Pre-K 4 SA Evaluation Report

YEAR 1

Final Report Submitted to

Early Childhood Education Municipal Development Corporation

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EXECUTIVE SUMMARY

Pre-K 4 SA served more than 700 children during its inaugural year. The Year 1 evaluation of Pre-K 4 SA initially sought to address five research question categories: *Program Theory*, *Participating Children and Families*, *Attendance and Engagement*, *Teacher and Classroom Information*, and *Kindergarten Readiness*.

The intention of the Pre-K 4 SA program is to reach beyond the Pre-K 4 SA centers to the larger education community in the city with both competitive and non-competitive educational supports. Together, the Pre-K 4 SA centers and educational supports are intended to support a 'whole child' approach which is hypothesized to lead to children arriving in kindergarten ready to learn, anticipates that children and families will lead more nutritious and healthy life styles, and that children will see greater academic success that includes outcomes such as decreased rates of grade retention and special education placements, as well as greater success on state standardized testing.

Pre-K 4 SA served slightly more boys (53.2%) than girls (46.8%) during Year 1. The majority of Pre-K 4 SA children were Hispanic (85.2%) with the remaining children identified as White (8.6%), Black (4.2%) and other ethnicities (2.0%). More than 81% of children attended Pre-K 4 SA for free; nearly 19% of children were tuition children. Of those children who attended Pre-K 4 SA for free, more than 75% did so based on income eligibility.

Average attendance for Pre-K 4 SA children was 92.3% which increased slightly to 93.7% when children who withdrew were excluded. More than 150 parent/family engagement events were held for families over the course of the initial Pre-K 4 SA year with more than 3,500 attendees across events.

Edvance administered teacher surveys and conducted classroom observations. Through these surveys and classroom observations, teachers reported frequent use of developmentally appropriate practices and were observed displaying high levels of emotional support and relatively high levels of classroom management. Instructional support was, on average low to mid-range which is consistent with other studies of early childhood programs. In addition, during classroom observations, children and teachers most often engaged in literacy and language activities in whole groups and free choice settings.

Pre-K 4 SA children's kindergarten readiness outcomes (measured by the *Teaching Strategies GOLD*) were compared to a nationally representative normed sample of children for six outcomes; cognitive, literacy, mathematics, oral language, physical, and social-emotional. Results indicated that although Pre-K 4 SA children started the school year significantly below the normed sample in all six outcomes, they surpassed the normed sample in three of the six outcomes and were not statistically different in the remaining three outcomes. Looking further into the Pre-K 4 SA sample, differences were found between boys and girls and center location. More specifically, girls began the year already ahead of boys and maintained this difference through the school year for most outcomes and increased the difference in the mathematics

outcome. Additionally, although children at both centers started the year similarly, the South center children ended the year more successful in the social-emotional outcome. The North center children made up a deficit in mathematics from the beginning of the year to end on par with South center children by the end of the year.

Limitations of the Year 1 evaluation include the lack of a local comparison or control group of children for a comparison to a more similar group of children as well as lack of extended day attendance data. Classroom observation data was also based on one observation of each classroom during the spring; as such no inferences can be made about changes in classroom quality over time. Also, family engagement data could not be linked to individual child data so no inferences could be made concerning the relationship between family engagement and pre-K outcomes for children. Recommendations include collection of more information concerning family engagement and extended day attendance, working to increase instructional support in the classroom, and generating innovative ways to target oral language, physical, and social-emotional development for Pre-K 4 SA children.

INTRODUCTION

Improving children's kindergarten readiness and narrowing the achievement gap are twin education goals receiving considerable attention throughout the United States (Barnett, 2011). A recent comprehensive meta-analysis of 123 studies on early childhood programs in the United States provided evidence that preschool by itself can close half the achievement gap between low- and high-income students (Camilli, Vargas, Ryan, & Barnett, 2010). As a result, new initiatives are emerging, including at the city level, to increase school readiness, decrease achievement gaps, and align early care and education programs with K-12 education systems. San Antonio is among a few cities that have opted for investing in preschool education, in addition to state mandates, much like the Boston pre-K program (National League of Cities, 2012). San Antonio has done so through a 1/8 cent increase in local sales tax rates starting April 1, 2013. The program, called Pre-K 4 SA, serves many children who are at risk for falling behind their peers and for lacking in kindergarten readiness.

The city of San Antonio, Texas, 7th largest city in the country with a Hispanic majority population, includes 15 school districts serving more than 320,000 students from pre-K to grade 12 (San Antonio EDF, n.d.; U.S. Census Bureau, n.d.). More than 20% of San Antonio families live below the poverty line (U.S. Census Bureau, n.d.). All 15 school districts in San Antonio, provide some type of pre-K experience to at-risk children; however, only six currently provide a full-day pre-K program for children. In 2011, the mayor of San Antonio, Julian Castro, convened a task force to identify the most effective method of improving educational quality in the city; this task force recommended focusing on high quality, full-day pre-K services for 4-year-old city children. Pre-K 4 SA was approved by citizens of San Antonio in November of 2012. One of the three main components of the Pre-K 4 SA program—educating children in created centers (schools)—began during this past school year (2013/14) and served more than 700 children in the first two Pre-K 4 SA centers. During the next two school years (2014/15 and 2015/16), Pre-K 4 SA estimates to serve 1,500–1,700 children annually and reach full capacity (serving 2,000 children annually) by 2016/17 in four centers across the city. Currently, seven of 15 school districts are partners in this effort.

As Pre-K 4 SA was in its initial year during the 2013-14 school year, Year 1 of the program evaluation of Pre-K 4 SA included: 1) development of a Pre-K 4 SA theory of change and logic model to understand the intention of the Pre-K 4 SA program, 2) the collection and analysis of teacher-child interaction data in Pre-K 4 SA classrooms to understand the level of interactional quality children experienced in the first year of implementation, 3) the descriptive analysis of Pre-K 4 SA parent engagement data to understand to what degree families of Pre-K 4 SA children were engaged in Pre-K 4 SA, and 4) an analysis of Pre-K 4 SA *Teaching Strategies GOLD* assessment system (GOLD) data to understand if Pre-K 4 SA is associated with change in scores on six kindergarten readiness outcomes for children. Within this evaluation report the research questions and results are presented for Year 1 of the Pre-K 4 SA program.

RESEARCH QUESTIONS

The Year 1 evaluation of Pre-K 4 SA initially sought to address five research question categories:

1. *Program Theory*:

   What is the Pre-K 4 SA theory of change (logic model), and how are the program inputs and outputs (program activities and participation) hypothesized to work together to produce intended children's outcomes?

2. *Participating Children and Families*:

   2a.) What are the demographic characteristics of children who participated in Pre-K 4 SA during Year 1?

   2b.) What are the demographic characteristics of families whose children participated in Pre-K 4 SA during Year 1?

3. *Attendance and Engagement:*

   3a.) What were the reported levels of child attendance during the pre-K year?

   3b.) What were the reported levels of parent/family engagement during the pre-K year?

4. *Teacher and Classroom Information:*

   4a.) What are teacher reported curriculum and classroom practices?

   4b.) What is the overall observed teacher-child interaction quality in Pre-K 4 SA classrooms?

5. *Kindergarten Readiness:*

   5a.) Is the Pre-K 4 SA program associated with a change in Pre-K 4 SA children's' GOLD outcomes at the end of Pre-K 4 SA? How do Pre-K 4 SA children compare to a nationally representative normed sample of children?

   5b.) Do differences in findings exist based on child characteristics, the area of readiness for kindergarten, or location children attended (North or South center)?

It is important to note that although question 2b was intended to be addressed within the evaluation, no information was provided concerning the demographics of Pre-K 4 SA families; therefore, question 2b could not be addressed within this report.

EVALUATION METHODS AND MEASURES

To address Program Theory Research Question 1, development meetings took place between Edvance and Pre-K 4 SA. To address Participating Children and Families and Attendance and Engagement Research Questions 2a, 2b, 3a, and 3b, data was provided by Pre-K 4 SA staff

members through a secure server. Then, descriptive information was ascertained on the demographic information as well as attendance and engagement information provided.

Teacher and Classroom Information Research Questions 4a and 4b were addressed through analysis of three measures. First, to address Research Question 4a. "What are teacher reported curriculum and classroom practices?" data collected from teachers through a self-report survey were analyzed. The survey, the Teacher Survey for Early Education Quality (TSEEQ) asks teachers to report on several aspects of curriculum and classroom practices. The TSEEQ is a self-report survey for early childhood teachers regarding their classroom practices and quality (Hallam, Rous, Riley-Ayers, & Epstein, 2012). Descriptive information is provided as well as inferential tests of differences between answers provided by lead teachers and assistant teachers.

Second, to address Research Question 4b. "What is the overall observed quality in Pre-K 4 SA classrooms?" data were analyzed from two classroom observation measures; the Classroom Assessment Scoring System (CLASS) and the Emerging Academic Snapshot (Snapshot). Average classroom quality and time spent in various content areas is presented. What follows is a brief description of the observation measures. Edvance conducted classroom observations during the spring of Year 1 using both measures, the CLASS and the Snapshot.

Classroom Assessment Scoring System (CLASS)

The CLASS (Pianta, LaParo & Hamre, 2008) is an observational system that assesses classroom practices in preschool by measuring the interactions between students and adults. Observations the Year 1 evaluation consist of 5, 20-minute cycles, followed by 10-minute coding periods. Scores were assigned during various classroom activities, and then averaged across all cycles for an overall quality score.

Interactions were measured through 10 different dimensions (see Appendix A) for descriptions of each CLASS dimension) which are divided into three larger domains. The *Emotional Support* domain is measured through the use of four dimensions: Positive Climate, Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives. The CLASS also measures *Classroom Organization* through three dimensions: Productivity, Behavior Management, and Instructional Learning Formats; and *Instructional Support* through three dimensions: Concept Development, Quality of Feedback, and Language Modeling.

The CLASS uses a 7-point Likert-type scale, for which a score of 1 or 2 indicates low range quality and a score of 6 or 7 indicate high range quality. Each dimension and domain is assigned a score during each 20-minute cycle (or, observation period). The number of children and adults in the classroom were also recorded during each 20-minute cycle.

Emerging Academic Snapshot (Snapshot)

Data on the amount of time children spend in various activities and interactions were collected through classroom observations coded with the *Emerging Academics Snapshot* (Ritchie, Howes, Kraft-Sayre, & Weiser, 2001). Observations consist of time-sampled codes assigned to teacher

and child behaviors, every 60 seconds (representing one cycle) over the course of the morning (see Appendix A for more information). Four children were randomly selected from each classroom and each child is observed for 40 seconds, followed by 20 seconds of coding which is a typical use of this measure. This sequence was repeated for between 2 – 3 hours in each classroom.

Finally, to address Kindergarten Readiness Research Questions 5a and 5b, inferential tests of differences between the Pre-K 4 SA children and a nationally representative normed sample of children on the GOLD assessment outcomes are presented[1]. In addition, inferential tests were conducted to investigate potential differences in GOLD results by child gender (boys vs. girls), extended day participation (children who were enrolled in extended day vs. children that were not), and center (children who attended the North center vs. children who attended the South center).

EVALUATION RESULTS

Results for Year 1 are presented by the five categories of research questions stated earlier.

Program Theory

A logic model is a tool that can be used when designing, implementing, managing, and evaluating programs. A well-defined logic model can be used to visually present an organization's collective understanding of a program's resources, planned activities, and how these resources and planned activities produce outcomes. A well-defined logic model can also be used to communicate the intentions and purpose of the program to external audiences for continuous feedback and improvement of the program, and to inform the evaluation of the program.

The process of developing a logic model provides program leadership with an opportunity to create an explicit understanding of the theory of change behind the program. By documenting components of a logic model including the inputs, outputs (program activities and participation) and hypothesized outcomes (short-, medium-, and long-term), program leadership produce a visual depiction of the theory of change behind a program that can be used to assist implementers in delivery and understanding of the program's expectations.

The development process led to:

1) a high-level theory of change to be shared and used widely; and,

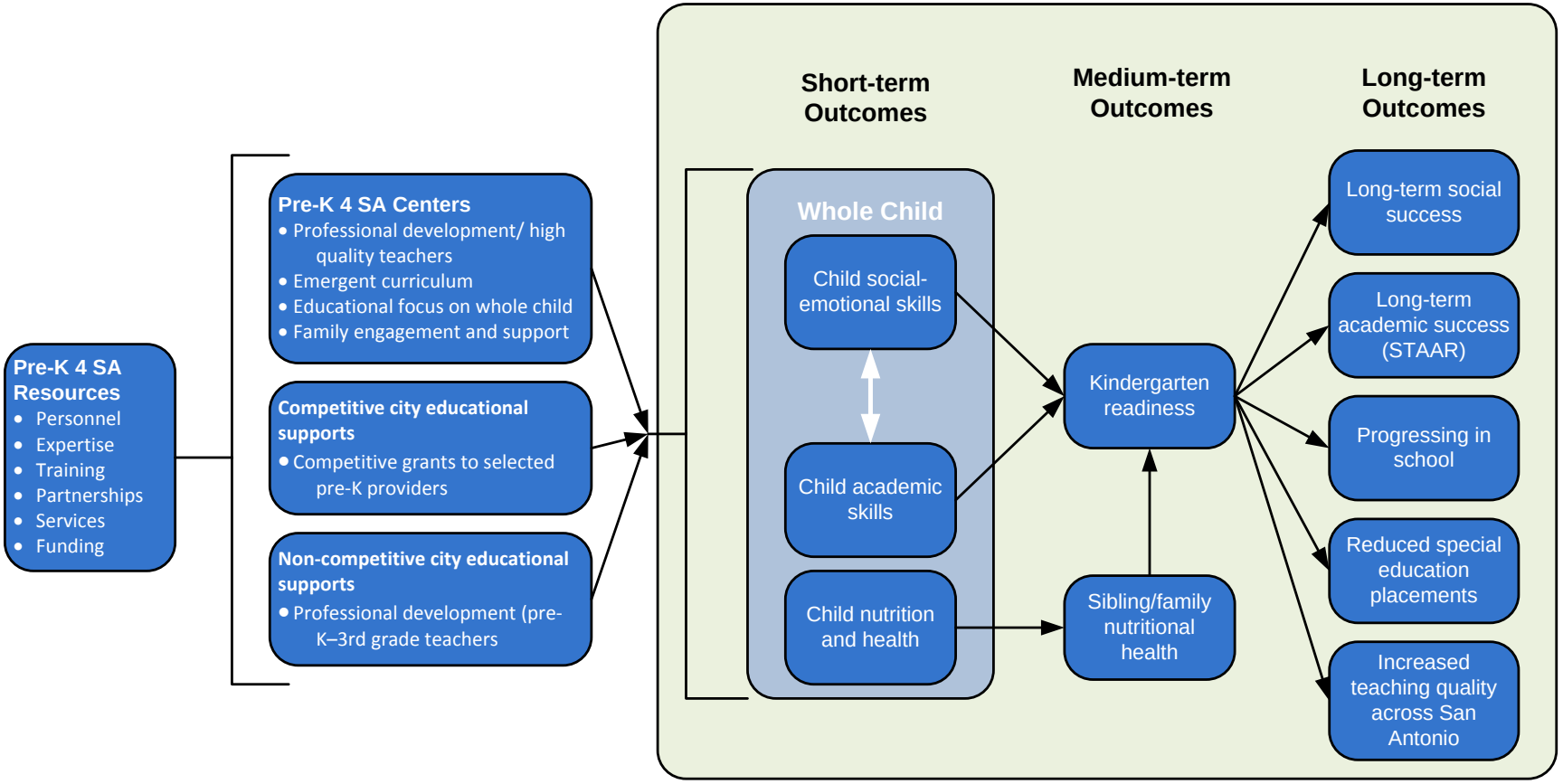
2) a more detailed logic model of the Pre-K 4 SA program to be used internally to ensure consistent implementation of the program across centers as well as assist Pre-K 4 SA teachers in understanding the intentions of the program in more detail.

[1] These tests include independent samples t-tests, one sample t-tests and repeated measures Analysis of Variance (ANOVA) tests.

Edvance research staff members worked with Pre-K 4 SA staff members to develop both the visual theory of change and logic model for the Pre-K 4 SA program through several joint development meetings. Through these meetings several revisions were produced to ensure that both capture the complete intention of the program.

The development process led to both a 1) high-level theory of change to be shared and used widely and 2) a more detailed logic model of the Pre-K 4 SA program to be used internally to ensure consistent implementation of the program across centers as well as assist Pre-K 4 SA teachers in understanding the intentions of the program in more detail. It is important to note that this more detailed logic model is intended to be updated and revised as the program experiences changes and growth. The logic model presented within this report is a reflection of program intention as of the end of Year 1 of implementation. (See Figure 1 for the theory of change and Appendix B for the logic model.)

Figure 1. Pre-K 4 SA Theory of Change



As seen in Figure 1, the intention of the Pre-K 4 SA program is to reach beyond the Pre-K 4 SA centers to the larger education community in the city with both competitive and non-competitive educational supports. Together, the Pre-K 4 SA centers and educational supports are intended to raise the social-emotional and academic skills of San Antonio children, as well as increase nutritional and health knowledge/intake for San Antonio children and families. By using this 'whole child approach', Pre-K 4 SA expects children to leave the centers and arrive in kindergarten ready to learn, anticipates that children and families will lead more nutritious and healthy life styles, and that children will see greater academic success that includes outcomes such as decreased rates of grade retention and special education placements, as well as greater success on state standardized testing which begins to occur in grade 3.

Participating Children and Families

Table 1. Pre-K 4 SA children by District

District name	*Number of children*	*Percentage of total children*
Edgewood	19	2.6%
Harlandale	53	7.2%
North East	91	12.3%
Northside	201	27.1%
San Antonio	193	26.0%
South San	14	1.9%
Southwest	30	4.0%
Tuition	140	18.9%
Total	743	100%

Data was provided for 743 children and in Year 1, Pre-K 4 SA served slightly more boys (53.2%) than girls (46.8%). Of those more than 700 children, the majority of children represented three districts; Northside ISD, San Antonio ISD, and North East ISD. In addition, nearly 19% of children were tuition children. Table 1 includes the percentage of children per school district.

The majority of Pre-K 4 SA children were Hispanic.

Of the children who attended Pre-K 4 SA for free, more than 75% were eligible for free attendance due to income.

The majority of Pre-K 4 SA children were Hispanic (85.2%) with the remaining children identified as White (8.6%), Black (4.2%) and other ethnicities (2.0%). Out of the total children enrolled (both tuition and free attending), almost 77% qualified for free lunch. Of the children who attended for free, more than 75% were eligible for free attendance due to income. It is important to note that some tuition children may have met income eligibility criteria; however, if they were not in an attendance zone of a partner school district, they were not eligible to attend Pre-K 4 SA for free. In this instance, sliding scale tuition was used. Table 2 includes the percentage of children who attended Pre-K 4 SA for free by their eligibility.

As no information was provided concerning the demographic characteristics of families, no descriptive information could be provided for Pre-K 4 SA families as intended.

Table 2. Children who attended Pre-K 4 SA for free by Eligibility Criteria

Eligibility criteria	*Number of children*	*Percentage of total eligible children*
English language learner	72	12.0%
Foster care	17	2.8%
Homeless	23	3.8%
Income	456	75.9%
Military	33	5.5%
Eligible total	601	100%

Note. The percentage of children who attended Pre-K 4 SA for free was 81.1%; eligibility information was missing for 0.3% of children. Children were removed from eligibility criteria counts in this table if they were identified as tuition children. Some tuition children may have qualified based on income but were not associated with partner districts; therefore, actual income eligibility may be higher if those children were included.

Attendance and Engagement

Information was available for the number of days children attended Pre-K 4 SA, whether children were signed up for Extended Day services, and family attendance at Pre-K 4 SA family events.

Child Attendance in Pre-K 4 SA

Children began attendance in Pre-K 4 SA at different times. Although the majority of children (69%) began at the start of the academic year (August 26, 2013), 31% of the 741 children with attendance data began after that date. The last date children began Pre-K 4 SA was May 12, 2014[2]. Because of these varied dates, some children had the opportunity to attend more days than other children. In fact, the range of possible membership days ranged from 1 – 177 days with an average of 153.6 days. Average percent attendance across all children was 92.3%. When considering children who stayed in membership with Pre-K 4 SA through the year (did not withdraw), the attendance percentage increases slightly to 93.7%.

Average attendance for Pre-K 4 SA children was 92.3% which increased slightly to 93.7% when children who withdrew were excluded.

One hundred-two children withdrew from Pre-K 4 SA over the course of the initial year. The earliest withdrawals were August 26, 2013 with the last on June 4, 2014. Fifty percent of withdrawals occurred before the end of January. No significant differences were found between children who did and did not withdraw in terms of gender (t (737) = 0.164, p = 0.870), eligibility to attend Pre-K 4 SA for free (t (737) = 0.383, p = 0.702), or free lunch status (t (737) = -0.077, p = 0.939). One significant difference was found between children who did and did not withdraw

[2] Although some children did not begin membership in Pre-K 4 SA until late spring, 95% of all children were in membership by the end of the 2013 calendar year.

in terms of ethnicity. Non-Hispanic children were more likely to withdraw (M = 0.86, SD = 0.34) compared to Hispanic children (M = 0.78, SD = 0.42); (t (161.2) = 2.194, p = 0.030). Said another way, of the 111 children who enrolled at any time during the 2013-14 academic year and were not Hispanic, 25% withdrew while 15.6% of Hispanic children who enrolled, withdrew from Pre-K 4 SA at some point during the academic year.

Parent/Family Engagement

Attendance at family events throughout the year, which totaled more than 150 events, was taken by Pre-K 4 SA. Sixty-four events were held in the first half of the year with an average attendance of almost 26 (25.6) individuals (see Table 3). Eighty-eight events were held in the second half of the year with an average attendance of nearly 22 (21.9) individuals (see Table 4).

Pre-K 4 SA held more than 150 parent/ family engagement events.

Table 3. Overall event attendance during the fall of the 2013-14 school year

Event type	*Number of events*	*Center*	*Number of participants*
August – December			
BCFS parenting classes	16	North & South	326
Baptist Health System health screening	2	North & South	110
Breakfast events	2	South	73
Dialogue/Donuts with the Director	5	North & South	95
Field trip – Devine Acres	5	North & South	150[b]
Grandparent's Day	6	North & South	379
HEB Read 3	7	South	128
Meet the teacher	1	North	16[c]
Parent Training[a]	8	North & South	98
Trunk-n-Treat	2	North & South	74
Volunteer Training	10	North & South	192
Semester event total	64		1,641

[a] Parent training topics varied by event. Topics included bedtime rituals, healthy eating for hurried families, childhood obesity, impact of trauma on child development, and teachable moments in your home.
[b] Estimated number of participants.
[c] Although this is the number of participants for which data was provided, this has been identified as an inaccurate count of participation for this event.

Table 4. Overall event attendance during the spring of the 2013-14 school year

Event type	*Number of events*	*Center*	*Number of participants*
January – June			
Awards ceremonies	10	North & South	864
BCFS parenting classes	7	North & South	57
Co-parenting training	1	South	6
Dialogue with the Director	1	North	5
Every child ready to read/Family literacy night/Little Read Wagon	10	North & South	288
Fiesta parade events	3	North & South	220[b]
Field trip – Morgan's Wonderland	6	North & South	122[c]
HEB Read 3	9	North & South	80
Kid's day at the park	1	North & South	Unknown
Kindergarten readiness	5	North & South	45
McGruff's Stranger Danger	1	South	16
Produce market	6	North & South	58[d]
Parent volunteer/focus group/book fair	6	North & South	35[e]
Parenting Wisely	13	North & South	95
Precious Minds	7	North & South	34
Pre-K 4 SA Spurs Night	1	North & South	Unknown
Texas Tuition Promise Fund	1	South	5
Semester event total	88		1,930

[a] This category includes graduation ceremonies at the end of the year as well as attendance celebrations for parents.
[b] Attendance was not available for one of the events; therefore, reported attendance numbers are based on two events.
[c] Attendance is from 4 North center trips; neither South center trip reported attendance.
[d] Two events at the South center did not report attendance.
[e] Sales from the book fair were approximately $2,000.00 but attendance was not taken.

