

Evaluation Findings from
Georgia's 2015
Rising Pre-Kindergarten
Summer Transition Program

Diane M. Early, Doré R. LaForett, Syndee Kraus, and Katie Hume
FPG Child Development Institute, University of North Carolina, Chapel Hill

February 2016

Suggested citation: Early, D. M., LaForett, D. R., Kraus, S., & Hume, K., (2016). *Evaluation findings from Georgia's 2015 Rising Pre-Kindergarten Summer Transition Program*. Chapel Hill, NC: The University of North Carolina at Chapel Hill, FPG Child Development Institute.

This study was funded by Bright from the Start: Georgia Department of Early Care and Learning. The opinions in this report do not necessarily reflect those of the funding agency.

We are very grateful to the research assistants in Georgia who worked so hard to collect these data: Ginna Martinez-Junca, Stephanie Paladino, Claudia Sorto, and Alissa Sypsa. We appreciate the cooperation and support received from DECAL, especially Susan Adams, Assistant Commissioner for Pre-K; Bentley Ponder, Director of Research and Evaluation; Pam Bojo, Director of Field Operations for Pre-K; Jackie Shivers, Director of Quality Support; Meghan McNail, Summer Transition Program and Outreach Coordinator; and Rob O'Callaghan, Research and Evaluation Specialist. Special thanks to Amy M. Jacobs, Commissioner of Bright from the Start: Georgia Department of Early Care and Learning, for her support of this work. Most importantly, we are very appreciative of the children, teachers, and transition coaches who participated in the assessments, responded to questionnaires, and welcomed us into their programs and classrooms so that we could better understand Georgia's Rising Pre-K Program.

The report is available at www.decal.ga.gov

Table of Contents

Introduction	5
Rising Pre-Kindergarten (RPre-K) Program Description.....	5
Evaluation Purposes.....	6
Methods.....	7
Sample.....	7
Child-Level Measures and Procedures.....	7
Classroom-Level Measures and Procedures.....	8
Findings.....	11
Children’s Early Academic Skills.....	11
Teacher-Child Interactions as Measured by the <i>CLASS</i>	12
Teacher and Transition Coach Spanish Knowledge and Use.....	14
Language Use Inventory.....	14
Group Size and Ratios.....	15
RPre-K Lead Teachers (<i>n</i> = 28).....	16
RPre-K Assistant Teachers (<i>n</i> = 30).....	17
RPre-K Transition Coaches (<i>n</i> = 19).....	18
Conclusions and Recommendations	21
References.....	23
Endnotes	25

List of Tables

Table 1. Professional Development Activities 6

Table 2. Rising Pre-Kindergarten Child Assessment Pre- and Posttest Scores 11

Table 3. CLASS Means in RPre-K Classrooms 2013-2015..... 12

Table 4. English and Spanish Use in RPre-K Classrooms..... 15

Table 5. Group Size and Ratios (Number of Children per Adult) in RPre-K Classrooms 16

Table 6. Opportunities for Families to Participate in RPre-K Programs..... 19

Table 7. Services Provided to Families in RPre-K Programs..... 19

Table 8. Finding Services in the Community for Families in RPre-K Programs 20

Table 9. Barriers to Attendance in RPre-K Programs..... 20

List of Figures

Figure 1. CLASS Emotional Support in 2015 RPre-K Classrooms 13

Figure 2. CLASS Classroom Organization in 2015 RPre-K Classrooms 13

Figure 3. CLASS Instructional Support in 2015 RPre-K Classrooms 13

Figure 4. RPre-K Lead Teachers’ Education 16

Figure 5. RPre-K Assistant Teachers’ Education 17

Figure 6. RPre-K Transition Coaches’ Education 18

Evaluation Findings from Georgia’s 2015 Rising Pre-Kindergarten Summer Transition Program

Introduction

Georgia is known nationally for its universal pre-kindergarten program, Georgia’s Pre-K, which is available to 4-year-old children across the state from all income levels. A recent evaluation of the program indicated that participation in Georgia’s Pre-K had significant positive effects on children’s language, literacy, math, and general knowledge skills (Peisner-Feinberg, Schaaf, Hildebrandt, & Pan, 2015; Peisner-Feinberg, Schaaf, LaForett, Hildebrandt, & Sideris, 2014).

Due to the success of Georgia’s Pre-K, the Georgia Department of Early Care and Learning (DECAL) has expanded its pre-k services by offering a Summer Transition Program. Beginning in the summer of 2010, the program has been available each summer to rising kindergartners—that is, children starting kindergarten the following fall—and it has enrolled both children who did and did not attend Georgia’s Pre-K during the preceding year. Starting in 2013, summer services were expanded to offer a program for rising pre-kindergartners—that is, children who would be attending Georgia’s Pre-K at the end of the summer. The overall goal of these summer programs is to support children’s transitions and development, particularly their early literacy skills, through the last few months before kindergarten or pre-kindergarten entry.

Rising Pre-Kindergarten (RPre-K) Program Description

A recent evaluation of Georgia’s Pre-K program suggested that additional supports were needed for Georgia’s growing population of children from homes where English was not the predominant language. Peisner-Feinberg, Schaaf, and LaForett (2013) found that although Spanish-speaking dual language learners (DLLs) made significant gains during the pre-k year, they entered and left pre-k significantly behind their monolingual English-speaking peers on all outcomes. Based on that finding, DECAL decided to provide a summer program to support children from homes where Spanish is the predominant language as they make the transition to pre-kindergarten.

The RPre-K program operated for six weeks in June and July and was offered for free to participating families. Children in the program were from low-income families and were DLLs from homes where Spanish was the predominant language. Several components were in place to meet the program’s overall goal of preparing children for success in Georgia’s Pre-K. First, RPre-K class size was small, with a maximum of 14 children, and each class had both a lead and an assistant teacher. Second, the RPre-K classrooms were required to use a specific curriculum, the dual-language edition of *Opening the World of Learning* (OWL; Dickinson, et al., 2011), to support language development and pre-kindergarten readiness. Third, a half-time transition coach was hired for every class to help families meet transition needs and to offer parent educational activities. Finally, every classroom was required to have at least one teacher (lead or assistant) who spoke Spanish.

During this third summer of implementation, DECAL funded 30 RPre-K classrooms at 21 sites in 13 counties; 57% were housed in private child care facilities and 43% were located in public schools. This represented a sizable expansion from 2014, when DECAL funded 20 RPre-K classrooms at 13 sites in 10 counties. Approximately 420 children participated in RPre-K in 2015. Table 1 (see sidebar) specifies the types of professional development provided to RPre-K lead teachers and transition coaches in the summer of 2015.

Evaluation Purposes

The overarching purpose of this project was to provide DECAL with information that will allow them to improve the program in future years. The specific aims were to: (1) describe the quality of teacher-child interactions in RPre-K classrooms, (2) understand the amount and purposes of Spanish and English used in the classrooms; (3) provide information about participating children’s growth in early academic skill, especially language, during the program; (4) describe the services provided to participating children and their families; and (5) understand reasons that attendance may be lower than during the school year.

This evaluation was conducted through a partnership between DECAL and researchers at the Frank Porter Graham Child Development Institute (FPG) at the University of North Carolina at Chapel Hill. The study design, measures, and procedures were developed jointly. DECAL’s Summer Transition Program has been evaluated each year since the programs began and results from those evaluations are available on DECAL’s website (www.decal.ga.gov).

