Kids in Transition to School (KITS)
Year 2 Evaluation Report

Submitted to:

United Way of Lane County

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Grantee Information

- **Grantee:** United Way of Lane County
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Evaluation Overview

In 2016, the United Way of Lane County was awarded a grant from the Social Innovation Fund to replicate and expand the Kids in Transition to School (KITS) program in 13 school districts in Lane County, Oregon. KITS is a brief but intensive kindergarten readiness program designed to help prepare high-risk children and their parents for the entry into elementary school. It focuses on teaching children literacy, numeracy, prosocial and self-regulation skills that are critical for school readiness and positive school adjustment. Additionally, parents participate in workshops in which they learn skills for supporting learning at home, promoting positive child behaviors, and becoming involved in their child's school. The KITS Program has been tested in 3 randomized controlled trials (RCTs: Pears, Kim & Fisher, 2012; Pears, Healey, Fisher, Braun, Gill, Mar Conte, Newman & Ticer, 2014; Pears, Kim, Healey, Yoergrer & Fisher, 2015) with different populations of children. Results from those studies have laid a promising foundation for the evidence base. Positive effects on literacy and self-regulation have been found across populations and longer-term effects on social skills and self-competence have been demonstrated.

The ***Center for the Improvement of Child and Family Services***, a research, training, and education center within the School of Social Work at Portland State University, was contracted by the United Way of Lane County to evaluate the expansion of the Kids in Transition to School (KITS) Program. This report summarizes findings from the Year 2 Impact Study. The goals of the Impact Study were to:

1. Conduct a randomized outcome study of the KITS program in schools identified as potentially able to recruitment more families than could be served;
2. To conduct a process/implementation study focused on learning more about key issues identified in Year 1, namely:

a. The recruitment process;
b. Family attendance in KITS groups;
c. Experiences of Latinx and Spanish-speaking families in the program; and
d. Use or "carry over" of KITS strategies into elementary classrooms.

Evaluation Design, Methods & Measures

This is the second year of expanded KITS implementation across Lane County. In year 1, the KITS evaluation was focused primarily on understanding the feasibility of different research methods, including the feasibility of a randomized control trial. During the first year of evaluation, a mixed-method, quasi-experimental comparison group design was utilized and included (a) an implementation study using open-ended interviews with key stakeholders (school district administrators, principals, KITS teachers, assistant teachers, parent group facilitators, community partners, and parents), focus groups with KITS parents, and web-based surveys with KITS training participants; and (b) an outcome study, using pre-and post-KITS surveys with KITS participants and a quasi-experimental comparison group, and direct child assessments done pre- and post- KITS with a small pilot group of KITS and comparison group children. In addition, detailed records were kept regarding recruitment and data collection strategies and results in order to maximize both KITS program and evaluation recruitment for year 2.

Similar data collection procedures were implemented in year 2, again using a mixed methods design. Qualitative data collection for the process study included open-ended interviews with key stakeholders (KITS coordinators, KITS teachers and facilitators, KITS Program developers, United Way of Lane County staff, and KITS participating parents). A web-based survey was also administered to KITS teaching and facilitation staff. In year 2, a randomized control trial (RCT) was conducted with 6 KITS groups across 3 school districts where pre- and post-KITS parent/caregiver surveys and direct child assessments were collected. Additionally, a quasi-experimental design was used in the remaining 21 KITS groups, comparing KITS families to a convenience sample of comparison families on the pre- and post-KITS parent/caregiver surveys. Detailed records of recruitment strategies were also collected in year 2.