Teacher and Classroom Information

During Year 1, lead teachers and teacher assistants reported on several aspects of curriculum and classroom practices through the Teacher Survey for Early Education Quality (TSEEQ). In addition to the survey responses, lead teachers and teacher assistants also participated in classroom observations which used the Classroom Assessment Scoring System (CLASS) and the Emerging Academics Snapshot.

Teacher Survey

During the spring, 98.6% (n = 71) of Pre-K 4 SA lead teachers and teacher assistants completed the Teacher Survey for Early Education Quality (TSEEQ). Of those, roughly half were from each center (North and South). The majority of Pre-K 4 SA teachers (lead and assistant) were female

(95.8%) and had obtained at least a bachelor's degree (88.8%; *n* = 63). Nearly 30% possess a master's degree (*n* = 20). All surveys were completed between April and May.

Teachers responded to questions in seven categories; assessment, physical environment, family involvement, instruction, curriculum, interaction and emotional climate, and leadership and supervision. Most items were reported on using a 5-point scale of frequency although meaning of items changed depending on the category and item. Results are presented separately for each of the seven categories.

Assessment

Teachers responded to seven items concerning assessment practices. Overall, teachers reported high levels of frequency with which they participated in various assessment activities. A significant difference was found in the way lead and assistant teachers reported on one Assessment item; documentation of informal child assessment information. Lead teachers (*M* = 4.51; *SD* = 0.71) were significantly more likely to report documenting child assessment information compared to assistant teachers (*M* = 3.87; *SD* = 0.20); (*t* (50.4) = 2.730, *p* = 0.009). Table 5 provides average frequency reports by item.

Overall, teachers reported high levels of frequency with which they participated in various assessment activities.

Lead teachers were significantly more likely to report documenting child assessment information compared to assistant teachers.

Table 5. TSEEQ Average Assessment Frequency Responses by Item

Item – How often do you:	*Number of responses*	*Range of responses*	*Average response(SD)*	*Position in response scale*
Look for the development of learning goals, when assessing children that are based on a preschool curriculum?	69	1 – 5	4.62(.69)	Between frequently and always
Ask children questions in a variety of ways to assess their learning (such as "How do you feel about...?" "In what ways do you think...?")	69	4 – 5	4.71(.46)	
Assess children's physical, social, emotional and cognitive development?	68	3 – 5	4.71(.49)	
Assess children's development and learning individually and while they work together in groups?	67	3 – 5	4.63(.55)	
Assess children when they play?	68	3 – 5	4.54(.63)	
Adapt your assessment strategies for students with disabilities?	64	1 – 5	4.39(.81)	
Document informal child assessment information?	64	1 – 5	4.20(.98)	Between Weekly and daily

Physical environment

Teachers responded to eight items concerning physical environment of their classrooms. Overall, teachers reported positively about the physical classroom environment. In general, resources and materials were reported to be in good condition with environments conducive to learning. No significant differences were found between lead and assistant teacher responses. Table 6 and Table 7 provide results by item.

Overall, teachers reported positively about the physical classroom environment. In general, resources and materials were reported to be in good condition with environments conducive to learning.

Table 6. TSEEQ Average Physical Environment Frequency Responses by Item

Item	*Number of responses*	*Range of responses*	*Average response(SD)*	*Position in response scale*
How often do you have your books organized and easily accessible to the children in your classroom?	69	1 – 5	4.81(.60)	Between frequently and always
How often do you manage usage of technology equipment to provide equal opportunities for children, including children with disabilities?	68	3 – 5	4.81(.47)	

Table 7. TSEEQ Physical Environment Category Responses by Item

Item (Categories):	*Response frequency*	*Response percentage*
How many information books does your classroom book area contain?	68	
0 – 2 books	1	1.5%
3 – 5 books	14	20.6%
6 – 10 books	18	26.5%
10 or more books	35	51.5%
The materials in my classroom are in good condition.	71	
No	0	0%
Yes	69	97.2%
Sometimes	2	2.8%
The classroom environment is peaceful and calming for children (such as use of soft or natural lighting, avoid overwhelming or distracting colors and objects, reducing clutter).	70	
No	0	0%
Yes	65	92.9%
Sometimes	5	7.1%
I have a science area set up in the classroom that is full of a variety of real life materials.	66	
No	7	10.6%
Yes	59	89.4%
Outside, there is a designated area for plants/ and or a garden.	70	
No	0	
Yes	70	0%
		100%
How much of the furniture in your classroom is in good condition?	70	
None	0	0%
Some	0	0%
Most	2	2.9%
All	68	97.1%

Family involvement

Teachers reported having working relationships with most, if not all, families and reported engaging in frequent conversations with families about their children.

Teachers responded to six items concerning family involvement. Overall, teachers reported that both themselves and Pre-K 4 SA are thoughtful about family engagement; provide a variety of participatory opportunities and hold such events at various times so more families can participate. Teachers also report having working relationships with most, if not all, families and reported engaging in frequent conversations with families about their children. No significant differences were found between lead and assistant teacher responses. Table 8 provides results by item.

Table 8. TSEEQ Family Involvement Category Responses by Item

Item (categories):	*Total responses*	*Response categories*				
		Rarely	*Once in a while*	*Sometimes*	*Frequently*	*Always*
How often encourage parents and/ or family members of different cultures and ethnicities to share cultural traditions with the teachers and children in my classroom?	69	1 (1.4%)	6 (8.7%)	19 (27.5%)	28 (40.6%)	15 (21.7%)
How often have conversations with families aimed at learning more about their goals for their child?	70	1 (1.4%)	3 (4.3%)	5 (7.1%)	31 (44.3%)	30 (42.9%)
How often vary the times that special events are held so more families can participate?	70	3 (4.3%)	2 (2.9%)	8 (11.4%)	32 (45.7%)	25 (35.7%)
How often have program that invite families to participate in program wide family involvement opportunities (e.g., family advisory board; parent education classes, etc.)?	71	1 (1.4%)	1 (1.4%)	4 (5.6%)	29 (40.8%)	36 (50.7%)
		A few families	Some families	Most families	All families	
In my classroom, I have a good working relationship with:	71	1 (1.4%)	1 (1.4%)	27 (38.0%)	42 (59.2%)	
Families participate in orientation activities to get to know the class.	69	2 (2.9%)	10 (14.5%)	36 (52.2%)	21 (30.4%)	

Instruction

Teachers responded to 18 items concerning instruction. Overall, teachers reported performing several high quality practices on a frequent basis. Such practices included providing stimulating and developmentally appropriate learning environments and situations for children to participate in as well as avoiding practices that are discouraged from use with young children such as rote worksheet practice of concepts. In fact, several teachers indicated they could not complete the item "Teach math and number concepts through worksheets" as it was something they *never* used with children. Table 9 provides results by item.

Overall, teachers reported creating developmentally appropriate learning environments and situations for children to participate in as well as avoiding practices discouraged from use with young children such as rote worksheet practice of concepts.

Table 9. TSEEQ Instruction Category Responses by Item

Item - How often do you:	*Number of responses*	*Range of responses*	*Average response (sd)*	*Position in response scale*
Plan and implement activities that build on children's interests?	71	2 - 5	4.66 (.61)	
Have conversations with the children based on their interests and questions?	71	3 - 5	4.70 (.52)	
Change activities when you notice children are disengaged or having a hard time paying attention?	70	2 - 5	4.41 (.79)	
Use incidental teaching to help children expand their language (such as encouraging a child to verbally ask for a ball instead of gesturing towards the ball)?	71	3 - 5	4.76 (.49)	
Follow a schedule where the children alternate between quiet and active times?	71	1 - 5	4.72 (.61)	
Provide advanced notice to the children before transitioning to another activity (e.g. "In two minutes we will be putting the blocks away and washing our hands".)	71	3 - 5	4.80 (.43)	Between frequently and always
Actively structure your classroom activities, routines and the environment to help prevent challenging behaviors?	71	3 - 5	4.65 (.59)	
Plan instruction based on what you know about individual needs of children, including those with disabilities?	70	3 - 5	4.76 (.49)	
Talk with the children about why it is important to be healthy?	71	3 - 5	4.52 (.67)	
Structure play experiences that encourage children to interact with one another?	70	2 - 5	4.66 (.59)	
Group children in a variety of ways for classroom activities (e.g. large groups, small groups, one on one with a teacher, one on one with another child)?	70	3 - 5	4.81 (.46)	
Plan activities and events to help children transition to kindergarten (such as visit kindergarten classrooms with the children)?	61	1 - 5	3.44 (1.49)	Between sometimes and frequently
Ask children a variety of questions during activities to encourage their learning?	70	3 - 5	4.79 (.45)	Between frequently and always
Integrate science concepts (such as observing, explaining, experimenting, classifying, and gathering information) into classroom activities?	70	2 - 5	4.60 (.65)	
Teach math and number concepts through worksheets	58	1 - 5	1.34 (1.04)	Between rarely and a few times a year
Children have opportunities to engage in open ended creative art activities	71	4 - 5	4.89 (.32)	Between weekly and daily
Provide children with opportunities to play games in the classroom	70	2 - 5	4.79 (.54)	
Plan and implement small group activities	70	4 - 5	4.99 (.12)	

Significant differences were found in the way lead and assistant teachers reported on two Instruction items; frequency of changing activities when children are disengaged and actively structuring classroom activities to help prevent challenging behaviors. Lead teachers were significantly more likely to report changing activities (M = 3.87; SD = 0.20) and structuring activities (M = 3.87; SD = 0.20) compared to assistant teachers (M = 3.87; SD = 0.20 and M = 3.87; SD = 0.20 respectively)[3].

Curriculum

Teachers responded to 37 items concerning curriculum. Overall, teachers report frequently engaging in developmentally appropriate practices with children. Teachers also report encouraging children to share and discuss activities and creations as well as make predictions. The only curriculum items teachers rated as occurring rarely were items related to behaviors and expectations that are not developmentally appropriate such as expecting children to eat lunch quietly and using worksheets. Table 10 and Table 11 provide results by item.

Overall, teachers report frequently engaging in developmentally appropriate practices with children.

The only curriculum items teachers rated as occurring rarely were items related to behaviors and expectations not developmentally appropriate such as expecting children to eat lunch quietly and using worksheets.

First, lead teachers and teacher assistants reported on 19 curricular items with a scale ranging from rarely to always.

Table 10. TSEEQ Curriculum Category Responses by Item with Scale from Rarely to Always

Item - How often do you:	*Number of responses*	*Range of responses*	*Average response (SD)*	*Position in response scale*
Include specific child assessment tools or ideas for assessment in your curriculum?	67	1 - 5	4.12(.93)	
Modify the curriculum to better engage children in the learning process?	69	1 - 5	4.33(.85)	
Think your curriculum meets the needs of the children in your classroom?	69	1 - 5	4.35(.84)	Between frequently and always
Have an organized plan for how to teach literacy concepts to the children in your classroom?	67	2 - 5	4.48(.75)	
Ask the children questions about the story when reading to them (such as "what do you think might happen next?")?	70	4 - 5	4.90(.30)	

[3] Both differences were statistically significant (t (64.9) = 2.166, p < 0.05 and t (56.6) = 2.224, p < 0.05 respectively).

Item - How often do you:	*Number of responses*	*Range of responses*	*Average response (SD)*	*Position in response scale*
Encourage children to demonstrate their understanding about a story or book by acting it out, drawing a picture about it, or using some other expressive approach?	70	3 - 5	4.60(.57)	
Have math books readily accessible in the classroom?	68	1 - 5	4.08(1.15)	
Have fine arts books (music and art) readily accessible in the classroom?	68	1 - 5	4.06(1.23)	
Encourage children to separate familiar words into syllables (such as clapping out the syllables in their names)?	69	1 - 5	4.19(.94)	
Manage children's access to writing materials to avoid messes?	69	1 - 5	3.16(1.75)	Between sometimes and frequently
Expect children to sit quietly while they eat their meal during lunchtime?	63	1 - 5	1.52(1.11)	Between rarely and once in a while
Encourage children to talk with you about their art creations?	70	4 - 5	4.76(.43)	
Encourage children to engage in art projects over several days (such as, by storing their materials and creations and provide opportunities for them to continue their work)?	70	2 - 5	4.41(.79)	
Play music in the classroom for a group time, dramatic play, movement, or other activities (besides naptime)?	70	1 - 5	4.63(.68)	
Encourage children to adopt a variety of roles in the dramatic play area?	69	1 - 5	4.58(.72)	Between frequently and always
Have science goals for the children in my classroom?	65	1 - 5	4.10(1.13)	
Allow children to play outside every day?	69	4 - 5	4.97(.17)	
Discuss the importance of healthy habits with the children (such as washing hands, brushing teeth)?	70	3 - 5	4.73(.54)	
Ensure that children properly wash their hands before meals and snacks?	70	2 - 5	4.96(.36)	

Teachers were also asked to rate the ability with which supervisors are able to answer teacher questions about the curriculum. Reported ratings ranged from rarely to always with an average in between frequently and always (M = 4.49; SD = 0.84). Additionally, teachers were asked

whether they implement any of the following: a published curriculum, written curriculum or curriculum framework. Fifty-seven teachers (85.1% of 67 responders) answered in the affirmative.

Next, lead teachers and teacher assistants also reported on classroom curriculum behaviors on a scale of frequency ranging from rarely to daily, 2-3 times per day, or every few weeks as indicated in Table 11.

Table 11. TSEEQ Curriculum Category Responses by Item with Various Scales

Item - How often does the following occur:	*Number of responses*	*Range of responses*	*Average response (SD)*	*Position in response scale*
Scale: Rarely; A few times a year; Monthly; Weekly; Daily				
I use worksheets to improve handwriting skills (such as tracing letters or words).	57	1 - 5	1.54(1.24)	Between rarely and a few times a year
When children share thoughts, I write their ideas down in front of them.	70	1 - 5	4.39(.82)	
I plan activities in the classroom that encourage children to use one to one correspondence (attaching one and only one number to each object or event).	70	1 - 5	4.49(.78)	
I show children written numbers and the corresponding number of objects and actions (such as the number 2 and two crayons; the number 1 and one clap).	71	1 - 5	4.62(.76)	Between weekly and daily
I encourage children to play interactive math computer games.	68	1 - 5	4.21(1.22)	
I discuss the shapes that children create in their drawings, using building blocks, or other activities.	70	2 - 5	4.73(.59)	
I encourage children to describe features and parts (such as aides, curves, and angles) of two and three dimensional objects.	70	1 - 5	4.20(1.04)	
I incorporate maps of familiar places in our classroom activities (classroom, playground, center).	68	1 - 5	3.54(1.31)	Between monthly and weekly
I encourage children to measure things through standard (such as measuring with a yard stick) and not standard units of measurement (measuring with shoes).	68	1 - 5	3.68(1.26)	
I encourage children to make predictions about will happen during typical classroom activities (such as stacking books, mixing paints).	71	2 - 5	4.77(.54)	Between weekly and daily

Item - How often does the following occur:	*Number of responses*	*Range of responses*	*Average response (SD)*	*Position in response scale*
I encourage children to describe their mathematical understanding and problem solving.	70	1 - 5	4.50(.88)	
I encourage children to record (such as draw, write) natural materials or objects.	69	1 - 5	4.41(.97)	
I talk with children about changes in their environment (such as changes to the playground, animal lifecycles).	71	2 - 5	4.49(.81)	
Scale: Rarely; Once a year; Every few months; Every few weeks				
I rotate the materials in my science center.	69	1 – 4	3.46(.90)	Between every few months and every few weeks
Scale: Rarely; Monthly; Weekly; Once a day; 2-3 times a day				
I initiate conversations with small groups of children during free play and meal times.	70	2 – 5	4.89(.53)	Between once a day and 2-3 times a day
I teach phonological awareness through intentional activities (such as rhyming and sound games).	70	2 – 5	4.56(.79)	

Significant differences were found in the way lead and assistant teachers reported on seven Curriculum items. Of the seven items, lead teachers were significantly more likely to report higher ratings for six of the items compared to assistant teachers. (Assistant teachers were significantly more likely to report a higher rating for, *How often do you encourage children to talk with you about their art creations?*) Table 12 includes each item and the average score difference for lead and assistant teachers.

Table 12. Average Significant Differences in Lead and Assistant Teacher Curriculum Item Responses

Item: How often do you:	*Average response*	*T-test value (df)*	*p-value*
Modify the curriculum to better engage children in the learning process?		2.606 (67)	0.011
Lead teachers (n = 34)	4.59		
Assistant teachers (n = 35)	4.09		
Have math books readily accessible in the classroom?		2.520 (46.5[a])	0.015
Lead teachers (n = 34)	4.41		
Assistant teachers (n = 34)	3.74		
Have fine arts books (music and art) readily accessible in the classroom?		2.012 (52.6)	0.049
Lead teachers (n = 34)	4.35		
Assistant teachers (n = 34)	3.77		
Encourage children to talk with you about their art creations?		-2.715[b] (56)	0.009
Lead teachers (n = 34)	4.62		
Assistant teachers (n = 36)	4.89		
Have science goals for the children in my classroom?		2.180 (44.9)	0.035
Lead teachers (n = 34)	4.38		
Assistant teachers (n = 31)	3.77		
Item: How often do the following occur:	*Average response*	*T-test value (df)*	*p-value*
I teach phonological awareness through intentional activities (such as rhyming and sound games).		3.311 (44.8)	0.002
Lead teachers (n = 34)	4.85		
Assistant teachers (n = 36)	4.28		
I rotate the materials in my science center.		2.283 (55.6)	0.026
Lead teachers (n = 34)	3.71		
Assistant teachers (n = 35)	3.23		

[a] The degrees of freedom are lower compared to the first item because Levene's Test for Equality of Variances indicated variance of the two groups was not equal; therefore, statistics related to this assumption being violated are reported (statistics for equal variances not assumed). This applies to all items except the first listed in the table.
[b] The negative t-test statistic indicates assistant teachers rated this item higher, on average, compared to lead teachers.

Interaction and emotional climate

Teachers responded to 12 items concerning interaction and emotional classroom climate. Overall, teachers reported creating supportive emotional climates and positive teacher-child interactions in the classroom. Table 13 provides results by item.

Overall, teachers reported creating supportive emotional climates and positive teacher-child interactions in the classroom.

Table 13. TSEEQ Interaction and Emotional Climate Category Responses by Item

Item - How often does the following occur:	*Number of responses*	*Range of responses*	*Average response (sd)*	*Position in response scale*
I spend extra time with new children who are transitioning into my classroom.	58	3 - 5	4.53(.57)	Between frequently and always
I encourage children who are shy or withdrawn to interact with peers.	70	2 - 5	4.57(.63)	
Item - How often do you:	*Number of responses*	*Range of responses*	*Average response (sd)*	*Position in response scale*
Comfort the children in your classroom when they are upset?	71	4 - 5	4.76(.43)	
Talk with the children about the artwork they create in your classroom?	70	4 - 5	4.83(.38)	
Talk to individual children frequently throughout the day?	70	4 - 5	4.84(.37)	
Get down on a child's level when you are talking to him/ her?	69	4 - 5	4.90(.30)	
Provide children access to a wide variety of materials in your classroom?	70	4 - 5	4.90(.30)	
Encourage children to help you make classroom decisions (such as let them help you develop classroom rules or plan certain activities)?	70	1 - 5	4.57(.77)	Between frequently and always
See that the children in your classroom typically get alone with each other?	70	2 - 5	4.61(.60)	
Encourage children to respect each other's differences?	70	4 - 5	4.89(.32)	
Encourage children to problem solve to develop strategies to resolve conflicts?	70	4 - 5	4.91(.28)	
Encourage children to comfort each other when they became upset?	70	3 - 5	4.74(.47)	

A significant difference was found in the way lead and assistant teachers reported on one Interaction and Emotional Climate item; talking with individual children frequently throughout the day. Assistant teachers were significantly more likely to report talking with individual children frequently throughout the day (M = 4.94; SD = 0.23) compared to lead teachers (M = 4.74; SD = 0.45); (t (48.9) = -2.432, p = 0.019).

Leadership and supervision

Teachers responded to 14 items concerning leadership and supervision. Overall, teachers report they are adequately prepared to work with children and their families as well as work with them and others, know and receive appropriate support, and often attend training or receive resources to support children in their classrooms. Teachers also reported rarely using strategies that are not developmentally appropriate while reporting that developmentally appropriate strategies were used often. Table 14 provides results by item.

Overall, teachers report they are adequately prepared to work with children and their families as well as work with them and others, know and receive appropriate support, and often attend training or receive resources to support children in their classrooms.

Table 14. TSEEQ Leadership and Supervision Category Responses by Item

Item - How often do you:	*Number of responses*	*Range of responses*	*Average response (SD)*	*Position in response scale*
Allow children to actively participate in solving their own problems and conflicts?	71	3 - 5	4.83(.41)	
Keep time spent transitioning between activities at a minimum?	68	3 - 5	4.59(.60)	Between frequently and always
Know the evaluation process and tools your supervisor uses to assess your performance?	70	1 - 5	4.19(1.11)	
Spend a significant amount of time setting limits in my classroom?	66	1 - 5	3.45(1.22)	
Are you provided time to reflect on your practice?	69	1 - 5	3.87(1.12)	
Feel that you are aware of the appropriate steps to take when referring a child for special services?	65	1 - 5	3.68(1.34)	
Receive information from your supervisor that he/ she receive from trainings, workshops, or conferences?	69	1 - 5	3.99(1.08)	Between sometimes and frequently
Feel that you have had sufficient training in how to successfully implement our center's curriculum?	70	1 - 5	3.90(1.14)	
Attend workshops or trainings that are relevant to your own particular needs and interests as a teacher?	71	1 - 5	3.70(1.26)	
Receive appropriate resources and support when referring a child for special services?	65	1 - 5	3.60(1.28)	
Feel that you have been adequately prepared to work effectively with diverse groups of children and their families?	69	1 - 5	4.36(.89)	Between frequently and always

Item - How often does the following occur:	*Number of responses*	*Range of responses*	*Average response (SD)*	*Position in response scale*
I send my children to time out in my classroom[a]	54	1 - 5	1.15(.68)	Between rarely and a few times a year
I work with other professionals and families to develop individualized behavior plans for children with challenging behaviors	63	1 - 5	3.90(1.19)	Between sometimes and frequently

[a] The scale for this item is slightly different than the other items in this table. The scale for this item is as follows: rarely, a few times a year, monthly, weekly, daily. The scale for the other items in this table is as follows: rarely, once in a while, sometimes, frequently, always.

Teachers were also asked to report on how much they agreed that teaching evaluations inform their professional development plans. While reported scores ranged from 1–5 on the 5 point scale, (strongly disagree to strongly agree with the midpoint being neutral) teachers, on average, reported they agree that teaching evaluations inform their professional development plans (M = 4.10; SD = 0.92).

A significant difference was found in the way lead and assistant teachers reported on one Leadership and Supervision item; time spent setting limits in the classroom. Lead teachers were significantly more likely to report spending time on setting limits in the classroom (M = 3.78; SD = 1.01) compared to assistant teachers (M = 3.15; SD = 1.33); (t = 2.175, $p < 0.05$).

Classroom Observations

All 36 Pre-K 4 SA classrooms were observed during Year 1 using both the *Classroom Assessment Scoring System* (CLASS) and the *Emerging Academic Snapshot* (Snapshot)[4].