Table 1. Professional Development Activities

	Arts Alliance Training	Family Engagement	CAPS	Supporting DLLs
RPre-K Lead Teachers	✓			✓
RPre-K Transition Coaches		✓	✓	

Note: Assistant teachers did not participate in professional development.

Arts Alliance Training: This 2-hour training, provided by the Woodruff Arts Center to each site, focused on incorporating arts activities into the classroom.

Family Engagement: This half-day training provided transition coaches with ideas for workshops and guidance on engaging families.

CAPS: This half-day training provided information about how to identify children who were eligible for Child Care and Parent Services (CAPS) and how to complete the needed paperwork. Only children eligible for CAPS could participate in the RPre-K Program.

Supporting Dual Language Learners: This full-day training, provided by the Rollins Center for Language and Literacy at the Atlanta Speech School, focused on culturally competent approaches to supporting dual language learners and their families, including getting to know Latino families and bilingual development in support of home language. The session also included an overview of the Opening the World of Learning (OWL) curriculum.

Methods

Sample

Classroom-level observation data were collected from all 30 RPre-K classrooms at the 21 sites. Additionally, all lead teachers, assistant teachers, and transition coaches were asked to complete questionnaires. In each classroom, a random selection was conducted among children with completed parent permission slips on file, and the selected children participated in the direct assessment of early academic skills. Between four and six children were assessed in each room. Pretest data were collected from 168 children; posttest data were collected from 151 children who had participated in the pretest and were present on the day of the posttest.

Child-Level Measures and Procedures

Children's early learning skills were measured via one-on-one assessments, using a child assessment battery (described below) that emphasized vocabulary skills. Most measures were administered in Spanish as well as English, with measures administered in Spanish presented first in the battery. Administering measures in both languages allowed for examining children's skills in each language. Between four and six children were randomly selected from each RPre-K classroom to participate in the assessment sessions.

Pretest data were collected from 168 children during the first week of the program. Posttest data were collected during the last seven days before closing (excluding the last day) from 151 children who had participated in the pretest. Those who did not participate in the posttest had left the program ($n = 5$), were absent on the day of assessment ($n = 10$), or did not want to take part ($n = 2$).

Two of the three individuals who conducted *CLASS* and LUI observations also collected child-level data, as did one other individual who did not collect *CLASS* and LUI data. Data collectors conducting child assessments participated in didactic training and practice sessions for the child battery. The didactic training included an overview of the tools, administration instruction, and scoring rules, as well as demonstration and practice time. Following the didactic training, data collectors practiced on their own, before being observed conducting the full battery with a child by one of the study authors.

Copy Cat Game/Juego de Imitar. These tools were created specifically for this study by the authors with the intention of serving as a "warm-up" or rapport building activity, while also familiarizing the child with the expectations for participating in the assessment session. The Spanish version was administered at the beginning of the assessment session, whereas the English version was administered as a transition to measures conducted in English (i.e., before the ROWPVT-4). This brief task required children to use listening comprehension skills to imitate the examiner's actions or sentences. Each test included five items that were scored as correct or incorrect, so final scores could range from 0-5; two of the items were considered "teaching" items, and children were awarded a score of 0.5 if they did not get the correct answer on the first trial but did so on the second trial. Because these tools were created specifically for this study, the findings presented here should be considered preliminary and be interpreted with caution.

Receptive One-Word Picture Vocabulary Test. The Receptive One-Word Picture Vocabulary Test (ROWPVT-4, Martin & Brownell, 2011) and the Receptive One-Word Picture Vocabulary Test: Spanish-

Bilingual Edition (ROWPVT-4: SBE, Martin, 2013) were used to measure children’s receptive vocabulary. In these standardized assessments, children are asked to select among four pictures the word spoken by the examiner. The vocabulary words presented may be an object, action, or concept. The ROWPVT-4 was used to measure children’s receptive vocabulary skills in English, and the ROWPVT-4-SBE was used to measure vocabulary in Spanish.

Counting Bears. To measure children’s early math skills, children were administered the Counting Bears Task (NCEDL, 2001), which measures children’s one-to-one correspondence counting. In this task, children are asked to point and count using pictures of 40 teddy bears (using two sets of cards with 20 bears on each card). Although this task was only administered in Spanish, answers given in English were also scored as correct.

Classroom-Level Measures and Procedures

Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008). The CLASS provides an assessment of the quality of teacher-child interactions. Its ten dimensions are organized into three domains. The Emotional Support domain includes positive climate, negative climate, teacher sensitivity, and regard for student perspectives. The Classroom Organization domain includes behavior management, productivity, and instructional learning formats. The Instructional Support domain includes concept development, quality of feedback, and language modeling. Each dimension is rated from 1 to 7, with 1 or 2 indicating the classroom is “low” on that dimension; 3, 4, or 5 indicating that the classroom is in the “mid-range”; and 6 or 7 indicating the classroom is “high” on that dimension.

Each RPre-K classroom received a single CLASS visit from one of three observers. Because the program was only six weeks long, CLASS visits took place at almost any point during the program, after the child assessment pretests and before the child assessment posttests. The only days during which no visits occurred were the first three days and last two days. The observer rated the RPre-K classroom and teacher on the 10 dimensions roughly every 30 minutes throughout the observation morning. In most classrooms, six 30-minute observation cycles were completed.¹ At the start of each CLASS cycle, data collectors noted the number of children and teachers present.

The three observers were employees of FPG and were trained on proper data collection procedures. All observers were certified as reliable on the CLASS observation tool by Teachstone. For 10% of the observations, two observers were present, in order to ensure that they were continuing to score similarly.

Language Use Inventory (LUI). This tool was created specifically for this study by LaForett, Early, Maxwell, Kraus, and Hume (2014). Its purpose was to quantify the amount of English and Spanish used in classrooms, as well as the purposes for each language. Current research recommends the strategic use of the home language when working with DLLs (Castro, Espinosa, & Páez, 2011; Goldenberg, 2008). Teachers’ use of the home language is “strategic” when it is employed in an intentional manner during selected key points of instruction, such as clarifying and extending concepts. Indeed, a strong foundation in the home language has been linked to achievement in English (August & Shanahan, 2006). When using Spanish and English in the classroom, it is important that both languages be used for a range of purposes that include instruction and behavior management. Using both languages helps children

continue to grow in their home language while acquiring English and reinforces the value of both languages (August & Shanahan, 2006).

To complete the LUI, the data collector spent five minutes observing language use in the classroom after completing the coding for each *CLASS* cycle. At the end of the five minutes, she answered a series of questions regarding language use. The first set of questions asked her to rate the amount of English and Spanish used during that five-minute observation (1) by the lead teacher talking to the child(ren); (2) by the assistant teacher talking to child(ren); (3) by teachers for instruction; and (4) by teachers for managing children's behavior. The scale used for these ratings was 1 = all English, 2 = mostly English, 3 = an equal amount of English and Spanish, 4 = mostly Spanish, and 5 = all Spanish. If no language was used during the five-minute observation window (questions 1 and 2), or that type language was not used (questions 3 and 4), the data collector indicated NA.