Study Sample

In year 2 of KITS program implementation, a randomized control trial (RCT) was conducted in 3 school districts with a total of 6 KITS groups. In these groups, families who were interested and eligible were randomly assigned to either receive KITS or to a no-KITS (services as usual) control group. The other schools and/or districts were not able to over-recruit for the program, and enrolled all families interested in participating; these families were also included in the evaluation and used as part of the larger quasi-experimental outcome study. Finally, an additional group of quasi-experimental comparison families was also identified. These comparison families were recruited from the group of parents/caregivers who expressed interest in KITS but were unable to participate because of scheduling conflicts or whose child did not attend a KITS-eligible school. Thus, in year 2 of the evaluation, there were two different samples: (1) a randomized control sample for the 6 KITS groups where random assignment to group occurred and (2) a quasi-experimental sample. Analyses were conducted to compare 2016 and 2017 cohorts of KITS and comparison children and parents/caregivers, and no major differences in baseline scores across cohort were seen. For this reason, the 2016 and 2017 samples of KITS and comparison families were combined to form a single, larger quasi-experimental sample. Results of analyses

included in this report are based on these two samples: (1) The randomized study sample: 2017 RCT KITS versus 2017 RCT control and (2) the quasi-experimental full sample, which combines both the RCT participants and the participants recruited in the quasi-experimental study, specifically, the 2016 and 2017 KITS participants versus 2016 and 2017 comparisons. Final samples with complete baseline and follow up data included 88 KITS families and 43 controls (RCT), and an additional group of non-randomized families including 426 KITS families and 95 comparison families. Thus the quasi-experimental sample comprises a total across both years of n=514 KITS families and n=138 comparisons. The following table summarizes participation rates in each of these groups.

Table A. KITS Evaluation Samples & Participation Rates

Year	Group	Total Possible to Recruit*	Total Participated at Baseline	Baseline Participation Rate	Total Participated at Follow Up	Follow Up Participation Rate
2017	RCT KITS	110	104	95%	88	85%
2017	RCT Control	79	49	62%	43	88%
2016 & 2017	Combined KITS	802	640	80%	514	80%
2016 & 2017	Combined Comparison	337	169	50%	138	82%

*Total possible to recruit for KITS families is the total number of families that enrolled in KITS. For controls, it is the total number of families either randomized into the control group (for RCT control families) or the total number of families that expressed interest but were unable to participate in the program (for quasi-experimental comparisons).

Measures

The process study used a combination of qualitative telephone interviews conducted with key stakeholders (school and district representatives, KITS staff, KITS participants) and a web-based (Qualtrics) survey conducted with KITS staff before and after training. Measures used for the process component of the study were developed to: 1) better understand program recruitment and attendance, 2) explore the professional development aspects of KITS, and 3) learn more about the specific needs and experiences of participating Latinx families, and of families with children with disabilities (e.g., open-ended interview protocols and a web-based survey).

Two data collection methods were used for the impact study: (1) pre- and post-KITS parent/caregiver surveys in all 27 KITS groups and (2) direct child assessments in the 6 KITS groups were an RCT was conducted. Parent surveys were collected either in pencil-and-paper format or using a web-based interface at baseline (pre-program) and program end (late September and October, 2017). Child assessments were conducted by trained assessors one-on-one with children during KITS School Readiness Groups or, for control children, individual meetings with families. Parent surveys included the following outcome measures: **1. Social Skills Rating System** (Gresham & Elliott, 1990) subscales (Self Control, Externalizing, cooperation, and Hyperactivity); **2. Parent Discipline Questionnaire** (Capaldi, 1995, Poor Discipline Subscale); **3. Arnold Discipline Survey** (Arnold, O'Leary, Wolf, & Acker, 1993; Laxness subscale); **4. Parent-Teacher Involvement Scale** (Conduct Problems Prevention Research Group, 1995); **5. Frequency of reading to child**; **6. Kindergarten Readiness Activities** (parent report of participation in other kindergarten readiness activities); and **8. Family demographics.** Direct child assessments with children participating in the RCT included the following standardized assessments: **1. The Head Toes Knees**

Shoulders (HTKS) assessment (McClelland et al., 2007); and **2. EasyCBM early literacy and early numeracy** (Letter Sounds, Uppercase and Lowercase Letter Names, and Numbers and Operations). Scores from the Oregon Kindergarten Assessment, which includes the same four EasyCBM measures as collected by the KITS evaluation team as well as the Child Behavior Rating Scale (Bronson, Goodson, Layzer & Love, 1990), will also be obtained from the Oregon Department of Education as soon as they are available.

