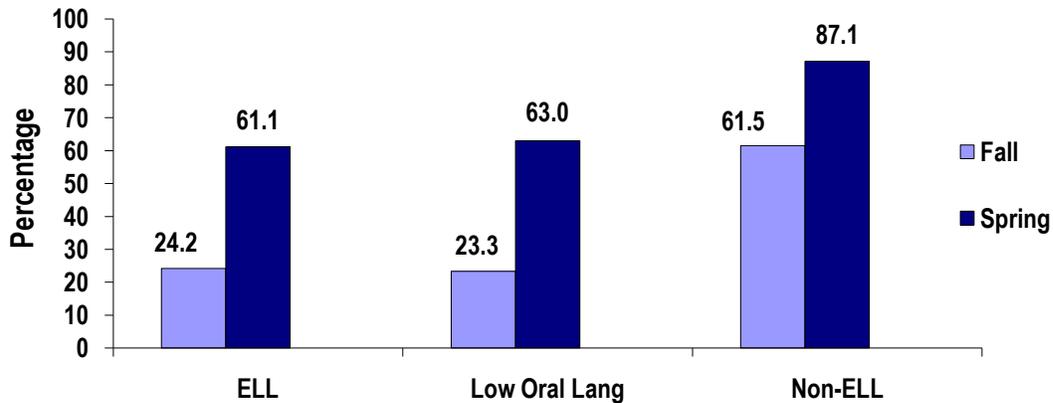*Figure 17: Mean growth in PALS-PK Uppercase letters raw scores from fall to spring by language group.*

Figure 18: Mean percentage of children who scored at or above average on PALS-PK Uppercase letters (raw score = 12 or above according to benchmarks).

Emergent Writing

PALS-PK: Name Writing subtest

All children were given the Name Writing subtest on the PALS-PK. The figures below provide the mean standard and raw score performances of children in the Non-ELL, ELL, and Low Oral Language groups at the beginning and end of pre-K. As shown in Figures 19-21:

- Children in all three groups significantly increased their raw scores from fall to spring, indicating significant growth in name writing ability.

- Compared to the beginning of the year, a significantly greater number of children in each group performed at or above benchmark (i.e., wrote their name with many correct letters and no filler letters or symbols) at the end of the year:
    - Non-ELL group: increased from 59.8% in fall to 92% in spring
    - ELL group: increased from 27.7% in fall to 73.4% in spring
    - Low Oral Language group: increased from 25.8% in fall to 72.4% in spring

- Children who were in the ELL and Low Oral Language groups performed significantly more poorly than children in the Non-ELL group in fall and spring.

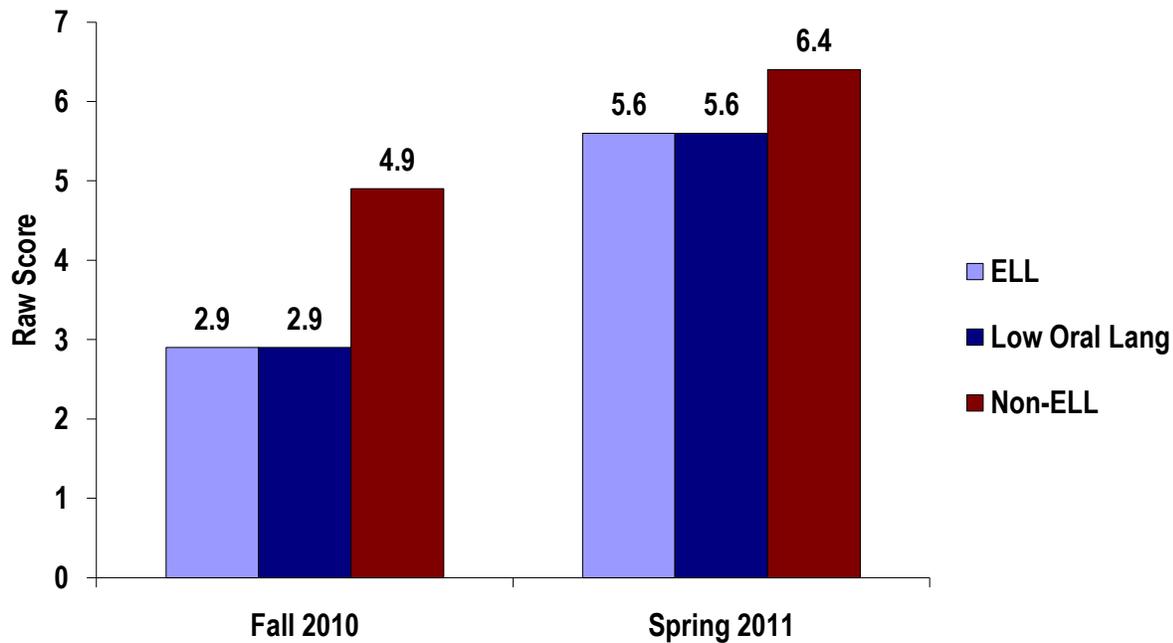*Figure 19: Mean fall and spring raw scores on the PALS-PK Name Writing subtest by language group.*

Figure 20: Mean growth in PALS-PK Name Writing raw scores from fall to spring by language group.*Children in the ELL group scored the same as the children in the Low Oral Language group in the fall and the spring.
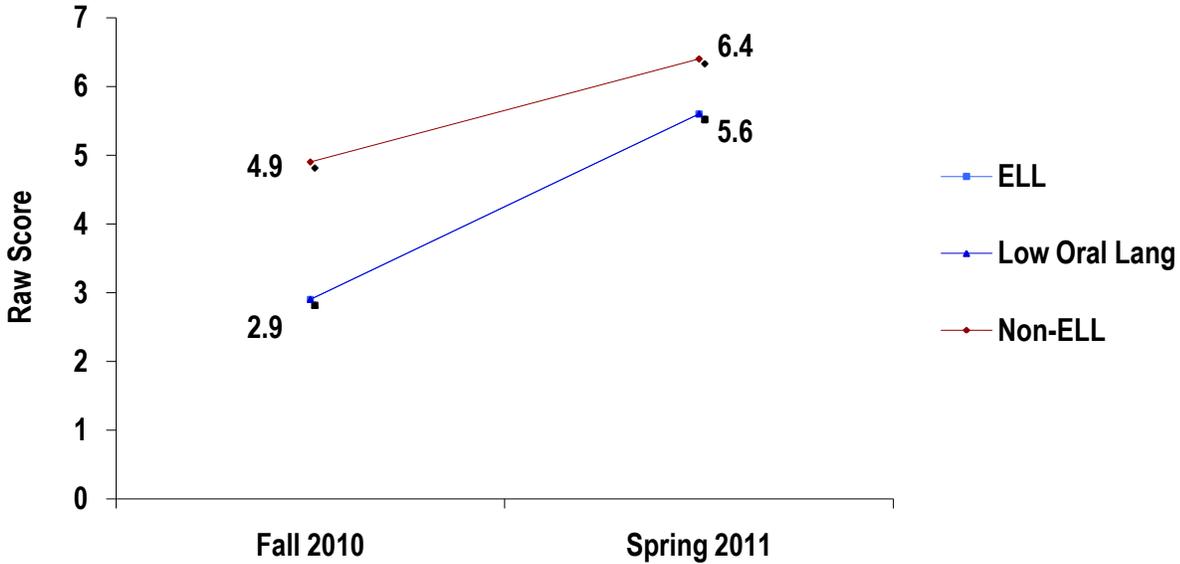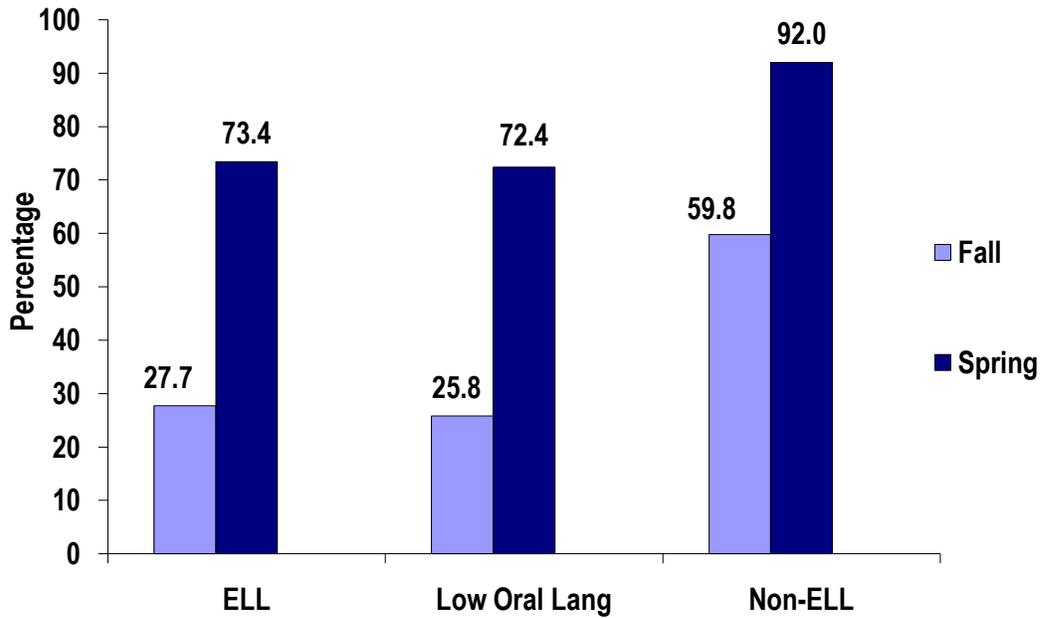

Figure 21: Mean percentage of children who scored at or above average on PALS-PK Name Writing (raw score = 5 according to benchmarks).

General Early Literacy Achievement

Get Ready to Read! (GRTR!)

GRTR! was given to all children. Children who were ELL were also given the Spanish version of GRTR!. Both the English and Spanish versions demonstrate strong utility in their ability to distinguish between children at risk for poor early literacy outcomes and those with stronger skills. The figures below provide the mean standard and raw score performances of children in the Non-ELL, ELL, and Low Oral Language groups at the beginning and end of pre-K. As shown in Figures 22-24:

- Children in all three groups significantly increased their raw scores on GRTR!—English from fall to spring, indicating significant growth in general early literacy achievement.

- Compared to the beginning of the year, a significantly greater number of children in each group performed at or above benchmark (i.e., 16 or greater) on GRTR!—English at the end of the year:
    - Non-ELL group: increased from 32.6% in fall to 77.6% in spring
    - ELL group: increased from 12.7% in fall to 36.1% in spring
    - Low Oral Language group: increased from 9.1% in fall to 36.7% in spring

- Children who were in the ELL and Low Oral Language groups performed significantly more poorly on GRTR!—English than children in the Non-ELL group in fall and spring.

- Children in the ELL group entered pre-K with greater general early literacy achievement in Spanish than in English (as indicated by their scores on the Spanish and English versions of GRTR!). This finding suggests that the ELL's Spanish emergent literacy skills may provide a scaffold for gaining English language proficiency.

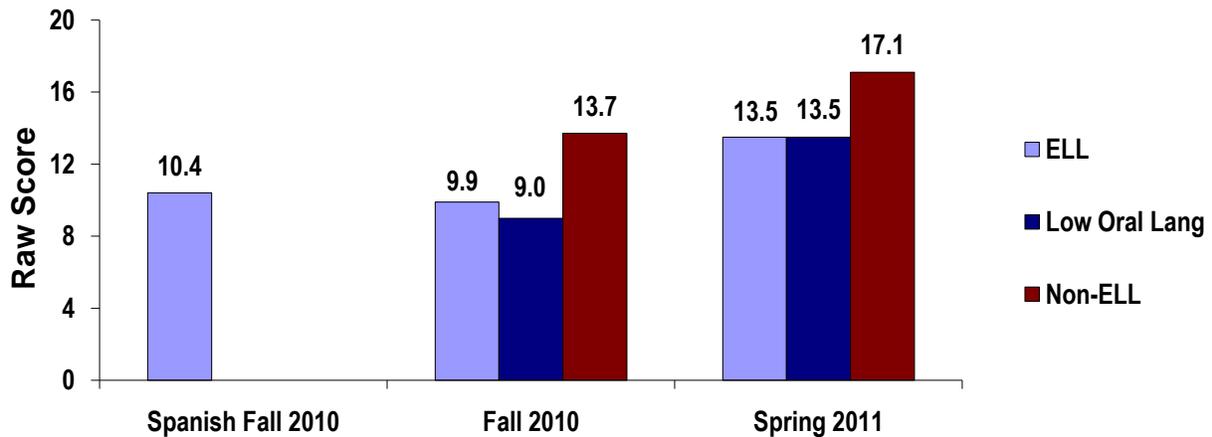*Figure 22: Mean fall and spring raw scores on the Get Ready to Read! by language group.*

Figure 23: Mean growth in GRTR!—English raw scores from fall to spring by language group.
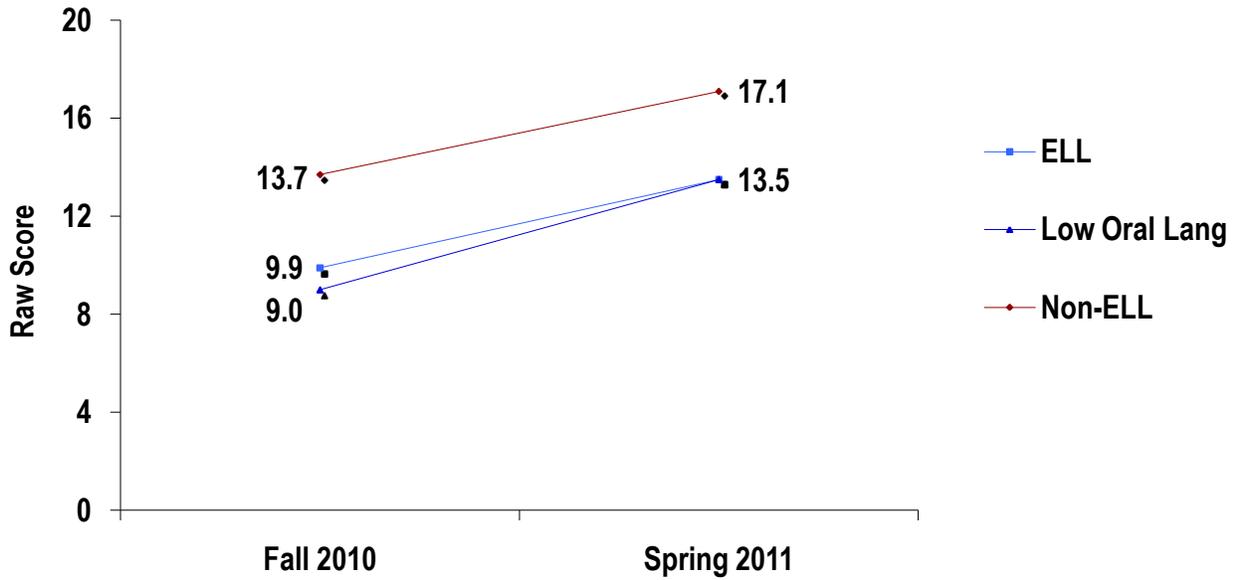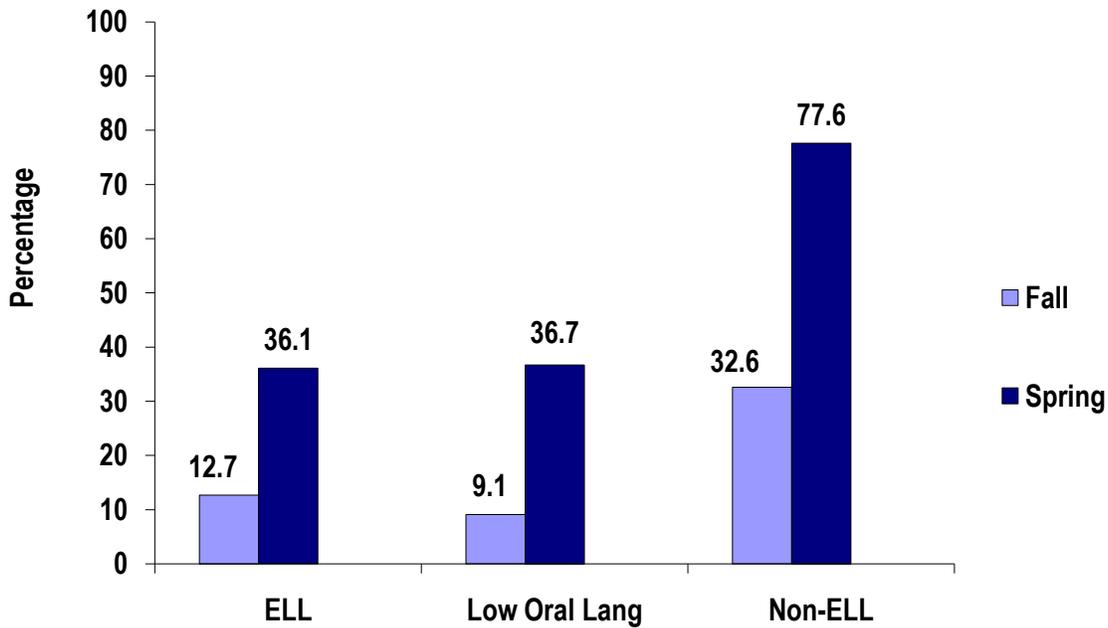

Figure 24: Mean percentage of children who scored at or above average on GRTR!—English (raw score ≥ 16 according to benchmarks).

Teacher & Classroom Outcomes

During the second year of Read Right, 40 teachers (20 lead teachers, 20 teaching assistants) across 10 sites (20 classrooms) participated in the evaluation study (N = # of classrooms). Significant classroom turnover occurred during both year 1 (N=3) and the summer before year 2 (N = 4). This attrition did not affect participation at the classroom level, but it should be noted that teachers changed in 7 classrooms as a result of staff attrition. Although a few of the teachers who joined the project in year 1 began participating in the project half way through the first year, in some places in the report, we make distinctions between the year 1 (N=6) and year 2 (N=14) teachers (see the following section of this report: The Effect of Two Years of Read Right).

Similar to the year 1 evaluation plan, teachers' pedagogical practices were evaluated with two research based early childhood observational measures. The *Classroom Assessment Scoring System* (CLASS; Pianta, La Paro, & Hamre, 2008) is an observational measure that allows researchers to evaluate the social-emotional, managerial and organizational, and instructional quality of daily interactions between teachers and students. We also used the *Early Language and Literacy Classroom Observation* (ELLCO-2nd Edition; Smith, Brady, & Anastasopoulous, 2008). The ELLCO allowed us to evaluate the quality of the language and literacy environment in each classroom, something not evaluated by the CLASS.