For purposes of this instrument, "instruction" was defined as talk that is used by teachers to explain new content and skills for children to acquire. The data collector was given multiple examples and told that this talk could span academic areas such as language and literacy, math, and science and that this talk could also build on children's interest in the world around them and daily living. "Behavior management" was defined as talk in the context of activities that help children learn about classroom routines, rules, and expectations. The data collector was told that this talk could take the form of giving initial instructions and/or reminders, as well as redirecting or correcting children who were not following expectations, and it could be directed toward the whole class, a small group, or individual children.

At the end of the observation morning, the data collector was asked to respond to six additional questions. The first was about language used for reading to children in a whole group setting and the second was about reading to children in small group or one-to-one settings. The data collector used the same 5-point scale described above but was asked to think about the entire observation morning. She was asked to indicate NA if no whole group or small group/one-to-one reading took place.

These questions were followed by two questions about books. The data collector was asked to indicate how many books in English and how many books in Spanish were in the classroom. The options were none, few, or many, and the data collector was instructed that "few" meant that there are not enough books in that language for each child to use simultaneously and "many" meant that there were enough books in that language for each child to have one.

The final two questions were about labels. The data collector was asked "How many objects and other important features in the classroom are purposefully labeled in English?" and "How many objects and other important features in the classroom are purposefully labeled in Spanish?" The options were none, five or fewer, and more than five.

The data collectors participated in didactic and field-based training on the LUI. The didactic training provided an overview of the tool, operational definitions, and scoring rules. One of the three data collectors was designed as the "Master Trainer." She conducted three 30-minute practice observations with one of the tool's authors and discussed their scores. Then, she conducted three 30-minute reliability observations with one of the tool's authors, but there was no discussion. Inter-rater reliability within one point yielded 100% agreement across the 30 times it was scored during the reliability observation.

The remaining two data collectors subsequently participated in field-based training with the Master Trainer, again involving practice observations and reliability observations. Each data collector conducted at least one practice observation using the LUI with the Master Trainer consisting of one 30-minute observation period, followed by discussion. For the reliability observations, the same procedure was followed except there was no discussion. Inter-rater reliability within one point yielded 83-100% agreement across the 20 times it was scored during the reliability observation.

Because this tool was created specifically for this study, the findings presented here should be considered preliminary and be interpreted with caution. A similar tool was used during the previous two summers in the Program Evaluation, but it was altered considerably between 2013 and 2014.

Lead and Assistant Teacher Questionnaires. In each participating classroom, the lead and assistant teachers were asked to complete a questionnaire with items about experience, education, and professional development, as well as items on knowledge and use of Spanish. Of the 30 lead and assistant teachers asked to complete the questionnaire, 28 leads (93%) and 30 assistants (100%) did so. Each lead and assistant teacher was given \$50 as a “thank you” for her or his participation.

Transition Coach Questionnaire. The transition coach for each classroom was also asked to complete a questionnaire. In addition to the items asked of teachers (experience, education, professional development, knowledge of Spanish), transition coaches were asked about workshops they had held or were planning to hold for families, opportunities for families to participate in the program, services they provided to families, and barriers to higher attendance.

There were 22 transition coaches for the 30 RPre-K classes: 12 at sites with a single participating classroom, 8 serving two classes hosted at a single site; and 2 serving different classrooms at a single site. Nineteen of these 22 transition coaches (86%) responded to the questionnaire. Transition coaches received \$50 as a “thank you” for participating.

Findings

Children’s Early Academic Skills

The vocabulary skills of children participating in the RPre-K Program improved during the program (see Table 2). Gains on the Juego de Imitar (Spanish warm-up) task and the two standardized measures of vocabulary (English and Spanish) were significant; gains in the other areas were not. An effect size of .20 is considered “small,” an effect size of .50 is considered “moderate,” and an effect size of .80 is considered “large” (Cohen, 1992). As seen in Table 2, the effect sizes in the current study are generally in the small to moderate range.^{2,3}

Table 2. Rising Pre-Kindergarten Child Assessment Pre- and Posttest Scores

	Pretest Mean	Pretest Range	Posttest Mean	Posttest Range	<i>p</i>	Effect Size
Receptive One-Word Picture Vocabulary Test – English Edition: Standard score ⁴	82.8	55 to 124	87.0	56 to 114	<.05	.17
Receptive One-Word Picture Vocabulary Test –Spanish-Bilingual Edition: Standard score ⁵	84.8	55 to 117	88.6	55 to 124	<.001	.25
Copy Cat Game: Number correct (max possible = 5)	3.9	1 to 5	4.0	2 to 5	n.s.	NA
Juego de Imitar: Number correct (max possible = 5)	3.5	0 to 5	3.9	0 to 5	<.001	.41
Counting Bears: Percent who could count	75%	NA	86%	NA	n.s.	NA
Counting Bears: Highest number counted (max possible = 40)	6.1	1 to 25	7.2	1 to 28	n.s.	NA

The ROWPVT and ROWPVT-SBE are standardized measures, meaning that the average child will receive a score of 100, and 68% of children will score between 85 and 115. As seen on Table 2, children’s scores increased, on average, during the program. At both pre- and posttest, however, they scored close to 85, meaning that they were at the low end of the range where most children score. Whereas more children were able to count, and those who could count reached a slightly higher level, this change was not significant.

Significant improvements, in the small to moderate range, have been demonstrated over several years in the Rising Kindergarten program, although different assessments of children’s skills were used in the evaluations of that program. This is the first time the early academic skills of children in the Rising Pre-K program have been assessed. For a six-week program to demonstrate significant gains is somewhat unexpected and implies a successful implementation. Furthermore, replication of the findings from previous years strengthens the evidence of the effectiveness of the Summer Transition Programs.

It is important to note, however, that the study was not designed to determine causality. Thus, we cannot conclude that children’s skills improved because they participated in the RPre-K program. Random assignment of children to intervention and control groups would be needed to determine causality. No data were gathered on children who did not participate in the program, so it is not possible to determine whether children’s gains were greater than they would have been if they had not participated in the summer program.

Teacher-Child Interactions as Measured by the CLASS

As seen in Table 3, in the RPre-K Program classrooms, the CLASS mean score was 5.3 for the Emotional Support domain; 4.9 for the Classroom Organization domain; and 2.4 for the Instructional Support domain. Figures 1, 2, and 3 illustrate the distribution of scores on the three domains. On Emotional Support, almost three-quarters (73%) of the classrooms were rated a 5.0 or above, and no classroom was rated below 3.5. The range of scores on Classroom Organization was a bit wider, but still a substantial group (44%) was rated at 5.0 or above and no classroom was rated below a 3.0. As in most studies, the Instructional Support scores were markedly lower, with most classrooms (79%) scoring below a 3.0 and no classroom scoring higher than 4.5.

The 2015 Rising Pre-K CLASS scores were somewhat lower than those seen in the program in 2013 and 2014 for both Emotional Support and Classroom Organization. Longitudinal analyses revealed that this decrease across the three years was significant ($p < .05$) for both Emotional Support and Classroom Organization. Instructional Support scores remain unchanged. These comparisons should be interpreted cautiously, though, because of the small number of RPre-K classes each year.