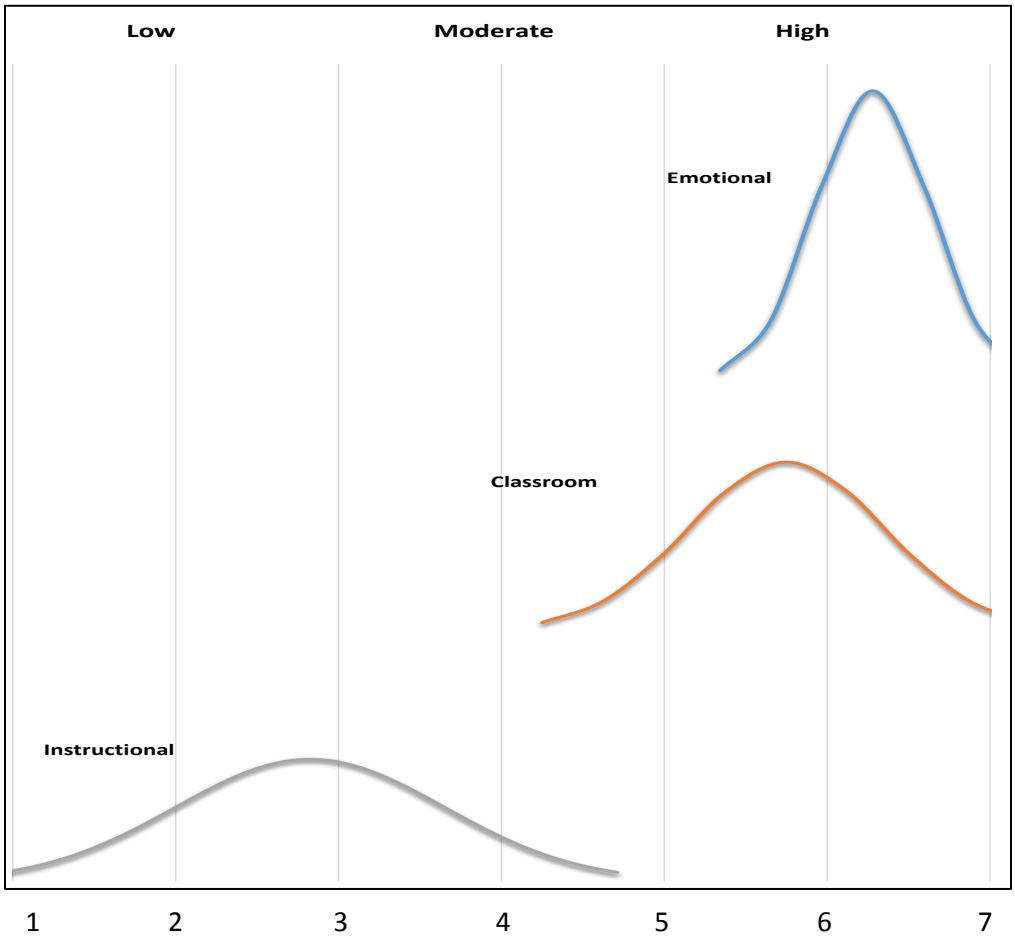
Classroom Assessment Scoring System (CLASS)

Scores for the Emotional Support domain ranged from 5.60 – 6.75 (on the 1 to 7 scale) across all 5 observation cycles which are predominantly scores within the high range of Emotional Support, suggesting effective teacher-child interactions were consistently observed throughout the observation period. Slightly lower, yet with an overall score in the upper end of the middle range, Classroom Organization domain scores ranged from 4.53–6.73, which suggests classrooms showed a mix of effective interactions with periods when interactions were not effective or were absent with regard to classroom organization. Finally, Instructional Support domain scores ranged from 1.07–4.67 with an average score that approached the middle range at 2.82, which suggests most observed interactions did not include support from teachers that extends children's thinking or asking questions that encourage children to analyze and reason consistently throughout the observation period. Past research using the CLASS has often noted the low scores that are commonly seen with respect to the Instructional Support domain (La Paro

[4] These observations were conducted with a primary purpose of collecting information to be used in the alignment study that was also being conducted during Year 1.

et al., 2004; Locasale-Crouch, et al., 2007; Mashburn et al., 2008). Average observed scores for each of the three CLASS domains are provided in. Figure 2.

Figure 2. Average classroom quality scores for Pre-K 4 SA Year 1



Looking more into the average Emotional Support domain scores, only 25% of classrooms were observed in the middle range while 75% of classrooms were observed provided high levels of emotional support in the classroom. Approximately 60% of classrooms (61.1%) were observed providing middle range classroom organization quality with the remaining nearly 40% (38.9%) were observed providing high levels of classroom organization. Finally, more than half of the classrooms (58.3%) were observed providing low levels of instructional support while the remaining classrooms (41.7%) were observed providing middle range instructional support. Table 15 provides average scores by each of the 10 outcomes that make up the three domains.

Table 15. Average CLASS scores

CLASS outcome	*Average*	*Total range observed*	*Standard deviation (SD)*
Emotional Support Domain	6.28	5.60-6.75	0.35
Positive Climate	6.54	5.40-7.00	0.47
Negative Climate[a]	6.82	5.80-7.00	0.31
Teacher Sensitivity	6.12	5.20-7.00	0.44
Regard for Student Perspectives	5.64	3.80-7.00	0.72
Classroom Organization Domain	5.75	4.53-6.73	0.60
Behavior Management	5.98	5.00-7.00	0.57
Productivity	5.88	3.60-7.00	0.87
Instructional Learning Formats	5.38	4.00-6.60	0.72
Instructional Support Domain	2.82	1.07-4.67	0.82
Concept Development	2.68	1.00-4.60	0.83
Quality of Feedback	3.01	1.00-5.20	1.04
Language Modeling	2.79	1.20-4.80	0.79

[a] Negative Climate is initially scored with lower values representing no or low negative climate. These scores are then reverse-coded to reflect the same direction (higher values are positive) as the other dimensions.

These findings suggest that teachers at both Pre-K 4 SA centers provided children with similar teacher-child interactional quality across all three domains (emotional support, classroom organization, and instructional support).

An independent-samples t-test was conducted to compare classroom quality between Pre-K 4 SA centers. There was no significant difference in the classroom Emotional Support provided at the North (M = 6.3, SD = 0.29) and South (M = 6.2, SD = 0.40) centers; t (30.7) = 0.856, p = 0.389; no significant difference in the Classroom Organization provided at the North (M = 5.9, SD = 0.44) and South (M = 5.6, SD = 0.71) centers; t (28.4) = 1.35, p = 0.187; nor a significant difference in the Instructional Support provided at the North (M = 2.9, SD = 0.83) and South (M = 2.8, SD = 0.84) centers; t (34) = 0.494, p = 0.624. These findings suggest that teachers at both Pre-K 4 SA centers provided children with similar teacher-child interactional quality across all three domains (emotional support, classroom organization, and instructional support).

Emerging Academic Snapshot (Snapshot)

Data on the amount of time children spend in various activities and interactions were collected through classroom observations coded with the *Emerging Academics Snapshot* (Ritchie, Howes, Kraft-Sayre, & Weiser, 2001). Observations consist of time-sampled codes assigned to teacher and child behaviors, every 60 seconds (representing one cycle) over the course of the morning. Typically, four children are randomly selected from each classroom and each child is observed for 40 seconds, followed by 20 seconds of coding. This sequence is repeated for 2 to 3 hours in each classroom.

Children were most often involved in whole group time (32.1%) and free choice time (28.0%) during observations. During interactions with teachers, students most often experienced elaborated interactions during which children have the opportunity to engage in discussion with adults (16.94%) rather than simply being instructed (2.50%) or not being given the opportunity to engage in discussion (12.31%). In terms of academic experiences, children were observed spending a significant amount of time in literacy and language activities (45.1% of time observed). In addition, children were observed engaged in social studies 23.5% of the observed time, mathematics (15.4% of the time) and science (12.0% of the time). In addition, children were engaged in aesthetics (including dramatic play) 29.6% of the observed time). It is important to note that children could be observed engaging in more than one type of engagement; for example, engaging in a literacy activity such as listening to a book being read about counting numbers would be counted as both literacy and mathematics engagement.

In terms of academic experiences, children were observed spending a significant amount of time in literacy and language activities (45.1% of time observed).

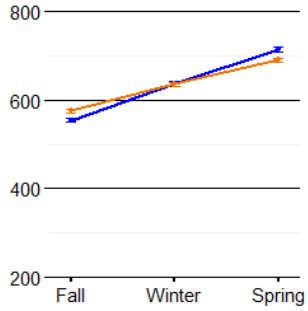
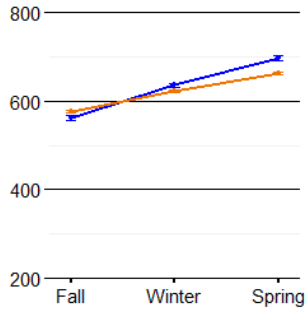
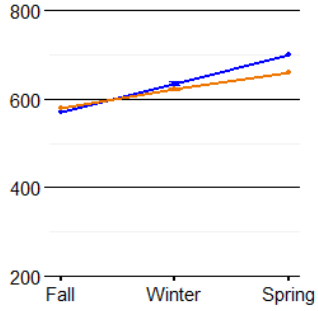
Kindergarten Readiness

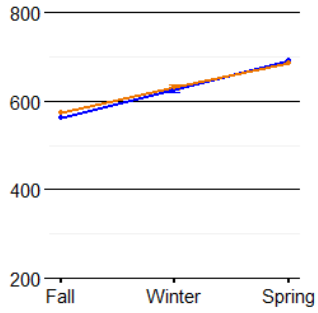
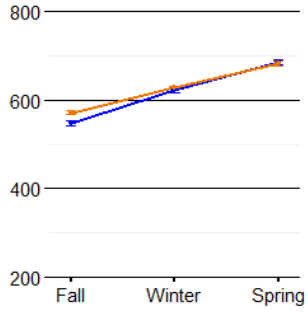
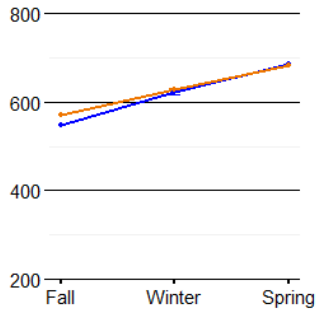
Pre-K 4 SA conducted *Teaching Strategies GOLD* assessment system on children at three time points throughout the academic year; fall, winter, and spring. Children (75.1%; $n = 555$) were included in analyses as they had outcome data for all three time points in at least one of the following six outcomes: cognitive, language, literacy, mathematics, physical, and social-emotional. No significant demographic differences were found between children included and not included in analyses.

As data were not collected on a comparison or control group, comparisons were conducted using the nationally representative normed data for the GOLD assessment (Lambert, Kim, & Burts, 2013). When starting Pre-K 4 SA, children began the fall significantly below the normed sample on all six GOLD outcomes. By spring, the Pre-K 4 SA children scored statistically significantly ($p < .001$) greater than the normed sample on three outcomes: cognitive, literacy, and mathematics. Effect sizes (*Hedges' g*) for the significant results ranged from medium (0.36 for cognitive and 0.65 literacy) to approaching large (0.75 for mathematics). Additionally, Pre-K 4 SA children scored similarly to the normed sample on the remaining three outcomes: oral language, physical, and social-emotional. See Table 16 and Figures C–1 to C–6 in Appendix C for more information.

By spring, the Pre-K 4 SA children scored significantly greater than the normed sample on three GOLD outcomes: cognitive, literacy, and mathematics.

Table 16. Pre-K 4 SA and Normed Sample comparison results for six GOLD outcomes across time

Outcome	*Time point*	*Pre-K 4 SA group mean*	*Normed Sample group mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group favored*[a]	*Graphic depiction of finding*[b] (*Blue line = Pre-K 4 SA; Orange line = normed sample*)
Cognitive	Fall	554.57	575.72	-8.010	521	0.000	Significant	Normed	
	Winter	637.15	636.00	0.423	521	0.673	Non-Significant	No difference	
	Spring	714.07	690.71	7.722	521	0.000	Significant	Pre-K	
Literacy	Fall	561.43	576.00	-5.700	486	0.000	Significant	Normed	
	Winter	635.38	623.10	5.245	486	0.000	Significant	Pre-K	
	Spring	695.95	661.65	13.381	486	0.000	Significant	Pre-K	
Mathematics	Fall	570.41	578.93	-4.329	503	0.000	Significant	Normed	
	Winter	634.67	622.33	5.653	503	0.000	Significant	Pre-K	
	Spring	698.50	659.91	15.189	503	0.000	Significant	Pre-K	

Outcome	*Time point*	*Pre-K 4 SA group mean*	*Normed Sample group mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group favored*[a]	*Graphic depiction of finding*[b] (*Blue line = Pre-K 4 SA; Orange line = normed sample*)
Oral Language	Fall	560.54	574.43	-5.420	531	0.000	Significant	Normed	
	Winter	624.39	630.80	-2.282	531	0.023	Significant	Normed	
	Spring	691.80	686.17	1.840	531	0.066	Non-Significant	No difference	
Physical	Fall	547.43	564.82	-7.774	554	0.000	Significant	Normed	
	Winter	605.66	618.47	-6.020	554	0.000	Significant	Normed	
	Spring	670.64	671.27	-0.264	554	0.792	Non-Significant	No difference	
Social-Emotional	Fall	548.27	570.67	-8.287	531	0.000	Significant	Normed	
	Winter	620.93	628.05	-2.551	531	0.011	Significant	Normed	
	Spring	685.14	682.47	0.890	531	0.374	Non-Significant	No difference	

Note. df = degrees of freedom. Group mean information is presented in scaled scores. The Adjusted Significance column indicates significance levels (p-values) after adjustment to correct for multiple hypothesis testing using the Benjamini-Hochberg technique (1995).

[a] If a statically significant difference was found, the group whose score was greater (the 'favored' group) is listed in this column. If there was no statistically significant difference, this column states that there was 'no difference'.

[b] Full-page versions of the graphical figures can be found in Appendix C.

Differences in Readiness Outcomes

Analyses were also conducted within the Pre-K 4 SA sample to explore potential demographic differences. These analyses were conducted between 1) Pre-K 4 SA boys and girls, 2) Pre-K 4 SA children who were enrolled in extended day services and those that were not, and 3) Pre-K 4 SA centers.

Pre-K 4 SA boys and girls

Using repeated measures ANOVA[5], each of the six GOLD outcomes were analyzed to determine: 1) if there was evidence of growth across the three time points, 2) if there were differences across gender, and 3) if changes across time were the same for boys and girls.

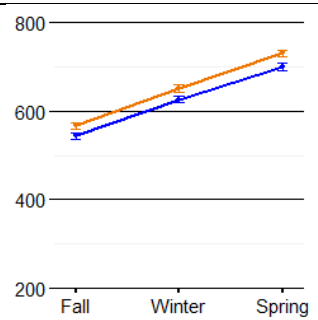
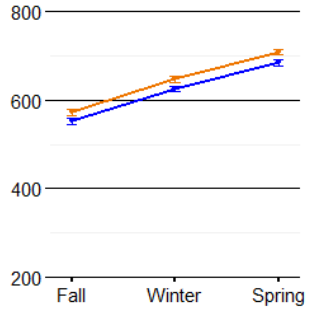
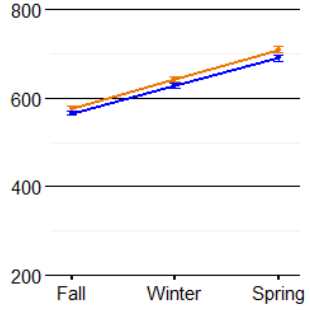
The results suggested three findings (see Table D–1 in Appendix D). First, there is growth across time for all six GOLD outcomes. Second, there are gender differences in Pre-K 4 SA children favoring girls for all six GOLD outcomes. Results revealed girls began pre-K statistically significantly ($p < .05$) above boys on all six outcomes. This statistically significant difference was maintained through winter and spring and suggests that girls begin with, and maintain, a lead compared to boys on all measured kindergarten readiness outcomes (see Table 18). Third, the growth rate for girls compared to boys is the same for five of the six GOLD outcomes (i.e., cognitive, literacy, oral language, physical, and social-emotional), while girls grow faster than boys in mathematics. In other words, these findings suggest girls start their pre-K year higher than boys in the fall and these differences are maintained across winter and spring for five of the six GOLD outcomes; on the mathematics outcome, girls not only began ahead of boys but this difference also increased over the pre-K year. Table 17 provides statistical details for these findings; full-scale graphical presentations can be found in Figures D–1 to D–6 in Appendix D.

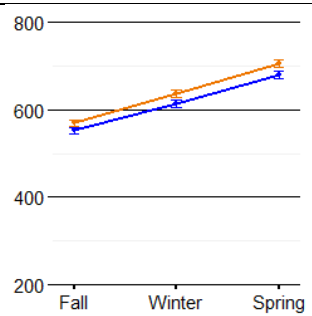
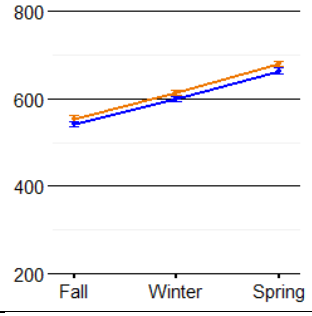
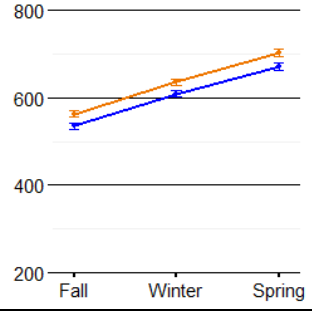
These findings suggest girls started the pre-K year in Pre-K 4 SA higher than boys and the difference is maintained across winter and spring for five of the six GOLD outcomes.

On the mathematics outcome, girls not only began the year ahead of boys but this difference also increased over the pre-K year.

[5] Due to high correlations among the six GOLD outcomes (i.e., all pairwise correlations were greater than 0.75). MANOVA was not used and instead six separate repeated measures ANOVA were used.

Table 17. Gender comparison results for six GOLD outcomes across time

Outcome	*Time Point*	*Boys Group Mean*	*Girls Group Mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group Favored*[a]	*Graphic depiction of finding*[b] (*Blue line = Boys; Orange line = Girls*)
Cognitive	Fall	543.58	566.91	4.477	505.36	0.000	Significant	Girls	
	Winter	625.25	650.50	4.745	516.57	0.000	Significant	Girls	
	Spring	699.67	730.22	5.225	516.19	0.000	Significant	Girls	
Literacy	Fall	552.02	571.86	3.943	483.84	0.000	Significant	Girls	
	Winter	625.17	646.68	4.720	484.55	0.000	Significant	Girls	
	Spring	684.96	708.13	4.637	484.65	0.000	Significant	Girls	
Mathematics	Fall	565.87	575.61	2.490	497.51	0.013	Significant	Girls	
	Winter	627.13	643.29	3.765	501.23	0.000	Significant	Girls	
	Spring	689.37	708.94	3.939	501.71	0.000	Significant	Girls	

Outcome	*Time Point*	*Boys Group Mean*	*Girls Group Mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group Favored*[a]	*Graphic depiction of finding*[b] (*Blue line = Boys; Orange line = Girls*)
Oral Language	Fall	552.95	568.98	3.162	529.27	0.002	Significant	Girls	
	Winter	613.59	636.39	4.115	525.13	0.000	Significant	Girls	
	Spring	679.56	705.40	4.310	529.72	0.000	Significant	Girls	
Physical	Fall	541.20	554.50	2.983	540.84	0.003	Significant	Girls	
	Winter	598.39	613.90	3.681	546.61	0.000	Significant	Girls	
	Spring	663.23	679.05	3.355	546.96	0.001	Significant	Girls	
Social-Emotional	Fall	535.53	562.64	5.143	528.64	0.000	Significant	Girls	
	Winter	608.45	635.01	4.885	530.00	0.000	Significant	Girls	
	Spring	670.18	702.00	5.496	529.39	0.000	Significant	Girls	

Note. df = degrees of freedom. Group mean information is presented in scaled scores. The Adjusted Significance column indicates significance levels (p-values) after adjustment to correct for multiple hypothesis testing using the Benjamini-Hochberg technique (1995).

[a] If a statically significant difference was found, the group whose score was greater (the 'favored' group) is listed in this column. If there was no statistically significant difference, this column states that there was 'no difference'.

[b] Full-page versions of the graphical figures can be found in Appendix D.

Pre-K 4 SA extended day

Pre-K 4 SA offers extended day opportunities beyond the usual pre-K day. Nearly 400 children and their families signed up to use this resource during Year 1 (n = 394 children registered as extended day participants)[6].

Using repeated measures ANOVA,[7] each of the six GOLD outcomes were analyzed to determine: (1) if there was evidence of growth across the three time points, (2) if there were differences across extended day versus non-extended day, and (3) if changes across time were the same for extended day and non-extended day children.

The results suggested three findings (see Table E–1 in Appendix E). First, there is growth across time for all six GOLD outcomes. Second, there are statistically significant differences[8] in extended day status for three of the outcomes (i.e., cognitive, oral language, and social-emotional) across time. For the cognitive outcome, extended day children had statistically significant higher scores in fall and spring but were not statistically significant in the winter suggesting extended day children began and ended the year ahead of children who did not attend extended day; however, this difference was not maintained during the mid-point of the year. For the oral language and social-emotional outcomes, extended day children had statistically significantly higher scores in fall but the scores were the same for winter and spring suggesting no differences by the end of the pre-K year. For the other three outcomes—literacy, mathematics, and physical—there are no statistically significant differences for extended day status across time, at any time point for which data was available.

For the oral language and social-emotional outcomes, extended day children had significantly higher scores in fall but the scores were the same for winter and spring suggesting no differences by the end of the pre-K year.

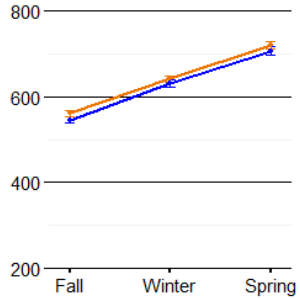
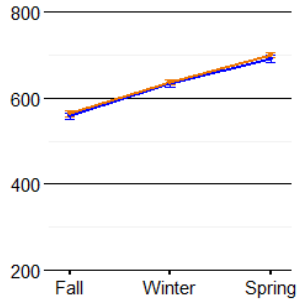
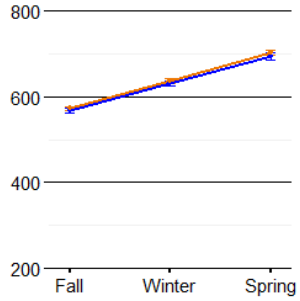
Third, there were no statistically significant differences in the growth rates across time for all six outcomes. Table 18 provides statistical details for these findings. Figures E–1 to E–6 in Appendix E graphically display these findings.

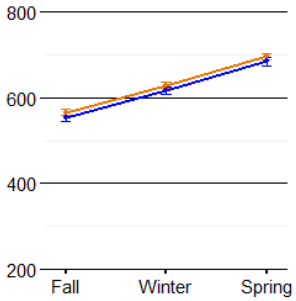
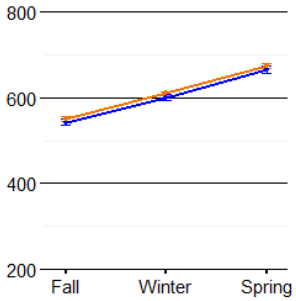
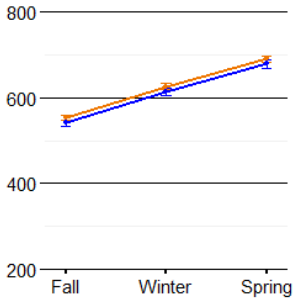
[6] Pre-K 4 SA informed Edvance that extended day attendance was not available to understand the number of days that families and children did utilize the service; therefore, these analyses only consider differences between children who were noted as extended day children but cannot take into account the number of days that children actually participated in extended day services.

[7] Due to high correlations among the six GOLD outcomes (i.e., all pairwise correlations were greater than 0.75). MANOVA was not used and instead six separate repeated measures ANOVA were used.