In addition to the CLASS and ELLCO, observations were also conducted three times a year to explore the extent to which the teachers were actually implementing the strategies they learned during the Read Right professional development workshops and that were emphasized on-site by their literacy facilitators. We used the same observational instruments that were developed Year 1 to assess the following units: 1) Interactive Repeated Story Reads, 2) Lifting the Language (building vocabulary and syntax through conversations), and 3) Phonological Awareness (blending, segmenting, rhyming, letter sounds associations), Alphabet Knowledge and Concepts of Print (PAC Time). In addition, a new fidelity measure was created that corresponded to a new professional development area focused on in Year 2: Teachers' use of Information texts (REAL Time). Although additional trainings were conducted throughout year 1 and 2, we did not take data on these additional trainings (i.e., Using Assessment Data and Working with English Language Learners) because these topics did not lend themselves to direct observational measures. Finally, we did not develop a separate fidelity tool to evaluate teachers' writing instruction because writing environments and instruction are adequately captured on the ELLCO.

All classroom observations took place during the morning sessions. Extensive descriptions of the assessments were provided in the Year 1 Evaluation Report and thus are not included here. In interpreting the findings, it is important to consider that each instrument codes language and literacy constructs differently. Therefore, it is possible that the instruments may produce slightly different findings. Additional teacher and classroom data are available in the Appendix.
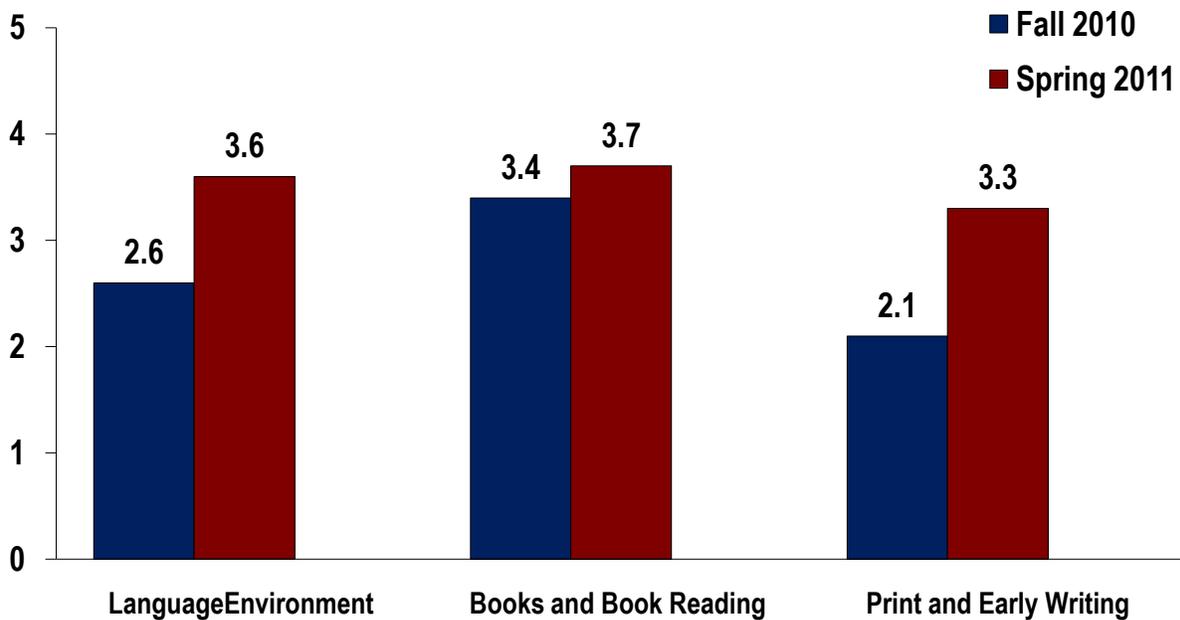
Classroom Quality

Early Language and Literacy Classroom Observation (ELLCO-2nd Ed.)

The ELLCO allows for classrooms to be evaluated in the following domains: classroom structure, curriculum, language environment, books and book reading, and print and early writing. Because Read Right was designed to improve teachers' implementation of specific language and literacy activities, we first report results from only 3 of the ELLCO subscales, namely: Language Environment, Books and Book Reading, and Print and Early Writing. As shown in Figure 25:

- significant positive changes were observed in teachers' language and literacy interactions and environments. Specifically, according to classifications provided by the ELLCO, teachers improved from providing children with "Inadequate" (a score of a 2) language interactions to "Basic" (score of a 3).
- significant changes were not found on the Books and Book Reading subscale; however, teachers were already performing at a "Basic" level on this scale at the beginning of the year.
- significant positive changes were observed on the Print and Early Writing environments subscale. Moreover, spring scores were above a "Basic" classification.

Figure 25. Mean fall and spring scores on the ELLCO for all teachers.

Note: ELLCO scores range from a 1 to 5. 1 =Deficient, 2 = Inadequate, 3 = Basic, 4 = Strong, 5 = Exemplary.

Classroom Quality

Classroom Assessment Scoring System (CLASS)

The CLASS allows classrooms to be evaluated in the following domains: Emotional Support, Classroom Organization, and Instructional Support. One dimension of the CLASS that was used during Year 1, but reported within the Instructional Quality score, is dimension Literacy Focus. The Literacy Focus scale of the CLASS assesses both the systematic and meaningful way that literacy activities are implemented in classrooms. We report this scale separately here. Two independent observers coded the quality of each classroom. Inter-rater agreement between coders was high ($r = .95$). As shown in Figure 26:

- Teachers and children had generally warm and supportive interactions with each other in both the fall and spring of the school year, with teachers' interactions with children becoming slightly less positive (not significantly) over the course of the year. However, it is important to note that teachers began the year providing strong emotional support for their students and were still providing good emotional support by the end of the year.
- Although teachers only slightly improved in their organizational strategies (i.e., the way they ran their classrooms) this increase was not statistically significant from fall to spring. However, it is important to note that teachers began the year exhibiting strong classroom organization;
- Teachers, on average, significantly improved the quality of their instruction from fall to spring. This finding is particularly impressive because, according to Pianta (2011), teachers who score at a 3 or above on this subscale have the greatest impact on children's development.
- Teachers significantly improved their intentional focus on helping children understand the literacy-related concepts of written and oral language. However, it is important to note that teachers started the year quite low on the Literacy Focus dimension and only achieved a mean score just above 2. These scores suggest that teachers' literacy talk and activities were still generally lacking in frequency, intensity and/or meaningfulness, and that they continue to require significant support to systematically and meaningfully embed literacy concepts into their daily lesson plans and activities.

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Figure 26. Mean fall and spring scores on the CLASS for Year 2.
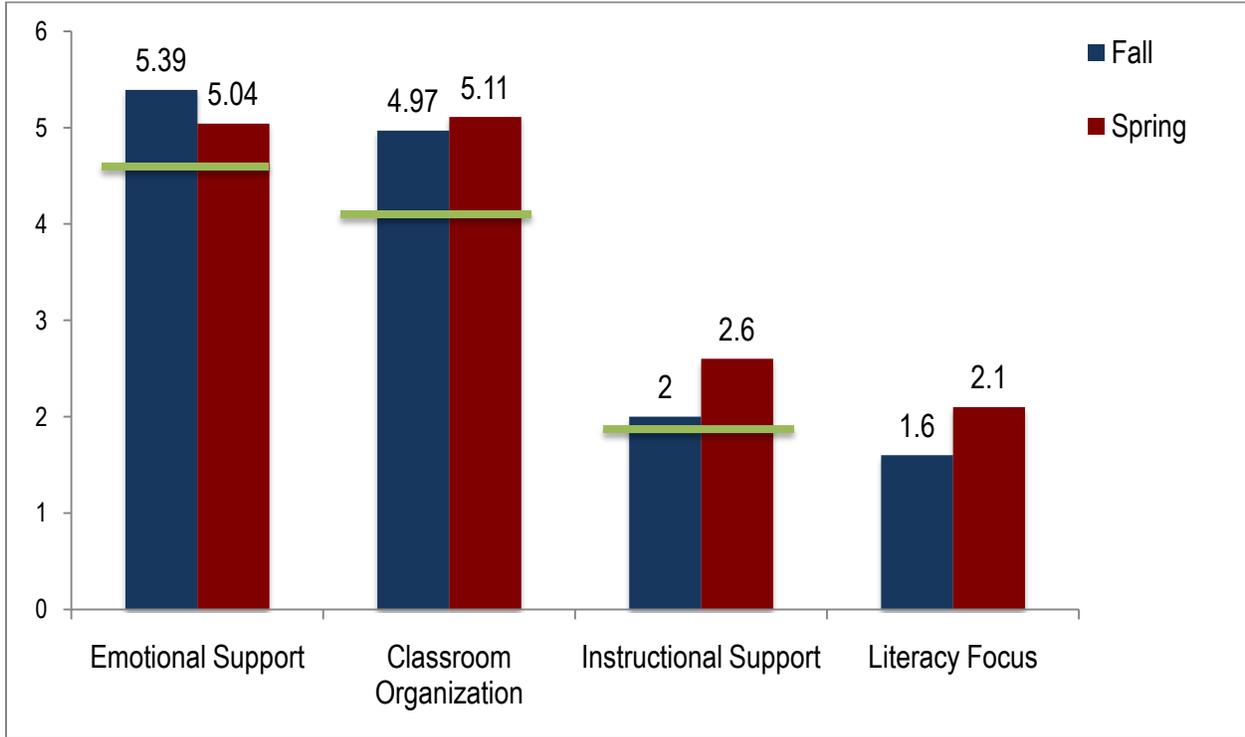
Note: Lines on each bar graph represent comparison of prekindergarten sites in the current study with a large scale study undertaken by the University of Virginia. The means for each of these is: Positive Climate = 4.72; Classroom Organization = 4.00; Instructional Support = 1.99.

Instructional Practices

Classroom Fidelity Observations

Classroom Fidelity Observations occurred three times during the year and were targeted toward evaluating teachers' fidelity to intervention principles. Observers spent a morning (approximately 3 hours per classroom) watching teachers implement their large group (both book reading and PAC time), small group (although most classrooms did not participate in small group instructional interactions during observation cycles, hence, they are not included in these analyses) and free choice (centers) instructional routines. The first round of observations occurred in September and October 2010. Mid-year observations occurred during February 2011, while late spring observations occurred at the end of April and the beginning of May 2011. Teachers' practices were evaluated with regard to the following intervention foci:

1. Repeated Interactive Story Book Reading
2. Lifting the Language (building vocabulary and syntax through conversations)
3. PAC Time (phonological awareness, alphabet knowledge, and concepts of print).
4. REAL Time (working with informational texts)

It should be noted that assessors generally observed for 2 large group (or possibly one large and one small) sessions which typically involved rating a teachers' repeated interactive story book reading and her PAC Time, as well as one 30 minute cycle during free choice (centers) to assess the quality of language being produced by both teachers and children. Hence, given these time frames, it is possible that some of their activities may not have been captured by this observation schedule. In addition, it is important to note that although teachers had been trained on Real Time strategies, which focused on using informational texts, they were only observed implementing these twice during the course of the year (i.e., we only saw two of these during spring assessment time points). Each of these reads was fairly faithful to the principals of the unit. However, given the extreme variability in REAL Time observations, those data are not reported here.

Scores for the three subscales highlighted previously (i.e., items 1-3) are presented in the figures below regarding teachers' repeated reads, PAC Time, and teachers' use of language during centers (a complete list of variables that were scored during both large group and free choice classroom routines are presented in the Appendix). Observations were scored according to the following scale:

- 3 (Established): teacher clearly and consistently demonstrates indicator (i.e., it is clearly within her skill set)
- 2 (Developing): teacher implements indicator, but does so inconsistently (i.e., about ½ the time, does not appear teacher has a complete ownership of skill)
- 1 (Emerging): teacher attempts to use targeted strategies, but implementation is rather fleeting (i.e., occurs once within observation cycle)
- 0 (No Evidence): skill or strategy does not occur during observation period.

As shown in Figure 27:

- teachers made significant improvements in their ability to faithfully implement Interactive Repeated Story Reads;
- teachers significantly improved their implementation of "Lift the Language" interactions during center (free choice) times;
- teachers made significant improvements in Print Awareness from beginning to mid year and PAC time from beginning to end of the year, but with relatively low overall fidelity. In other words, these scores reveal that teachers were generally implementing these instructional practices, but that it was only partially faithful to the way instruction was conceptualized in training.

Overall, these findings suggest that teachers were particularly successful in implementing storybook reading routines and "lifting the language" that they used with children. However, they continue to need support implementing all aspects of phonological awareness, alphabet knowledge, and concepts of print instruction.

Figure 27. Mean teachers' implementation of characteristics of the professional development during large group instruction in fall and spring for Year 2.
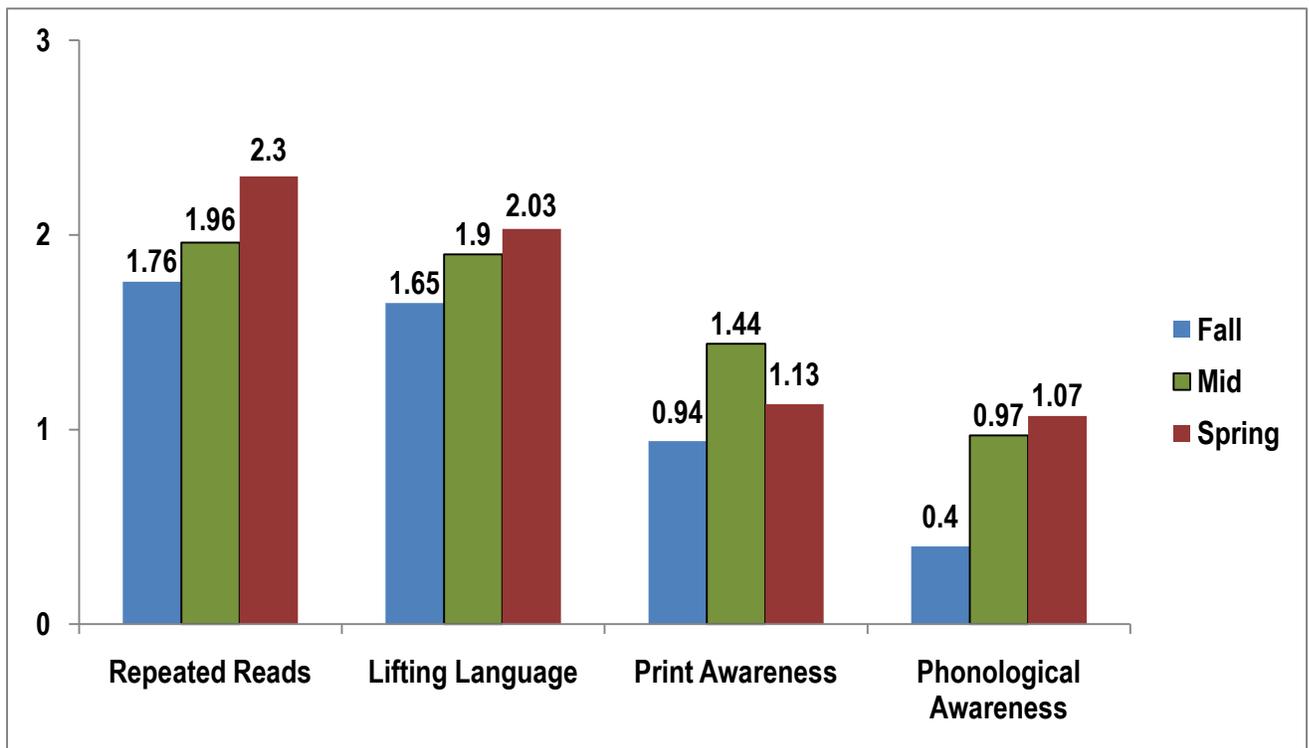
Teacher Perceptions
Focus Groups

Teachers' experiences with the professional development aspects of Read Right were also examined in focus groups. Focus groups were convened at the end of the school year for both years 1 and 2 to determine teachers' experiences with the project. This report will focus on teachers' experiences during year 2 of the project. Each focus group consisted of 5-6 teachers (lead and assistant teachers were interviewed at different times) who were randomly assigned to each group. Teachers were asked questions about their experiences with the professional development components of Read Right, as well as their perceptions of how the project impacted their classroom practices and children's development. A semi-structured format for interviews was used, in that teachers were also asked the same prompting questions so that responses would remain on topic across the focus groups. Teachers' responses to questions were audio-taped and transcribed for coding.

To examine teachers' experiences with Read Right, we approached the data in multiple steps. When the transcriptions of interview data were completed, three members of the evaluation team individually read transcripts and used open coding (Patton, 2002) of the interviews to identify emerging themes. Two initial readers uncovered the possible themes in the transcript that spoke directly to the phenomenon of teachers' experience with Read Right. The researchers later shared their possible themes, which were then used to code the data. Because much of data analysis is interpretation and coders at times see different phenomena in the same data (Lincoln & Guba, 1985), the researchers returned to the transcripts one additional time with the predetermined themes in order to verify the validity of the resulting themes. This process added consistency and depth to the analysis and allowed us to look for confirming and disconfirming evidence regarding teachers' beliefs and experiences. As a result of these analyses, the following themes were identified: (1) Changes in teachers' beliefs and teaching practices, (2) Important Read Right support components, and (3) Challenges and suggestions.

Language and Communication: Changes in Beliefs and Practices

Almost every lead and assistant teacher noted that the most beneficial aspect of the training was learning to "lift the language," and their appreciation for the important role that conversations play in building children's language. Several teachers across all the classrooms noted how surprised they were with the children's ability to pick up new language skills. Teachers understanding of language development evolved in two ways. First, many articulated that their beliefs about children's learning were altered as a result of the training. A change in teachers' beliefs is apparent in this first quote, where the teacher articulates a change in her understanding of the importance of language and in her knowledge that children can learn more than she previously thought.

> *I realized the importance of having conversations with the children so I would not have, I would not have emphasized that before I had this training. Before, it was more emphasis on observation and, and, taking notes and all that, so there is definitely more of that (conversations). But I also feel that, my teaching is what goes on in the classroom there's a lot more, focused instruction than there was before because the standards are so… you*

know. The standards like for alphabet knowledge is that the child recognizes some...begins to recognize, but now the bar is higher I feel for my students. I have more expectations for them and they, they reached them. I realize they can do a lot more than I was asking them to do, was asking them to do or expecting them to do before I started this program. So I feel like it's... the children are getting more from the program than they were before I had this training especially in language and literacy.