Table 3. CLASS Means in RPre-K Classrooms 2013-2015

	RPre-K 2013 (n = 19)	RPre-K 2014 (n = 20)	RPre-K 2015 (n = 30)
Emotional Support	6.0	5.9	5.3
Classroom Organization	5.4	5.6	4.9
Instructional Support	2.4	2.5	2.4

Figure 1. CLASS Emotional Support in 2015 RPre-K Classrooms

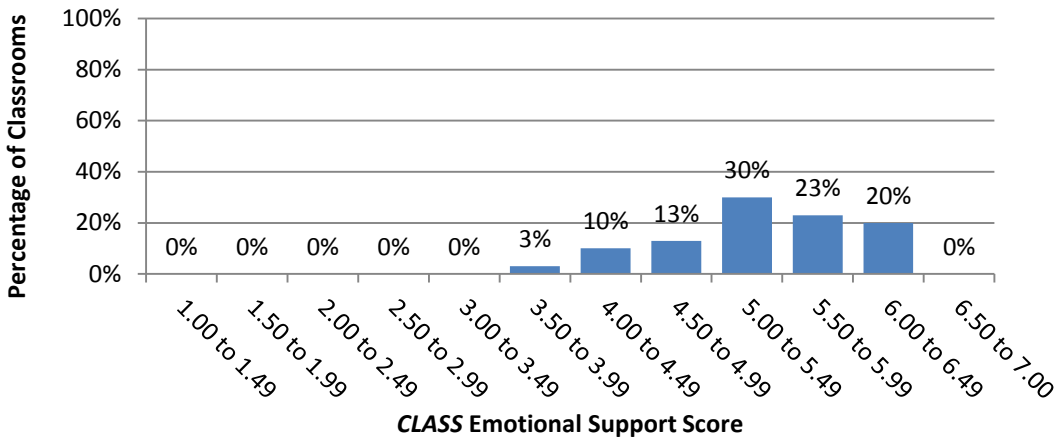


Figure 2. CLASS Classroom Organization in 2015 RPre-K Classrooms

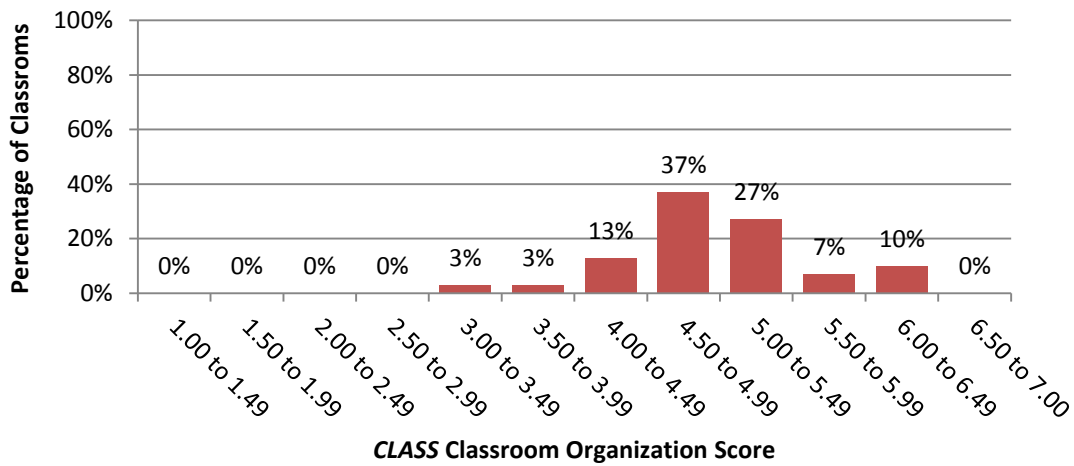
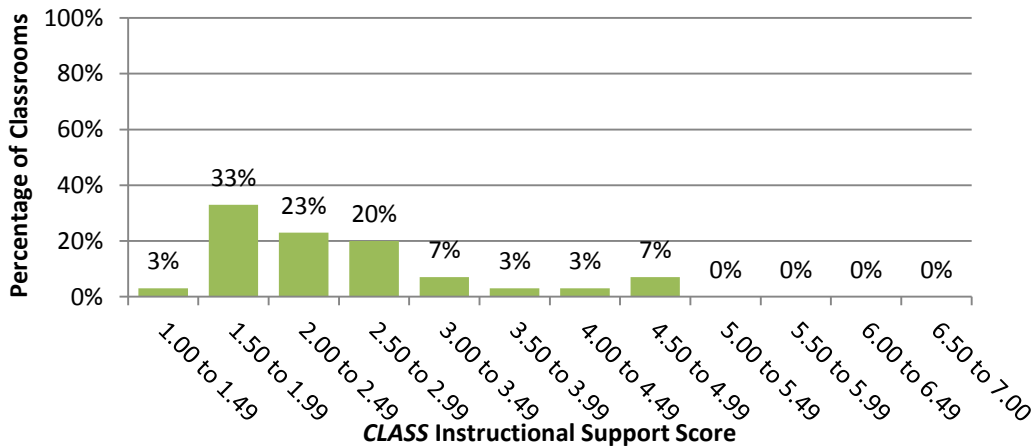


Figure 3. CLASS Instructional Support in 2015 RPre-K Classrooms



Teacher and Transition Coach Spanish Knowledge and Use

Lead teachers. Most of the RPre-K lead teachers indicated they were native English speakers (69%), but 23% reported being native Spanish speakers and 8% reported that they spoke both English and Spanish as their native languages. All lead teachers reported that they could speak at least some Spanish. When asked to describe their competency, over half (61%) reported only being able to give a simple command to a child in Spanish, one teacher (4%) indicated she could have an extended conversation with a child and the remainder (36%) indicated they could have an in-depth conversation with an adult.

Assistant teachers. One half (50%) of the RPre-K assistant teachers indicated they were native English speakers, whereas 36% reported being native Spanish speakers, and 14% reported that they spoke both English and Spanish as their native languages. All assistant teachers reported that they could speak at least some Spanish. About one-third (37%) reported only being able to give a simple command to a child in Spanish, whereas 63% reported that they could have an in-depth conversation with an adult in Spanish.

Either lead or assistant. Combining the information received from lead and assistant teachers, in 89% of rooms either the lead or the assistant reported speaking Spanish well enough to have an in-depth conversation with an adult. In 7% of rooms, both teachers reported speaking only enough Spanish to give a simple command to a child. In the remaining 4% (one classroom), one teacher indicated she could have an extended conversation with a child while the other teacher indicated she could give only a simple command to a child.

Transition coach. The RPre-K transition coaches reported a high level of proficiency in Spanish as well. Over three-quarters indicated that they were native Spanish speakers (53%) or that they spoke both English and Spanish as their native language (26%). Most (84%) reported being able to have an in-depth conversation with an adult in Spanish. Of those remaining, 11% indicated they could give a simple command to a child in Spanish. One transition coach (5%) reported no ability to speak Spanish.

Language Use Inventory

English and Spanish use in the classroom (n = 30). As described earlier, after each CLASS cycle the observer spent five minutes watching language interactions and rating them on a 5-point scale where 1= all English, 2= mostly English, 3 = an equal amount of English and Spanish, 4 = mostly Spanish, and 5 =all Spanish. 'NA' was recorded if the type of talk being rated did not occur during the five minutes. Scores were calculated as the average of the cycles for each type of talk. As seen in Table 4, the scores were typically between 2.0 and 2.5 indicating that English was mostly, but not exclusively, used in these classrooms. The ranges indicate that there were some rooms where English was used exclusively and some rooms where Spanish predominated. It was very rare (2% of cycles, on average) for there to have been no talking by the lead teacher to children. It was somewhat more common for assistant teachers not to talk to children during a cycle (10% of cycles). On average, more than a third (34%) of cycles contained no instruction, as broadly defined by this measure, and only 8% included no behavior management.