[8] Even after the Benjamin-Hochberg (1995) correction.

Table 18. Extended day comparison results for six GOLD outcomes across time

Outcome	*Time Point*	*Extended Day Group Mean*	*Regular Day Group Mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group Favored*[a]	*Graphic depiction of finding*[b] (*Blue line = Regular Day; Orange line = Extended Day*)
Cognitive	Fall	560.57	545.37	2.889	466.13	0.004	Significant	Extended Day	
	Winter	640.79	631.55	1.669	440.68	0.096	Non-Significant	No difference	
	Spring	719.44	705.83	2.173	414.42	0.030	Significant	Extended Day	
Literacy	Fall	563.68	557.72	1.127	382.62	0.261	Non-Significant	No difference	
	Winter	636.42	633.66	0.562	368.88	0.575	Non-Significant	No difference	
	Spring	699.52	690.05	1.764	364.51	0.079	Non-Significant	No difference	
Mathematics	Fall	571.94	568.13	0.944	426.35	0.346	Non-Significant	No difference	
	Winter	637.48	630.45	1.573	422.87	0.116	Non-Significant	No difference	
	Spring	701.97	693.31	1.649	408.55	0.100	Non-Significant	No difference	

Outcome	*Time Point*	*Extended Day Group Mean*	*Regular Day Group Mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group Favored*[a]	*Graphic depiction of finding*[b] (*Blue line = Regular Day; Orange line = Extended Day*)
Oral Language	Fall	565.34	552.64	2.534	485.09	0.012	Significant	Extended Day	
	Winter	628.80	617.12	2.048	440.11	0.041	Non-Significant	No difference	
	Spring	696.16	684.63	1.809	406.44	0.071	Non-Significant	No difference	
Physical	Fall	550.60	542.48	1.776	460.88	0.076	Non-Significant	No difference	
	Winter	609.13	600.24	2.015	438.88	0.045	Non-Significant	No difference	
	Spring	674.40	664.80	1.951	441.75	0.052	Non-Significant	No difference	
Social-Emotional	Fall	553.21	540.63	2.332	474.49	0.020	Significant	Extended Day	
	Winter	625.12	614.46	1.867	442.17	0.063	Non-Significant	No difference	
	Spring	689.54	678.33	1.819	432.69	0.070	Not Significant	No difference	

Note. df = degrees of freedom. Group mean information is presented in scaled scores. The Adjusted Significance column indicates significance levels (p-values) after adjustment to correct for multiple hypothesis testing using the Benjamini-Hochberg technique (1995).

[a] If a statically significant difference was found, the group whose score was greater (the 'favored' group) is listed in this column. If there was no statistically significant difference, this column states that there was 'no difference'.

[b] Full-page versions of the graphical figures can be found in Appendix E.

Pre-K 4 SA center

Analyses were also conducted within the Pre-K 4 SA sample to explore potential differences for children based on North and South center enrollment.

Using repeated measures ANOVA,[9] each of the six GOLD outcomes were analyzed to determine: (1) if there was evidence of growth across the three time points, (2) if there were center differences, and (3) if changes across time were the same for children in both centers.

The data suggest children in the North center were able to make gains in mathematics which allowed them to look similar to children in the South center by the end of the year.

The results suggested three findings (see Table F–1 in Appendix F). First, there is growth across time for all six GOLD outcomes. Second, there are statistically significant differences[10] based on center location for four of the outcomes (i.e., cognitive, mathematics, physical, and social-emotional) across time. For cognitive, South center children had statistically significant higher scores in winter but not in fall and spring. For mathematics, South center children had statistically significantly higher scores in fall and winter but not in spring. Therefore, the data suggest children in the North center were able to make gains in mathematics which allowed them to look similar to children in the South center by the end of the year. In terms of the physical outcome, there were statistically significantly higher scores for the South center for all three time points meaning children in the South center began the year ahead and maintained that status throughout the year. For the social-emotional outcome, there were statistically significant differences in winter and spring suggesting that although children in both centers began the year similarly, children in the South center ended the year significantly ahead in this domain.

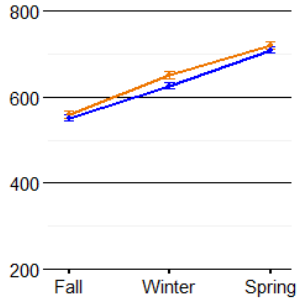
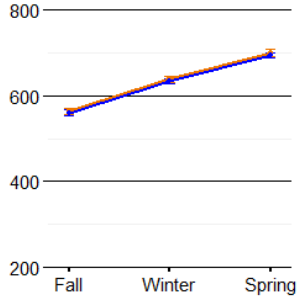
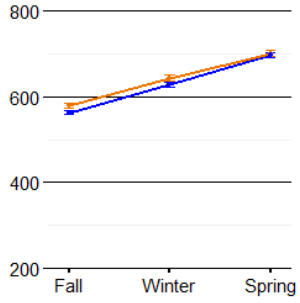
Although children in both centers began the year similarly, children in the South center ended the year significantly ahead in the social emotional domain.

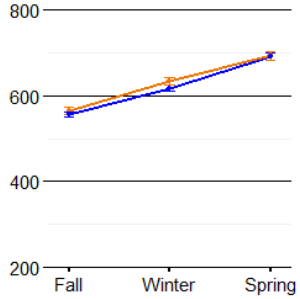
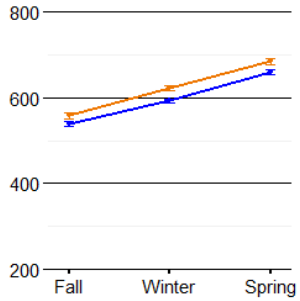
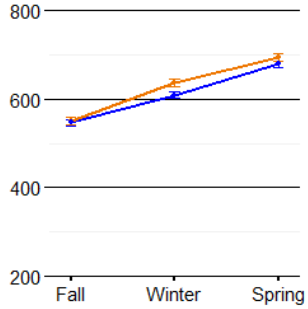
Therefore, when considering where children began Pre-K 4 SA, in the fall, the two groups of children started the year similarly on four of the six outcomes (i.e., cognitive, literacy, oral language, and social-emotional). For the other two outcomes—mathematics and physical—there were statistically significant differences for children based on center location in the fall indicating children in the South center began the year at an advantage; however, this advantage was only maintained in the physical outcome.

Third, there were statistically significantly differences in the growth rates across time for five of the outcomes: cognitive, language, mathematics, physical, and social-emotional. The growth rate was not statistically significant for literacy. Table 19 provides statistical details for these findings. Figures F–1 to F–6 in Appendix F graphically display these findings.

[9] Due to high correlations among the six GOLD outcomes (i.e., all pairwise correlations were greater than 0.75). MANOVA was not used and instead six separate repeated measures ANOVA were used.
[10] Even after the Benjamin-Hochberg (1995) correction.

Table 19. North and South Pre-K 4 SA comparison results for six GOLD outcomes across time

Outcome	*Time Point*	*North Center Group Mean*	*South Center Group Mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group Favored*[a]	*Graphic depiction of finding*[b] (*Blue line = North center; Orange line = South center*)
Cognitive	Fall	550.87	559.23	1.575	494	0.116	Not Significant	No difference	
	Winter	625.96	651.25	4.639	555.60	0.000	Significant	South	
	Spring	709.14	720.26	1.831	493.87	0.068	Not Significant	No difference	
Literacy	Fall	559.81	563.42	0.701	463.57	0.484	Not Significant	No difference	
	Winter	633.34	637.89	0.955	438.41	0.340	Not Significant	No difference	
	Spring	693.72	698.69	0.944	415.92	0.346	Not Significant	No difference	
Mathematics	Fall	563.19	579.02	4.062	482.78	0.000	Significant	South	
	Winter	627.54	643.16	3.571	462.29	0.000	Significant	South	
	Spring	696.82	700.50	0.717	475.77	0.474	Not Significant	No difference	

Outcome	*Time Point*	*North Center Group Mean*	*South Center Group Mean*	*t-test statistics*	*df*	*Initial p-value*	*Adjusted Significance*	*Group Favored*[a]	*Graphic depiction of finding*[b] (*Blue line = North center; Orange line = South center*)
Oral Language	Fall	556.59	565.18	1.659	492.17	0.098	Not Significant	No difference	
	Winter	616.29	633.88	3.127	500.20	0.002	Significant	South	
	Spring	691.13	692.59	0.236	502.25	0.813	Not Significant	No difference	
Physical	Fall	539.12	557.86	4.194	511	0.000	Significant	South	
	Winter	591.93	622.90	7.624	534	0.000	Significant	South	
	Spring	659.7	684.39	5.161	467	0.000	Significant	South	
Social-Emotional	Fall	546.48	550.60	0.753	492	0.452	Not Significant	No difference	
	Winter	608.79	636.75	5.048	481.85	0.000	Significant	South	
	Spring	678.37	693.96	2.602	499.61	0.010	Significant	South	

Note. df = degrees of freedom. Group mean information is presented in scaled scores. The Adjusted Significance column indicates significance levels (p-values) after adjustment to correct for multiple hypothesis testing using the Benjamini-Hochberg technique (1995).

[a] If a statically significant difference was found, the group whose score was greater (the 'favored' group) is listed in this column. If there was no statistically significant difference, this column states that there was 'no difference'.

[b] Full-page versions of the graphical figures can be found in Appendix F.

Summary of Kindergarten Readiness Findings

Based on these findings, there is evidence to suggest for this sample of children that Pre-K 4 SA showed growth on all six GOLD outcomes and surpassed those of the normative sample by the end of Year 1 on three of the six outcomes. In looking further into the Pre-K 4 SA sample, significant growth was also found across all time points and outcomes regardless of child gender, extended day status, or center location. However, girls began pre-K ahead of boys in all outcomes; this difference was either maintained or grew throughout the pre-K year. In addition, results indicated that children who utilized extended day began the year ahead of children who did not participate in extended day on three of the six outcomes tested but finished ahead in only one of those outcomes (cognitive). Finally, children who attended the South center began the year ahead of children in the North center on two outcomes and maintained this advantaged with respect to one outcome (physical). In addition, although children at both centers began the year similarly with respect to social-emotional outcomes, children in the South center finished the year ahead. Conversely children in the North center, although beginning the year behind children in the South center on mathematics, ended the pre-K year on par with the South center children. The results suggest Pre-K 4 SA has shown promise in raising kindergarten readiness for children attending Pre-K 4 SA.

LIMITATIONS AND RECOMMENDATIONS

Four important limitations of the Year 1 evaluation require mention. First, due to resource constraints we were not able to collect information on a control or comparison group of children with which to compare the Pre-K 4 SA children with respect to kindergarten readiness outcomes. This is important because the normed sample that was used for comparison purposes is most likely very different from the Pre-K 4 SA children. When a comparison or control group can be formed with children who are most like the Pre-K 4 SA children, more confidence can be taken with respect to resulting differences on outcomes; meaning there can be more confidence that differences are the result of the program in question and not a result of other factors[11]. This is particularly true when using a control group formed from random assignment into the program. A recommendation related to this limitation is the consideration of additional funding to form a control group of children based from the lottery selection process into Pre-K 4 SA from which data can be collected and compared between children who attend Pre-K 4 SA and children who do not. Towards this recommendation a proposal has been submitted, with approval from the Early Childhood Education Municipal Development Corporation, for consideration of an Institute of Education Sciences grant award to conduct a randomized controlled trial[12].

Second, family engagement data could not be linked to individual child data so no inferences could be made with regard to the relationship between family engagement and pre-K outcomes

[11] One way to form such a group of children, similar in nature to Pre-K 4 SA children, would be to work with Teaching Strategies to create a matched comparison group from the normed sample of children in the future.
[12] Grant awards are set to occur during the summer of 2015 with work to begin during the 2015-16 school year.

for children. The original intention was to conduct such analyses; however, this was not possible due to way the data was collected from families. A recommendation related to this limitation is the consideration of collecting more information from family members who attend family engagement events so that information can be connected at the child-level for further investigation.

Third, although Pre-K 4 SA was able to provide which children were signed up to utilize extended day services, no information was able to be provided in terms of actual attendance in extended day throughout the school year. Because of this the evaluation could not investigate a relationship between amount of time in extended day and any child outcomes. A recommendation related to this limitation is the collection of attendance in extended day throughout the year so a more in-depth investigation could occur in future years.

Fourth, classroom observation data was based on one observation of each classroom during the spring; as such no inferences can be made about changes in classroom quality over time. Although this was primarily due to resource and time constraints it is recommended that additional funding be a consideration to conduct multiple observations across a year to begin to understand potential changes or consistencies in classroom interactional quality.

Additional program recommendations also warrant mention. Although not uncommon across the country, the average CLASS score for the teacher-child interactional quality domain instructional support was between the low- and mid-range of the CLASS scale. It is recommended that strategies and professional development be provided to assist teachers in increasing instructional support behaviors and interactions in the classroom. Additionally, one way to assist teachers in understanding potential strengths and weakness in this arena may be to provide teachers with classroom observation results[13] so they are able to gain a better understanding of areas to seek growth.

Also, based on the findings related to the mathematics and social-emotional outcome domains for children, a recommendation is to investigate further the strategies used in the North center for the development of mathematics concepts and strategies used in the South center for the social-emotional development of children. In addition, with these recommendations it is important to note that when the Pre-K 4 SA sample was compared to the nationally representative normed sample, Pre-K 4 SA children scored significantly higher in the mathematics outcome and on par with the normed sample in the social-emotional outcome. However, as improvements can always be made and there was a difference identified between not only centers but boys and girls as well, this is an area worthy of further focus and investigation. Finally, as children also ended on par with the normed sample in the oral language and physical domains, strategies to improve these areas are also recommended.

[13] It is important to note that individual classroom results would only be shared with respective teachers to avoid any potential inappropriate uses of evaluation information such as punitive measures for low quality scores. Rather, the purpose would be to allow teachers a better understanding of the results from their respective classroom observations from which they could request particular areas of development and support.

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APPENDIX A. DETAILED DESCRIPTION OF OBSERVATION MEASURES

Classroom Assessment Scoring System (CLASS)

Table A–1. Descriptions of CLASS Dimensions

Domain	*Dimension*	*Description*
Emotional Support	Positive Climate	Reflects the emotional connection between teachers and children and among children, and the warmth, respect, and enjoyment communicated by verbal and nonverbal interactions.
	Negative Climate	Reflects the overall level of expressed negativity in the classroom. The frequency, quality, and intensity of teacher and peer negativity are key to this dimension
	Teacher Sensitivity	Encompasses the teacher's awareness of and responsiveness to students' academic and emotional needs.
	Regard for Student Perspectives	Captures the degree to which the teacher's interactions with students and classroom activities place an emphasis on students' interests, motivations, and points of view and encourage student responsibility and autonomy.
Classroom Organization	Behavior Management	Encompasses the teacher's ability to provide clear behavior expectations and use effective methods to prevent and redirect misbehavior.
	Productivity	Considers how well the teacher manages instructional time and routines and provides activities for students so that they have the opportunity to be involved in learning activities.
	Instructional Learning Formats	Focuses on the ways in which teachers maximize students' interest, engagement, and abilities to learn from lessons and activities.
Instructional Support	Concept Development	Measures the teacher's use of instructional discussions and activities to promote students' higher-order thinking skills and cognition and the teacher's focus on understanding rather than on rote instruction.
	Quality of Feedback	Assesses the degree to which the teacher provides feedback that expands learning and understanding and encourages continued participation.
	Language Modeling	Captures the effectiveness and amount of teacher's use of language-stimulation and language-facilitation techniques.

Emerging Academic Snapshot (Snapshot)

Codes are divided into five subscales, including activity setting (i.e., whole group, free choice, transitions); peer interaction (simple social, cooperative pretend); child engagement (i.e., science, mathematics, oral language development); teacher-child engagement (i.e., scaffolds, didactic); and one-on-one teacher-child interactions (elaborated, routine). Because children are randomly selected, the way that their time is spent is meant to reflect the average experience children in the

classroom. Table A–2 presents descriptions of the complete list of codes; only selected codes of interest will be included in the proposed study.

Table A–2. Descriptions of Snapshot Subscales

Subscale	*Code*	*Description*
Activity	Basics	Toileting, standing in line, clean-up time, wait time between activities, waiting for materials to be passed out, transitional activities (i.e., moving out of whole group into the next activity.)
	Meals/Snacks	Eating lunch, breakfast or snacks, or enjoying food that the class cooked during a cooking project.
	Whole Group	Child is engaged with the whole group in a teacher-initiated activity. The child's focus is on the teacher.
	Free Choice/Center	Child is engaged in free choice activities. During this time children are able to select what and where they would like to play or learn. It does not matter if the activity they have chosen is individual or in a small group. It does not matter if the activity is with or without the teacher.
	Individual Time	Child has been assigned to work individually with or without teachers, on worksheets, independent projects, computer work, etc. This is coded when it is the activity setting for the whole class or for a small group in which the target child is involved
	Small Group	Child is engaged in small group activities that are teacher organized.
Peer Interaction	Solitary	Child is playing productively alone, with no eye gaze or mutual interest in objects with any peer. (Do not code if the child is playing with an adult.)
	Parallel Aware	Child and at least one peer are playing with the same type of objects and are within three feet of each other and have mutual awareness of one another.
	Simple Social	Child and at least one peer are engaged in play with social interaction. This type of play may be either verbal or non-verbal (physical gestures or facial expressions).
	Complementary Reciprocal	Child and at least one peer engage in social play with turn taking structure and role reversal.
	Cooperative Pretend	Child and at least one peer are engaged in (at least) simple-social play that includes a script
	Complex Pretend	Child and at least one peer are engaged in "cooperative pretend" play plus the children name roles.
Child Engagement	Read-to	Child is being read to by an adult.
	Pre-read/Read	Child is reading on her/his own or with peers, listening to a book on tape while looking at a book, involved in a sequencing activity, or involved in recognition of whole words.
	Letter/Sound	Child is practicing rhymes that help her/him recognize sounds, talking about sound-letter relationships,

Subscale	*Code*	*Description*
		identifying letters, sounding out words or practicing vowel sounds.
	Oral Language Development	Child is involved in an activity or an interaction where a teacher is taking action to draw communication from the children to build expressive language or is actively listening to children speak, by allowing them to complete their thoughts.
	Computer	Child is using the computer for something other than writing.
	Writing	Child is writing, pretending to write, or using a keyboard/computer specifically for writing.
	Mathematics	Child is counting, identifying written numerals, matching numbers to pictures, making graphs, playing counting games, keeping track of how many days until a special event, etc.
	Science	Child is identifying and exploring natural phenomena in their environment, using science equipment, working with sand or water, or engaged in trial and error/experimentation.
	Social Studies	Child is talking, reading, or engaged in activities about their world (e.g., their neighborhood, their school, the farm, the community workers).
	Aesthetics	Child is engaged in art or music activities.
	Fine Motor	Child is utilizing pincer grasp (e.g., stringing beads, building with Legos, cutting, using crayons and markers or paint brushes, pencils or pens, etc.)
	No Response	Teacher does not respond to child's verbal or physical bid.
Adult Interaction	Routine	Teacher interacts with target child during routine caregiving (i.e., passes out materials) but does not verbally interact with the child.
	Minimal	Teacher verbally responds to target child with a few words.
	Simple	Teacher responds to target child with short sentences.
	Elaborated	Teacher engages in physical contact (high fives, hugs or holds child), engages in reciprocal conversation that validates a child's feelings or demonstrates teacher interest in what the child is saying.
	Literate	Target child is engaged in read-to or letter/sound engagement with teacher involved.
Teacher-Child Engagement	Scaffolds	Teacher shows an awareness of an individual child's needs and responds in a manner that supports and expands the child's learning.
	Didactic	Teacher engages child in rote teaching (i.e., teacher gives instructions, models, demonstrates).
	Second Language	Teacher is speaking a language other than English.
	Facilitate Peer	Teacher attempts to facilitate child's peer interactions.

APPENDIX B. PRE-K 4 SA YEAR 1 WORKING LOGIC MODEL

Goal

To increase the amount and quality of early childhood education across the city of San Antonio so that all children are prepared to enter kindergarten, and to be successful in school and beyond.

Assumptions

When high quality pre-K programs are implemented, children start kindergarten ready and able to learn; this strong start will allow students to continue to demonstrate academic and behavioral success.

Prior to Pre-K 4 SA, some San Antonio children who were eligible to attend state funded pre-K programs are not being served in existing pre-K programs.

Early childhood programs and educators in San Antonio want, could benefit from, high quality PD to improve their programs and instructional practices.

Pre-K 4 SA will utilize innovative strategies and research to continually improve provided early childhood education.

Inputs (Resources)

- 1/8 cent sales tax increase (approved 11/2012)
- Early childhood (EC) education consulted experts
- San Antonio school district administrators
- San Antonio school district education staff
- City of San Antonio staff and resources (COSA)
- NAEYC teaching strategies
- Frog Street Press materials
- Teaching Strategies GOLD assessment
- DFPS licensing and staff
- Professional development coaches
- Master teachers
- Knowledgeable administrative and support staff
- Facilities – North, South, East, & West Pre-K 4 SA Centers
- Family resource rooms
- Family communications (newsletters, etc.)
- Parent training classes/sessions
- Nutrition provider – Selrico Services
- Transportation provider – Star Shuttle

Outputs

Activity

Professional Development (PD)
- Summer Institute
- On-going training in developmentally appropriate practices (DAP) and conflict-resolution/problem solving
- Professional Learning Communities (PLCs)

Curriculum and Authentic Assessment
- Integrated academic opportunities
- On-going anecdotal assessment
- Oral language development
- Physical development
- Socio-emotional development

Nutrition
- Bi-monthly family nutrition classes
- Bi-monthly family nutrition events
- Farmer's Market

Civic Engagement
- City Exploration
- Giving back to community opportunities
- Enriching Civic Curriculum
- Volunteerism

Family Engagement/Support
- Parent resource activities
- Staff communication
- Parent training sessions
- BCFS parenting classes

Intentional Quality Standards
- Consistent DAP and conflict-resolution/ problem solving instruction
- Project-based learning
- Teacher-child (T-C) ratio
- High-quality T-C interactions
- Child attendance – Parent incentives

Community Enrichment
- Elementary educator PD
- Elementary administrator EC education
- On-going coaching of San Antonio pre-K - 3rd grade teachers

Participation

Teacher attendance in required PD

Teacher attendance and engagement in PLCs

Child participation and engagement in intentional activities (academic, motor, etc.)