This theme was repeated by many teachers in many different ways. In particular, teachers emphasized that they originally did not believe that the children could learn all the early literacy skills that were being emphasized during trainings. However, as trainings progressed and they implemented the instructional routines and they attempted to "lift the children's language", they reported seeing a change in children's motivation for literacy learning and their competence as well. In addition, many teachers commented on the fact that others perceived this change in children's language and literacy skills. This outside acknowledgement of children's learning appeared to affirm teachers' own perceptions of children's skills and assisted them in changing their developmental expectations about children's learning. In this particular exchange, two teachers have a conversation that demonstrates coming to this understanding.

Teacher 1: When we were looking at the curriculums, the standards, the core standards yesterday we were comparing them to kindergarten and what we were doing, informational texts in our group and the kindergarten standards for the core curriculum we... we all agreed that our children could do those. And I made the comment that "I don't think that would've been the case before I started this training." I would've looked at it and thought, "What? They can't do that!" but now it's like, "Yeah, they can do that." They know the title and the illustrator and front cover and the back cover.

Teacher 2: Right, because now we are listening to conversations and the conversation I would say four years ago would not have been as complex as it is today. So they'll use... they're definitely using a better language. A better vocabulary. Because one of my children was sitting there, he was talking to another child on the floor and he said, "I just think that's very delicious. Have you tasted it?" You know, and so I'm listening and I say... and to see that come up out of him is... shocking to me because I've been around a minute. I've been around 23 years so, yes, like you I would have said "No, they can't learn it." But, yes they can. Yes they are improving-definitely been improving.

Teacher 1: We had the bug lady, she's called, from the agricultural center, come and do a presentation to our children. And when... she was blown away by their questions, in fact someone asked a question that she couldn't answer and she said, you know... she said these are the best questions I've gotten from kindergarten to 12th grade and so we we're like cool.

In addition to changes in their beliefs about children's literacy and language learning, teachers reported that their practices changed as a function of their beliefs changing and the opportunity to practice and get better at having conversations with children. It should be noted that some teachers used the word "conversate" to denote all the talking they thought they were doing with children. In this next example, one teacher summarizes her experiences "conversating" with children.

> *I find that I tend to more listen to what the children are saying, as before I got into this program it was more like you asked the question and you, you're looking for a specific answer. Whereas now I think you get to know the child. It puts you in a better place with the child. You really, I really listened to what they're saying and you actually sit down and you conversating with them and I'm able to, extend the conversation, not just say well, "How are you today Johnny?" and "I'm fine." It's more like, "Well, Johnny, what did you do today - what was special about your day?" You carry on a conversation. It gives me more as a springboard to go into different areas I think.*

> *And that carries out in every conversation, whether it's a book, "How was your day?", "What did you do last night?" and, you know, "What did you do during centers?" It is, that.That opens up everything because we're talking to them about so many things that they have learned how to communicate with us so much better and with each other.*

Dual Language Learners

Changes in teachers' literacy expectations and practices were particularly evident in teachers' discourse about working with dual language learners. Teachers articulated that before the Read Right training they often didn't think children who were learning a second language could learn Tier 2 and Tier 3 words. As this teacher suggests in the next quote, however, she changed her beliefs once she saw how well the children were learning new words. This sentiment is captured in her saying, "A word is a word."

> I *feel like, in spite of, those insurmountable difficulties, my students have made amazing progress and I wholeheartedly agree with the premise that a sophisticated storybook and sophisticated language, even with an English-language learner, a word is a word. It doesn't matter how small or how big it is. They can learn 'exhausted' as easily as they can learn 'higher' so I 100% agree with the premise of using strategies and the assessment tools are wonderful.*

> *The one thing that I always used to do, is I would always simplify everything that I was saying. My class has... around a third Hispanic and dual language learners. And so I was always making things very simple and so now I'm using the simple words because they don't have them but I'm pairing them with the vocabulary so that I'm reaching both the lower and, you know, teaching them any English at all but I'm also giving them, you know, a more sophisticated word and defining them or giving them a sophisticated word and defining it with a word that they may already know or that the English Language Learners, the students that already speak English already know and so I'm increasing vocabulary on both ends. Giving those Tier 1 words to those that didn't have any,*

because they have the Spanish at home, and then giving those tier 2, 3 words and, just throwing a wider variety of language.

Instructional Routines

A theme that emerged from interviews with both lead and assistant teachers focused on the instructional routines that teachers were implementing as a result of Read Right. Specifically, teachers mentioned how learning to implement interactive repeated story reads, REAL Time and PAC time helped their students learn. Each of these routines is discussed in the subsections below.

Repeated Interactive Book Reads. Teachers frequently noted the difference the training made on their philosophy about book reads. Across most classrooms, teachers spoke about being "intentional" in identifying language in book reads, reading stories multiple times so students could "go deeper" in their understanding of the elements of stories and in their understanding and learning of language. In addition, it was clear from teachers' comments that many of them felt very comfortable with their book reads and that they were looking for additional ways to extend information covered in the books into other types of literacy skills, such as writing. In one particularly interesting exchange, two teachers have a conversation about the benefits of repeated interactive story reads and informational texts and how it benefits children's interest in books.

Teacher 1: They can retell better

Teacher 2: Yeah they can retell. They're more knowledgeable about it.

Teacher 1: And then they can get their book on. They can retell the whole story. I found that I could pull more information out of them. You know… if I ask. I had a couple of children that you know would sit like… I have got one particular child that oh, she's so quiet so I tried to get her ….and she used to nod her head, but now she'll talk… she'll say a few words so we're getting there, but I think real-time is better than reading a few years ago. It's come a long way. But I told you all I would never look at a book again the same, never. I said Lord…

Teacher 2: They'll make connections too, which they didn't in the past. Now they'll make connections between texts, like remember you know… what the cat did in this story before?

Teacher 1: And one thing that has happened is that in the morning when they come in you know it used to be well can I get the legos? Or can I write? And everybody wants a book now. So we have this morning circle that… and they get books. You'll have to open… they go put the things and their belongings away and they goes straight to the book.

REAL Time. Teachers discussions of repeated interactive story reads often led into conversations about their implementation of REAL time in their classrooms. Some teachers felt that the implementation of reads using informational texts positively impacted children's conceptual knowledge and vocabulary learning. In addition, a few teachers commented about how connecting the repeated reads with REAL time really seemed to help focus their teaching and give children additional understanding of the concepts being covered. Consider the following quote.

> *It (Read Right) has given my teaching a purpose for the past two years that, you know. When I first came into pre k I just kinda knew I was doing topics, whatever. This gives me purpose and it gives me a more focused way by doing the paired readings with the REAL time, and whatever, ya know, we've gotten more in depth into things that I didn't, you know, realize, you know, four years olds can get in to.*

Other teachers also commented on how much learning was taking place with children's vocabulary knowledge and interest in the REAL time texts. In these next two quotes, the teachers' talk about this excitement and interest and how these interactions were clearly different from experiences they had had while teaching. It appeared that for these two assistant teachers, REAL time was something that they really enjoyed doing and that changed their teaching practices.

> *Teacher 1: The thing I was thinking about was when I… I do the informational text with them and we get done and then I'll ask them if there's something you want to see again that we… if we have a couple minutes… and we'll look it up and we'll look at that again and I was just amazed at how many of the kids would like raise their hands and say I want to see that picture with the chrysalis again and so we look up chrysalis, page four, you know, then we go and look at it and so that really shows that they were really paying attention to what we were looking at. And before, I wouldn't have done that because it wasn't in my script, you know, I had my read this book and, you know, move on to the next thing but… I think I'm sort of thinking out-of-the-box little more now.*

> *Teacher 2: Right because we were reading stories but never would I have thought it was so much distinction, you know like you got to read an informational text and then you have a storybook and… I would never look at a story book again the same way. Never. Never.*

Although teachers commented on REAL time, it was clear from their discussion of the topics that it was one instructional routine that was missing from some teachers classrooms (see fidelity data for verification of this point), and when it was being attended to, teachers were implementing it in variable ways. For example, in the next quote, a teacher speaks of her excitement that children were learning the table of contents associated with informational texts, but it doesn't appear, from this quote, that she is consistently implementing REAL time as much now as she used to.

The one thing that I did before that I don't do now is when I read a non-fiction text, sometimes if they're small I'll read it cover to cover. Sometimes I don't. Sometimes I just pick out those two or three pages that are pertinent to, you know, what I want to share and teaching them parts of books that you might find in a non-fiction text. Like a table of context or glossary. My kids, every day, somebody's running up to me. "Look; a table of contents" because that was something we did in September. And so, I'm trying to ... and they're showing me the index and glossary too and I'm going "no that's an index or that's a glossary" but they know that those are books that are real; about things that are real (right).

PAC Time and Emergent Writing. Teachers also discussed their implementation of PAC time and writing activities. We include PAC Time and Writing together in this report because teachers often emphasized both of these activities jointly in their discourse. This is most likely a function of teachers' including a morning message, with many teachers consolidating morning message work into their concepts of print or alphabet knowledge work during PAC time work. Consider, for example, the following quote from a teacher about PAC time and the way she embeds it into her daily practice of both word work and writing.

Well, I find myself doing more activities on phonological awareness. I also find myself doing more lessons on printing, writing words, we take, we have what we have is three vocabulary words related to the theme of the week and a sophisticated storybook. We take three vocabulary words, we introduce that to the children, we break it down into syllables, these are the three words. We do many different activities with those three words. So, the impact is that our students, when they go to center time and if they visit the writing area, you will find them writing those words and we get dictation from those words because besides writing those vocabulary words, they will draw pictures of those words and then of course, being a teacher, the teacher will ask for dictation of those three words so those are some of the activities that we do.

Other teachers spoke to the importance of embedding writing routines, such as sign in boards, into their everyday schedules and transitions. Many teachers spoke about how these writing routines benefited children and how they really saw children blossom in their motivation for writing and skill in writing their name since implementing such routines. As one can see by teachers' scores on the writing scale of the ELLCO, teachers clearly improved in their implementation of writing activities in their classrooms. These next two quotes from different teachers, capture many teachers' perceptions of writing and how it benefits children's development.

… the one big thing since the last time we came (to training), we started the sign in board. And that has been a huge, huge plus in our classroom like 50% of the kids have learned how to write their names since then… they were doing an okay job but since we started the sign in, we do it… I was doing it different ways but I just started doing it every day on a big white board and they absolutely love it. It's part of a routine, and they love it and they pay attention to it and they remind each other about it and they're precise about it and even… my little one that couldn't write his name at the beginning of the year

is writing his name now. Yes, it's huge, it's a huge accomplishment. I only have one that still can't write his name but… you know and for them to recognize when they don't do it right and we and we have a lot that can write their last names now, so that's a big thing for a four-year-old.

And another thing that has been really great is writing their names. We never really focused on that, but you know, it's become a daily habit in the room now, turns lists, and they sign in and out. You know, when they come in, they sign in and when they leave, they sign out. And it's really forcing them to write their names, and some children I think that would never have even tried. Or at least getting two to three letters down, where others are now putting their name right on a line that you know, is maybe just a quarter inch high. And they're just putting that name right in there, you know, like they're going to the doctor's office. You see their little brains working and their small motors, so I mean, I am very impressed with the writing, because I didn't see that coming.

Center Time. A final instructional routine that teachers emphasized was their implementation of language instruction and interactions during center (or free choice) time. Although this theme was not mentioned by all teachers, lifting the language, as noted above, was a key theme throughout the interviews. The center time theme emphasized teachers' practice of lifting the language through play.

I talked to, sit with them and play with them, you know, the, every day like today you are in the cafeteria. you're a cashier. I was a helper for the day. They were a chef, somebody some day they dress up like a chef. So encouraging them to do, to play, everyday… different things like a blocks area, they play with the blocks. I was sitting with them and playing, play with the blocks, and they are making some… some building or some thing or keep talking and talking… so they are coming you know, very good, you know, talking back with me… so I enjoy that.

Teachers also spoke to the importance of introducing centers to help children focus their play and learning.

Another thing is introducing centers. It has worked really good. Because they look at the toys sometimes....they decided on how to use it. You teach them how to use it in play. After you explain to them how to use it…

Support: Facilitators & Trainings

Another theme that emerged from the data had to do with the training and support the teachers had received from Read Right and the impact that these experiences had on their pedagogical practices. Specifically, teachers mentioned that they were very grateful for their facilitators and appreciated having them in their classrooms. Although a few teachers articulated specific challenges they had with a facilitator, particularly with being on time some days or leaving early, most spoke to how the facilitator made the training more beneficial as she gave them an opportunity to watch an instructional interaction modeled in her classroom. In this next quote,

the teacher articulates that her facilitator demonstrated a lesson and she was able to sit back and observe it and assess her children as well.

> *I would like to speak about the facilitator. Our facilitator was very supportive for many different activities we did in our classroom with the children. Matter of fact, she demonstrated one of the morning messages where the children reviewed the day, the history of the day, what the day is and also about print. The children were able to color, the children to come and write their name and from that point right there I was able to see any progress of how my child, my children were writing their names. And I found out that my children has been writing, not only their first name but their last name. And it helps that our children, our children felt so good about their self-confidence at that time that they could write their name using letter formation and so... it's just interaction with our facilitator, she was there to help support the teachers as well as the students.*

During the second year, most talk about facilitators focused on them providing additional materials and resources (songs, books, writing prompts). In addition, teachers spoke of the help that facilitators gave them in completing assessments and modeling writing. For example, in this next quote, a teacher articulates how her facilitator helped her with the assessment of children.

> *And with the facilitator, I like when she came in and did a lot of the assessments on some of my children because she showed me how to do the...the fall and spring assessments... I don't know about you know clap out the words in the sentence, those kind of things... because honestly during the day if we have conversations we have PAC time, we don't always have the time during centers to do that and she came in and she took the initiative and said "hey do you want me to help you do this" and it really works and that way the next time that I could do Spring one, I was more equipped to what I needed to do and I did a faster, you know... it just helps because that was the third person to come to do it.*

One of the focus groups spent a significant amount of time talking about the importance of facilitators to effective implementation of Read Right. This group felt that the facilitators were key in helping them learn the material, particularly the first year of implementation. As one can see from the back and forth between the two teachers in the next quote, both teachers valued the role of the facilitator, even if they had a different opinion regarding the amount of support that each of them needed.

> *Teacher 1: And you know those facilitators, I agree they need to be with the new teachers but especially the beginning of the year. They, they give so much good supports toward... during your introduction of centers, your PAC time, your story reads. They are very supportive and I can understand, like the second year, not so much. It's just like if a teacher has a question about something or need additional resources. Yeah, but the first year definitely. The new teachers need this assistance.*

> *Teacher 2: Or I could still see it for the second year to keep you on track too. You know like once a month or you know...*

> *Teacher 1: Right, not like an everyday thing, (like a tune-up) yet second year.*

Teacher 2: Because I just thought it was so much time between the modules because if you don't have someone on the site, you, you know, no not like you get lazy but you just get distracted, you know with other things, that having facilitators there to say "What are we doing now?" Make sure you're on it...doing what you're supposed to do… somewhat accountable, that's what I like.

A final theme that emerged from discussions of facilitators focused on the support that teachers received from the United Way and their excitement for the prop boxes that were given to them to extend children's learning to home contexts. Many teachers spoke about the "white kits" they received and how they enjoyed using them and sending them home. In addition, they spoke about the United Way facilitator and the support she gave them with trying to involve parents. Here is a prototypic response from teachers about the literacy kits.

I wasn't working with the white boxes at first but um; I started, like, maybe November. I started working with em' and I found out that they're a really big deal because the kids do learn a lot when they, um, actually do an activity from them. Um, my kids started writing better, um, just using the play dough um letters. And, um, with them using their hands to write in the sand. They did pretty well on that, so. I like the literacy kits.

Challenges and Suggestions

A final theme that emerged from the data related to challenges and suggestions for the program. Although we could separate these themes out to discuss separately, we keep them together in this report as they fit well, particularly since teachers generally had a suggestion for each challenge they faced. Although challenges varied from teacher to teacher, a few general themes emerged. First among these was the need to have greater coordination between Read Right and Bright from the Start consultants and school personnel. However, not every teacher shared this theme. In fact, some teachers articulated that their consultant was very supportive of their implementation of Read Right concepts. Still others spoke of their frustration with their consultant around expectations for their lesson plans and small group instructions in addition to their consultant saying that some of the activities that they were doing with their children were developmentally inappropriate. This first quote reflects a frustration between a teacher's implementation of Read Right concepts and her county coordinator while the second quote reflects a frustration with what is consider developmentally appropriate with regard to alphabet knowledge.

Teacher 1: I feel, I have felt very unsupported not by the grant, but caught in a sort of war between county coordinators and the grant. Every time I do my lesson plans the way Read Right from the Start wants me to, I have to redo them. If my small group does not involve every content standard for the week: science, math, all other subjects, I have to redo my plans. I'm allowed one to two guided readings a week, or I redo my plans.

Teacher 2: She (PreK consultant) came and that was what we got marked on our lesson plan because of them matching uppercase and lowercase and she said that it wasn't an age-appropriate (activity) but yet, in the content standards, there's about the recognizing

letters of the alphabet. So it's like, I didn't understand, you know and there were things like that.

Teachers' suggestions for these challenges were to have their principals, consultants, and other stakeholders have to attend the trainings with them. A few teachers commented that their supervisor(s) had attended a training and that it really helped them implement the project well.

Although some teachers articulated similar challenges, others spoke about their own individual challenges with certain parts of the curriculum. A few mentioned struggling with writing, while others articulated taking a significant amount of time to learn the book reading protocol. Still others spoke of the challenges of implementing strong language practices. The following quote nicely captures teachers' thoughts about it taking time to learn to implement Read Right principles effectively and the challenge of working with the lead teacher.

I agree I think learning the information and then figuring out how to apply it and then implementing it, you know, with everyday routine and in the classroom, like being intentional. That was difficult at first and this is my first year and then… I don't know how you guys felt but… as assistant teacher it became a little difficult working with another teacher that, you know you've had your ideas, and you know you want to implement your ideas versus… and then working together as a team so we had to… we had challenges with that but now… blended that together so that we could get on the same accord with the children's. So it has been a challenge moving across the board but we've got there.

A final suggestion that many teachers made about the project related to keeping the module training sessions "active and engaging" as well as providing a lot more classroom "activities." Teachers felt that opportunities to move and practice during training were particularly helpful. They also really appreciated all the materials that were given them during the course of the project, but wish they would have gotten more writing materials. Finally, one thing that many assistant teachers brought up in the course of the interviews was a suggestion for the training of future teachers. They felt it was extremely important to be able to receive the same training the classroom teachers had received, and they felt valued and appreciated for being involved. As one final quote, this teacher's comment nicely summarizes this sentiment.