Table 4. English and Spanish Use in RPre-K Classrooms

	Score	Range	% NA ⁶
Lead teacher talking to children	2.1	1.0 to 4.6	2%
Assistant teacher talking to children	2.5	1.0 to 4.8	10%
Instruction	2.4	1.0 to 5.0	34%
Behavior Management	2.4	1.0 to 4.5	8%

Note: 1= all English, 2= mostly English, 3 = an equal amount of English and Spanish, 4 = mostly Spanish, 5 =all Spanish; NA indicates none of this type took place during the five minutes.

Language for reading. At the end of the observation morning, the observer used the same 5-point scale to indicate the language used for reading to children while in a group setting and reading to children in a small group or one-to-one setting. These ratings referred to the entire morning, not just the five-minute windows after each CLASS cycle set aside for observing language use.

Whole group reading took place in 25 out of the 30 rooms (83%) at some point during the morning. The average score was 2.4, indicating that somewhat more English was used than Spanish. In about one-third (32%) of the rooms where whole group reading was observed, the reading was in English only; in 16% of rooms it was in Spanish only; and in the remainder (52%) it was a mixture of English and Spanish.

Small group or one-to-one reading took place in only seven out of the 30 rooms (23%) at some point during the morning. Of those, in three rooms it was all in English; in two, it was all in Spanish; and in the remaining two it was a mixture of English and Spanish.

Books and labels. Finally, the data collector counted how many books and labels were in English and/or Spanish. For books, “few” was defined as fewer than there were children present and “many” was defined as at least as many as there were children enrolled. All classrooms had many English books. Over half (57%) also had many Spanish books; the remainder (43%) had only a few Spanish books. In past years some rooms lacked Spanish books, so it is encouraging that now all rooms have at least few.

For labels, “few” was defined as five or fewer and “many” was defined as more than five. All rooms had many English labels and almost three-quarters (73%) also had many Spanish labels. Ten-percent (10%) of classrooms had a few Spanish labels, and the remainder (17%) had no labels in Spanish.

Group Size and Ratios

The data collector counted children and adults present in each classroom at the start of each CLASS observation cycle. Table 5 provides observed mean group size and ratios for RPre-K classes. In almost all classes, the average group sizes and ratios were at or below the maximum allowable by DECAL for RPre-K classes. There were two exceptions, both at the same site. At that site, the two classrooms spent much of the observation day combined into one large group with four adults.

As would be expected, these mean group sizes and ratios were smaller than those seen in a recent study of the traditional school-year Georgia’s Pre-K program (group size *mean* = 21.4; Peisner-Feinberg et al., 2013). This finding is not surprising because the allowable maximum group size was

lower for RPre-K than for Georgia’s Pre-K. Further, the challenges in recruiting children for this new program could explain, at least in part, the small number of children in each class.

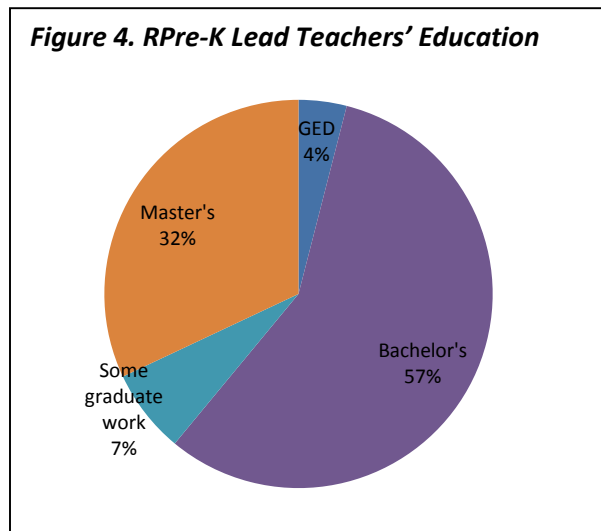
Table 5. Group Size and Ratios (Number of Children per Adult) in RPre-K Classrooms

	Mean	Range	DECAL Allowable Maximum
Group Size	11.5	6.8 to 20.6	14
Ratios	5.7	4.0 to 8.2	7

RPre-K Lead Teachers (n = 28)

Education. As required by DECAL, almost all (96%) lead teachers in RPre-K Programs held at least a Bachelor’s degree and many (32%) had an advanced degree (see Figure 4).

Major and Courses Taken. Over half (64%) of RPre-K lead teachers had a degree (Associate’s, Bachelor’s, or Master’s degree) in early childhood education. Regardless of major, most had taken at least one college course in early childhood/child development (93%). Fewer lead teachers had taken a college course in teaching young children whose home language is not English (32%) or bilingual or dual language development in young children (25%).



Teacher certificates. Most (82%) lead teachers reported having a Georgia teaching certificate issued by the Professional Standards Commission. Only one (4%) had a certification specific to English Speakers of Other Languages (ESOL); four (14%) had an ESOL endorsement.

Experience. On average, lead teachers reported having 4.6 years of experience as a lead teacher in a Georgia’s Pre-K classroom (*median* = 3.0, *range* = 0 to 20) and almost no experience as an assistant teacher (*mean* = 0.3, *median* = 0, *range* = 0 to 15). Most (61%) reported this was their first year teaching in the RPre-K program. Of those returning, 21% indicated it was their second year; and 18%, their third year.

Professional development. At least half of lead teachers reported having received professional development in the past year on working with dual language learners (77%), early language and/or literacy (63%), math (58%), and cultural diversity (54%). Additionally, in the past year 35% reported having received professional development on building partnerships with Latino families; and 33%, on socio-emotional development.

Home visits. Most (86%) of the RPre-K lead teachers had not visited any of the homes of their children. The remainder reported that they had visited a few (7%) or most (7%) of the children’s homes, but none of teachers indicated they had visited all of the children’s homes.

RPre-K Assistant Teachers (*n* = 30)

Education. About one-third (30%) of assistant teachers held a Bachelor’s degree and another 27% held an Associate’s degree (see Figure 5).

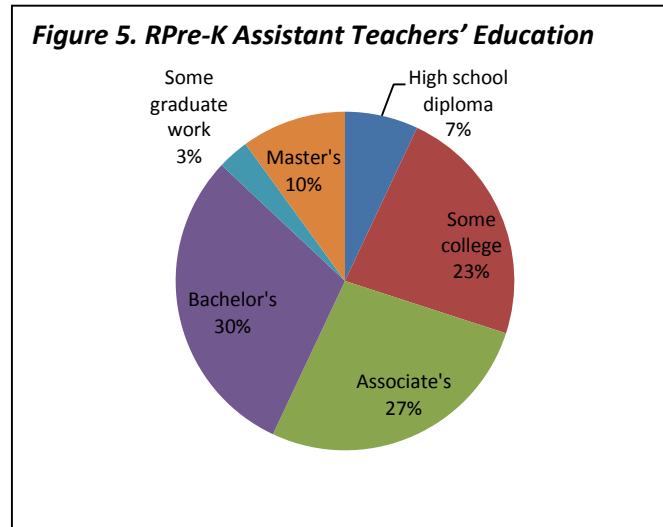
Major and Courses Taken. About one-third (37%) of assistant teachers had a degree (Associate’s, Bachelor’s or Master’s degree) in early childhood education. Regardless of major, most reported having taken at least one college course in early childhood/child development (70%). Fewer assistant teachers reported having taken a college course in teaching young children whose home language is not English (33%) or bilingual or dual language development in young children (27%).