Quality of child selections and nutrition intake

Family at-home nutrition choices

Farmer's Market participation

Child and family participate/ engage in City Exploration outings

Child offers to volunteer in classroom

Quality of family engagement in, and learning from, provided engagement activities

T-C ratios maintained

Quality of T-C interactions

Children attend all instructional days

Local educators at child care centers, elementary administrators and elementary teachers' request, attend, and participate in provided educational opportunities

Outcomes

Short

High-quality teaching & instruction in all Pre-K 4 SA classrooms

Children receive high quality instruction

Teachers target student-level strengths and weakness for development

Increased awareness of and exposure to healthy food options

Increased family and child awareness, interest and action in community and city engagement

Increase in parent knowledge/ability

Increased attention and support to child's education

Children receive individual attention

Engage in high-quality interactions with teachers

Experience all instructional time

Local educators at child care centers, elementary administrators and elementary teachers implement learned strategies in their centers, schools, and classrooms

Medium

Life skills
- Increased problem solving
- Increased critical thinking
- Increased interpersonal and communication skills
- Increased academic and social confidence
- Increased self-regulatory ability

Increase in healthy nutrition choices (both family and child)

Increased knowledge and exposure to cultural, community and other experiences

Increased outcomes for child and sibling(s) due to parental support

Increased academic knowledge, comprehension and performance

Increased knowledge and DAP instructional practices used across San Antonio EC centers and elementary pre-K – 3rd grade classrooms

Long

Increased percentage students considered kindergarten ready at beginning of kindergarten

Increased attendance during elementary school

Decreased discipline referrals during elementary school

20% to 40% reduction in special education placement

20% to 40% reduction in grade retention

Reduction in STAAR achievement gap in reading and mathematics
- reduced by at least 25% in language, 33% in math, and 90% in literacy
- close achievement gaps by 10%

Longer-term

Long-term healthy family eating habits

Ongoing parent involvement throughout child's education

Increased life skills

Increased AP course taking

Increased postsecondary success

Collaborative, innovative workforce

Increased teaching quality across San Antonio for EC and elementary teachers

APPENDIX C: GOLD PRE-K 4 SA TO NORMED SAMPLE COMPARISON FIGURES

Figure C–1. Cognitive outcome group averages with 95% confidence intervals across time

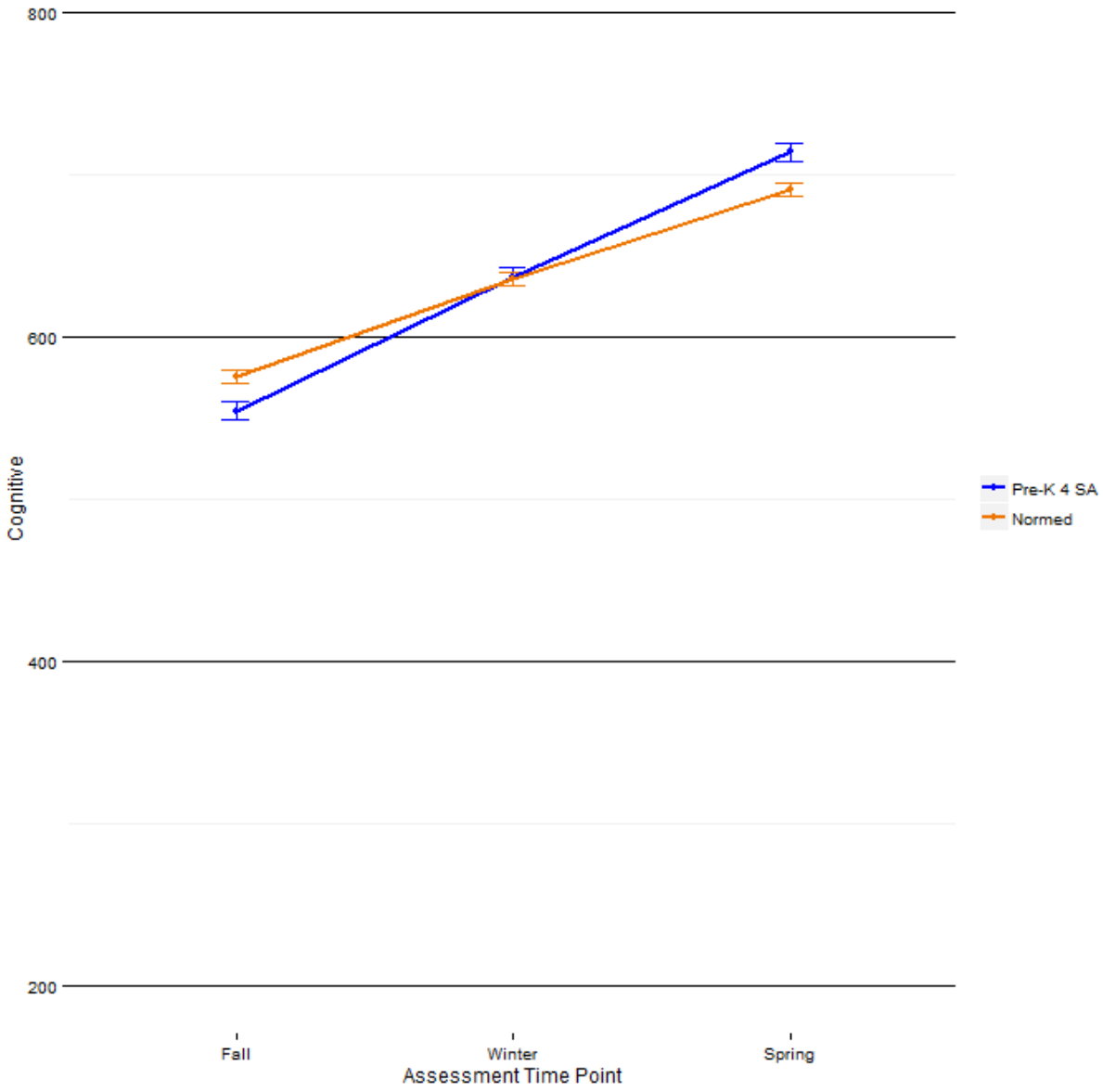


Figure C–2. Literacy outcome group averages with 95% confidence intervals across time

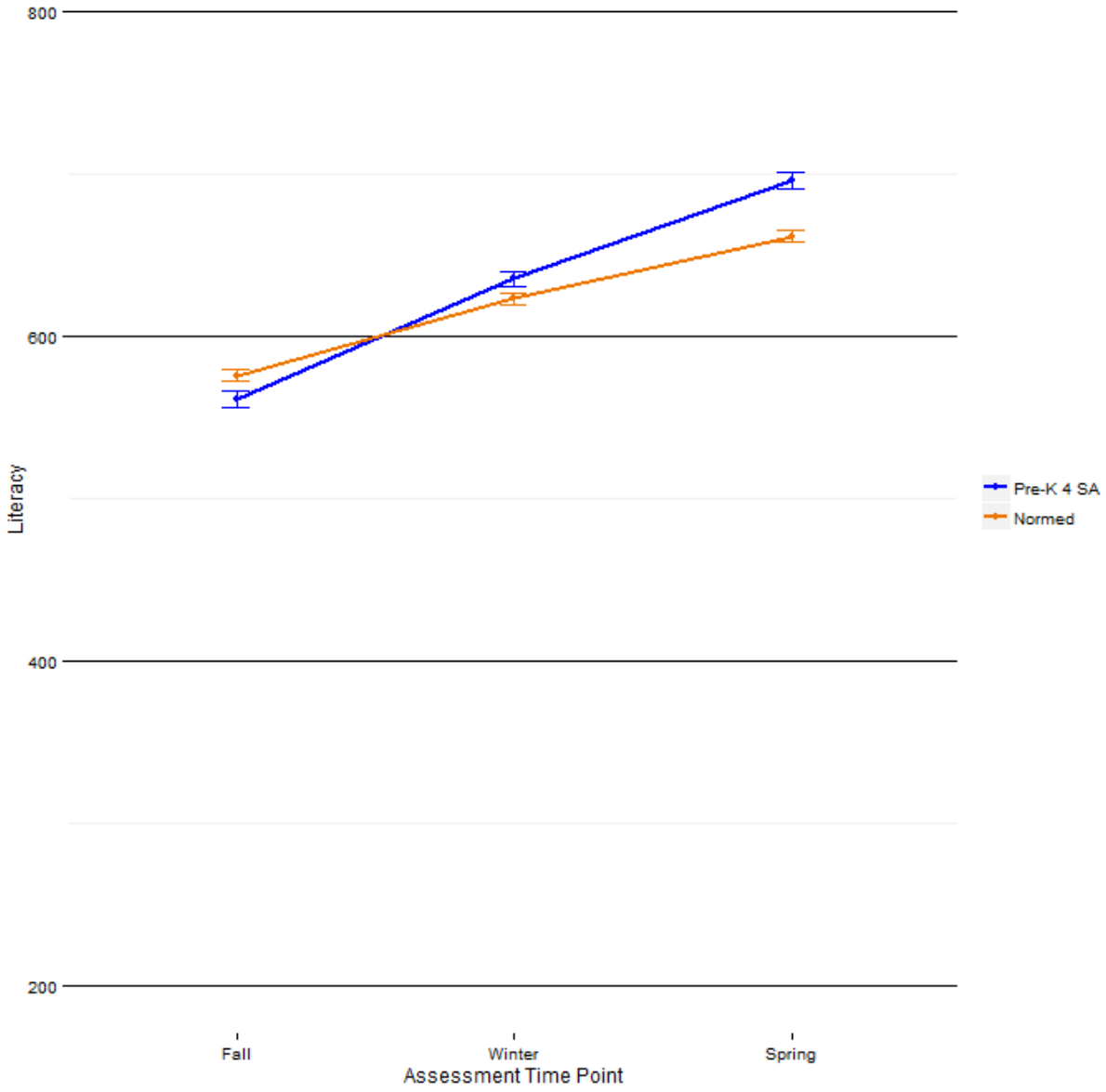


Figure C–3. Mathematics outcome group averages with 95% confidence intervals across time

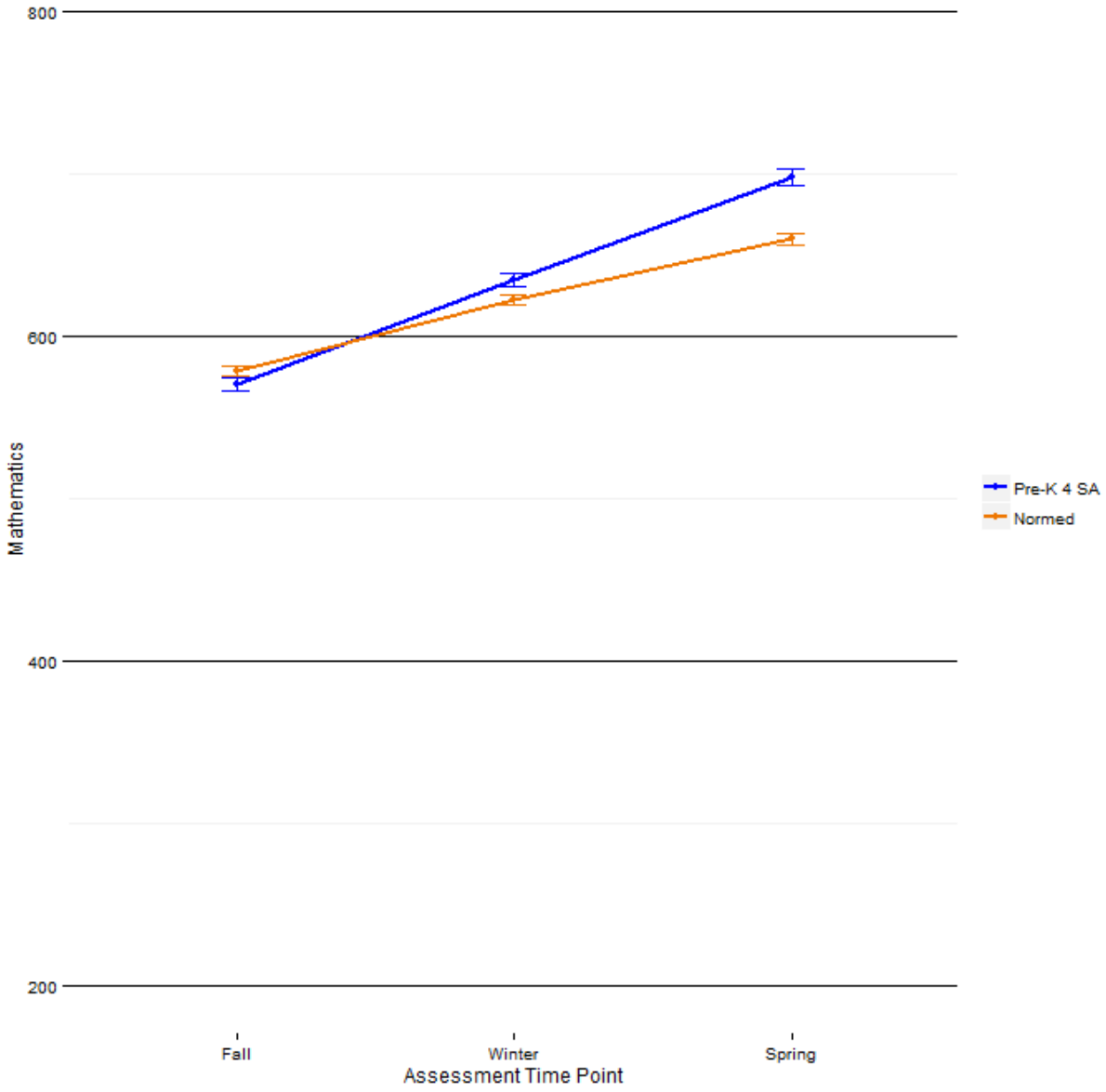


Figure C–4. Oral Language outcome group averages with 95% confidence intervals across time

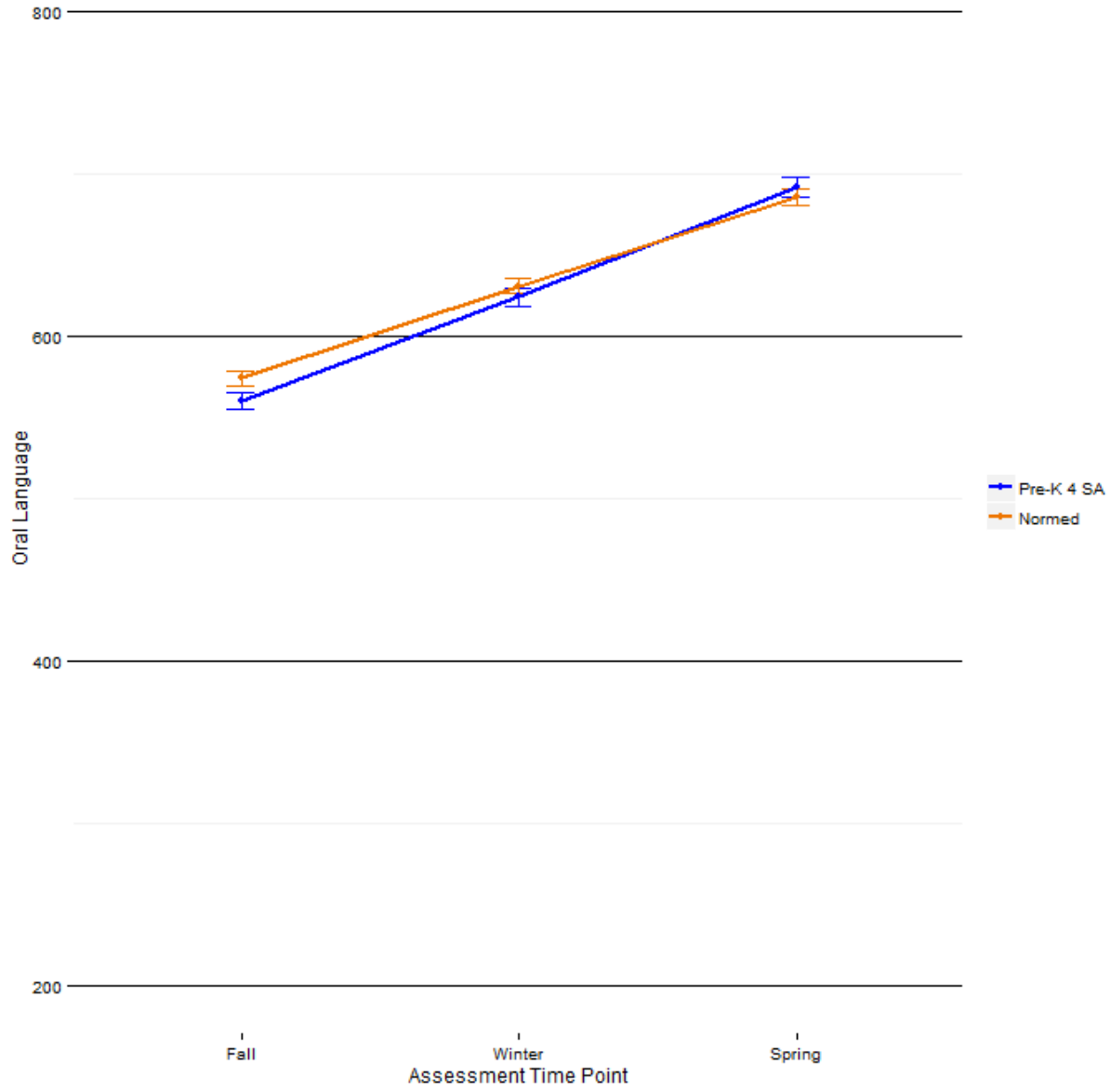


Figure C–5. Physical outcome group averages with 95% confidence intervals across time

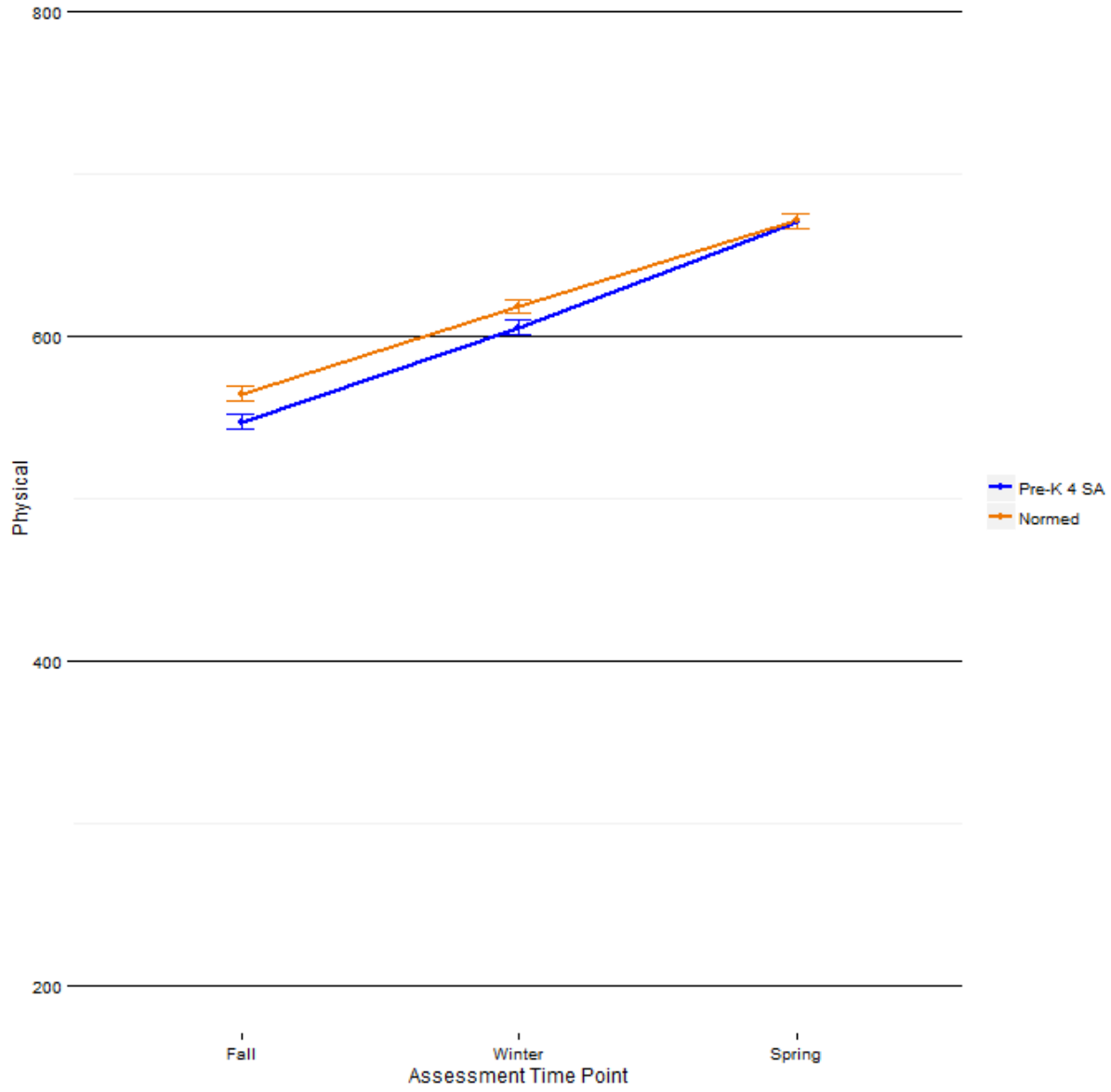
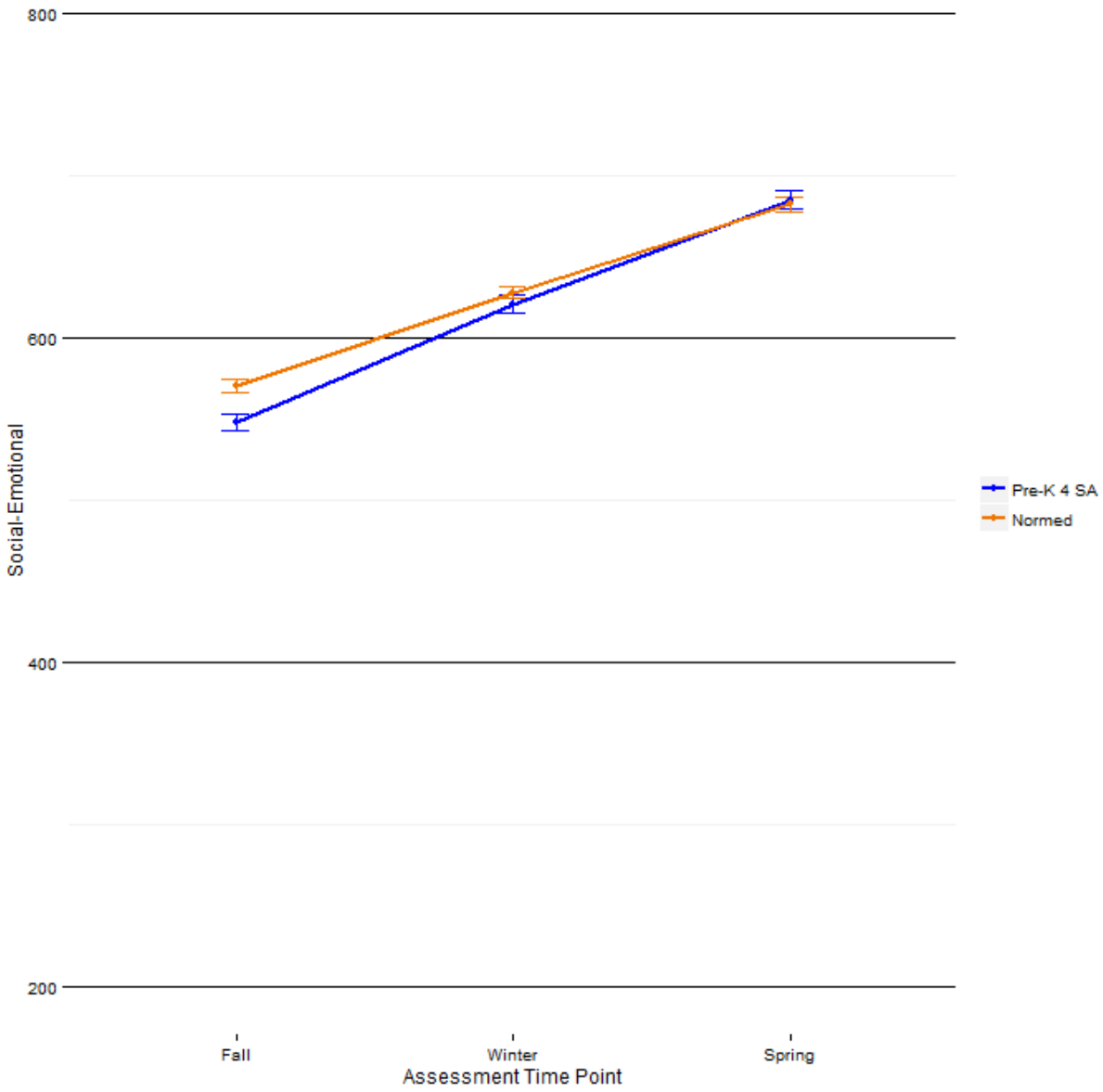


Figure C–6. Social-Emotional outcome group averages with 95% confidence intervals across time



APPENDIX D: GOLD COMPARISON FIGURES FOR PRE-K 4 SA BOYS AND GIRLS

Table D–1. Pre-K 4 SA comparisons for six GOLD outcomes across time and gender

Outcome	*Factor*	*Numerator df*	*Denominator df*	*F statistic*	*Initial p-value*	*Adjusted Significance*[a]	*Partial Eta-Squared*
Cognitive	Time	1.506	783.354	2215.275	.000	Significant	.810
	Gender	1	520	30.988	.000	Significant	.056
	Time X Gender	1.506	783.354	1.215	.289	Non-Significant	.002
Literacy	Time	1.365	661.943	2485.644	.000	Significant	.837
	Gender	1	485	24.267	.000	Significant	.048
	Time X Gender	1.365	661.943	.379	.604	Non-Significant	.001
Mathematics	Time	1.532	768.815	2718.387	.000	Significant	.844
	Gender	1	502	14.618	.000	Significant	.028
	Time X Gender	1.532	768.815	4.102	.026	Significant	.008
Oral Language	Time	1.600	848.067	1766.367	.000	Significant	.769
	Gender	1	530	18.977	.000	Significant	.035
	Time X Gender	1.600	848.067	2.573	.089	Non-Significant	.005
Physical	Time	1.570	868.042	2024.589	.000	Significant	.785
	Gender	1	553	14.792	.000	Significant	.026
	Time X Gender	1.570	868.042	.252	.723	Non-Significant	.000
Social-Emotional	Time	1.612	854.262	1768.338	.000	Significant	.769
	Gender	1	530	34.365	.000	Significant	.061
	Time X Gender	1.612	854.262	.787	.431	Non-Significant	.001

Note. df = degrees of freedom. Due to the violation of the sphercity assumption, the degrees of freedom are not whole numbers.
[a] Significance levels (p-values) were adjusted to correct for multiple hypothesis testing using the Benjamini-Hochberg technique (1995).