I think this program helps in my situation, the teacher realized that I'm not just the person to wipe the tables off, I'm actually here to assist in the teaching process and I'm here to help you. We can bounce off ideas with each other, you know, a lot of us are coming from different backgrounds and I am actually studying to be a teacher so, you know, every thing I'm learning here I can use as hands-on experience so I think that was a huge part. A realization for some people to realize that we are partners, you know.

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Teacher Knowledge

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Research suggests that in order to change the quality of teacher's instruction, we must first change what they understand about both the content area <u>and</u> the pedagogical practice (Cunningham, Perry, Stanovich, & Stanovich, 2004). Read Right's professional development approach focused on both. Teachers not only learned about the "science" of language and literacy instruction, but also about how to translate that science into practice in their everyday classroom activities. Measuring "teacher knowledge" of both content and pedagogy is a relatively new area of inquiry, especially for preschool and pre-K teachers. However, research evidence suggests that, similar to elementary and secondary teachers, many teachers do not have the prerequisite knowledge needed to effectively teach young children critical early language and literacy skills (Cunningham, Zibulsky, & Callahan, 2009).

Thus, one goal of the Year 2 evaluation was to examine changes in teacher knowledge over the course of the participation in Read Right. Members of the Rollins staff modified teacher knowledge surveys that were available in the research literature. These surveys included items about children's early literacy and language development, knowledge of how language works (i.e., features of language, such as knowledge of sounds in words), and beliefs about best pedagogical language and literacy practices. Rollins staff modified these surveys (with author permission) to include information specific to the instruction of preschool and pre-K children. Specifically, the survey contained a total of 53 items assessing knowledge in the following areas: (1) phonological awareness, (2) language development, (3) concepts of print, (4) writing, and (5) reading. (Please contact The Rollins Center for Language & Learning to inquire about the availability of this survey).

Teachers were given the survey at the beginning (Fall 2009), middle (Spring 2010), and end (Spring 2011) of Read Right. While some teachers participated for the full two years, staffing changes at the sites allowed for new lead and assistant teachers to join the classrooms during the second year of the project. However, because Read Right was designed to be a two-year professional development experience, we only focus on 15 teachers who had full teacher knowledge data across both years of the project. The majority of these teachers were lead teachers (N=12) while a few were assistant teachers (N=3). Because the sample of teachers in question is so small, we report teacher knowledge as a total score only. As shown in Figure 28:

- teachers scored significantly higher on the teacher knowledge survey between Fall 2009 and Spring 2010;
- teacher performance did not change significantly between Spring 2010 and Spring 2011.

These findings suggest that teachers gained content and pedagogical knowledge about early language and literacy instruction while participating in Read Right, with a final mean score of nearly 70% on the survey. It is not surprising that changes were not observed during the second

year, as the second year of Read Right was focused less on knowledge acquisition and more on knowledge application and mastery. In other words, the professional development during Year 2 was intended to help teachers solidify and extend upon what they had learned during the first year (e.g., using assessment to inform instruction; supporting English Language Learners) and implement this knowledge in their classrooms with consistency.

Figure 28. Teachers' knowledge about early literacy skills and pedagogy across two years.
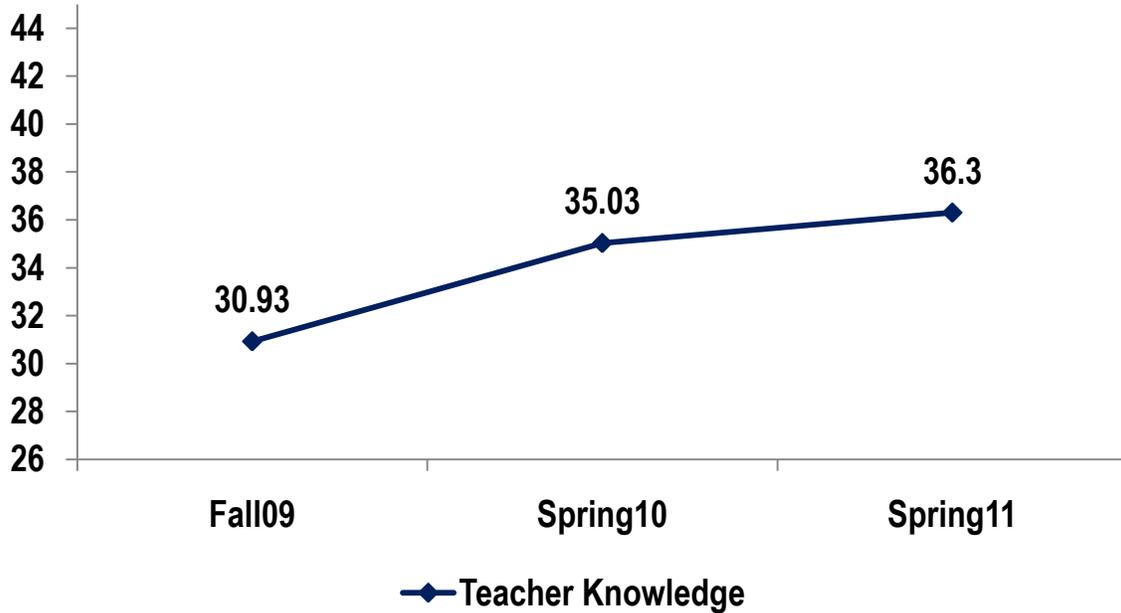
The Effect of Two Years of Read Right

While the previous analyses focused on changes in teachers' content and pedagogical knowledge about effective early language and literacy instruction, the next set of analyses explored changes in teachers' classroom practices over the course of their participation in Read Right. There are several important aspects of the evaluation that one must consider when interpreting these results. First, this design is not experimental or quasi-experimental. While the teachers remained the same over two years, their students did not. The student results presented earlier in this report make it clear that the students enrolled in many of the participating classrooms during Year 2 were different from the students who were enrolled during Year 1. In addition, the number of students participating in the evaluation during Year 1 and 2 changed. While a teacher may have had only 10% of her classroom participate in Year 1, 80% may have participated in Year 2. Thus, it would be inappropriate to consider the results from students in Year 1 as a "control" group for the students in Year 2.

Similarly, teachers who participated in Read Right for one year are not a control group for teachers who participated for two years. Neither the teachers nor their classrooms were matched on the various characteristics that would allow for a direct comparison of their outcomes (e.g., previous teaching experience, certifications, education, type of school currently teaching in). For instance, a considerable number of teachers who joined Read Right during Year 2 were teaching in classrooms with a significant number of ELL students. It would be misleading to compare their instructional outcomes to teachers who had participated for two years, especially those teaching in classrooms with very few ELL students.

For these reasons, the best means of exploring the effects of two years of Read Right on classroom and teacher outcomes is to examine the one constant over the course of the project: the teachers. Therefore, we only examined changes in the instructional practices of teachers who received support for two full years. These analyses are also more indicative of changes in classrooms and instructional practice during Year 2, as opposed to those reported earlier in this report, because these scores account for variation in teachers and classrooms based upon how long they had been in the project. The scores reported earlier represent the mean performance of all teachers; and, therefore, may be misleading when interpreting the true effects of Read Right on teacher outcomes.

Finally, we also present their students' performance on key language and literacy indicators over two years and changes in the instructional practices of teachers who only participated in one year of Read Right (Year 2 only). We provide these two analyses to contextualize the findings about the quality of instruction in Read Right classrooms. In other words, the primary questions are neither: *Do teachers who participated in Read Right for two years perform differently from teachers who participated for one year?* nor *Do children who attended Read Right classrooms with teachers who had two years of support perform differently on language and literacy measures from children with teachers who were first year participants?* Rather, the primary

questions are: *What is the quality of the instructional practices of teachers after participating in Read Right for one year and two years?*

Instructional Practices after One versus Two Years in Read Right

Over two years, we observed teachers deliver instruction in large group and center time activities. Each observation occurred in the morning and each teacher was observed for approximately 2 hours in the fall, winter, and spring of the school year. The observational tools included the ELLCO, CLASS, and fidelity tools developed specifically for this evaluation. Capitalizing on the longitudinal nature of Read Right, we explored outcomes on these three measures for teachers who received support for Read Right from 2009-2011 (two-year teachers) and teachers who received support from 2010-2011 (one-year teachers). These analyses provide a comprehensive, but complex and nuanced picture of the effects of professional development on classroom practice in pre-K.

ELLCO

As shown in Figure 29, two-year teachers made steady gains on each ELLCO subscale. Although teachers' evidenced growth on the *Language Environment* subscale of the ELLCO, breaking down each subscale into its individual items yields a more complex and descriptive view of teacher improvement (see Figure 30). For example, although teachers improved the most on the Language Environment subscale, breaking down progress across both years reveals that teachers made large gains in their implementation of *Phonological Awareness* activities (i.e., their engagement in activities and routines that build children's understanding of language sounds) and less drastic change on Efforts to *Build Vocabulary* and *Opportunities for Extended Conversations.* Encouragingly, all of these improvements were statistically significant. In contrast, teachers did not significantly improve in the quality of their *Discourse Climates*. It should be noted that this item measures the general nature and tone of classrooms for conversations as well as teachers' efforts to encourage discussion with and between peers. One reason that teachers did not significantly improve on this item may have to do with the fact that teachers began the study with a generally acceptable (i.e., slightly above "Basic") level of discourse climate. To score higher on this item, teachers needed to be seen deliberately fostering a climate where children's individual opinions and ideas are valued and where children demonstrate considerable social and linguistic interactions among themselves and their peers.

On the *Books and Book Reading* subscale, both mean scores for all teachers and an examination of teachers who had participated in Read Right for two years revealed little change during Year 2, probably because teachers were already performing at a "Basic" level on this scale at the beginning of the year. However, as can be seen in Figure 31, breaking down the *Books and Book Reading* subscale into individual items for two year teachers reveals that teachers significantly improved their *Approaches to Book Reading* and *Quality of Book Reading* during the first year of Read Right and then maintained this growth during the second year of the project. Less change, however, is evident in their scores on the *Organization of the Book Area* and *Characteristics of Books* items of this scale. Finally, from the beginning of the project to the end, year 2 teachers did significantly improve their practices with *Books for Learning*. This subscale is a reflection of teachers using multiple types of books (storybooks, information text, etc.) throughout the day to

facilitate children's learning. It is important to note that teachers' improvement on three of the *Books and Book Reading* subscales appears to clearly match training received from Read Right. Although teachers received little in ways of instructions regarding how to improve their classroom libraries (i.e., Organization of the Book Area & Characteristics of Books), there was considerable focus on improving teacher practices with book reading and using books in the classroom.

Finally, an examination of classroom scores for the quality of *Print and Early Writing* environments shows statistically significant changes during the second year of the project. Spring 2011 scores were above a "Basic" classification, and teachers improved in Year 2 of the project while little change happened in Year 1. This change is likely a reflection of the fact that teachers received training on how to implement writing instruction during the second year of the project. As shown in Figure 32, an examination of individual items on this subscale for teachers who had received two years of training, however, reveals a slightly different story. Although teachers improved their writing practices and environments, these improvements took a slight dip at the end of the project. In contrast, teachers use of *Environmental Print* showed a steady increase from year 1 to the end of year 2. Encouragingly, teachers, on average, ended the project above a "Basic" classification. Taken together, these data suggest that, although teachers improved considerably on this subscale over the course of the project, teachers still appeared to need significant support in order to model and support children's writing experiences.

Figure 29. Two-Year teachers' mean scores on the ELLCO subscales.
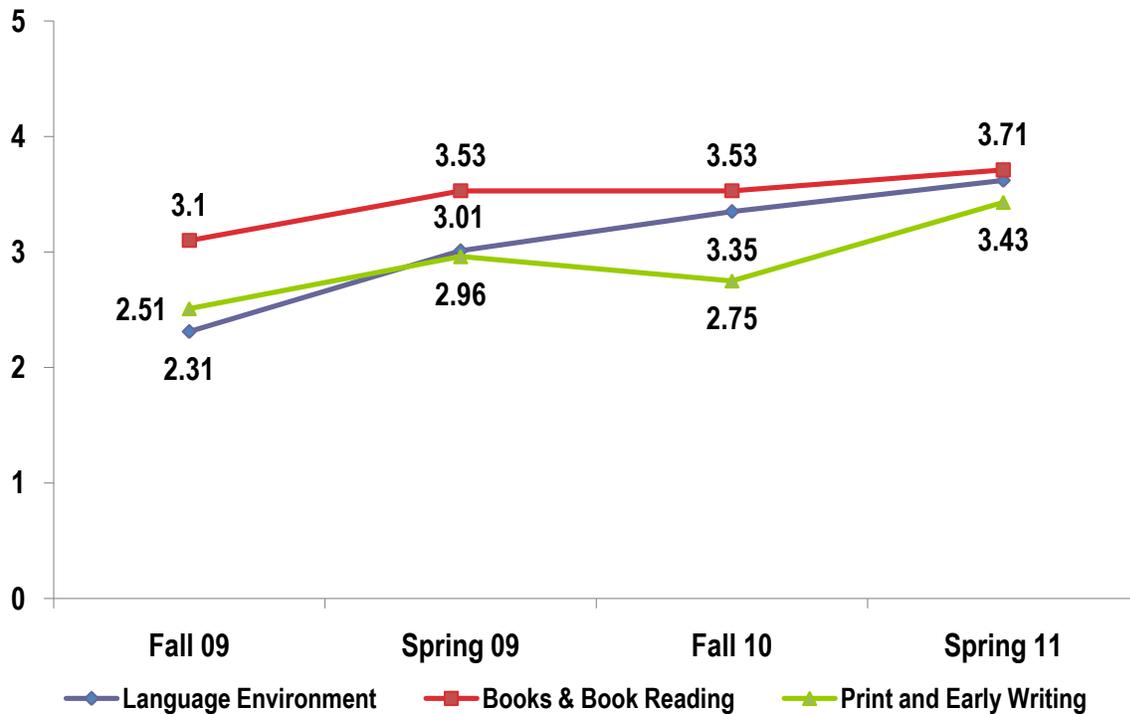
Figure 30. Two-year teachers' mean scores on the ELLCO Language Environment items.

Discourse Climate — Extended Conversations — Efforts to Build Vocabulary — Phonological Awareness
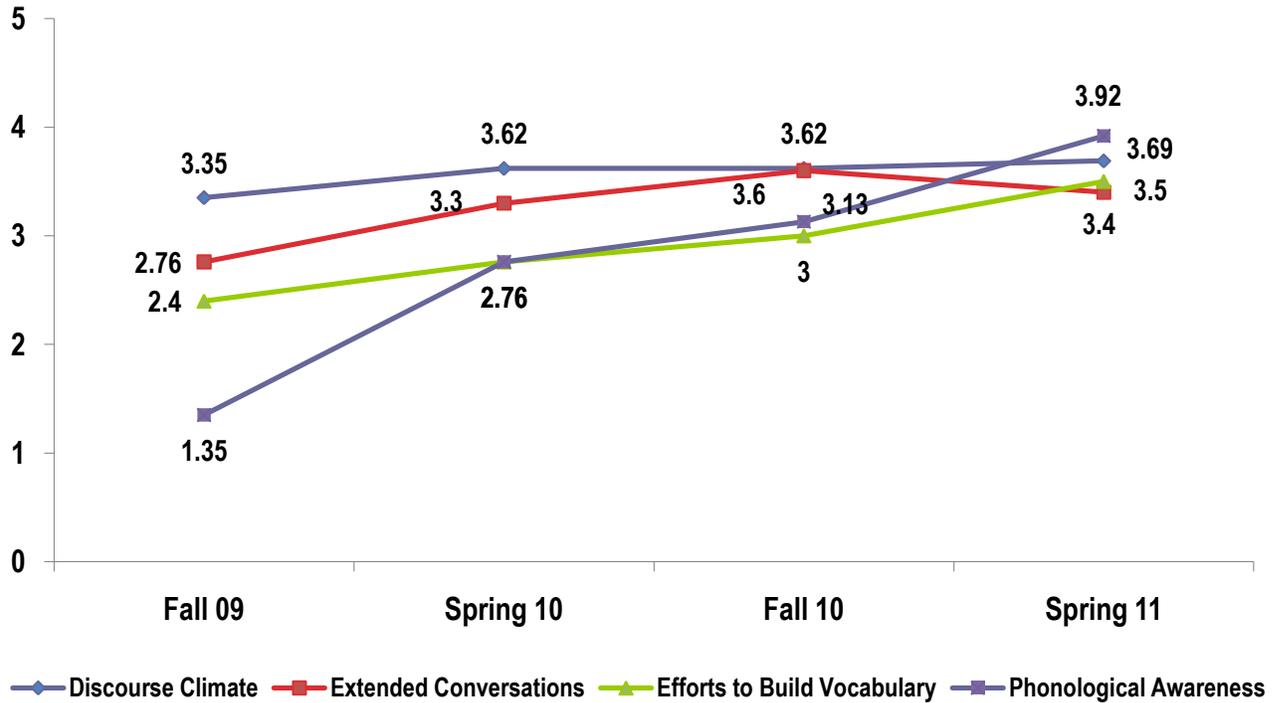
Figure 31. Two-year teachers' mean scores on the ELLCO Books and Book Reading items.