Teacher certificates. Over one-quarter (28%) reported having a Georgia teaching certificate issued by the Professional Standards Commission. Only one (3%) had a certification specific to English Speakers of Other Languages (ESOL); three (10%) had an ESOL endorsement.

Experience. On average, RPre-K assistant teachers reported having 2.75 years of experience as an assistant teacher in a Georgia’s Pre-K classroom (*median* =1, *range* = 0 to 15) and an average of 0.3 years of experience as a lead teacher in a Georgia’s Pre-K classroom (*median* =0, *range* = 0 to 4). Most (70%) reported this was their first year teaching in the RPre-K program. Of those returning, 13% indicated it was their second year; and 17%, their third year.

Professional development. Fewer than half of assistant teachers reported having received professional development in the past year in early language and/or literacy (35%), socio-emotional development (33%), math (32%), building partnerships with Latino families (28%), cultural diversity (27%), and working with dual language learners (24%).

Home visits. Most (83%) assistant teachers had not visited any of the homes of their children. The remainder (17%) reported to have visited a few of the children’s homes, but none of the assistant teachers indicated they had visited most or all of the children’s homes.



RPre-K Transition Coaches (n = 19)

Education. Fifty-three percent (53%) of the RPre-K transition coaches held at least a Bachelor's degree (see Figure 6).

Major and courses taken. Only 16% of RPre-K transition coaches had a degree (Associate's, Bachelor's, or Master's) in early childhood education. Seventy-nine (79%) of transition coaches reported having taken at least one college course in early childhood/child development. Smaller numbers reported having taken a course focused on teaching young children whose home language is not English (53%) or bilingual or dual language development in young children (47%).

Experience. For 12 of the 19 (63%) RPre-K transition coaches, 2015 was their first summer serving as a transition coach. This was the second summer for three transition coaches (16%), and it was the third summer for the remaining four (21%).

Parent conferences. Most RPre-K transition coaches reported that they did not schedule parent conferences in the summer (73%). Of those that did schedule conferences during the summer, most held one conference (20%) and very few held two or more (7%).

Home visits. Most (68%) of the RPre-K transition coaches indicated that they had not visited any of the children's homes. Twenty-six percent (26%) reported having visited at least some of the children's homes, and one (5%) reported visiting all the children's homes.

Workshops and family activities. On average, transition coaches reported that they had conducted or planned to conduct 6.5 (range = 3 to 12) family workshops or activities during the summer, which is a little more than one during each week of the six-week program. Over half the transition coaches reported focusing on: early literacy (95%); Georgia's Pre-K (how to enroll, what to expect, etc.; 95%); importance of physical activity (74%); nutrition, food preparation, and food safety (68%); encouraging the use of Spanish at home (68%); Georgia Early Learning and Development Standards (GELDS; 63%); early math (63%); general health and well-being issues for children (63%); general safety issues (63%); parenting and behavior management (58%); and overall child development (53%).

Most of the transition coaches reported that the workshops and family activities were conducted in a mix of English and Spanish (68%); 32% indicated they were in Spanish only. Written materials at the workshops and family activities were generally provided in a mix of English and Spanish (74%), with the remainder (26%) in Spanish only.

Family participation. Transition coaches were asked what kinds of opportunities there were for families to participate in the RPre-K Program. Table 6 shows their responses for 2013, 2014, and 2015, ordered from most to least common in 2015.

Figure 6. RPre-K Transition Coaches' Education

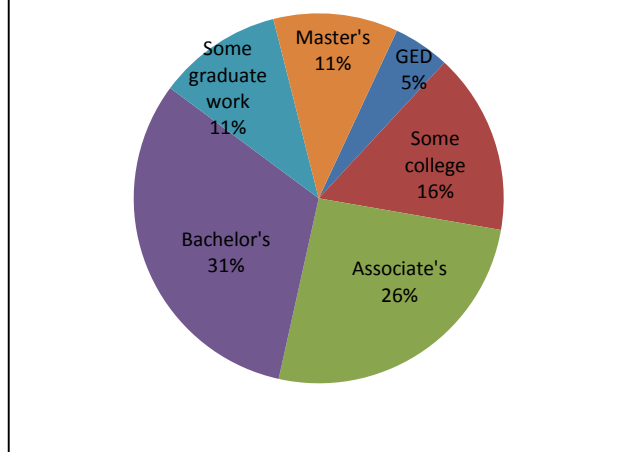


Table 6. Opportunities for Families to Participate in RPre-K Programs

What kinds of opportunities are there or will there be this summer for families to participate in your program?	Yes		
	2013	2014	2015
Eat with their child’s class or help at meals	73%	50%	84%
Help out in the classroom as needed	73%	64%	79%
Read to the children in the class	80%	50%	79%
Social activity for families at school/center (e.g., pizza night)	82%	79%	63%
Share a family or cultural tradition with their child’s class	82%	43%	56%
Help out on field trips	70%	64%	53%
Social activity for families in the community (e.g., picnic at a local park, bowling)	45%	57%	42%
Help with jobs outside of the classroom (e.g., help with laundry, prepare snacks/materials)	55%	36%	21%

Services and supports provided to families. RPre-K transition coaches were asked what kinds of supports their program provided to families and how they help families to find services and resources in the community. Tables 7 and 8 show their responses in 2013, 2014 and 2015, ordered from most to least common in 2015. It is noteworthy that almost all transition coaches reported that their program provided translation and interpretation services.

Table 7. Services Provided to Families in RPre-K Programs

Does your program provide any of the following materials or services to families?	Yes		
	2013	2014	2015
Translation of your program’s written materials for families who do not speak English	100%	100%	95%
Interpretation at program events, activities, conferences, or meetings for families who do not speak English	100%	100%	95%
Distribution of translated materials about community services (in a language other than English)	91%	100%	89%
Coordination of community services for families (e.g., provide information about services, assist families in contacting services, provide follow-through with families)	91%	100%	84%
Reading activity packs to take home	91%	79%	79%
Lending library for families	64%	71%	68%

Table 8. Finding Services in the Community for Families in RPre-K Programs

Does your program help families find services or resources in the community to help with any of the following things?	Yes		
	2013	2014	2015
Translation or interpretation in the community for families who do not speak English	100%	86%	89%
Activities or events in the community for families and children	82%	93%	79%
Social service needs (financial, health care, housing, etc.)	73%	86%	79%
Mental health needs (counseling, therapy, support groups)	73%	57%	63%
School-age care	91%	71%	58%

Attendance. In past summers, DECAL had noted that attendance was lower during the summer than during the school year. For this reason, RPre-K transition coaches were asked “What do you think prevents children who are enrolled in your program from attending more often?” Coaches responded to the items below using a 5-point scale, where 1 = not a barrier, 3 = somewhat of a barrier, and 5 = a major barrier. The responses for 2013, 2014, and 2015 are listed in Table 9, ordered from the highest to lowest in 2015. The largest barriers were older siblings at home, family trips and visitors, and parents’ irregular work schedules.