Figure D–1. Cognitive outcome group averages with 95% confidence intervals across gender and time

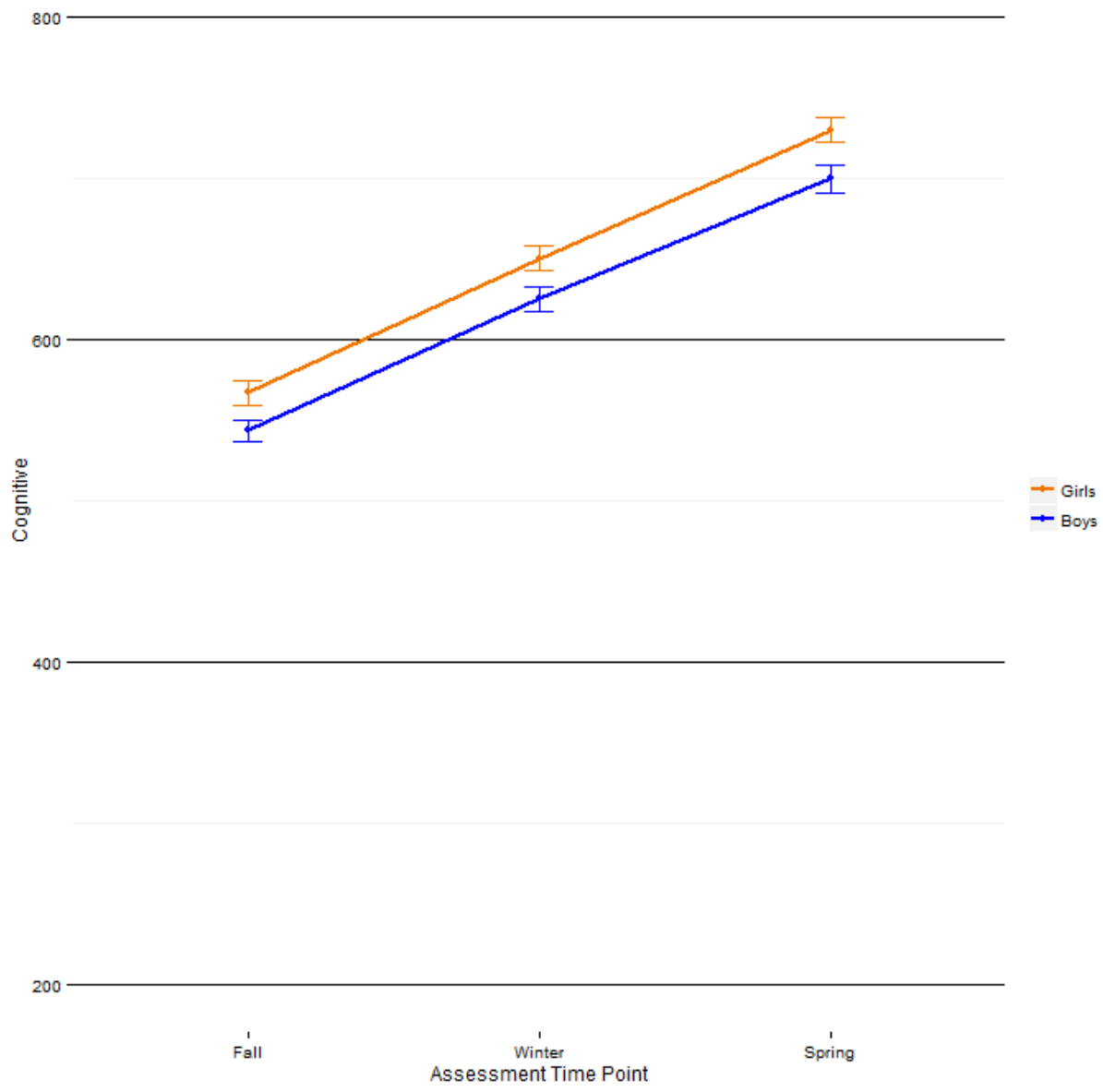


Figure D–2. Literacy outcome group averages with 95% confidence intervals across gender and time

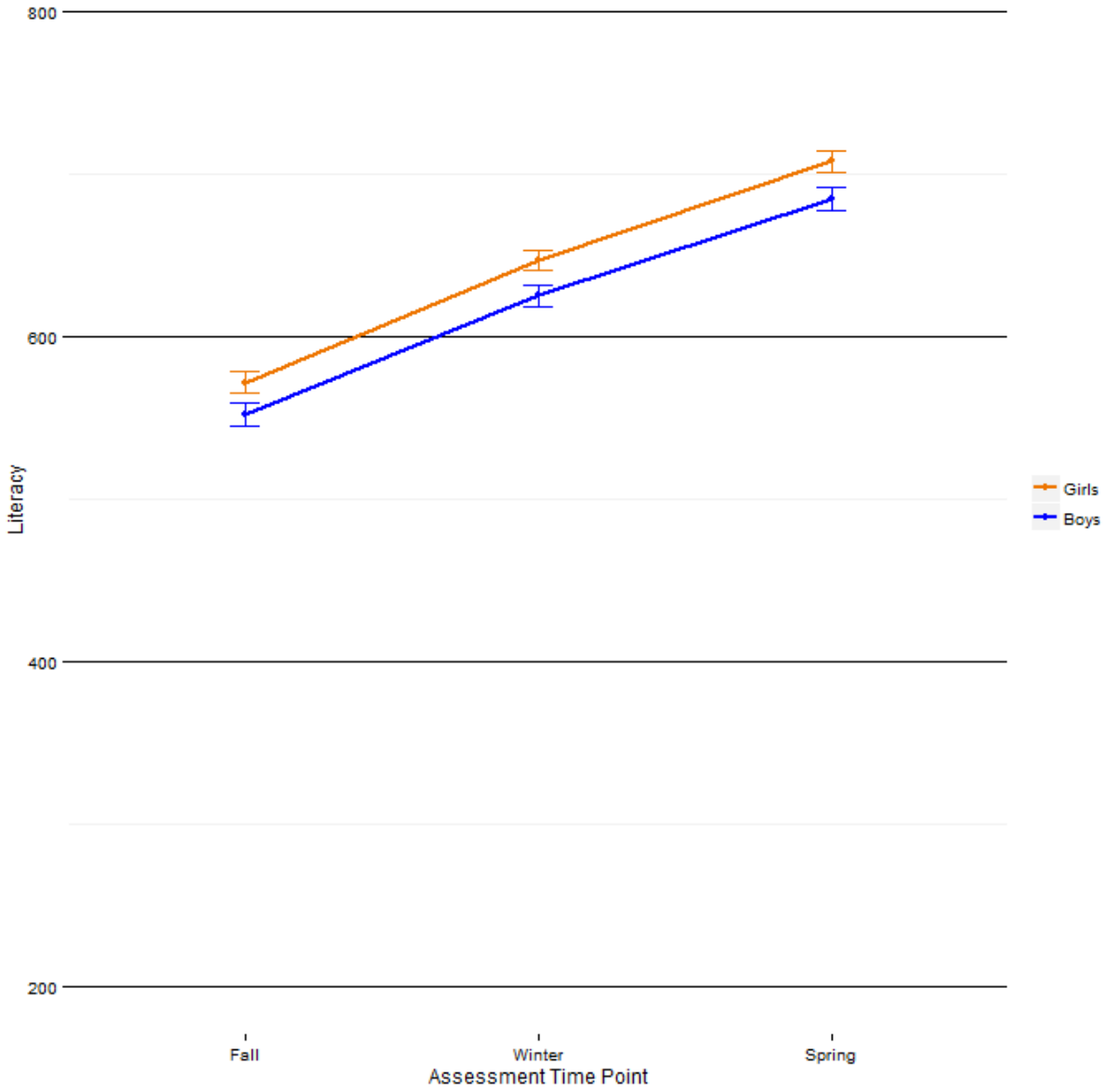


Figure D–3. Oral Language outcome group averages with 95% confidence intervals across gender and time

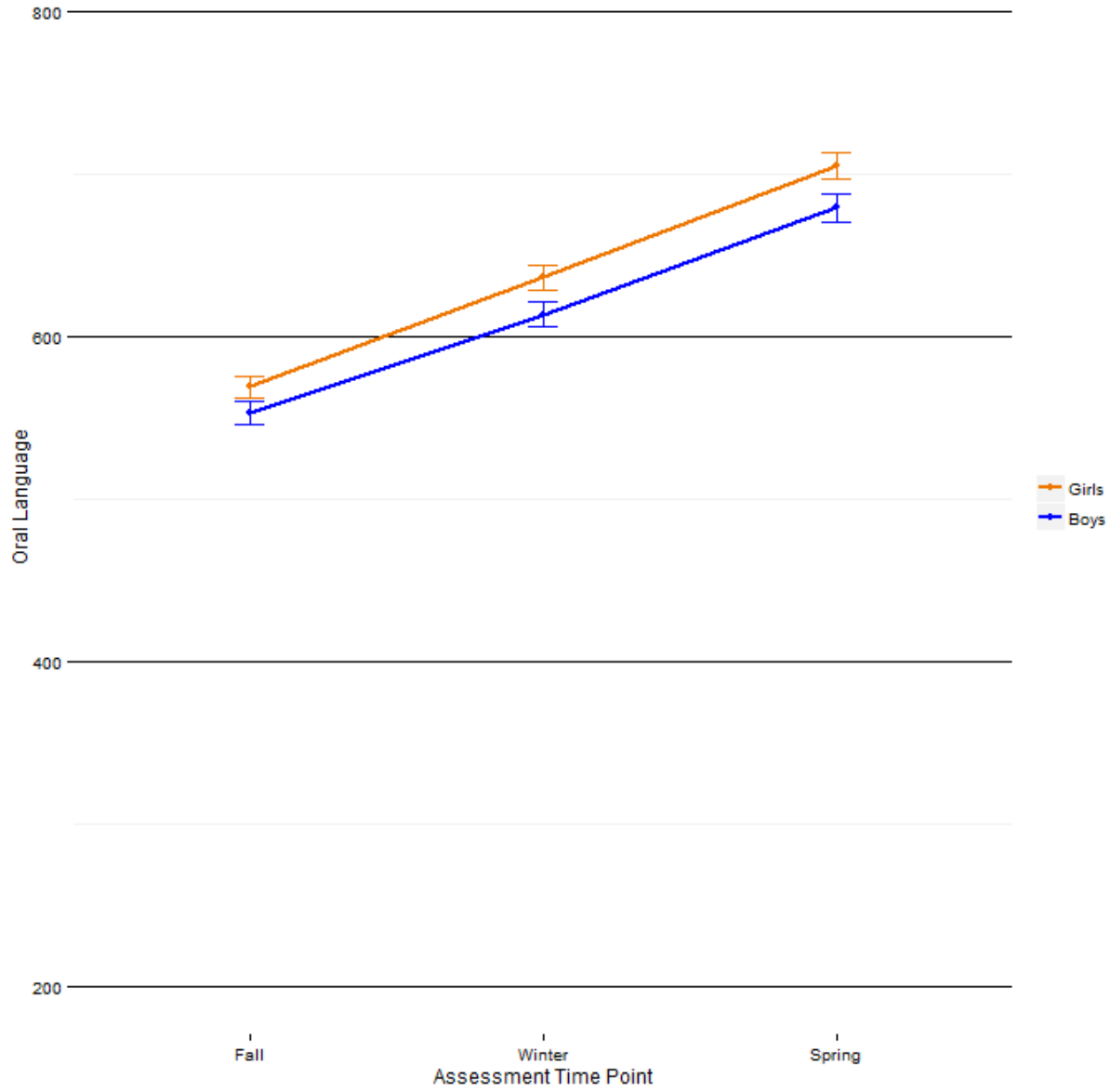


Figure D–4. Mathematics outcome group averages with 95% confidence intervals across gender and time

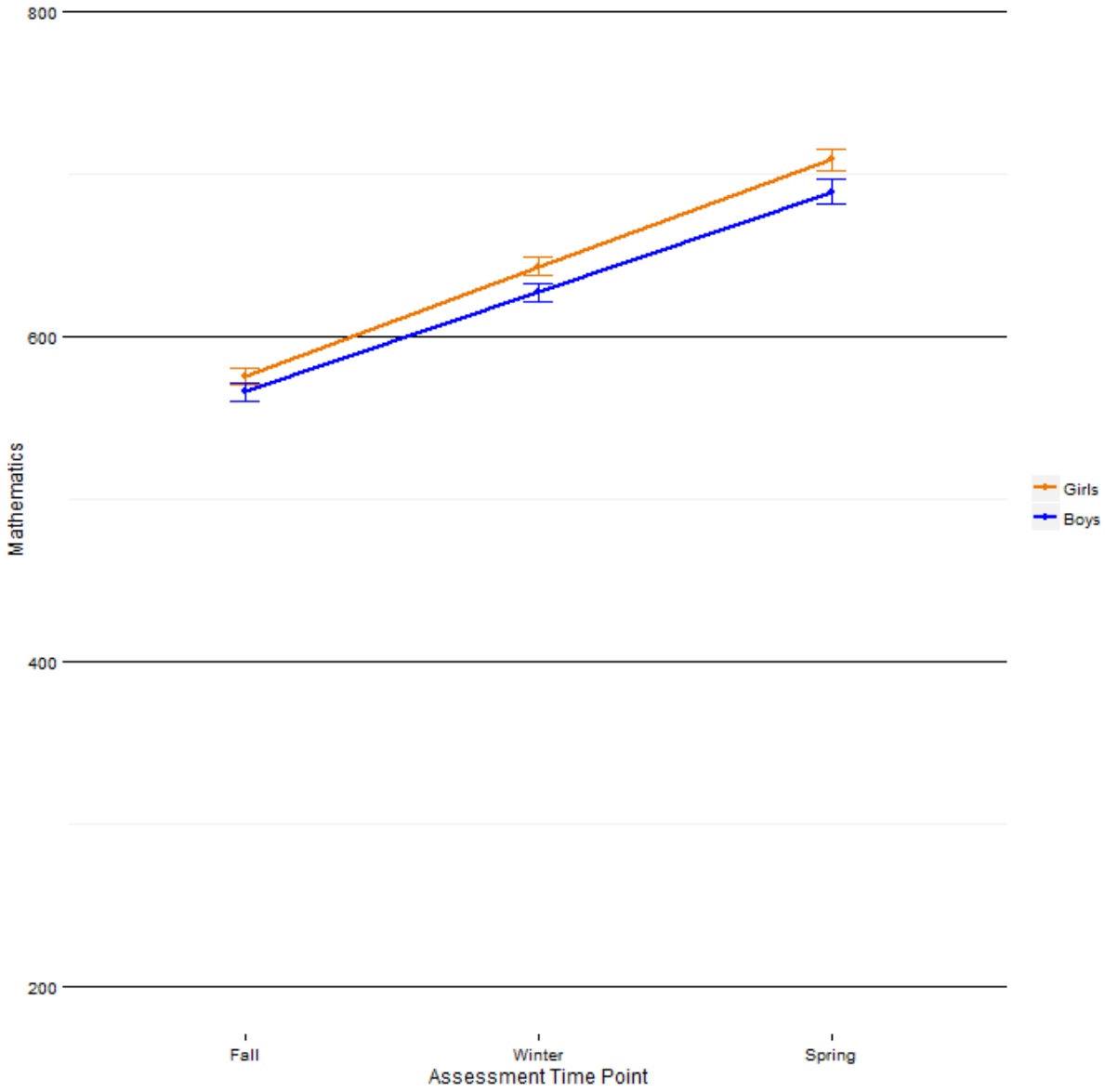


Figure D–5. Physical outcome group averages with 95% confidence intervals across gender and time

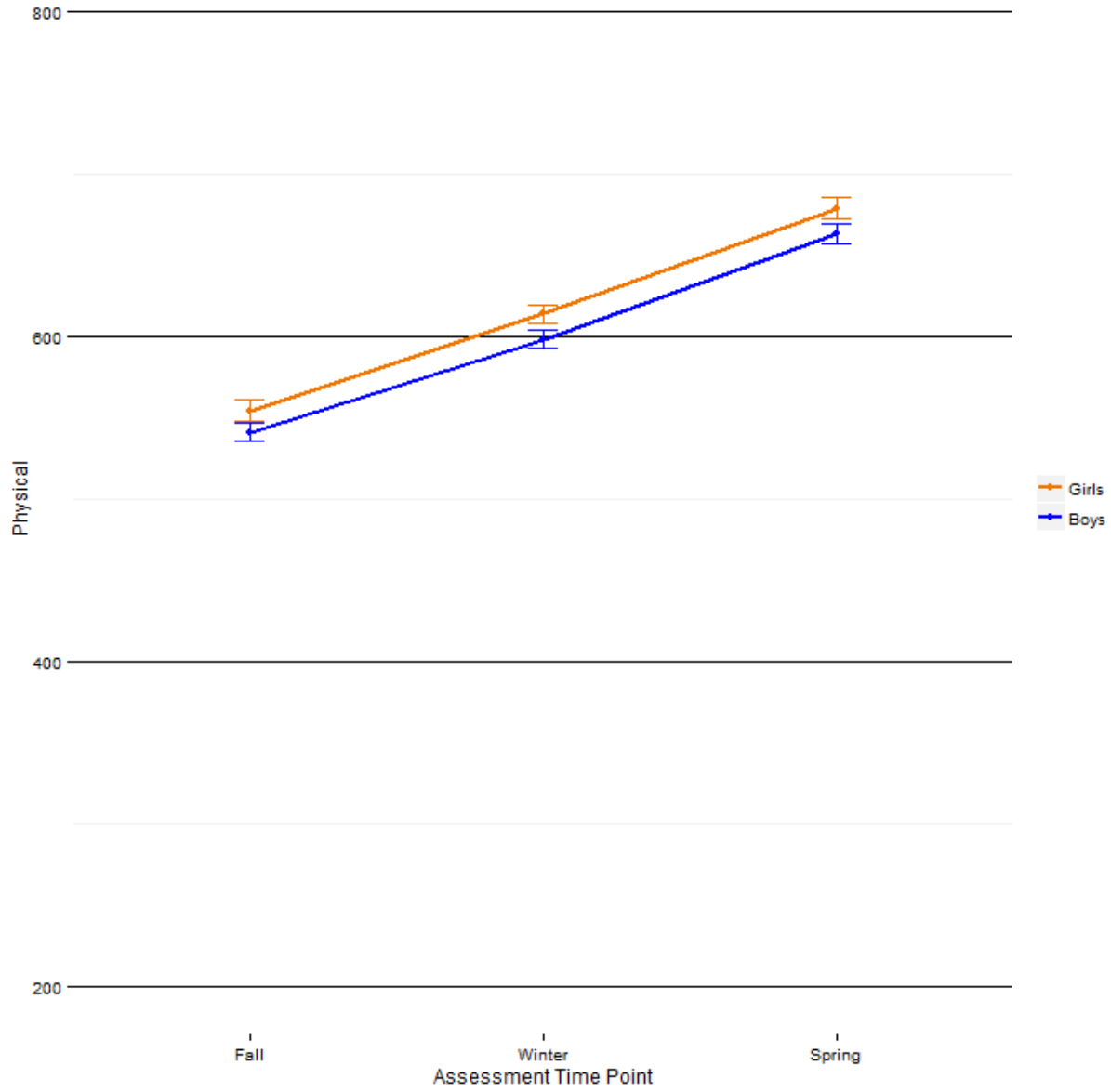
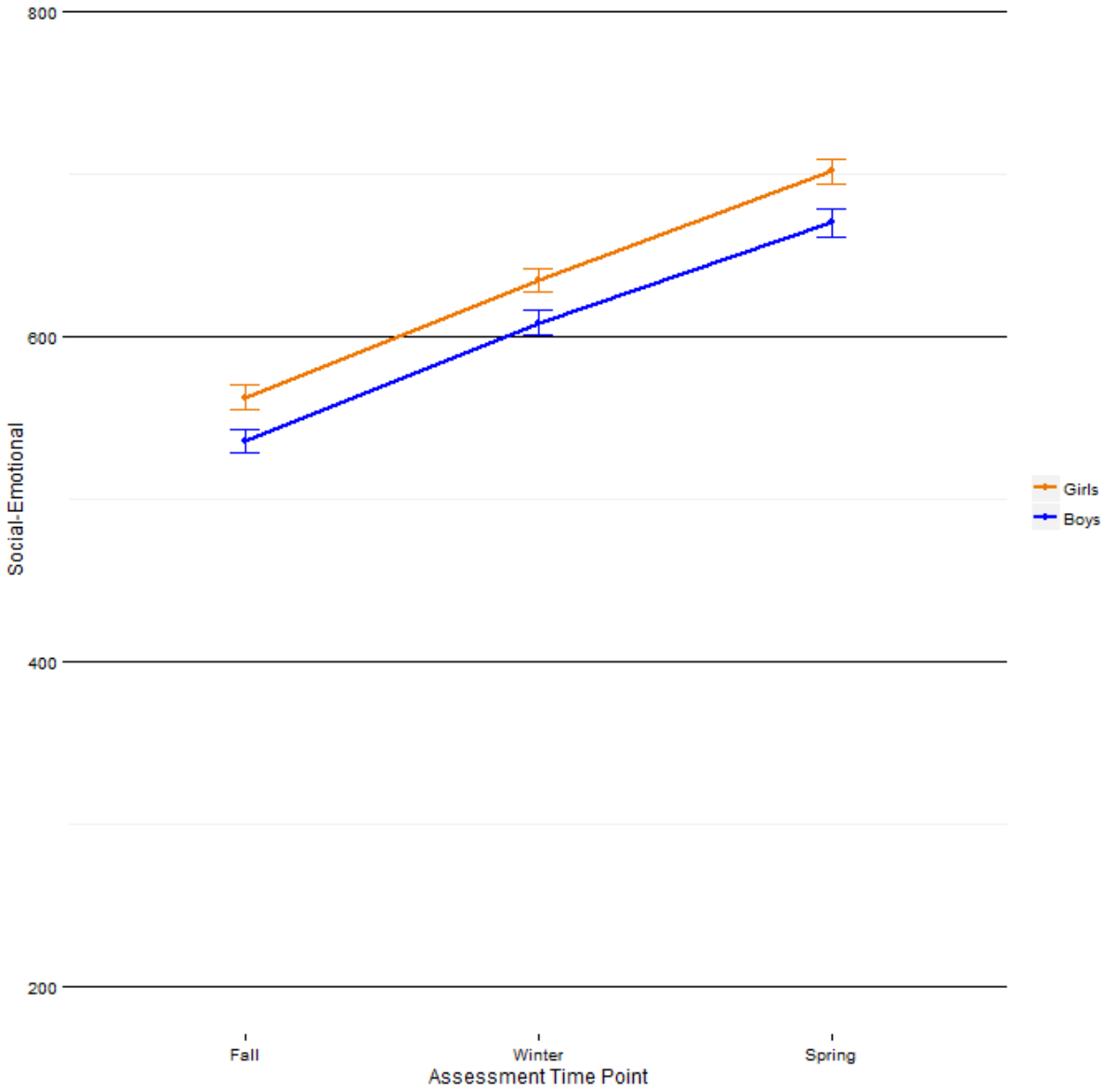


Figure D–6. Social-Emotional outcome group averages with 95% confidence intervals across gender and time



APPENDIX E: GOLD COMPARISON FIGURES FOR PRE-K 4 SA EXTENDED DAY

Table E–1. Pre-K 4 SA comparisons for six GOLD outcomes across time and extended day

Outcome	*Factor*	*Numerator df*	*Denominator df*	*F statistic*	*Initial p-value*	*Adjusted Significance*[a]	*Partial Eta-Squared*
Cognitive	Time	1.502	781.060	2121.536	.000	Significant	.803
	Extended Day	1	502	6.565	.011	Significant	.012
	Time X Ext Day	1.502	781.060	.792	.421	Non-Significant	.002
Literacy	Time	1.360	659.515	2332.206	.000	Significant	.828
	Extended Day	1	485	1.736	.188	Non-Significant	.004
	Time X Ext Day	1.360	659.515	1.459	.233	Non-Significant	.003
Mathematics	Time	1.530	768.172	2574.130	.000	Significant	.837
	Extended Day	1	502	2.534	.112	Non-Significant	.005
	Time X Ext Day	1.530	768.172	.966	.361	Non-Significant	.002
Oral Language	Time	1.598	846.889	1654.669	.000	Significant	.757
	Extended Day	1	530	5.381	.021	Significant	.010
	Time X Ext Day	1.598	846.889	.039	.934	Non-Significant	.000
Physical	Time	1.570	868.090	1927.925	.000	Significant	.777
	Extended Day	1	553	4.942	.027	Non-Significant	.009
	Time X Ext Day	1.570	868.090	.069	.893	Non-Significant	.000
Social-Emotional	Time	1.613	854.635	1691.411	.000	Significant	.761
	Extended Day	1	530	5.068	.025	Significant	.009
	Time X Ext Day	1.613	854.635	.089	.876	Non-Significant	.000

Note. df = degrees of freedom. Due to the violation of the sphercity assumption, the degrees of freedom are not whole numbers. Ext Day = Extended Day.
[a] Significance levels (p-values) were adjusted to correct for multiple hypothesis testing using the Benjamini-Hochberg technique (1995).