Organization of Book Area — Characteristics of Books — Books for Learning — Approaches to Book Reading — Quality of Book Reading
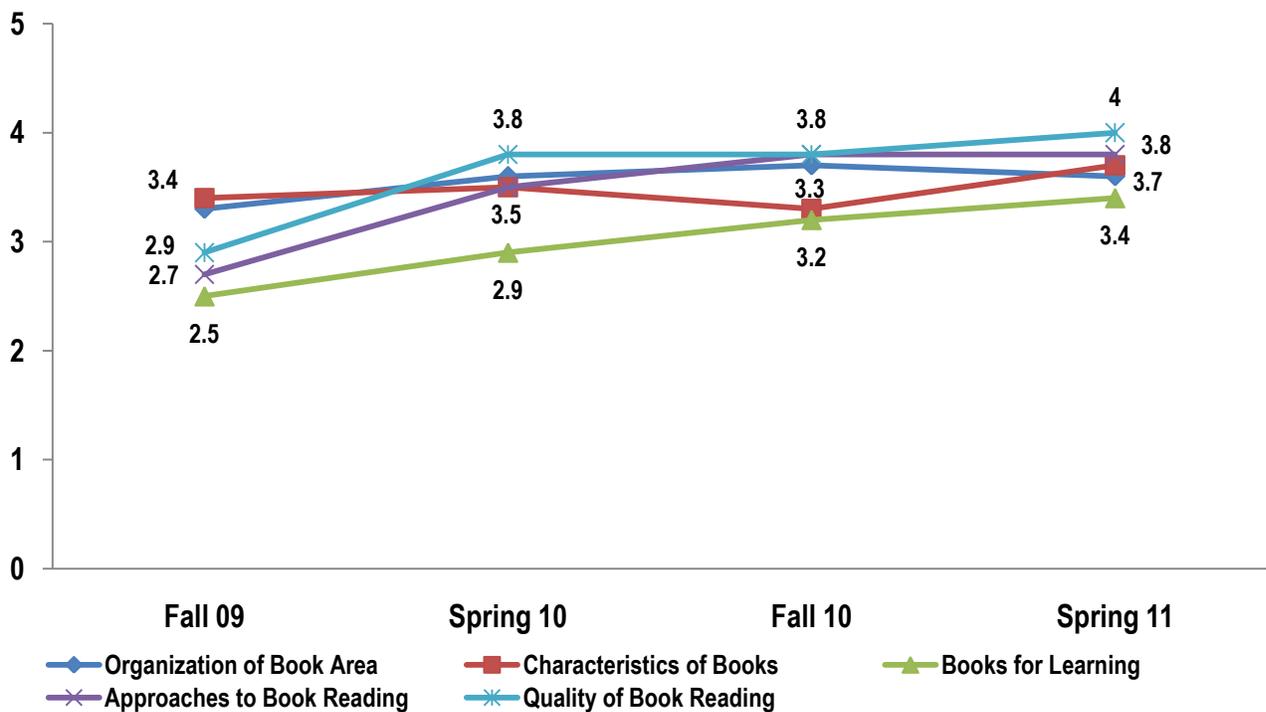
Figure 32. Two-year teachers' mean scores on the Writing Environment and Facilitation of Children's Writing Experiences items.
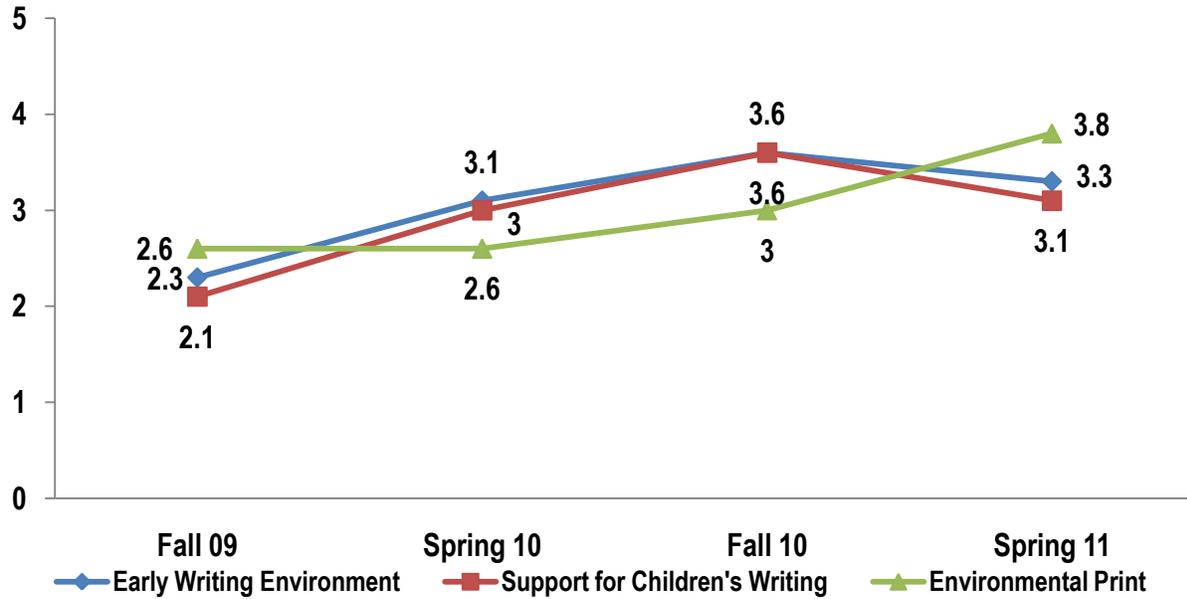
CLASS

As shown in Figure 33, two-year teachers made steady gains on each CLASS subscale. However, the gains were most significant on the *Instructional Support* and *Literacy Focus* scales. Teachers did not significantly continue to improve in *Emotional Quality* as they began the project providing a high quality of emotional support to children. Nevertheless, two-year teachers significantly improved from the beginning to the end of the project. Teachers were also fairly well organized in how they ran their classrooms across year two of the project, as evidenced by the *Management* scale. Two-year teachers also significantly improved their organizational strategies (i.e., the way they ran their classrooms) during the course of the project.

An examination of the *Instructional Support* dimension of the CLASS demonstrates that teachers, on average, significantly improved the quality of their instruction during Year 2. Because this was not the case in the first year of Read Right, we decided to take a closer look at the individual dimensions of the Instructional Support domain (i.e., language modeling, concept development, & quality of feedback) to assess where the greatest growth occurred during the course of the project. As shown in Figure 34, two-year teachers significantly improved their instructional practices from Fall 2009 to Spring 2011 in the dimensions of *language modeling*, *concept development*, and *quality of feedback*. Interestingly, the majority of the growth on all three of these dimensions occurred during teachers' second year of participation in Read Right. These changes in practice place teachers, on average, into the low-mid range on instructional practices (according the CLASS), but above average compared to both large and small scale studies of preschool and pre-K classrooms (see Georgia Study of Early Care and Education, 2009; Justice, Mashburn, Hamre, & Pianta, 2008; Mashburn et al., 2010). According to Pianta

(R. Pianta, personal communication, March 23, 2011), getting teachers above a 3 on the CLASS instructional support scale is a significant achievement as it is teachers who score in this range and above that have the most impact on children's development. Taken together, these data appear to suggest that it takes a significant amount of time and support to change teachers' language instruction behaviors.

Finally, an examination of two-year teachers reveals that, although teachers grew on the *Literacy Focus* scale during Year 2, there was no significant growth during Year 1. Hence, all growth in this dimension happened during the second year of Read Right. The *Literacy Focus* dimension of the CLASS captures the degree to which the teacher explicitly and purposefully helps students develop an understanding of literacy-related concepts of written and oral language. As evident in teachers' scores, they significantly improved the explicit nature of their literacy work with children. However, the rather low nature of these improvements suggests that this instructional behavior was inconsistent. An examination of the association between teachers implementation of instructional routines (i.e., PAC Time and Repeated Book Reads) and their *Literacy Focus* scores reveals that teachers *Literacy Focus* scores were higher when they were implementing clearly defined literacy and language activities (see ELLCO and Fidelity sections of this report). At other times during the day (i.e., calendar time, centers) their *Literacy Focus* scores were generally quite low. In other words, even if teachers received a 4 or 5 on literacy focus in a few instructional routines (i.e., PAC time, Reading), their general Literacy Focus score would be low if they did not include such interactions in the other three 20 minute coded cycles (i.e., free choice or small group play). Hence, although teachers improved their literacy focus practices, it appears that they continue to require significant support to systematically and meaningfully embed literacy concepts into their daily lesson plans and activities.

Figure 33. Two-year teachers' mean scores on the CLASS subscales.
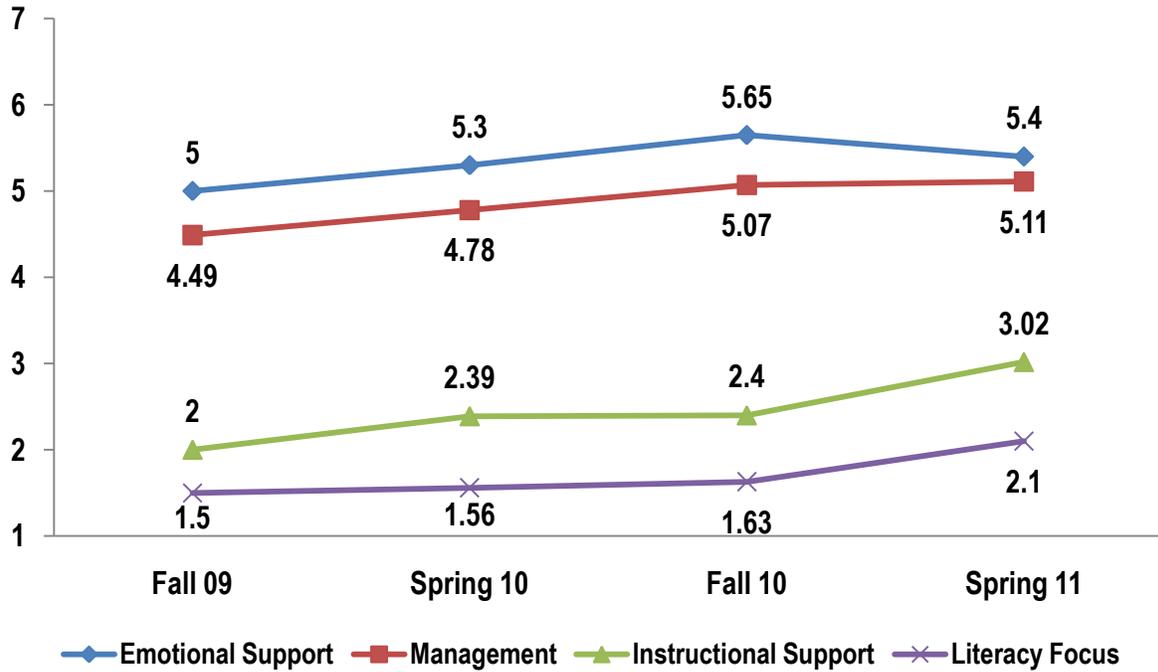
Figure 34. Two-Year teachers' mean scores on the CLASS Instructional Support items.
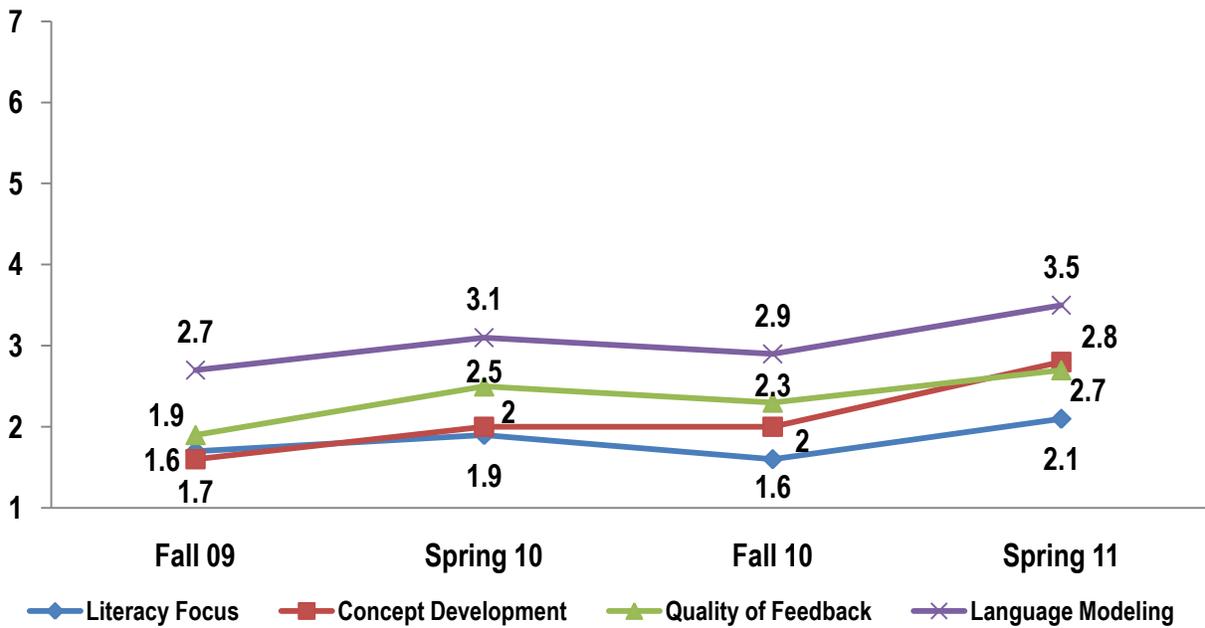
Fidelity Observations

Interactive Repeated Story Reads. Data from one-year teachers indicate that they significantly improved the quality of their interactive repeated story reads throughout Year 2 (see Figure 35 for one-year teachers and Figure 36 for two-year teachers). In contrast, two-year teachers did not significantly improve the quality of their interactive book reads during Year 2. Rather, similar to year 1 teachers, they evidenced significant growth on *Interactive Repeated Story Reads* indicators during the first year of their participation in Read Right. One reason for these findings is that *Interactive Repeated Story Reads* were more heavily emphasized the first year of Read Right for both sets of teachers. Both one-year and two-year teachers scored relatively high (i.e., above a 2) on their ability to faithfully implement *Interactive Repeated Story Reads* at the end of the project. Specifically, one-year teachers were able to effectively introduce the book, read animatedly while pointing out key features of the book, and generally follow the protocol for pushing in language and features of the book during the 1st and 2nd reads, while pulling out information from children during the third read. In fact, a score of 2.1 suggests that teachers participating in their first year of Read Right were able to successfully follow the protocol over 50% of the time. Teachers participating in the project for two years were even more successful at effectively implementing the fidelity protocol. Their average score of 2.5 reflects that they were approaching implementing *Interactive Repeated Story Reads* that were very close to the "ideal" read as indicated during Read Right trainings.

Figure 35.One-year teachers' mean scores on fidelity of implementation of Repeated Interactive Book Reads, Lifting the Language, and PAC Time.

 Note: Significant differences in teachers' practices were evident from Fall to Spring on all measures.
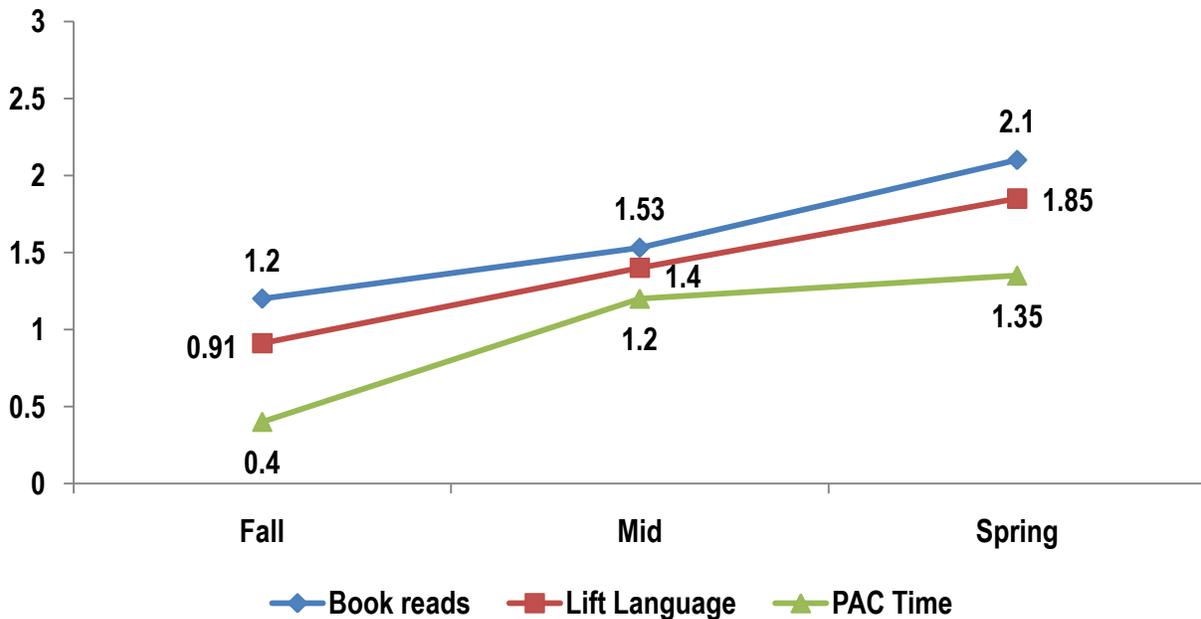
Figure 36. Two-year teachers' mean scores on fidelity of implementation of Interactive Repeated Story Reads and Lifting the Language.
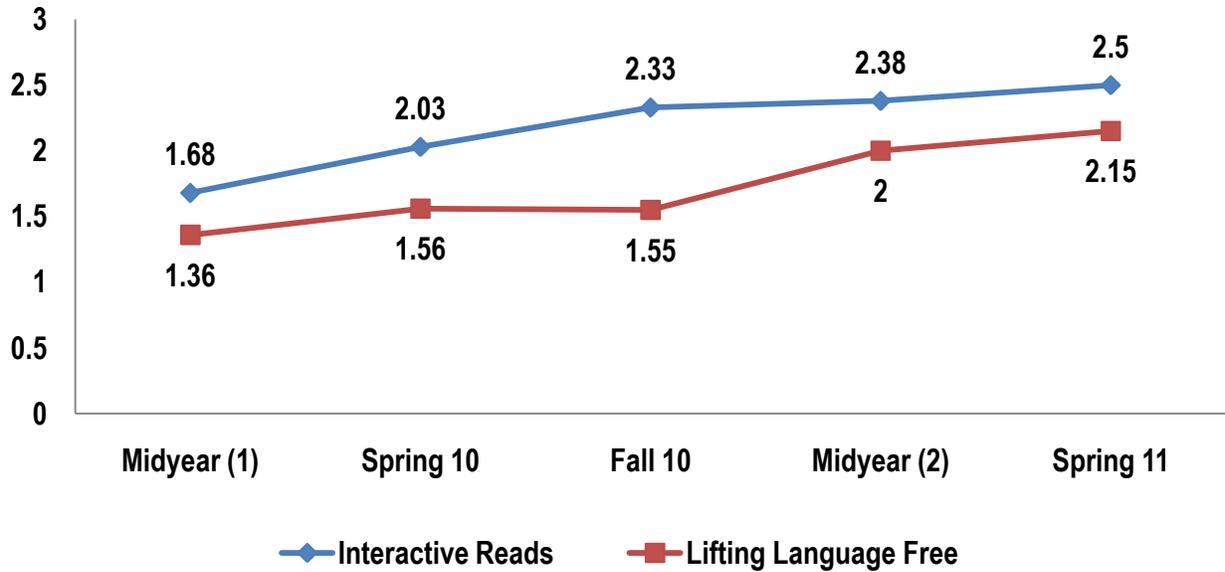
Note: Significant improvement on Interactive Repeated Reads was evident in year 1 of the project while significant improvement in Lifting the Language was evident in year 2.