Analysis

Outcome data were analyzed using multiple linear regression (continuous outcomes) and multi-level modeling (to control for nesting, or clustering, within KITS groups, when appropriate). Time 2 outcome scores were used as dependent variables and all models controlled for Time 1/pretest scores and demographic characteristics (child gender, child participation in formal preschool/child care, child race/ethnicity, household employment, and primary parent/caregiver education status). For research questions pertaining to differences between KITS and comparison groups, intervention condition (i.e., KITS vs. comparison/control) was used as the independent variable. Thus, these regression models assess whether there were significant differences in the amount of change over time for KITS vs. comparison/control participants. Additionally, exploratory regression analyses were done to explore the relationship of KITS group attendance on key child and parent outcomes; thus, attendance rate was used as the independent variable in these analyses. Finally, we conducted regression analyses on the key parent and child outcomes to explore whether KITS was differentially effective for families with different background characteristics (e.g., moderator effects). Qualitative interview data was content coded and analyzed by the lead members of the research team using protocols developed during Year 1. Key themes were reviewed by qualitative data collection staff for accuracy and consistency.

Key findings – Outcome Study

Results from the RCT found statistically significant differences in parents' confidence in supporting children's learning at home, and perception that they could successfully support their child to be ready for kindergarten. Specifically, KITS families increased their perceived confidence and efficacy in this area, while in the comparison group families reported lower confidence over time. Further, there were statistically significant differences between KITS families and controls across nearly all measures of the quality of families' relationship with the school, including satisfaction with information received from the school, positive relationships with staff, and general perceptions of a welcoming school climate. Effect size estimates indicated small but positive effects of the KITS program on these outcomes. There were no significant differences in the RCT sample on any child outcomes.

Results of the large quasi-experimental analysis found similar results, with one additional outcome reaching significance. Specifically, in the larger sample KITS parents showed greater improvements in parenting effectiveness over time, relative to comparison parents. Again, effect size estimates indicated that effects were small in magnitude. Note that child assessments were not conducted for the quasi-experimental sample. However, in the full sample results, we also found evidence that the KITS program is more effective in some areas for Latinx families (compared to White) and for non-Latinx or multi-racial families of color (compared to White families). Specifically, KITS participation had a greater impact for Latinx families compared to White families in terms of (1) frequency of reading to young children; and (2) parents' readiness to support their child during the transition to kindergarten. KITS participation also had a greater impact for other families of color

(multi-racial or non-Latinx) compared to White families in terms of: (1) number of books in the home at follow up; (2) parents' positive perceptions of the school; (3) children's externalizing behavior; and (4) children's prosocial/cooperative behavior.

Additional analyses explored the relationship of KITS attendance and parent and child outcomes. Generally, attendance in the KITS student groups was quite high (about 80%), while parent group attendance was considerably lower (about 50% of sessions attended) and more variable across groups. It is worth noting that parent group content could also be delivered through home visits and other means as well. Generally, levels of student or parent group attendance were not associated with parent or child outcomes, controlling for demographic characteristics. However, when the sample was limited to children and/or parents who attended at least 75% of the KITS SRG groups (considered "full implementation"), there was a near significant trend in which KITS parents reported greater improvements in children's self-control skills compared to comparison group families. Other outcomes within the "full implementation" sample of parents were similar to those seen in the quasi-experimental sample, specifically showing more improvement in parent perceived confidence to support children's school readiness, improved parenting effectiveness and, in one finding not seen in the overall results, improvements in their perception that their boundary-setting strategies with children were effective. Moreover, these KITS parents also reported much more positive perceptions of the school climate. Thus, somewhat stronger results were seen among families who were able to fully participate in the KITS program, with a trend indicating positive outcomes for child behavior.

Implementation Study.

Results of the implementation study identified ongoing challenges with recruitment of families, despite intentional changes put in place last year to overcome some of the issues identified in year 1. A number of school districts elected to work more closely with OSLC to provide recruitment support, which was successful in some communities. Other communities, however, in an effort to build sustainability, chose to continue the work on their own, with fewer resources for active outreach and engagement. One ongoing challenge that was identified was the need to start recruitment earlier and have more resources to do active outreach. Despite attempting to make these changes in year 2, the time and level of staff resources necessary to identify, and do outreach to, those families who have incoming kindergarten students continues to exceed the resources available within most school districts. The other major recruitment challenge continues to be that many families who are interested in the KITS model either cannot meet the requirements for attendance, or are not able to accommodate the KITS schedule of part-time classes over an extended period of time due to their need for more full-time childcare.