Figure E–1. Cognitive outcome group averages with 95% confidence intervals by extended day status across time

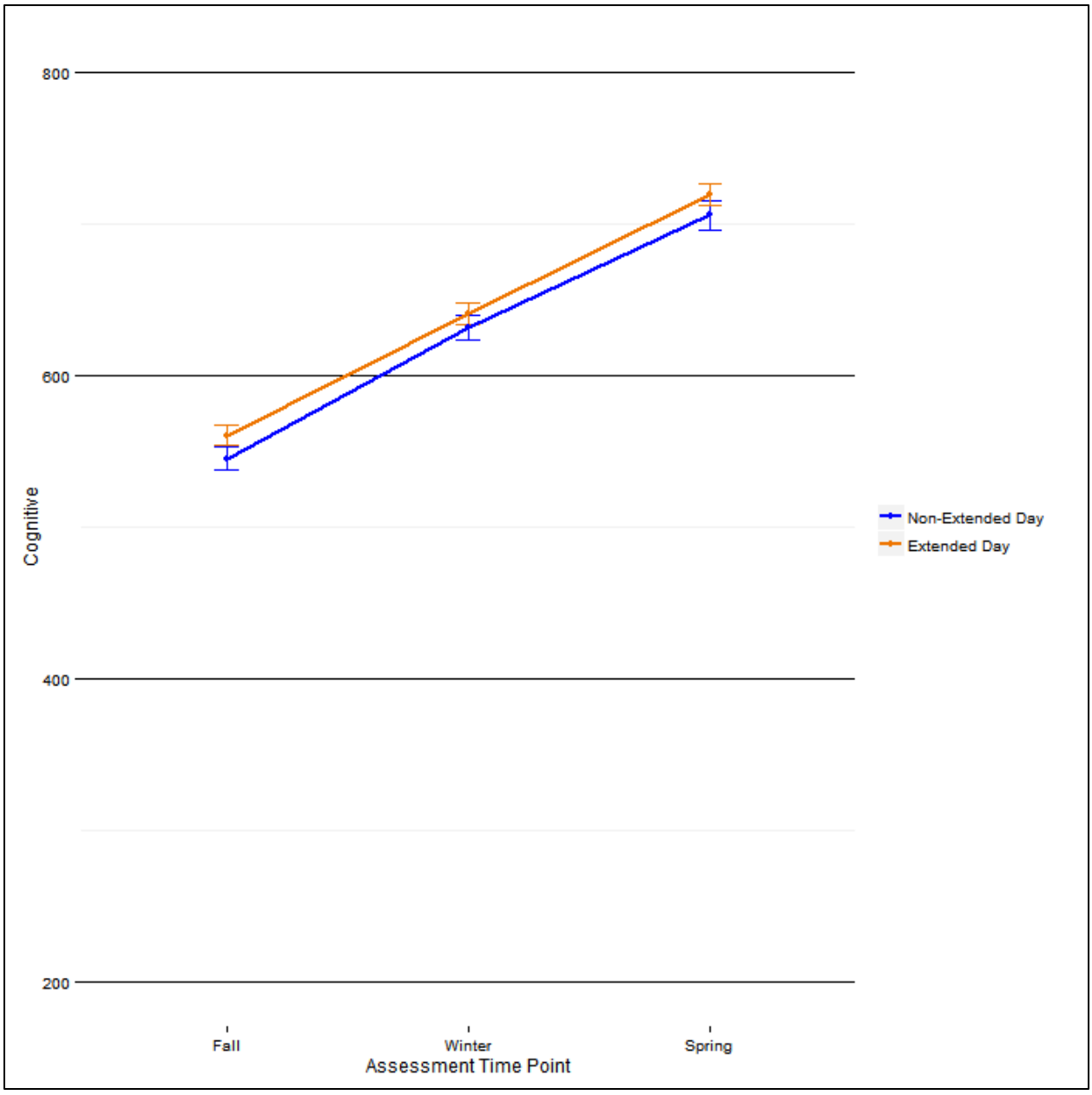


Figure E–2. Literacy outcome averages with 95% confidence intervals by extended day status across time

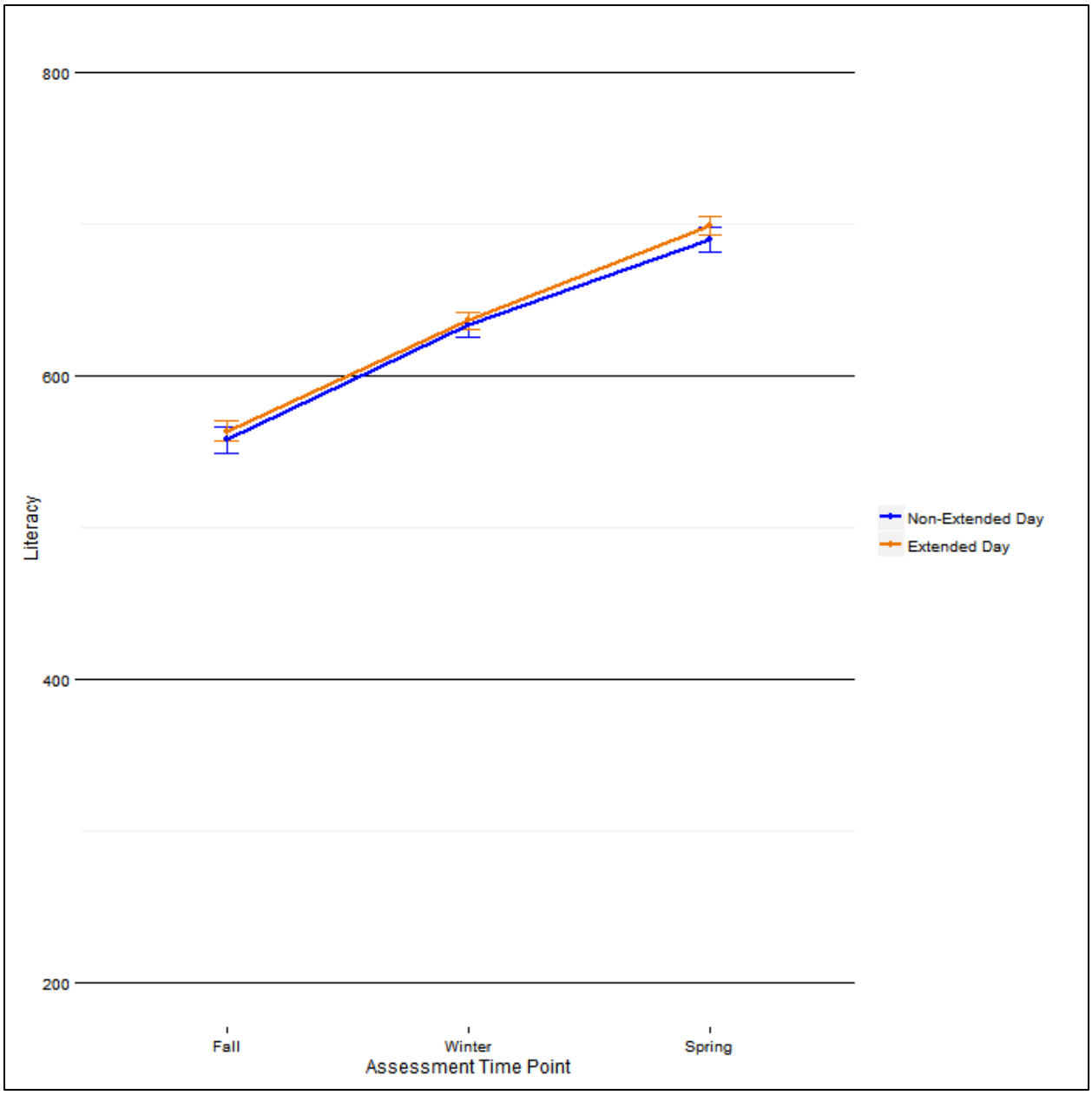


Figure E–3. Mathematics outcome averages with 95% confidence intervals by extended day status across time

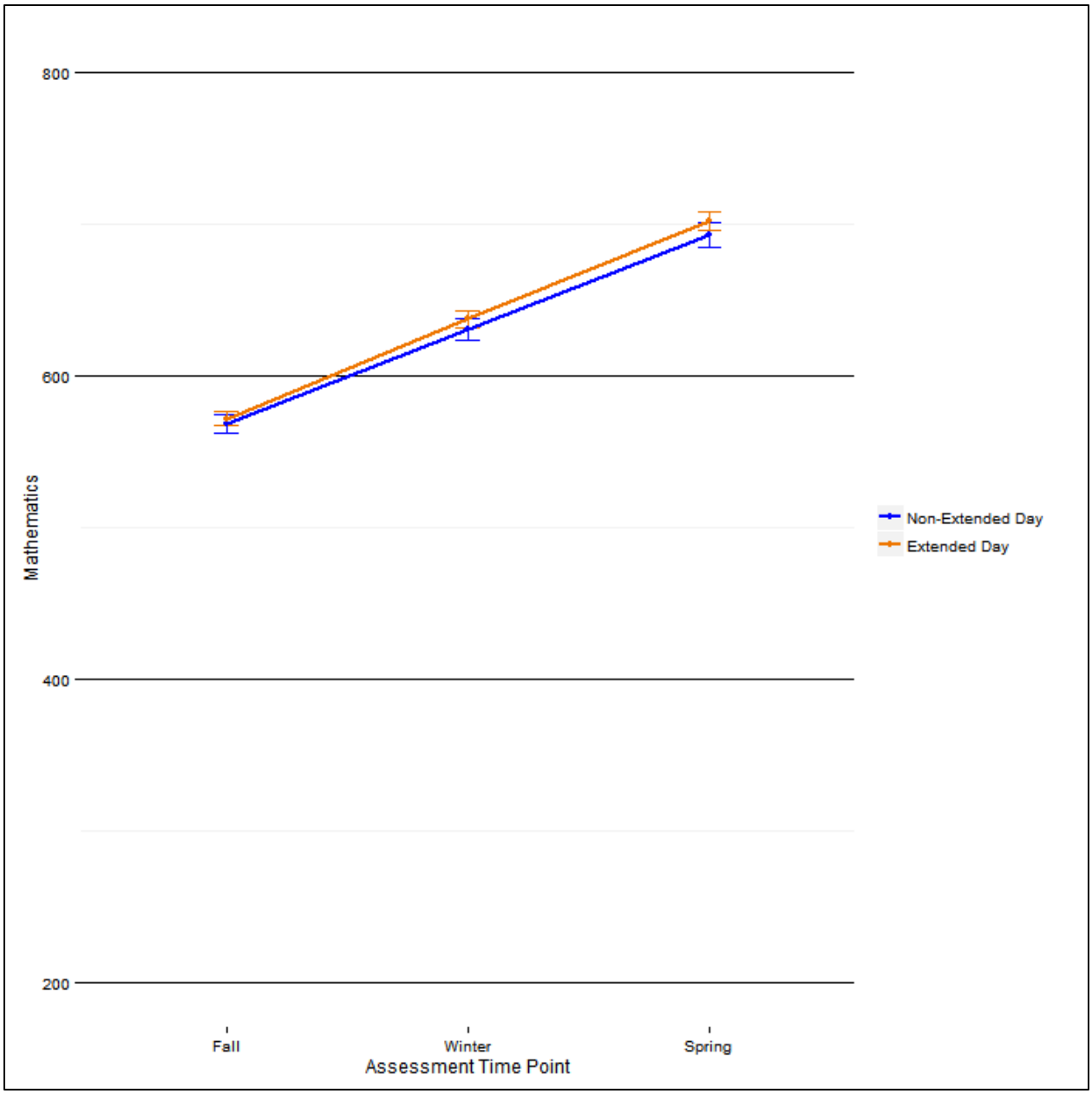


Figure E–4. Oral Language outcome averages with 95% confidence intervals by extended day status across time

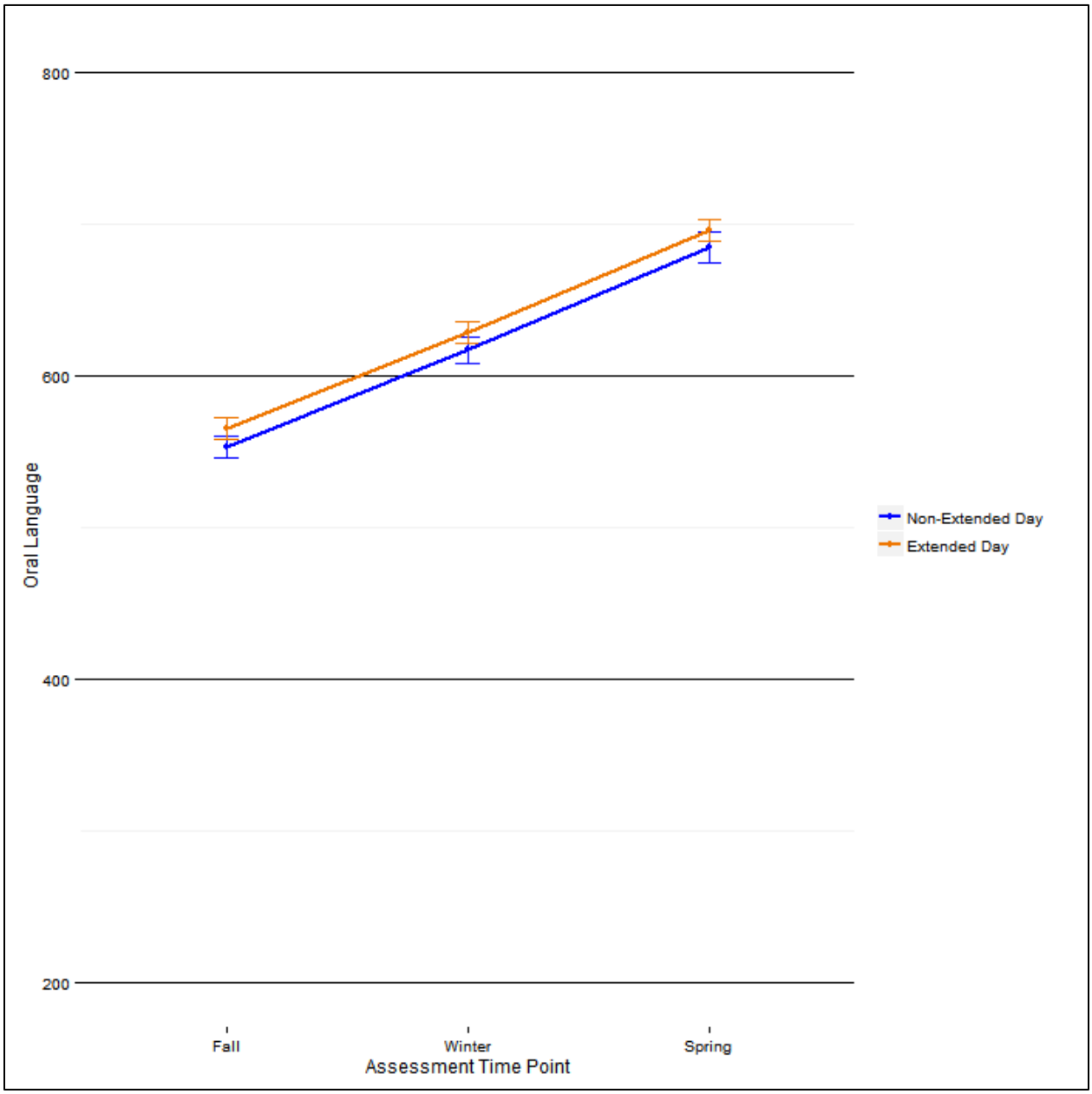


Figure E–5. Physical outcome averages with 95% confidence intervals by extended day status across time

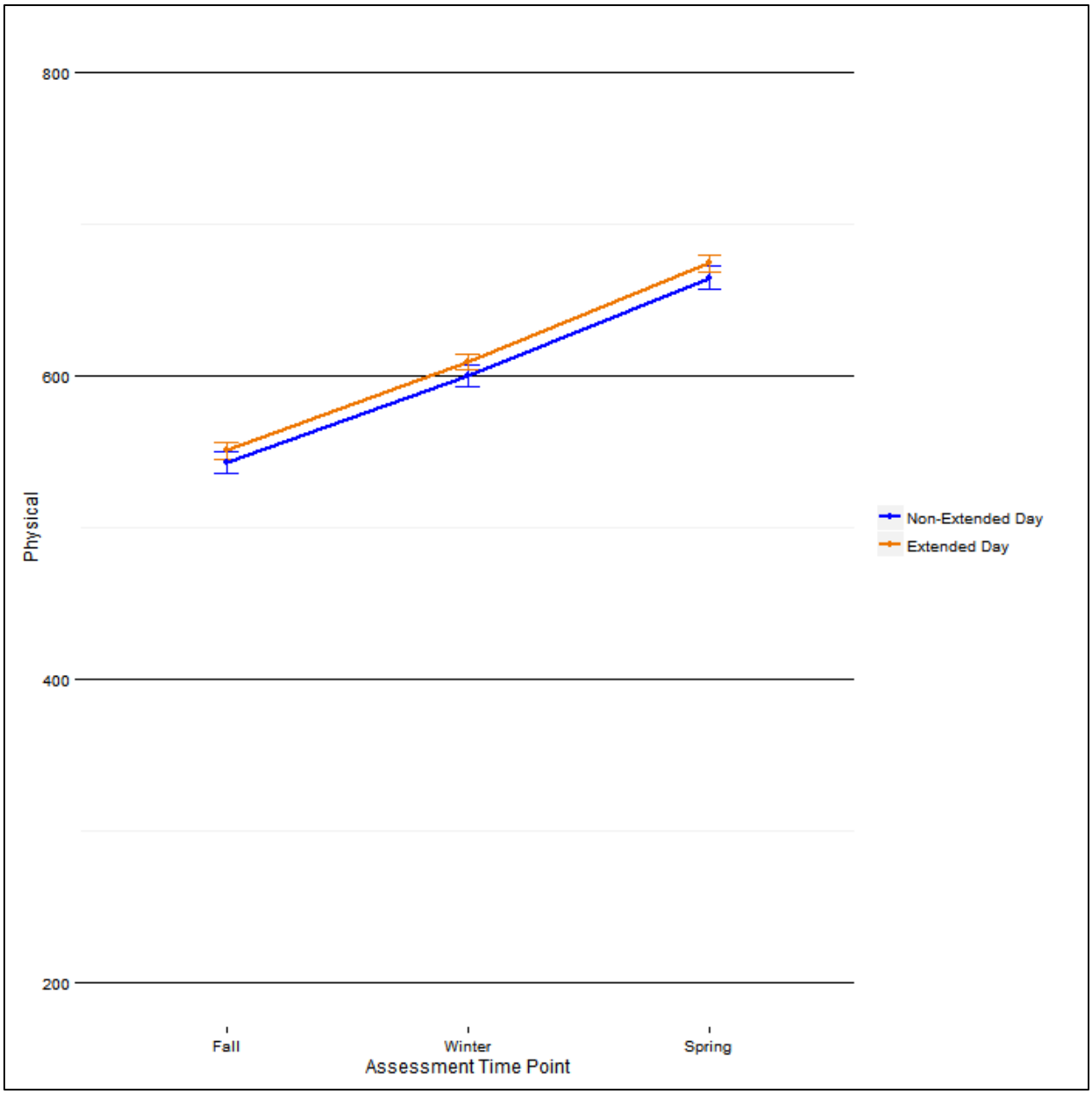
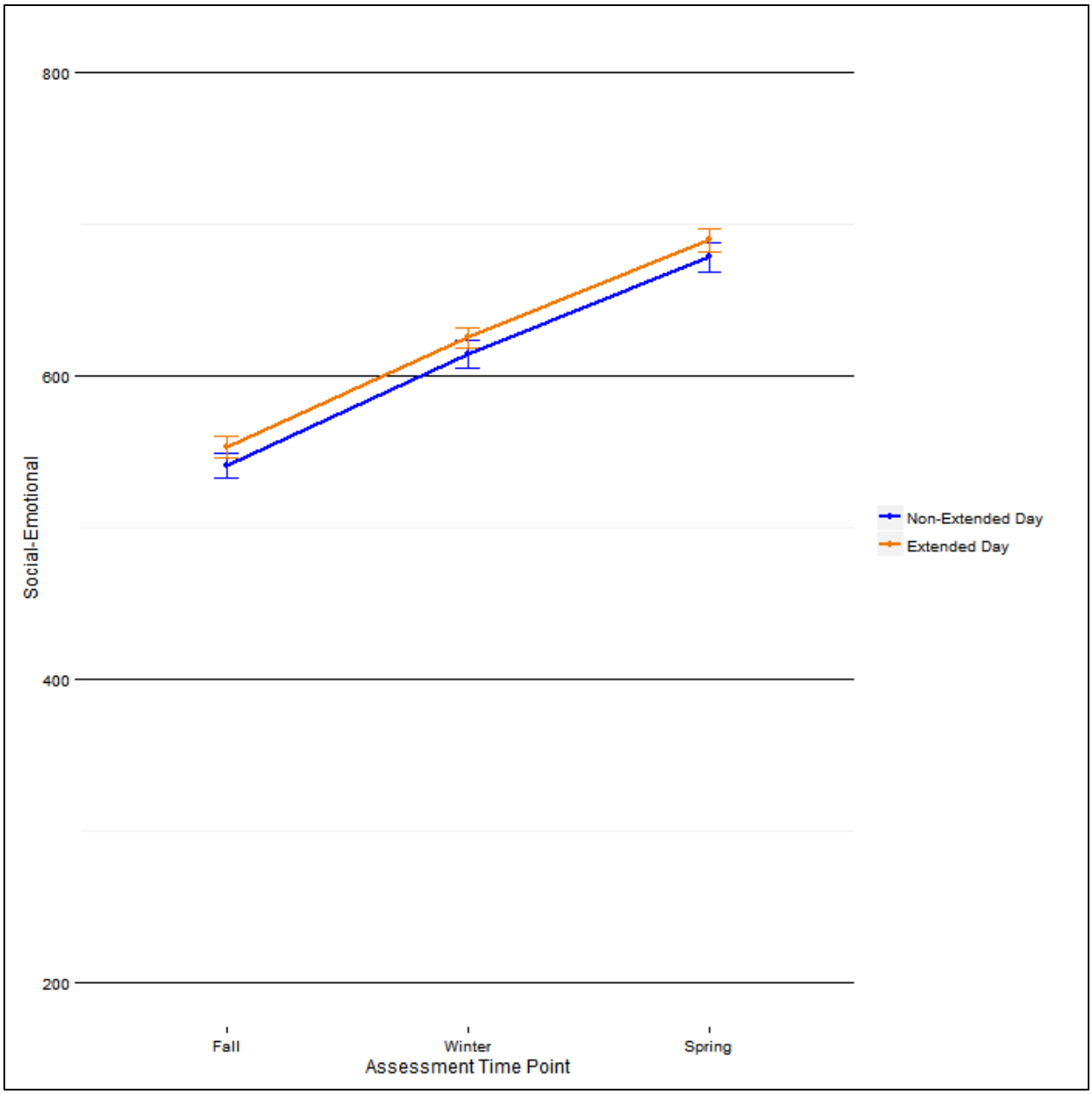