  PAC Time. Our evaluation of teachers' implementation of PAC Time for year 2 of the project focused on understanding and describing teachers' instructional approach to their Phonological Awareness, Alphabet Knowledge, and Concepts of Print activities. In contrast to how we examined PAC Time in the Year 1 Evaluation Report, our discussion of PAC Time in this report focuses more on teachers' instructional practices and less on how they embedded such interactions into free choice and other routines. Teachers were observed implementing large group PAC Times 3 times during the year. An examination of both one-year and two-year teachers implementation of PAC Time during Year 2 revealed significant improvements for one-year teachers and no change in PAC Time for two-year teachers (See Figures 37 for one-year teachers & 36 for two-year teachers). One-year teachers showed marked improvement from Fall to Midyear time points, but no improvement from Midyear to Spring time points. Both one-year and two-year teachers ended the project with relatively similar scores on PAC Time fidelity. These scores reveal that teachers were generally implementing PAC Time instruction, but that it was only partially faithful to the way PAC Time was conceptualized in training. This partial fidelity is evident in two ways. First, teachers tended to focus their PAC Time primarily in certain areas (i.e., print awareness and alphabet knowledge) while ignoring other PAC time skills (i.e., rhyming and blending). For example, teachers were often seen working with print and the alphabet and, at times, blending and segmenting compound words. However, they were rarely observed to be working on rhyme awareness and blending and segmenting onset and rimes. A second reason that teachers' scores may not have been as high on PAC Time appears to do with intentionality of instruction and how engaging activities were. For example, although teachers were implementing PAC Time instruction, the general quality of such instruction was not

particularly high. Based upon these data, and those of *Literacy Focus* item on the CLASS, it would appear that teachers may still require significant support in how to consistently implement PAC Time in a way that is both intentional and engaging to young children.

Figure 37. Two-year teachers' mean scores on PAC Time implementation.
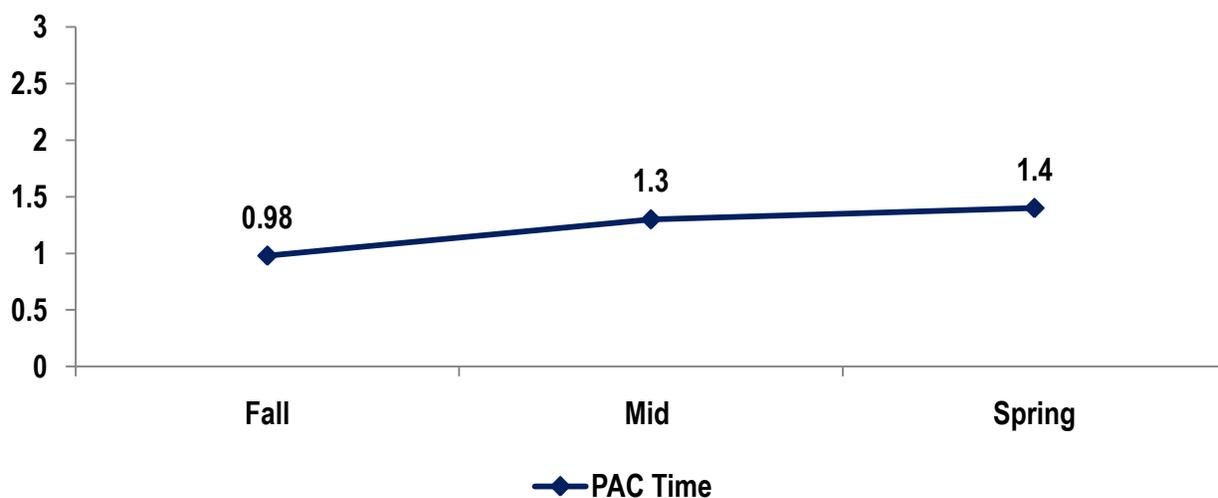
Lifting the Language. As shown in Figures 35 and 36, both one-year and two-year teachers significantly improved the quality of their language interactions with children during free play in Year 2. It is interesting to note that although two-year teachers significantly improved their language instruction during center time from Year 1 to the end of Year 2, they evidenced little improvements in language interactions during Year 1. Figure 36 provides a visual representation of teachers' learning of each Read Right component across the project. As discussed briefly above, during their first year participating in Read Right, teachers significantly improved the quality of their Interactive Repeated Story Reads and this growth was maintained during the second year. Hence, by the beginning of Year 2, teachers were consistently implementing repeated interactive read alouds that were, in general, well matched in intent to the Read Right "ideal." An examination of teachers' language use during centers (or free choice time) demonstrates a different picture. During the first year of Read Right, teachers did not improve their language practices (i.e., vocabulary use, quality of conversations and talk with children). However, during Year 2, teachers demonstrated a significant improvement in the quality of language they were providing children during centers. A score of 2.15 on *Lifting the Language* indicates that teachers, in general, were participating in language interactions that were close to the Read Right "ideal" about 50% of the time, a significant change from year 1. Take together, these data appear to suggest that it may take signifiantly more time and support to change teachers' language interactions with children. The data may also indicate that focusing on one instructional pratice at a time may increase the likelihood that teachers not only learn about the practice but also implement it effectively and consistently.

Language and Literacy Achievement among Students of Two-Year Teachers

Over two years, we also measured children's language and literacy achievement in Read Right classrooms. Because Read Right was a two year professional development project, some children were enrolled in classrooms with teachers who had one full year of support. Therefore, one means of exploring the potential impact of the professional development is to examine student performance in these classrooms. Although students may have entered pre-K with differing skill levels, a preliminary examination of students in the two-year teacher classrooms may provide some insight about which skills teachers were most effective at supporting. Here, we report the mean language and literacy achievement scores of children in two-year teachers' classrooms during 2009-2010 (Year 1 students) and 2010-2011 (Year 2 students).

As can be seen in Figures 38-42, the slopes for student performance on the PPVT4, TOPEL Print Knowledge, and TOPEL Phonological Awareness measures were steeper in Year 2 than in Year 1. In all three instances, Year 2 students entered pre-K performing the same or slightly poorer than Year 1 students. Yet, by the end of the pre-K year, children exhibited significant growth in standard scores on these measures. These finding suggest that teachers were more effective in supporting these specific skills after receiving one year of support in Read Right. Moreover, GRTR! Scores indicate that, teachers were able to support children's general early literacy achievement during both years of Read Right. In both years, children, on average, were leaving pre-K with most of the critical early language and literacy skills needed to be ready to learn to read.

Figure 38. Mean fall and spring standard scores on the PPVT4.
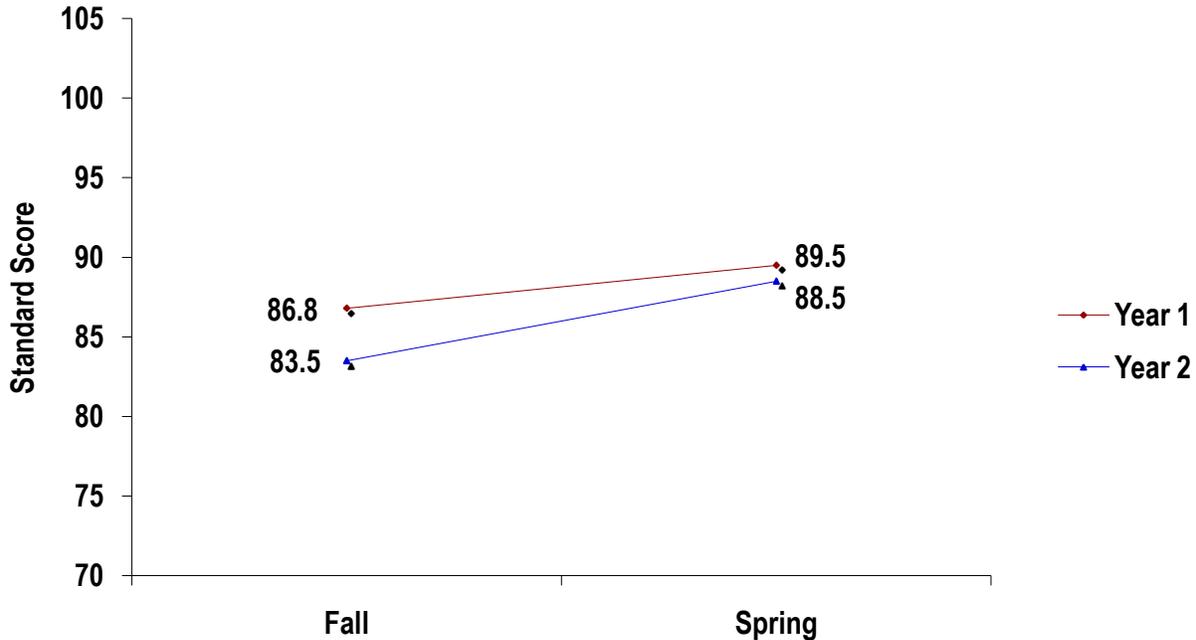
Figure 39. Mean fall and spring standard scores on the TOPEL Definitional Vocabulary.
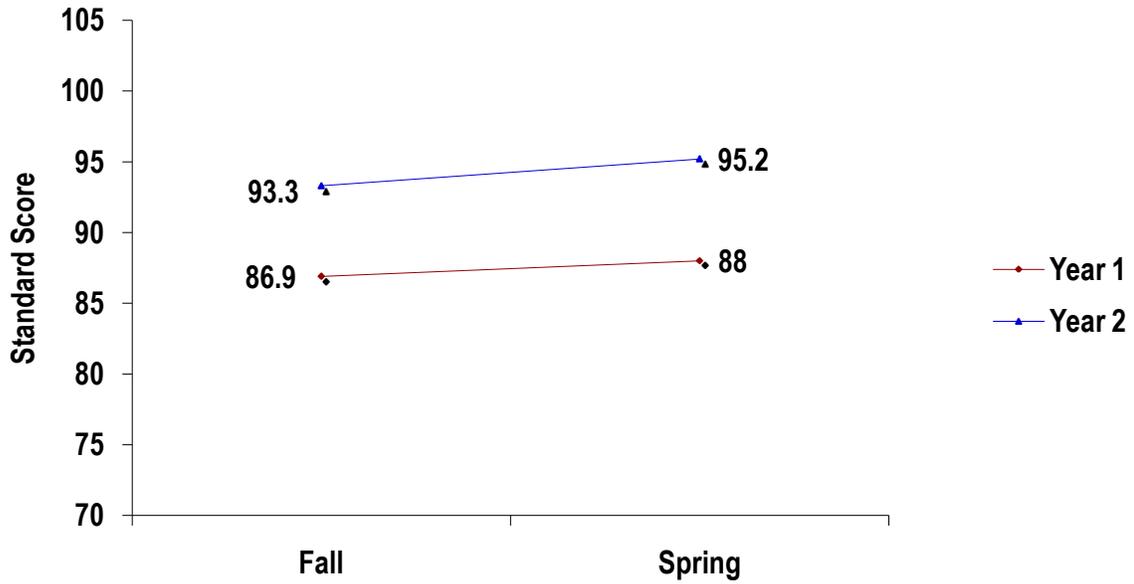
Figure 40. Mean fall and spring standard scores on the TOPEL Print Knowledge.
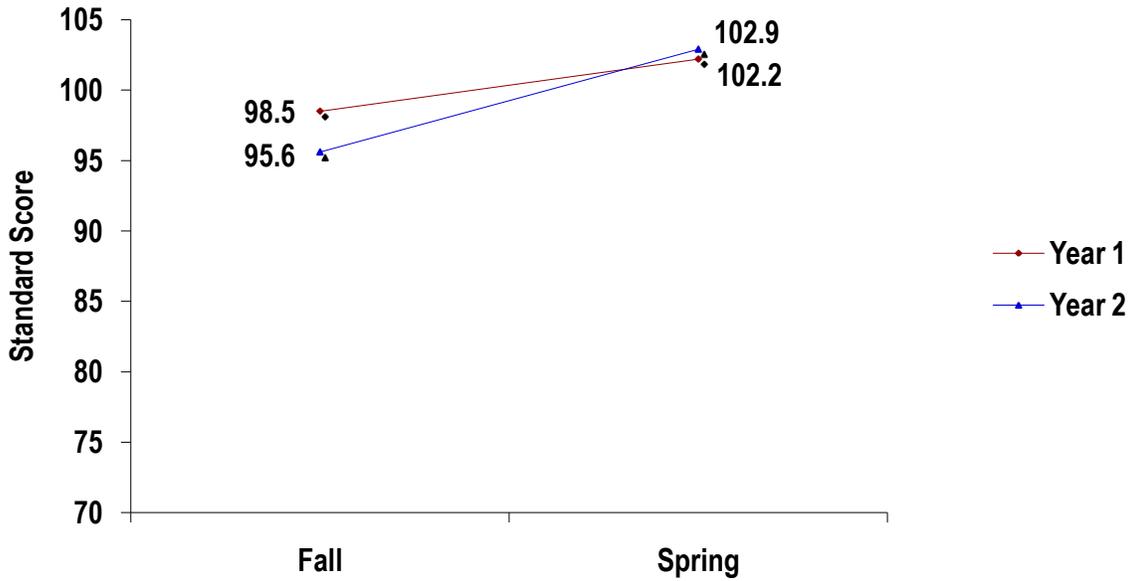
Figure 41. Mean fall and spring standard scores on the TOPEL Phonological Awareness.
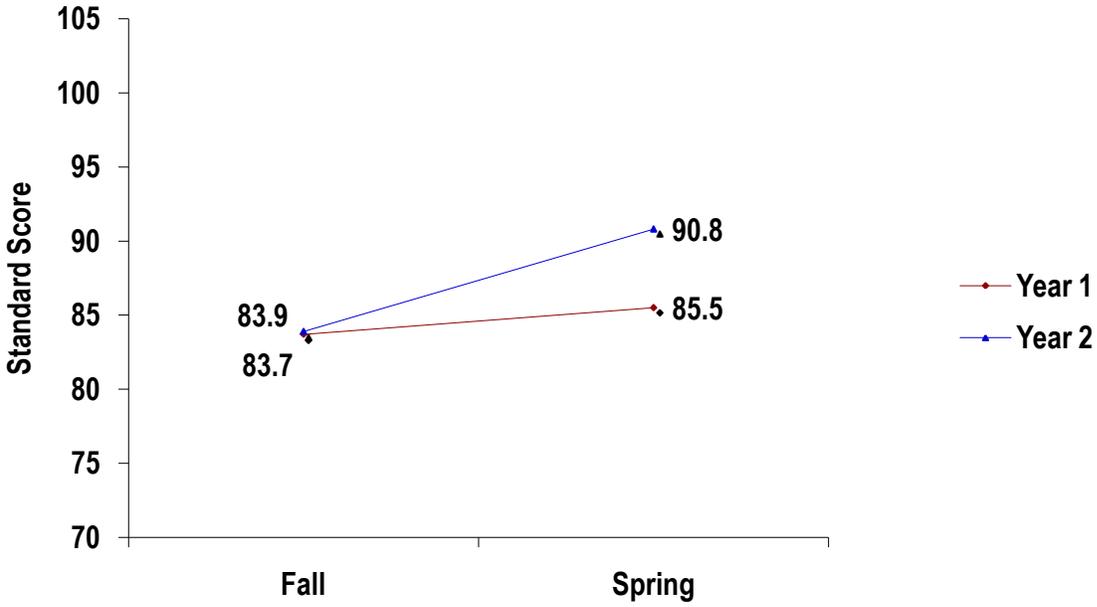
Figure 42. Mean fall and spring raw scores on the GRTR!—English.
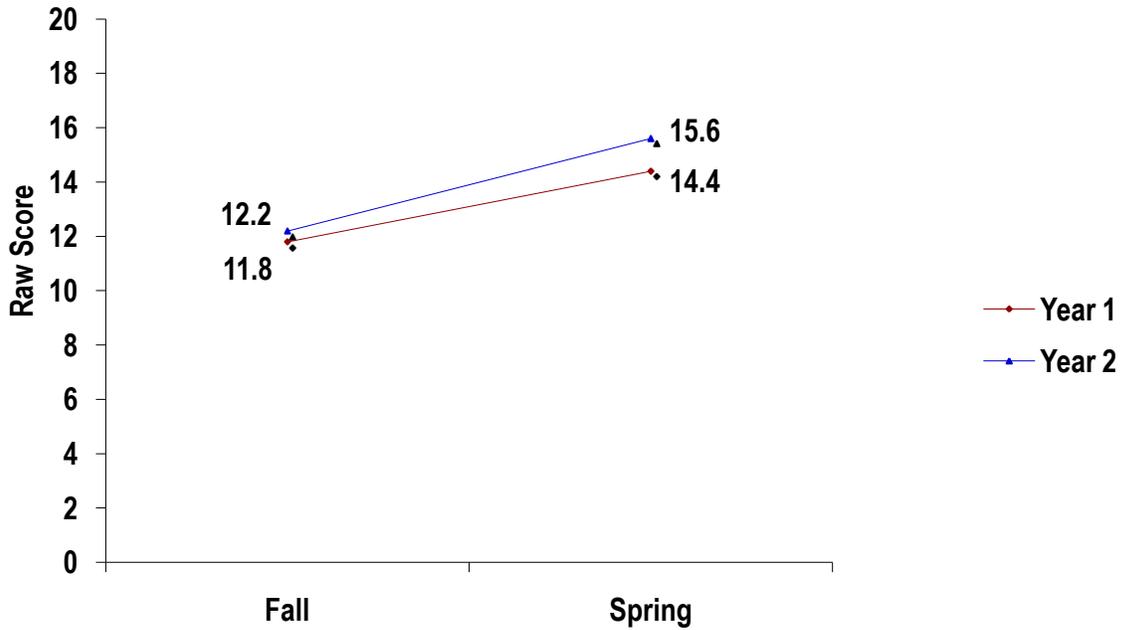
Language & Literacy Achievement in Kindergarten

A final goal of the Year 2 Evaluation was to document how children who had participated in Read Right classrooms during their pre-K year were achieving in kindergarten. Previous studies have reported the immediate and long-term effects of high quality early language and literacy preschool experiences, and the results are generally positive. We questioned whether a similar pattern of results would be observed among these children.

In order to answer this question, we followed some children who participated in the Year 1 evaluation into kindergarten and measured their language and literacy achievement at the beginning and end of the school year. Norm-referenced standardized assessments were used and responses were transformed into standard scores, allowing students' performance on the measures to be compared to a larger, nationally normed sample of children in the same age group (note: on each measure, average performance is between 85-115).