Working with Latinx families within the KITS model was identified last year as an area for learning. Interviews with staff and families suggested a number of takeaways and ideas for possible cultural adaptation of the model. First, Latinx families generally had a positive regard for the program, and saw it as valuable for themselves and their children. However, families noted that the program would benefit from intentionally integrating activities, songs, food, and other aspects of the Latinx (in this case, largely Mexican) culture, as well as incorporating more practices and activities that were consistent with Latinx parenting practices and beliefs, and homework that did not require parents to understand English. In terms of language accommodations, in the classes that did not have a Spanish language teacher or assistant, families felt that children would benefit from at least initial

support from a teacher or other person in the class who could assist with translation during the early weeks of the program as children adjusted to the KITS structure and setting. There were more mixed feelings about the need to have separate parent groups for Spanish-speaking and English-speaking families (the current model is for primarily mixed-language groups). In some cases, this seemed to work well, while in others Spanish-speaking families reported feeling somewhat linguistically isolated. This was especially the case when there were only a small number of Spanish-speaking families in a group dominated by English-speakers. Finally, it should be noted that Spanish-speaking families saw the KITS program as being an important opportunity for their children to acquire some of the pre-academic skills that they felt they could not help them with themselves (e.g., English letters, numbers, etc.). A somewhat stronger focus on these skills among Latinx families might be warranted. This feedback, especially in the context of generally more positive outcomes for Latinx families, suggests that with additional adaptions, the KITS program may be quite effective with this growing population of families and children.

Another potential, if somewhat unanticipated benefit, of the KITS program was in the support provided for teachers' professional development. More than two-thirds of the KITS teachers this year had also participated in year 1. These teachers reported continuing to increase their skills and confidence in using KITS techniques, in understanding and supporting children's behavior and social-emotional development, and in their own instructional skills. They also reported higher levels of endorsement of the effectiveness and use of evidence-based programs in their work, compared to the first year teachers. Well over half also reported actively sharing the KITS approach with other school staff and administrators. In particular, teachers valued KITS coaching and team-based approach as mechanisms for improving their implementation of KITS. This highlights the value both of retaining KITS staff from year to year if possible, and in utilizing kindergarten teachers when possible to teach KITS classes. Having KITS staffed with kindergarten teachers may also facilitate building the positive family-school connections that were one of the strongest results found in the outcome study.

Discussion

Results of this two-year study of the KITS program have documented a number of key successes, as well as challenges. Outcome findings suggest the program leads to small but potentially important changes in parents' self-efficacy and confidence in knowing how to support children to be ready and successful in school. There is also preliminary evidence that the model may lead to improvements in parenting skills – in particular, on parents' ability to set clear boundaries and more effectively support children's self-regulation. Further, there were clear and consistent results suggesting that the model helps create the key positive relationships between parents and elementary school staff that have been shown to be important to successfully engaging parents in supporting their children's learning through the elementary school years. Building positive relationships between parents and schools, especially for those parents who are less confident and comfortable within the school system, is an important goal for kindergarten transition programs such as KITS. While the magnitude of effects was relatively small, these results are promising, especially in the context of a "real world" study in which variance related to differences in implementation, environmental context, and other factors could act to reduce the magnitude of program effects.

Results were somewhat less encouraging in terms of measured effects on child outcomes. However, it is important to note that the measures included in this study, especially those related to more "academic"

outcomes are largely not the intentional focus of the KITS program. Further, for measures of child self-regulation and social skills, the study relied primarily on parent report measures – and not on what may be more directly influenced by KITS, namely, child behavior in the classroom setting. Given the emphasis of the model on helping children build the self-regulatory and social skills needed within the classroom environment, using measures based on teachers' ratings of student behavior may yield more promising results. Further, it should be noted that the sample sizes for the only direct measure of self-regulation were small and therefore these analyses may have lacked power to detect statistical significance. For several key child outcomes, the pattern of results did, in fact, suggest that KITS children improved in these areas to a greater extent than did controls, however, the sample size may have been insufficient to detect these differences. Moreover, child outcomes were more likely for children who received the "full dosage" of KITS programming, underscoring the importance of attendance for yielding positive benefits in this area.