Figure E–6. Social-Emotional outcome averages with 95% confidence intervals by extended day status across time



APPENDIX F: GOLD COMPARISON FIGURES FOR PRE-K 4 SA CENTER

Table F–1. Pre-K 4 SA comparisons for six GOLD outcomes across time and Center

Outcome	*Factor*	*Numerator df*	*Denominator df*	*F statistic*	*Initial p-value*	*Adjusted Significance*[a]	*Partial Eta-Squared*
Cognitive	Time	1.471	767.896	2217.696	.000	Significant	.810
	Center	1	520	9.434	.002	Significant	.018
	Time X Center	1.471	767.896	7.177	.003	Significant	.010
Literacy	Time	1.365	661.813	2462.81	.000	Significant	.835
	Center	1	485	.951	.330	Not Significant	.002
	Time X Center	1.365	661.813	.066	.869	Not Significant	.000
Mathematics	Time	1.535	770.819	2694.455	.000	Significant	.843
	Center	1	502	8.602	.004	Significant	.017
	Time X Center	1.535	770.819	8.017	.001	Significant	.016
Oral Language	Time	1.581	837.767	1759.173	.000	Significant	.768
	Center	1	530	3.360	.067	Not Significant	.006
	Time X Center	1.581	837.767	6.701	.003	Significant	.012
Physical	Time	1.555	860.010	2031.589	.000	Significant	.786
	Center	1	553	42.755	.000	Significant	.072
	Time X Center	1.555	860.010	4.981	.013	Significant	.009
Social-Emotional	Time	1.585	839.931	1803.409	.000	Significant	.773
	Center	1	530	10.089	.002	Significant	.019
	Time X Center	1.585	839.931	13.515	.000	Significant	.025

Note. df = degrees of freedom. Due to the violation of the sphercity assumption, the degrees of freedom are not whole numbers.
[a] Significance levels (p-values) were adjusted to correct for multiple hypothesis testing using the Benjamini-Hochberg technique (1995).

Figure F–1. Cognitive outcome group averages with 95% confidence intervals by center across time

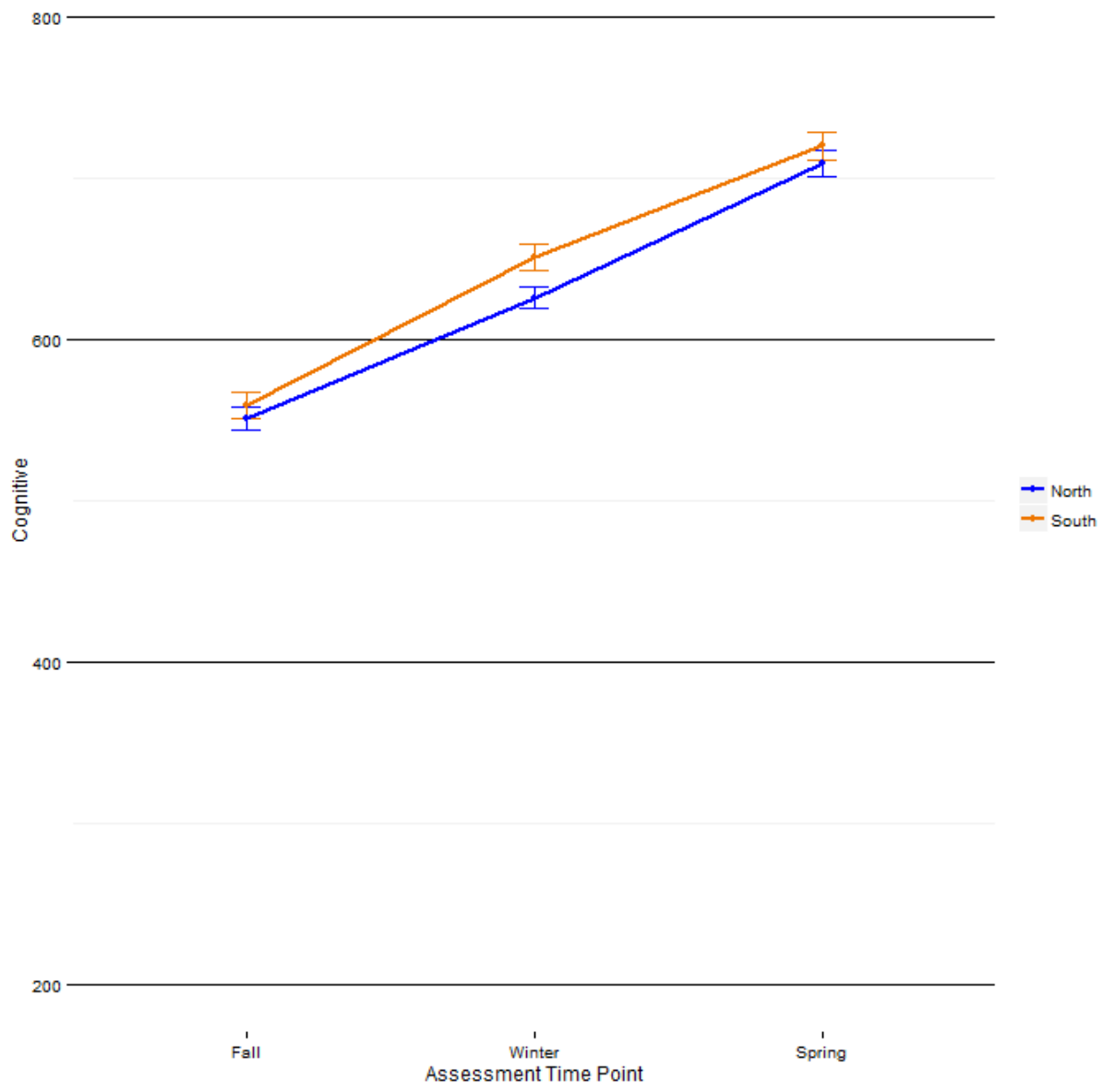


Figure F–2. Literacy outcome averages with 95% confidence intervals by center across time

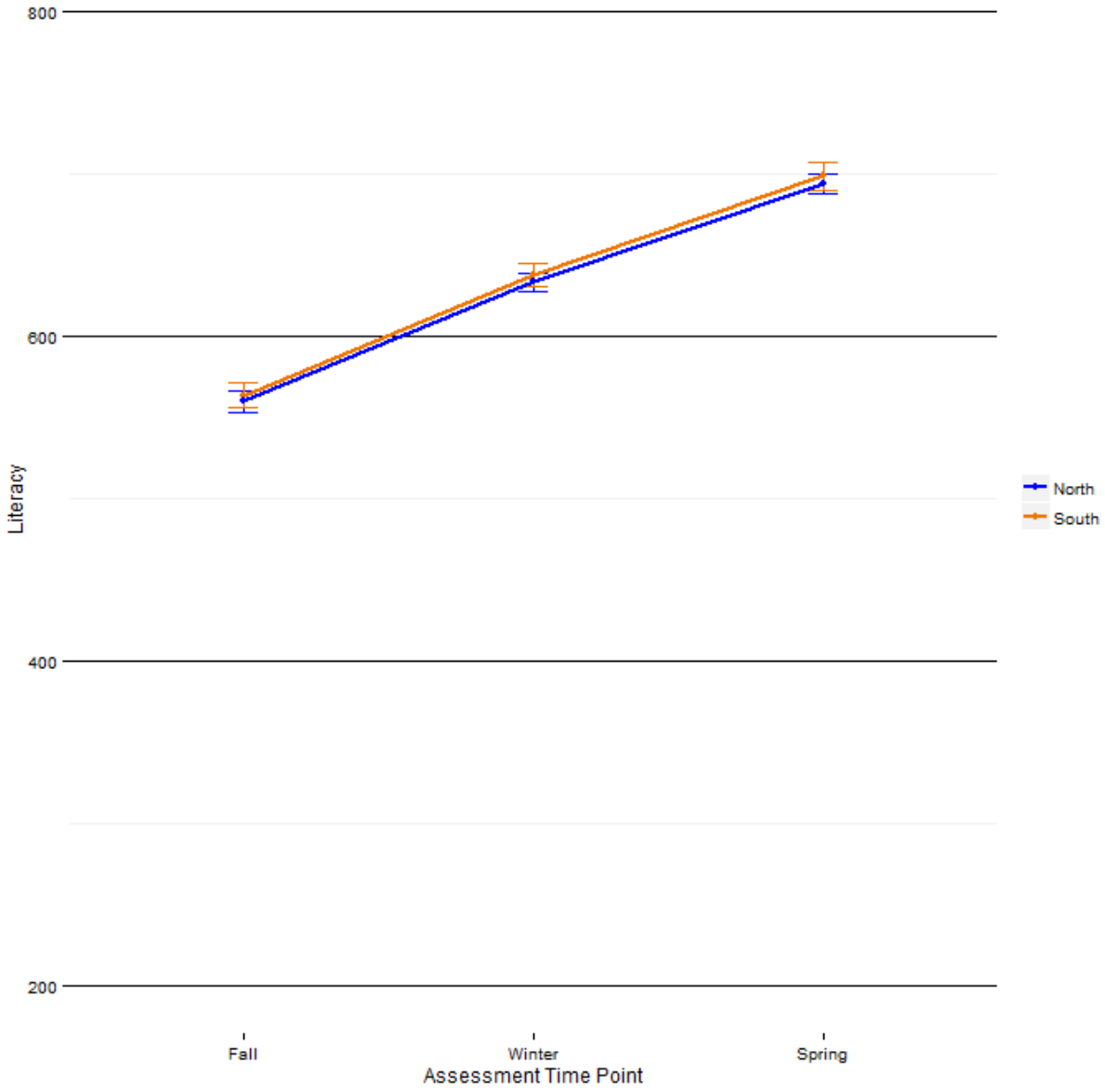


Figure F–3. Mathematics outcome averages with 95% confidence intervals by center across time

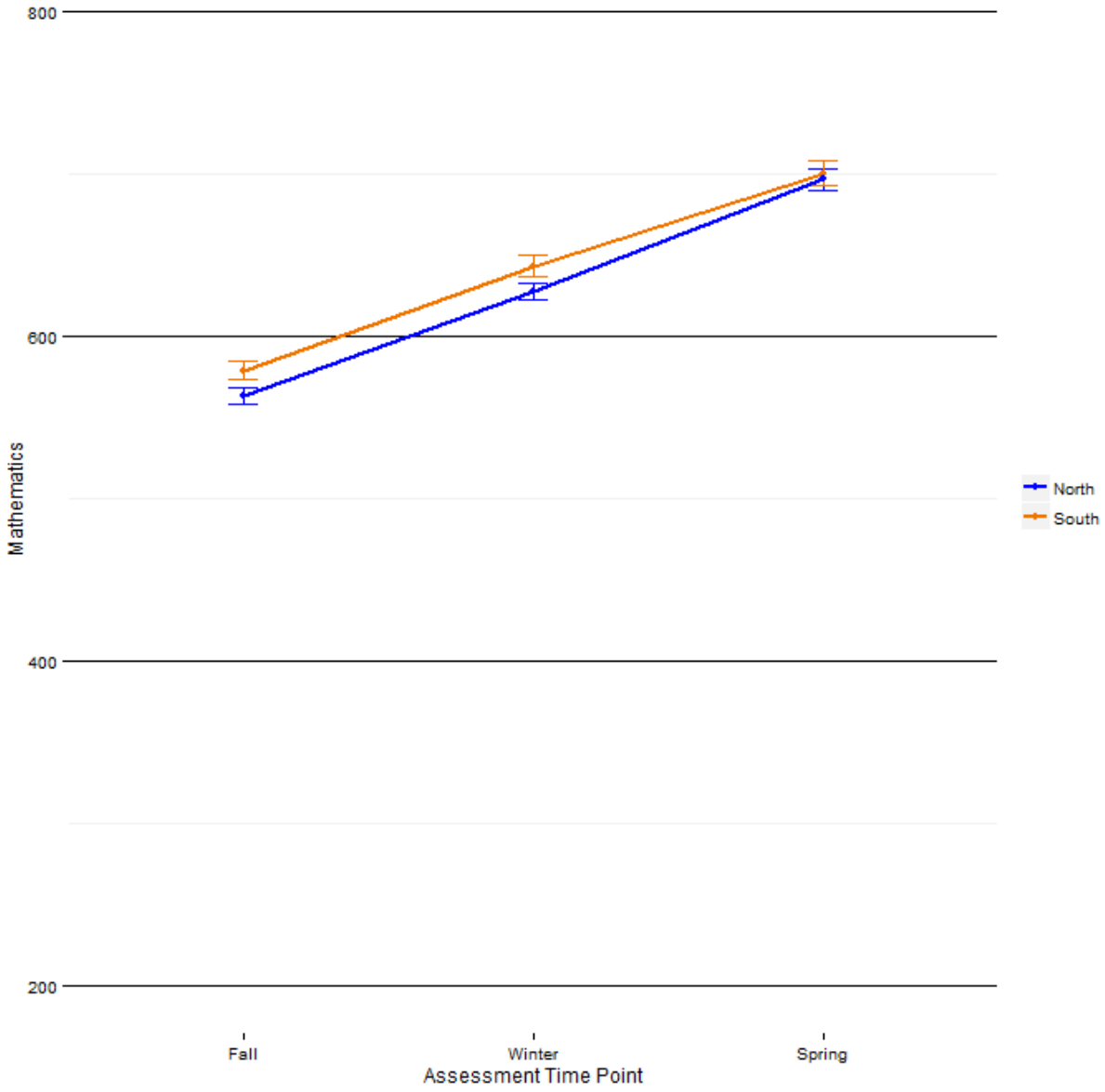


Figure F–4. Oral Language outcome averages with 95% confidence intervals by center across time

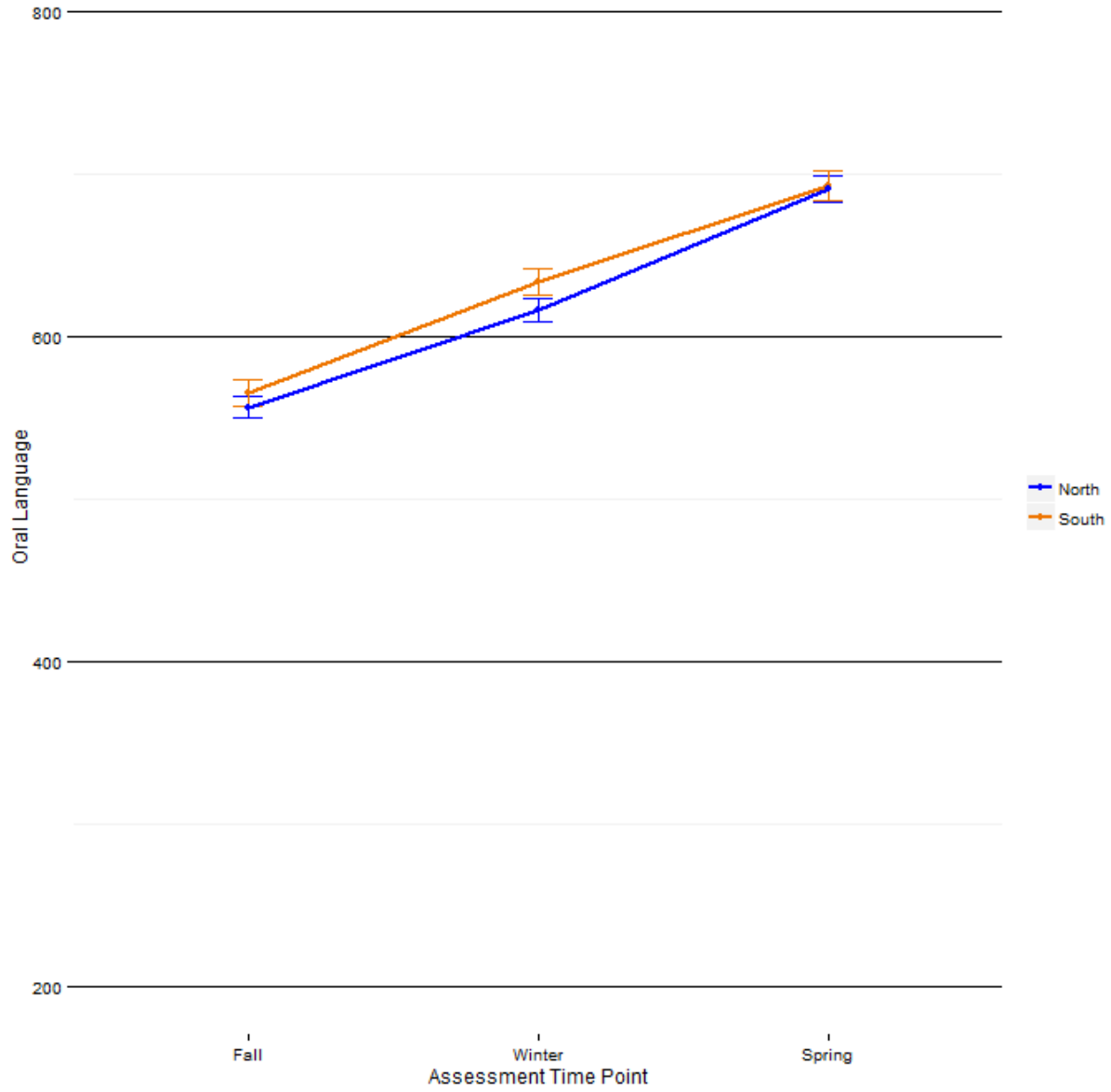


Figure F–5. Physical outcome averages with 95% confidence intervals by center across time

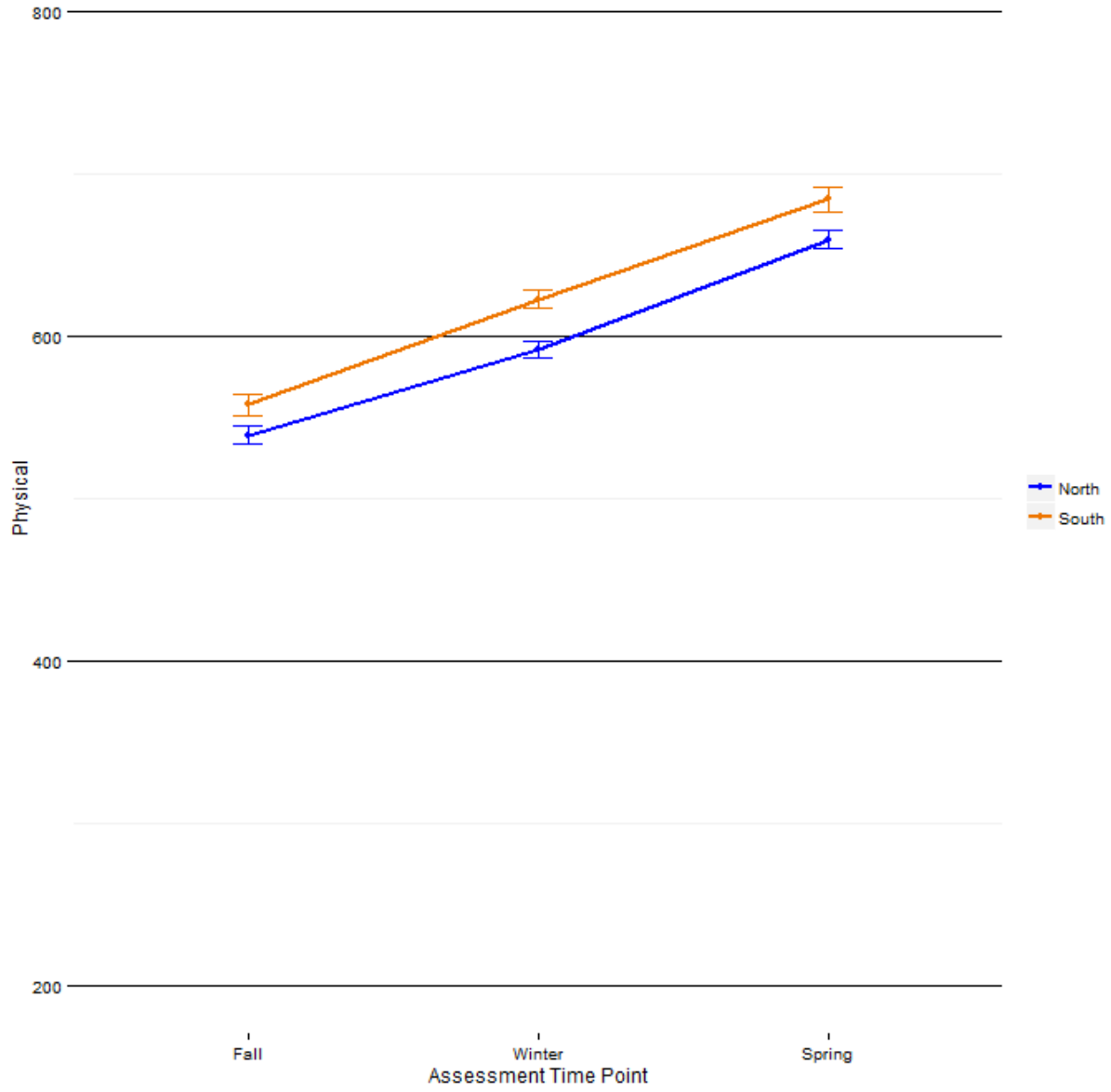


Figure F–6. Social-Emotional outcome averages with 95% confidence intervals by center across time