Transition coaches were also asked to describe other issues that may have prevented children from having better attendance, and nine of them (47%) offered additional feedback. A few of these comments reiterated the transportation challenges (e.g., “we provided transportation but if students missed the bus, parents were unable to bring them”), while others mentioned various family issues (e.g., death in the family, court-ordered visitation) and a lack of understanding about the program (e.g., “if parents knew more about the program, our teachers, and the help they would receive, we would have 100% attendance”).

Table 9. Barriers to Attendance in RPre-K Programs

What do you think prevents children who are enrolled in your program from attending more often?	Average Rating		
	2013	2014	2015
Some children had older siblings who were not in summer school, so the younger children wanted to stay home with them.	NA	3.4	3.1
Family trips and summer visitors interfere.	2.7	3.0	2.7
Families lack transportation so they can’t get their children to the program.	3.4	2.9	2.6
Parents have irregular work schedules.	2.5	3.1	2.5
Illness or medical appointments.	NA	3.0	2.3
Families do not think of the summer program as “real school.”	2.2	2.2	2.2
The families of participating children move often.	1.6	2.2	1.6
Program hours do not meet families’ schedules.	1.5	1.7	1.5

Note: 1 = not a barrier, 3 = somewhat of a barrier, and 5 = a major barrier; NA=not asked

Conclusions and Recommendations

It is encouraging that the vocabulary skills of children participating in the 2015 Rising Pre-Kindergarten Program generally increased during the summer, in both English and Spanish. The program is designed to support development in both languages, and it appears that children are indeed making gains in both. It is, however, worrisome that their skills remain markedly below their peers in both English and Spanish, on the two nationally normed tests. These were all DLL children from low-income homes, and for many this summer program was their first out-of-home educational experience. It is therefore not surprising that they entered the program with low vocabulary. Similar to the findings from Peisner-Feinberg and colleagues (2013), this study indicates that although these DLL children made significant gains during the six-week program, a meaningful gap remains.

In many ways the Georgia Rising Pre-K Program appears to be responsive to the learning and development needs of young children who are Spanish-speaking DLLs. For example, the fact that most classrooms had a lead and/or assistant teacher with strong Spanish skills is encouraging. Further, in the average classroom, English was the predominate language but Spanish was also used for both instruction and behavior management and by both the lead and assistant teachers. Use of both languages is important because children may learn a new concept in either language, so use of both increases learning opportunities. Also, it is important for young DLLs to see both languages as valuable for learning, and use of home language in the classroom helps children build similar skills in English (LaForett, Fettig, Peisner-Feinberg, & Buysse, 2012).

Whole group reading activities took place in most classrooms, with approximately two-thirds using some or all Spanish. Reading stories aloud to young children fosters the development of early language and literacy skills such as knowledge about written syntax, vocabulary, phonological awareness, and print concepts; these early skills have been shown to predict later reading and writing skills (National Early Literacy Panel, 2008). Researchers have recommended storybook reading as a key learning experience for children who are dual language learners, because it provides opportunities to build new vocabulary (in English and the home language), gain listening comprehension skills, and be exposed to word pronunciation, sentence construction, and appropriate use of common phrases or expressions (Gillanders & Castro, 2011). In addition, when children's home language is incorporated, reading activities may offer enhanced opportunities for children to become excited about learning and

Pride in Rising Pre-Kindergarten Program

All of the 19 RPre-K transition coaches who returned the questionnaire answered the question "What are you most proud of about your program?"

Many comments focused on pride in the children's adjustment to school and the parents' participation:

"The parents are appreciative, involved, and eager to help their children thrive and flourish."

"The change in the children, the difference between when they start to when they finish. They are more confident and have more self-esteem."

Several transition coaches were pleased that families' primary language (Spanish) was spoken in the RPre-K Program:

"They [parents] are trusting in me and feel comfortable knowing a bilingual person is able to assist them with questions."

"Learning English and seeing the children's communication with the teachers in both languages."

attending school, to develop self-regulation skills needed for whole group learning formats, and to form personal connections with the teacher through their engagement with the story content. It is of concern that in about three-quarters of the rooms, no one-on-one or small group reading was observed because such reading offers an especially effective way to promote excitement about learning, connection to adults in the classroom, and exposure to novel content by focusing on books of particular interest to some of children. Professional development for the RPre-K teachers should describe the importance of one-on-one and small group reading and promote it as a critical activity for these young learners.

It is encouraging that the majority of classrooms had many books and labels in both English and Spanish—at least as many books as children enrolled and more than five labels—and that all had at least a few books in Spanish. In past years, the evaluation of the RPre-K program revealed that some classrooms lacked Spanish books; it is heartening that this situation be rectified. However, in 2015 five classrooms (17%) had no objects labeled in Spanish. As in past years, we recommend that all classrooms have Spanish labels. Ensuring all rooms have Spanish and English labels would be relatively easy and would not only increase children’s exposure to print in Spanish, but could also be used for teaching specific skills (e.g., vocabulary, phonological awareness), illustrating differences between the English and Spanish languages, and stimulating conversation between children and teachers.

It is concerning that Emotional Support and Classroom Organization scores were somewhat lower in 2015 than in past years. Maintaining a warm, supportive and organized environment is critical for these young children as they start school. Effective teacher-child relationships that promote children’s socio-emotional development are particularly important for young DLLs as a means for promoting their classroom participation and enhancing their social status (Castro, Peisner-Feinberg, Buyse, & Gillanders, 2010; Gillanders & Castro, 2007).

Equally concerning is that Instructional Support was low in 2015, as it has been in past years in the RPre-K program. Given that children’s vocabulary scores were low, on average, at the start and end of the program and that some research has suggested that Instructional Support is most closely linked to children’s gains in academic skills (Mashburn et al., 2008), providing supports to teachers to strengthen instructional support and enhance children’s early vocabulary appears to be an especially worthwhile avenue. Such supports could focus broadly on the CLASS domain of Instructional Support or more narrowly on strategies such as dialogic reading that have been demonstrated to help children develop language and literacy skills in the home language and English (Tysbina, & Eriks-Brophy, 2010).

Georgia’s on-going commitment to providing a free educational experience for children prior to kindergarten entry, particularly those from low-income, Spanish-speaking families, is admirable. Participating children appear to be making small but significant gains in English and Spanish vocabulary, which should translate into more successful transitions to Georgia’s school-year Pre-K program. With additional teacher support for nurturing, organized, stimulating classrooms, this program may play an important role in helping all children succeed.