We recruited children from three public elementary schools with pre-K classrooms that participated in the first year of Read Right. The schools were located in Fulton County and represented two public school districts: Atlanta Public Schools and Fulton County Schools. These sites were chosen because: (1) many of the children who attended the pre-K classrooms matriculated into kindergarten, (2) the children were representative of the larger Read Right pre-K sample of children, and (3) the participating school districts approved our requests to participate in the follow-up study. All children in the kindergarten classrooms at the schools were invited to participate, with parent permission forms being given to all children.

Parent permission was obtained for 79 children, 38 of whom attended Read Right classrooms during pre-K. Of these children (mean age = 68.6 months, SD = 4.4 months), 54.4% were boys, and 49.4% were African American (46.8% were Hispanic/Latino). Individual student's socio-economic status was not available. Surveys were completed by 42 of the children's primary caregivers, and indicated that 22.9% of the respondents had attended at least some college, vocational/ technical school, or obtained an associate's degree (71.5% had attended some high school or graduated from high school; 5.8% had obtained at least a college degree). While teachers indicated that all children spoke English in the classroom, responses on parent surveys revealed that 50% of the 42 respondents stated that only Spanish was spoken at home, while an additional 21.4% stated that "mostly Spanish and English" was spoken at home. Seven parents indicated that their children were receiving special services in school; therefore, their performance was not included in the analyses.

It is important to note that this design is <u>not</u> experimental or quasi-experimental. The comparisons made between children should not be interpreted as comparisons between an "intervention" and a "control" group. Although steps were made to minimize differences between the children, the groups are not matched on the various characteristics that would allow

for a direct comparison of their performance (e.g., age, native language, previous pre-K experiences, socioeconomic status, type of school currently attending).   We simply present the performance of children in the comparison group to contextualize the findings about children from Read Right classrooms. In other words, the primary question is not: *Do children who attended Read Right classrooms during pre-K perform differently on language and literacy measures in kindergarten from children who did not attend these classrooms during pre-K?* Rather, the primary question is: *How do children who attended Read Right classrooms during pre-K perform on language and literacy measures in kindergarten?*

It is also important to keep in mind that these analyses include only a subset of children who attended Read Right classrooms during pre-K. During Year 1, 326 children participated in the evaluation. Therefore, the 38 children who participated in these analyses only represent 11.7% of the entire Year 1 sample. Moreover, participation was voluntary, and in that sense, random. That is, specific children were not "picked" to participate in the follow up study. For these reasons, it is very likely that the results would change if different children or more children were included. In order to present some relative understanding of the children from Read Right classrooms who participated in these analyses, their mean performance on various measures at the end of pre-K is presented below in Table 3. The means suggest that many of these children were struggling with several early language and literacy skills at the end of pre-K. Additional student performance data are available in the Appendix.

Table 3. *Performance of children from Read Right classrooms at the end of pre-K (standard deviations in parentheses).*

English Assessments	**Fall 2009**	**Spring 2010**	*Spring Benchmark*
PPVT-4 (standard score)	73.3 (22.3)	74.7 (17.4)	*85*
TOPEL Definitional Vocabulary (standard score)	72.5 (19.3)	74.7 (18.7)	*85*
TOPEL Print Knowledge (standard score)	88.5 (13.3)	91.9 (15.1)	*85*
TOPEL Phonological Awareness (standard score)	73.4 (14.1)	75.7 (20.8)	*85*
PALS-PreK Uppercase Letters (out of 26)	7.3 (7.3)	14.52 (8.4)	*12*
PALS-PreK Rhyme Awareness (out of 10)	3.5 (2.9)	4.3 (2.1)	*5*
PALS-PreK Name Writing (out of 7)	3.3 (2.3)	4.7 (1.9)	*5*
Get Ready to Read! (out of 20)	10.2 (4.4)	12.7 (4.5)	*16*

Oral Language Skills

Peabody Picture Vocabulary Test (PPVT-4)

Woodcock Johnson Tests of Achievement, 3rd Edition (WJ3)

Picture Vocabulary & Sound Awareness subtests

Because Read Right focused primarily on improving teachers' ability to deliver high quality oral language instruction, we examined children's performance on measures of three oral language skills that have been associated with reading achievement. As in pre-K, children were given the PPVT-4, a measure of receptive vocabulary. Children were also given a measure of expressive vocabulary knowledge, the Picture Vocabulary subtest of the WJ3 (Woodcock, McGrew, & Mather, 2001). Finally, the Sound Awareness subtest of the WJ3 was used to measure various phonological awareness skills, including rhyming, segmenting, and blending. As shown in Figures 43-45, children who attended Read Right classrooms:

- showed steady growth in receptive vocabulary knowledge, achieving age-level expectations by the end of kindergarten;
- began kindergarten meeting age-level expectations for expressive vocabulary knowledge and maintained this achievement throughout the year;
- began kindergarten nearly meeting age-level expectations in phonological awareness, and achieved age-level expectations by the end of kindergarten.

Note that peers in their classrooms exhibited similar growth patterns. Interestingly, children from Read Right classrooms began kindergarten with stronger phonological awareness skills, but the pattern reversed at the end of the year. Nevertheless, all children had age-appropriate oral language skills at the end of kindergarten. These findings are particularly impressive given that many of the children began the school year still struggling with these skills.

Figure 43: Mean fall and spring standard scores on the PPVT by group (mean PPVT4 scores for children in Read Right classrooms at the end of pre-K are also shown).
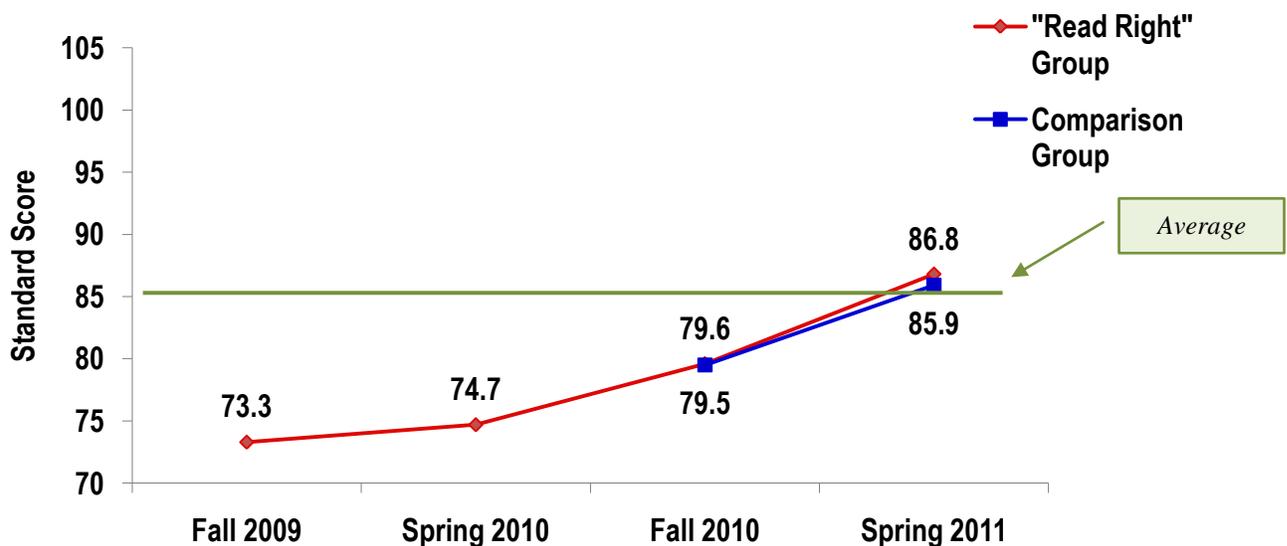
Figure 44. *Mean fall and spring standard scores on the WJ3 Picture Vocabulary subtest by group.*
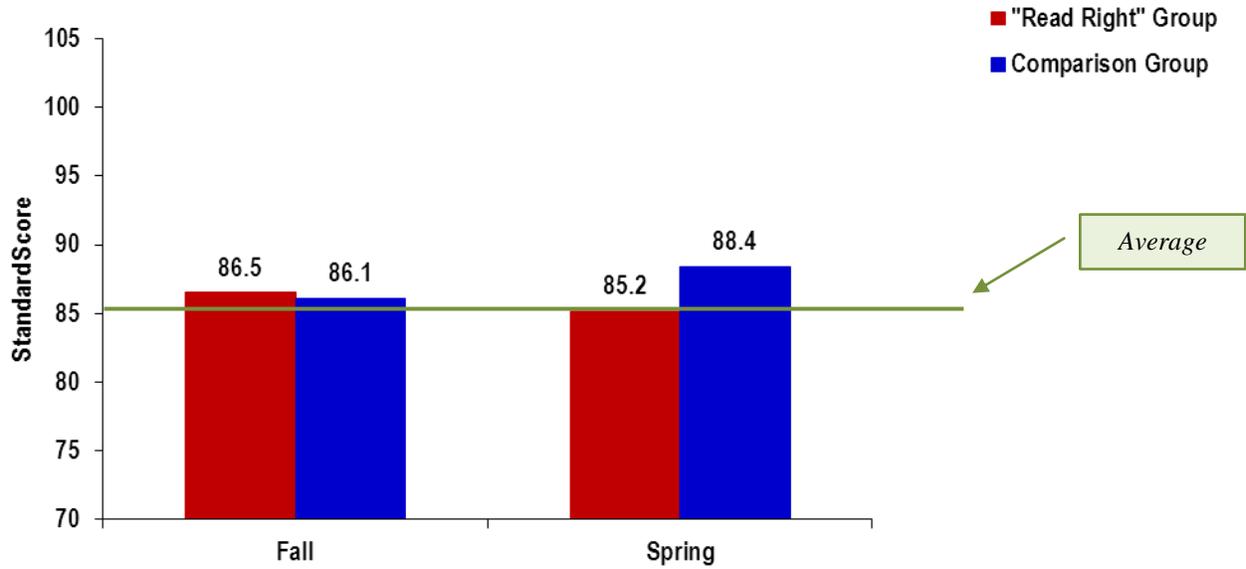
Figure 45. *Mean fall and spring standard scores on the WJ3 Sound Awareness subtest by group.*
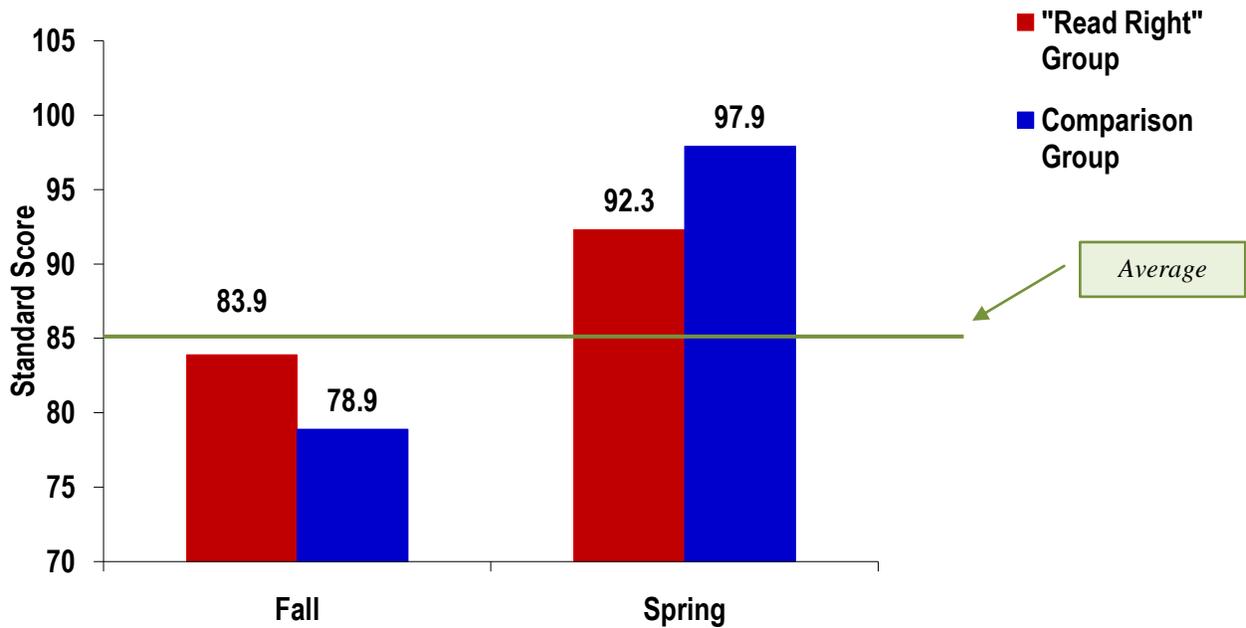
Reading and Spelling Skills

Woodcock Johnson Tests of Achievement, 3rd Edition (WJ3)

Letter Word Identification & Spelling subtests

Read Right also focused on improving teachers' ability to deliver high quality instruction on print-based skills, such as alphabet knowledge, concepts of print, and emergent writing. Children's early proficiency with these written language skills, as well as their oral language skills, has been associated strongly with reading and spelling achievement in school. Therefore, we examined children's performance on the Letter Word Identification and Spelling subtests of the WJ3. On these subtests, children are asked to read or spell letters and words. As shown in Figures 46-47, children who attended Read Right classrooms:

- began kindergarten meeting age-level expectations for letter recognition and word reading skills and maintained this achievement throughout the year;
- began kindergarten meeting age-level expectations for letter writing and single word spelling skills and maintained this achievement throughout the year.

Note that peers in their classrooms exhibited similar growth patterns. All children had age-appropriate written language skills at the end of kindergarten.

Figure 46: Mean fall and spring standard scores on the Letter Word Identification subtest by group.
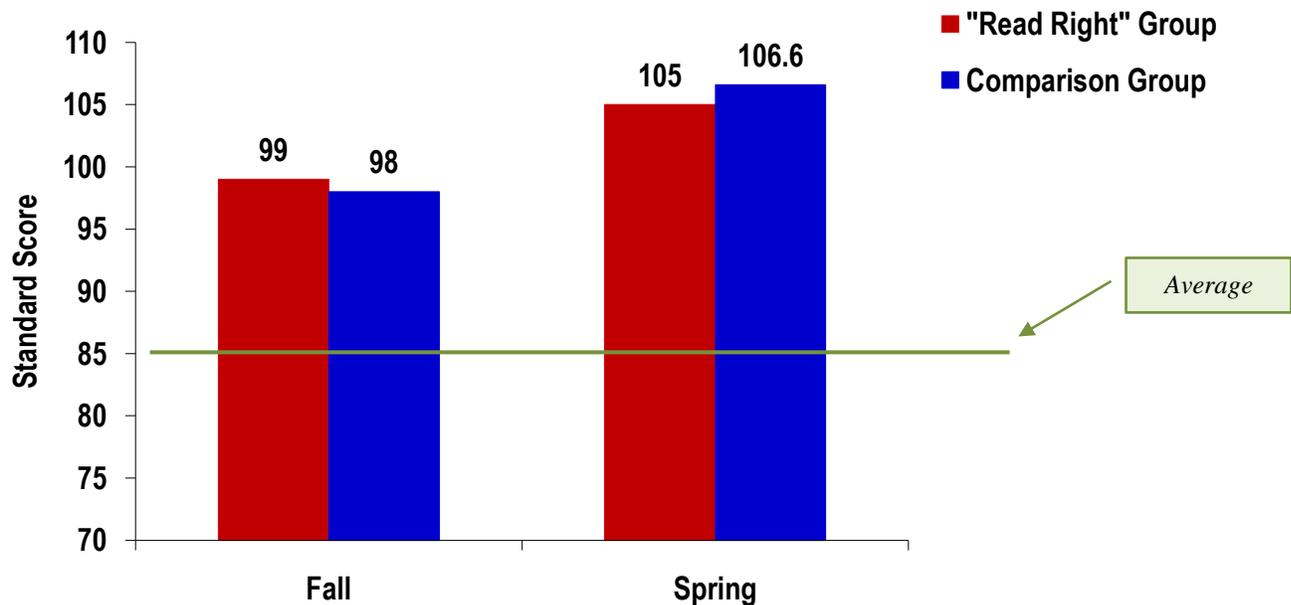
Figure 47: Mean fall and spring standard scores on the Spelling subtest by group.
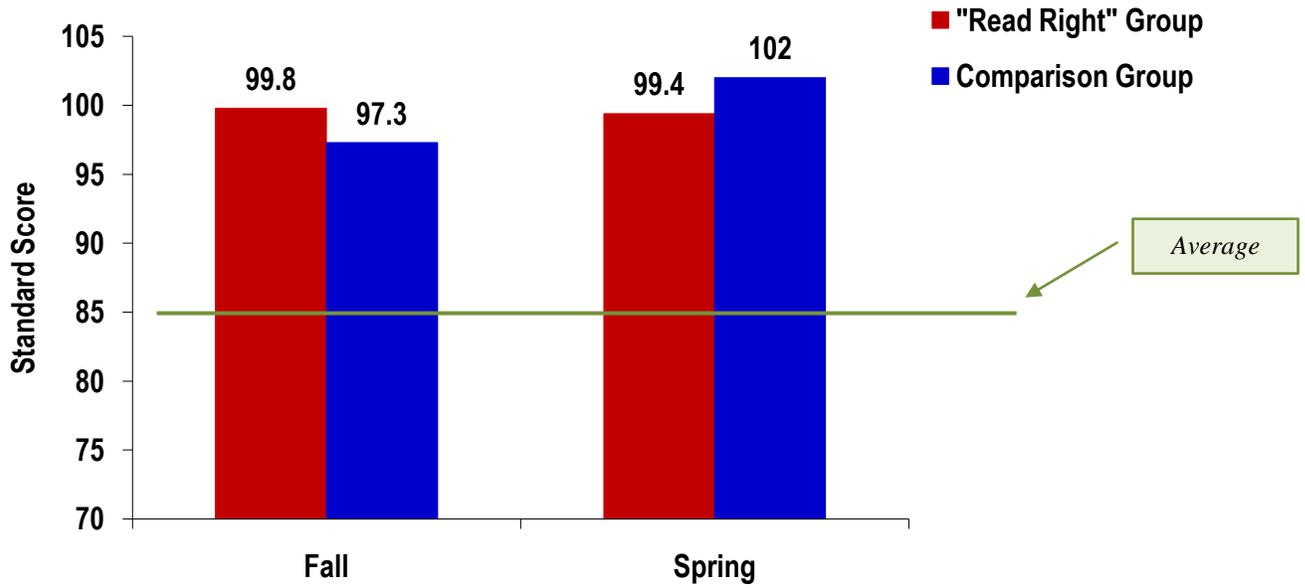
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Appendix

Appendix A. *Student participant characteristics.*

Appendix B. *Teacher participant characteristics.*

Appendix C. *Mean student performance by language group.*

Appendix D. *Mean classroom quality as indicated by ELLCO.*

Appendix E. *Mean classroom quality as indicated by CLASS.*

Appendix F. *Mean classroom quality as indicated by Fidelity Observations—Large Group.*

Appendix G. *Mean classroom quality as indicated by Fidelity Observations—Centers.*

Appendix H. *Mean classroom quality as indicated by Fidelity Observations of PAC Time*

Appendix I. *Mean student performance in kindergarten by group.*

Appendix A

Student participant characteristics.

Characteristic	Percentage
Gender	
Male	46.6%
Female	53.4%
Ethnicity	
African American	46.9%
Latino/Hispanic	40.8%
Other	9.9%
Parent Education—Highest degree obtained (from parent survey, 165 respondents)	
Some high school	22%
High school diploma or GED	24.1%
Some College, Vocational/Technical College, or AA/AS	34.8%
BA/BS or Graduate Degree	19.2%
Identified Disability—Child has IEP (from parent survey, 165 respondents)	
Speech Language Services	1.4%
Limited English Proficiency	
Primary language spoken at home is not English (teacher report)	38.4%

Appendix B

Teacher participant characteristics (self-reported).

Characteristic	Lead Teacher (n=20) Percentage	Assistant Teacher (n=18) Percentage
Gender		
Male	0%	0%
Female	100%	100%
Ethnicity		
Asian/Pacific Islander	12.5%	11.1%
Latino/Hispanic	0%	5.6%
African American	37.5%	50%
White	50%	22%
Multiracial	0%	11.1%
Other	0%	0%
Education—Highest degree obtained		
High school diploma or GED	0%	11.1%
Some College	0%	0%
CDA	0%	27.8%
AA/AS Degree	6.25%	16.7%
BA/BS Degree	43.75%	22.2%
Graduate Degree	37.5%	0%
Other	12.5%	16.7%
Years Teaching in PreK		
Less than 5 years	50%	44.4%
6-10 years	37.5%	27.8%
More than 10 years	12.5%	27.8%

Appendix C

Mean student performance by language group (standard deviations in parentheses).

	Fall 2010			Spring 2011		
	Non-ELL	**Low Oral Lang**	**ELL**	**Non-ELL**	**Low Oral Lang**	**ELL**
English Assessments						
PPVT-4 (standard score)	95.1 (10.8) n=138	67.9 (11.0) n=33	64.6 (18.2) n=101	97.2 (12.1) n=117	79.6 (16.1) n=29	75.3 (15.9) n=94
TOPEL Definitional Vocabulary (standard score)	99.0 (10.7) n=136	81.9 (15.7) n=30	77.0 (15.1) n=60	99.7 (9.9) n=116	85.4 (12.3) n=27	84.1 (16.0) n=76
TOPEL Print Knowledge (standard score)	102.2 (14.6) n=136	87.4 (13.3) n=32	86.2 (11.2) n=107	107.9 (11.9) n=116	94.6 (14.6) n=30	94.4 (15.2) n=97
TOPEL Phonological Awareness (standard score)	89.5 (16.0) n=134	75.4 (13.5) n=31	75.9 (14.5) n=103	96.5 (16.5) n=115	81.7 (12.8) n=28	82.9 (16.4) n=93
PALS-PreK Uppercase Letters (out of 26)	15.8 (10.0) n=122	6.3 (9.0) n=30	6.4 (7.8) n=95	22.1 (6.7) n=116	15.9 (9.3) n=27	15.2 (9.5) n=95
PALS-PreK Lowercase Letters (out of 26)	11.5 (10.6) n=122	3.3 (7.8) n=29	2.4 (6.5) n=95	19.4 (9.1) n=116	11.8 (10.7) n=26	10.6 (10.8) n=95
PALS-PreK Letter Sounds (out of 26)	5.0 (7.1) n=122	1.3 (3.9) n=29	.77 (3.5) n=95	11.7 (8.4) n=116	6.12 (7.9) n=26	6.3 (8.3) n=95

	Fall 2010			Spring 2011		
	Non-ELL	**Low Oral Lang**	**ELL**	**Non-ELL**	**Low Oral Lang**	**ELL**
PALS-PreK Name Writing (out of 7)	4.9 (2.2) n=117	2.9 (2.6) n=31	2.9 (2.4) n=94	6.4 (1.1) n=113	5.6 (1.7) n=29	5.6 (1.6) n=94
NAP—Complex Oral Syntax (out of 36)	13.7 (5.1) n=125	9.4 (4.9) n=31	7.2 (6.2) n=69	19.4 (6.1) n=103	16 (7.7) n=26	13.1 (6.7) n=56
NAP—Listening Comprehension (out of 7)	3.6 (1.8) n=133	2.0 (1.5) n=31	1.5 (1.5) n=80	4.3 (1.8) n=98	2.7 (1.9) n=26	2.6 (1.9) n=55
NAP—Narrative Quality (out of 7)	4 (1.5) n=125	3.0 (1.4) n=31	2.0 (1.7) n=71	4.8 (1.8) n=100	4.2 (2.1) n=24	3.8 (2.5) n=51
Get Ready to Read! (out of 20)	13.7 (3.6) n=132	9.0 (4.3) n=33	9.9 (4.2) n=102	17.1 (2.8) n=116	13.5 (4.0) n=30	13.5 (4.2) n=97
Spanish Assessments						
TVIP (standard score)			83.4 (15.0) n=88			82.4 (16.3) n=80
Spanish—Rhyme Awareness (out of 10)			3.9 (1.4) n=90			4.1 (1.9) n=81
Get Ready to Read! (out of 20)			10.4 (3.7) n=92			13.9 (3.0) n=82

Appendix D

Mean classroom quality as indicated by ELLCO
(scores range from 0-5; n=20 classrooms; standard deviations in parentheses)

	Fall 2010	**Spring 2011**
Discourse Climate	3.53 (.68)	3.68 (.63)
Opportunities for Extended Conversations	3.35 (.56)	3.33 (.65)
Efforts to Build Vocabulary	2.90 (1.01)	3.53 (.75)
Phonological Awareness	2.66 (1.24)	3.95 (.74)
Organization of Book Area	3.68 (.77)	3.63 (.90)
Characteristics of Books	3.35 (.59)	3.83 (.54)
Books for Learning	3.15 (.59)	3.35 (.73)
Approaches to Book Learning	3.61 (.57)	3.80 (.62)
Quality of Book Reading	3.65 (.63)	3.98 (.50)
Early Writing Environment	2.55 (.74)	3.25 (.68)
Support for Children's Writing	2.28 (.82)	3.10 (.79)
Environmental Print	2.84 (.96)	3.78 (.53)

Appendix E

Mean classroom quality as indicated by CLASS
(scores range from 0-7; n=20 classrooms; standard deviations in parentheses)

	Fall 2010	Spring 2011	CLASS Comparison Studies from UVA
Positive Climate	5.49 (.47)	5.42 (.74)	4.82 (.95)
Negative Climate	1.11 (.19)	1.55 (.69)	1.26 (.59)
Teacher Sensitivity	5.28 (.37)	4.75 (.74)	4.24 (1.01)
Regard for Student Perspectives	4.92 (.35)	4.55 (.89)	4.06 (.79)
Behavior Management	5.26 (.56)	5.21 (.74)	4.53 (1.01)
Productivity	5.09 (.63)	5.51 (.60)	4.03 (.94)
Instructional Learning Formats	4.55 (.68)	4.60 (.60)	3.44 (1.17)
Concept Development	1.87 (.35)	2.69 (.54)	1.66 (.88)
Quality of Feedback	2.17 (.59)	2.61 (.83)	1.64 (.92)
Language Modeling	2.85 (.89)	3.35 (.72)	2.67 (.68)
Literacy Focus	1.54 (.61)	2.09 (.40)	N/A

Appendix F

Mean classroom quality as indicated by Fidelity Observations of Large Group Instruction
(scores range from 0-3; standard deviations in parentheses)

	Observation I	Observation II	Observation III
Interactive Repeated Story Reads			
Introduces book or problem statement	1.86 (1.03)	2.4 (.75)	2.11 (.83)
1st reading adheres to guidelines	1.83 (.58)	2.08 (.67)	2.10 (.57)
2nd reading adheres to guidelines	3.0 (0.00)	2.80 (.45)	2.43 (.98)
3rd reading adheres to guidelines	0.00 (0.00)	2.50 (.71)	1.00 (0.00)
Points and comments on pictures (PAT)	2.0 (.96)	2.30 (.66)	2.33 (.69)
Expressive voice and facial expressions	2.23 (.47)	2.45 (.51)	2.72 (.46)
Lifting the Language			
Introduce/say target vocabulary during large group	1.6 (1.12)	1.76 (1.09)	2.12 (1.02)
Introduce, define and teach target vocabulary in small group	.50 (1.0)	1.67 (1.52)	2.0 (1.0)
Defines vocabulary that was introduced	1.4 (1.30)	1.95 (1.10)	2.17 (.99)
Teacher-child conversations include 4-5 back and forth exchanges on a single topic	1.0 (.68)	1.30 (.86)	1.39 (.70)
Teachers "tune in" to the child and comment on his/her point of interest	2.0 (.78)	1.65 (.75)	1.56 (.78)
Children are heard saying the target vocabulary with or without prompts	.47 (.64)	1.25 (.91)	1.17 (.99)
Teachers use grammatically correct language	2.80 (.77)	2.80 (.41)	2.94 (.24)
Open ended questions are used to encourage children to express ideas and thoughts	1.01 (1.03)	1.55 (1.19)	1.56 (.78)
Expand on children's utterances with the use of longer, more complex sentences	1.2 (.86)	1.60 (.75)	1.83 (.79)

	Observation I	Observation II	Observation III
Phonological Awareness			
Teachers explicitly talk about and model rhyming	.47 (.92)	.20 (.41)	.33 (.84)
Teachers encourage children to rhyme	.20 (.77)	.20 (.41)	.33 (.84)
Teachers draw children's attention to and play with syllables that make up words	0.00 (0.00)	.05 (.22)	0.00 (0.00)
Teachers explicitly identify the sounds that letters make	0.00 (0.00)	.30 (.66)	.1 7 (.51)
Teachers encourage children to say or produce letter sounds	0.00 (0.00)	.35 (.88)	.17 (.51)
Draw children's attention to beginning sounds by stretching sounds	.20 (.41)	.20 (.70)	.12 (.49)
Teachers use activities or games to help children identify beginning sounds	0.00 (0.00)	.25 (.64)	.24 (.66)
Teachers model blending by putting together words or individual sounds	0.00 (0.00)	.10 (.45)	0.00 (0.00)
Teachers encourage children to play with or produce blends	0.00 (0.00)	.10 (.45)	0.00 (0.00)
Teachers model segmenting by taking apart words or parts of words	0.00 (0.00)	.10 (.45)	.06 (.24)
Encourage children to take apart words into smaller words or phonemes.	0.00 (0.00)	.05 (.23)	.12 (.49)
Print and Letter Awareness			
Teachers draw children's attention to features of print	.80 (.77)	1.30 (.98)	1.00 (.61)
Teachers spend time naming and talking about letters and their names	.13 (.35)	.50 (1.05)	.29 (.69)
Uses children's names to encourage children to work with letters	0.00 (0.00)	.35 (.88)	0.00 (0.00)
Teachers encourage children to say or produce letter names	0.00 (0.00)	.35 (.88)	.47 (1.07)

^*Note: During spring observations, only one 3rd interactive repeated story book reading was observed.*

Appendix G

Mean classroom quality as indicated by Fidelity Observations of Free Choice (Centers)
(scores range from 0-3; standard deviations in parentheses)

	Observation I	Observation II	Observation III
Lifting the Language			
Models us of target vocabulary across learning contexts	.63 (.72)	1.54 (1.20)	1.42 (1.02)
"Tunes in" and comments on the child's point of interest	2.4 (.63)	2.4 (.68)	2.47 (.77)
Introduces or says "tier 2" target vocabulary	.87 (.83)	2.05 (1.05)	1.74 (.73)
Defines vocabulary that was introduced	.88 (.89)	1.35 (.93)	1.47 (.84)
Expand on children's utterances with the use of longer, more complex sentences	1.33 (.72)	2.05 (.83)	2.32 (.75)
Teachers use grammatically correct language	2.94 (.25)	2.75 (.44)	2.89 (.32)
Teacher-child conversations include 4-5 back and forth exchanges on a single topic	1.63 (.62)	2.10 (1.07)	2.16 (.83)
Children are heard saying the target vocabulary with or without prompts	.38 (.50)	1.25 (.97)	1.47 (.90)
Open ended questions are used to encourage children to express ideas and thoughts	1.75 (.86)	1.95 (.94)	1.89 (.99)
Phonological Awareness			
Teachers models or talks about rhyming	.13 (.50)	.30 (.80)	.16 (.37)
Teachers encourage children to rhyme	.06 (.25)	.25 (.72)	.05 (.23)
Teacher draws children's attention to and play with syllables that make up words	0.00 (.00)	.05 (.22)	.05 (.23)
Teachers explicitly identify the sounds that letters make	.06 (.25)	.45 (.60)	.26 (.56)
Draw children's attention to beginning sounds by stretching sounds	.06 (.25)	.35 (.75)	.32 (.75)
Teachers use activities or games to help children identify beginning	0.00 (0.00)	.25 (.72)	.26 (.73)

	Observation I	Observation II	Observation III
sounds			
Teachers model blending by putting together words or individual sounds	0 .00 (0.00)	.25 (.79)	0 .00 (0.00)
Teachers encourage children to play with or produce blends	0.00 (0.00)	.15 (.49)	0 .00 (0.00)
Teachers model segmenting by taking apart words or parts of words	0.00 (0.00)	.20 (.70)	0 .00 (0.00)
Encourage children to take apart words into smaller words or phonemes	.06 (.25)	.05 (.23)	.05 (.23)
Print and Letter Awareness			
Teachers draw children's attention to features of print	.19 (.40)	.90 (1.12)	.42 (.77)
Teachers spend time naming and talking about letters and their names	.38 (.72)	.60 (.68)	.74 (.73)
Uses children's names to encourage children to work with letters	.25 (.45)	.70 (1.03)	.63 (.89)
Teachers encourage children to say or produce letter names	0.00 (0.00)	.80 (1.01)	.79 (.92)

NOTE: Teachers did not receive training in implementing PAC time strategies during center time. Hence, low means on many of these items is not a reflection of poor fidelity to Read Right principles.

Appendix H

Mean classroom quality as indicated by Fidelity Observations of PAC Time
(scores range from 0-3; standard deviations in parentheses)

	Observation I	Observation II	Observation III
Lifting the Language			
Introduction Large Group PAC Time	.45 (.82)	1.45 (1.13)	1.00 (.88)
Introduction Small Group PAC Time	.70 (.67)	1.75 (1.28)	0.00 (.00)
Defines Vocabulary PAC Time	.80 (.94)	1.11 (.94)	.95 (.91)
Back and Forth Exchanges PAC Time	1.07 (.88)	.68 (.82)	1.11 (.81)
Teachers Tune In PAC Time	1.43 (1.09)	1.32 (.75)	1.56 (.78)
Children Heard Saying Vocabulary PAC Time	.33 (.62)	.95 (.85)	.68 (.67)
Teachers Uses Correct Grammar PAC Time	2.80 (.41)	2.79 (.42)	2.95 (.23)
Teachers Ask Open Ended Questions PAC Time	.93 (1.00)	.84 (.76)	.79 (.63)
Teachers Expand on Children's Utterances PAC Time	1.13 (.92)	1.47 (.84)	1.58 (.77)
Phonological Awareness			
Teachers Model Rhyming PAC Time	.75 (1.13)	.89 (1.20)	1.05 (1.18)
Teachers Encourage to Child to Rhyme PAC Time	.38 (.89)	1.00 (1.25)	1.00 (1.33)
Teachers Draws Attention to Syllables PAC Time	1.06 (1.34)	.63 (1.16)	.58 (1.17)
Teachers Explicitly Identify Sounds PAC Time	.63 (.96)	1.42 (1.12)	1.32 (1.16)
Teachers Encourage Child to Say Letter Sounds PAC Time	.86 (1.10)	1.21 (1.03)	1.16 (1.21)
Teachers Encourages Child to Stretch Sounds PAC Time	.81 (1.05)	1.42 (1.17)	1.58 (1.26)
Teachers Use Activities to Identify Beginning Sounds PAC Time	.69 (1.08)	1.79 (1.36)	1.11 (1.29)
Teachers Model Blending PAC Time	1.25 (1.48)	1.26 (1.37)	1.26 (1.37)
Teachers Produce Blends PAC Time	.88 (1.26)	1.11 (1.33)	1.16 (1.26)

	Observation I	Observation II	Observation III
Teachers Model Segmenting	.94 (1.24)	.58 (.96)	.63 (1.11)
Teachers Encourage Children to Take Words Apart PAC Time	.63 (1.09)	.68 (1.16)	.84 (1.26)
Print and Letter Awareness			
Teachers Draw Attention to Features of Print PAC Time	1.56 (1.15)	1.68 (1.11)	1.63 (1.21)
Teachers spend time naming and talking about letters and their names	1.63 (1.26)	1.79 (1.08)	1.53 (1.26)
Uses children's names to encourage children to work with letters	1.00 (1.20)	.84 (1.17)	.63 (1.16)
Teachers encourage children to say or produce letter names	1.50 (1.41)	1.89 (1.05)	1.42 (1.30)

Appendix I

Mean student performance in kindergarten by group (standard deviations in parentheses).

Assessments	Read Right Students		Comparison Students	
	Fall 2010	**Spring 2011**	**Fall 2011**	**Spring 2011**
PPVT-4 (standard score)	79.6 (12.9) n=32	86.8 (9.3) n=34	79.5 (14.2) n=26	85.9 (11.8) n=30
W-J Letter-Word Identification (standard score)	99 (14.9) n=32	105 (13.4) n=34	98.1 (14.8) n=31	106.6 (13) n=30
W-J Picture Vocabulary (standard score)	86.5 (17.7) n=32	85.2 (14.3) n=34	86.1 (15.6) n=31	88.4 (13.3) n=30
W-J Sound Awareness (standard score)	83.9 (21.1) n=31	92.3 (23.3) n=34	78.9 (22.6) n=29	97.9 (27.1) n=30
W-J Spelling (standard score)	99.8 (12.5) n=32	99.4 (12.2) n=33	97.3 (14.4) n=30	102 (11.1) n=31