References

- August, D., & Shanahan, T. (Eds.). (2006). *Developing literacy in second-language learners: Report of The National Literacy Panel on Language-Minority Children and Youth*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Castro, D. C., Espinosa, L. M., & Páez, M. M. (2011). Defining and measuring quality in early childhood practices that promote dual language learners' development and learning. In M. Zaslow, I. Martinez-Beck, K. Tout, & T. Halle (Eds.), *Quality measurement in early childhood settings* (pp. 257-280). Baltimore, MD: Brookes.
- Castro, D. C., Peisner-Feinberg, E., Buysse, V., & Gillanders, C. (2010). Language and literacy development in Latino dual language learners. Promising instructional practices. In O. N. Saracho and B. Spodek (Eds.), *Contemporary perspectives on language and cultural diversity in early childhood education* (pp. 65-93). Greenwich, CT: Information Age.
- Dickinson, D. K., Copley, J. V., Izquierdo, E., Lederman, J. S., Schickedanz, J., & Wright, L. (2011). *Opening the world of learning*. New York, NY: Pearson Education
- Early, D. M., Maxwell, K. L., LaForett, D. R., Pan, Y., Kraus, S., & Hume, K. (2014). *Evaluation findings from Georgia's 2013 Rising Kindergarten and Rising Pre-Kindergarten Summer Transition Programs*. Chapel Hill: The University of North Carolina, FPG Child Development Institute.
- Early, D. M., Maxwell, K. L., LaForett, D. R., Kraus, S., & Hume, K., (2015). *Evaluation findings from Georgia's 2014 Rising Kindergarten and Rising Pre-Kindergarten Summer Transition Programs*. Chapel Hill, NC: The University of North Carolina at Chapel Hill, FPG Child Development Institute.
- Gillanders, C., & Castro, D. (2007). Reading aloud to English language learners. *Children and Families*, 21(3), 12-14.
- Gillanders, C., & Castro, D. C. (2011). Storybook reading for young dual language learners. *Young Children*, 66(1), 91-95.
- Goldenberg, C. (2008). Teaching English language learners. What the research does – and does not – say. *American Educator*, Summer, 8-44.
- LaForett, D. R., Early, D. M., Maxwell, K. L., Kraus, S., & Hume, K. (2014). *Language Use Inventory*. Unpublished measure, The University of North Carolina at Chapel Hill.
- LaForett, D. R., Fetting, A., Peisner-Feinberg, E. S., & Buysse, V. (2012). Recognition & Response for Dual Language Learners: Instructional adaptations for young dual language learners. *Young Exceptional Children Monograph Series*, 14, 115-132.
- Martin, N. A. & Brownell, R. (2011). *Receptive One-Word Picture Vocabulary Test- Fourth Edition (ROWPVT-4) Manual*. Novato, CA: Academic Therapy Publications.
- Martin, N. (2013). *Receptive One-Word Picture Vocabulary Test-4 (ROWPVT-4: SBE) Spanish-Bilingual Edition Manual*. Novato, CA: Academic Therapy Publications.
- Mashburn, A. J., Pianta, R. C. Hamre, B. K., Downer, J. T. Barbarin, O. A. Bryant, D. B., ... Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development*, 79(3), 732-749. doi: 10.1111/j.1467-8624.2008.01154.x

- National Center for Early Development and Learning. (2001). *Counting Task*. Unpublished measure, University of North Carolina at Chapel Hill.
- National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. Washington, DC: National Institute for Literacy. Retrieved from <http://lincs.ed.gov/publications/pdf/NELPReport09.pdf>
- Peisner-Feinberg, E. S., Schaaf, J. M., & LaForett, D. R. (2013). *Children's growth and classroom experiences in Georgia's Pre-K Program: Findings from the 2011–2012 evaluation study*. Chapel Hill: The University of North Carolina, FPG Child Development Institute. Retrieved from <http://www.fpg.unc.edu/sites/fpg.unc.edu/files/resources/reports-and-policy-briefs/GAPreKEval2011-2012Report.pdf>
- Peisner-Feinberg, E. S., Schaaf, J. M., LaForett, D. R., Hildebrandt, L.M., & Sideris, J. (2014). *Effects of Georgia's Pre-K Program on children's school readiness skills: Findings from the 2012–2013 evaluation study*. Chapel Hill: The University of North Carolina, FPG Child Development Institute. Retrieved from http://fpg.unc.edu/sites/fpg.unc.edu/files/resources/reports-and-policy-briefs/GAPreKEval_RDDReport%203-4-2014.pdf
- Peisner-Feinberg, E. S., Schaaf, J. M., Hildebrandt, L. M., & Pan, Y. (2015). *Children's pre-k outcomes and classroom quality in Georgia's Pre-K Program: Findings from the 2013-2014 evaluation study*. Chapel Hill: The University of North Carolina, FPG Child Development Institute.
- Pianta, R. C., La Paro, K. M., & Hamre, B. (2008). *Classroom Assessment Scoring System (CLASS): Pre-K Version*. Baltimore, MD: Paul H. Brookes.
- Tysbina, I., & Eriks-Brophy, A. (2010). Bilingual dialogic book-reading intervention for preschoolers with slow expressive vocabulary development. *Journal of Communication Disorders*, 43, 538-556. doi:10.1016/j.jcomdis.2010.05.006

Endnotes

¹ Due to time constraints, only five cycles were completed in four classrooms and only four cycles in two classrooms.

² Preliminary analyses compared pre-test scores for the 151 children who had post-test scores to the 17 children who did not. No differences at pre-test (baseline) were found between leavers and stayers on any of the six outcomes. To be consistent with previous years' analyses, this report presents findings only for children who completed both the pre- and posttest measures.

³ Three level hierarchical linear models were used to assess change from pre- to posttest on the two standardized measures (ROW English and ROW Spanish) for children who participated in both waves of data collection ($n = 151$). The models were estimated using PROC MIXED in SAS v 9.3, accounting for multiple measurements within child (pre and post) and multiple children within classrooms. The reduced form equation for these models was:

$$y_{tjk} = \beta_0 + \beta_1 \times Time_{tjk} + u_k + u_{0j} + \epsilon_{tjk}$$

In the equation above, the outcome at time t for child j in program k is a function of an overall intercept and the effect of time. The coding of time (0 = pre, 1 = post) allowed for the intercept to represent average pre-test scores and the coefficient for β_1 to represent the magnitude and direction of average change from pre- to posttest. The hierarchical modeling and associated parsing of error terms ($u_k + u_{0j} + \epsilon_{tjk}$) adjusted the standard error of the time coefficient to account for non-independence of the sample due to repeated measures and clustering within center. The statistical test of the time coefficient was a formal test of whether the change from pre- to posttest was significantly different from zero. The d-type effect size was calculated by dividing the time coefficient by the sample standard deviation of the corresponding pre-program outcome score. (In this dataset, standard deviations of pre-program outcomes are in general larger than those of post-program outcomes. As a result, the first set of sample standard deviations was used to calculate effect size estimates more conservatively.) Models that controlled for gender and child age (for non-standardized measures) were also estimated. Adding those controls did not change the p values. Note that some classes were nested within centers/sites; however, due to low power we did not attempt to account for that nesting.

For the non-standardized measures (Copy Cat, Juego de Imitar, and Counting Bears), Generalized Linear Models were estimated instead of HLMs. The data for these measures are binary or categorical, and the distributions were skewed. The implementation of the HLM methods lead to misspecifications.

⁴ Of the 151 children who took part in the posttest, 130 had a valid pretest score on the English ROW and 137 had a valid posttest score on the English ROW. Of the 21 lacking a valid English ROW pretest score, an administration error took place in 4 cases and in 17 cases the child did not get enough correct answers to generate a standard score according to the norms developed by the measure's authors. At posttest, of the 14 lacking a score, an administration error took place in 7 cases and the child did not get enough correct answers for generating a standard score in 7 cases.

⁵ Of the 151 children who took part in the posttest, 146 had a valid pretest score and 148 had a valid posttest score on the ROW Spanish-Bilingual Edition. At pretest, of the remaining five, an administration error took place in two cases and the child did not get enough correct answers to generate a standard score in three cases. At posttest, of the three lacking a score, an administration error took place in two cases and the child did not get enough correct answers to generate a standard score in one case.

⁶ These values were calculated by first creating a percentage of cycles where NA was scored for each classroom, then taking the mean of the percentages across the 30 rooms.