Recommendations

Results are encouraging, especially in terms of the success of the model in strengthening parenting support for children's transition to kindergarten. Clearly, the parent education aspect of the program is having meaningful effects in helping to bridge the gap between families and schools, a key aspect of family engagement. This may be due to a number of programmatic elements, including having KITS classes located at local elementary schools, staffing groups with elementary school staff, parent group content that includes an emphasis on helping parents understand how to navigate school systems, communicate with teachers and advocate for their child, and having some KITS groups continue into the fall, providing opportunities for sharing information and answering parents' questions after school starts. Clearly, these are key elements of the program that resonate with parents and help facilitate important parent-school relationships and which should be retained in any future changes or adaptation of the model. Given the relatively small magnitude of effects, efforts to support parent attendance in these groups, as well as to monitor and support quality implementation of the parent component, should be encouraged.

One area that warrants further attention is that of cultural adaptation, and especially in regards to adaptions for Latinx and/or Spanish speaking families. Given the growing number of these children nationally and in Oregon, as well as the well-documented disparities in their kindergarten readiness skills, an intentional focus on understanding how to maximize effectiveness of the model for this group is well warranted. Results of this study suggest that KITS may be particularly important for improving school readiness (at least in some domains) for Latinx children and parents. While program developers made a number of key modifications during the 2017-18 implementation of KITS to better meet the needs of these families, interviews with staff and Latinx parents suggest additional areas where the program could be improved in terms of engaging and supporting these parents and children. Future program development, testing, and research specific to this type of cultural adaptation is important.

Further research on the KITS model would do well to focus on increasing the sample size within a rigorous designed (e.g., randomized) study, collecting measures of child behavior either through classroom observations or from teachers, and on identifying key characteristics of families or children who might be most likely to benefit from the program. While the overall program effects documented in this study were modest, it may be

that particular subgroups of families or children who are most likely to benefit could be identified, and then comprise a more focused target population for service delivery. Finally, future research should collect additional information on teacher and KITS groups' characteristics that might be related to stronger outcomes. Even with the relatively large number of KITS groups in this study (26) there were too few groups to conduct meaningful statistical analyses of how group or teacher characteristics might influence outcomes. Larger studies that could explore this issue would be helpful in improving training and implementation.

In sum, results of this study suggest that the KITS program can meaningfully impact important kindergarten readiness and family engagement outcomes. More research that can help identify what families and children may benefit most, and how the model might be tailored to meet the needs of these different populations is needed and could further strengthen the program. Moreover, it should be noted that implementation support in the form of staff to help with outreach and recruitment of families and ongoing training and coaching of KITS staff is critical to success. While the original intent of this project was to move towards a sustainable model through ongoing support and a "train the trainer" approach, the reduction of federal funding from 5 years to 2 years required changes in the plans for sustainability. Currently, there are trained staff in each district, and districts are continuing to work with the UWLC and OSLC on alternative models for providing the coaching and training needed for ongoing programs. Future funding and research on how KITS can be realistically sustained within a community or school district is needed.

Introduction

This report summarizes process and outcome data for second year of evaluation of the Kids In Transition to School (KITS) Program being implemented in Lane County, Oregon. The goal of the first year (2016) was to conduct a Feasibility Study to set the stage for future KITS Program implementation and evaluation. The Feasibility study was designed to assess the success of a variety of recruitment and data collection strategies, and to conduct an intensive process study to better understand the process of recruitment, attendance support, and program delivery during the first large-scale expansion of the KITS model. During Year 1, a quasi-experimental outcome study was conducted, which included collecting data from 203 KITS group participants (parents) before the KITS program started (July 2016), and again at program end (November 2016). A comparison group of n-=51 parents also complete these surveys. The comparison parents and children were recruited from several sources, including families who attended schools not participating in KITS, families who indicated initial interest in KITS but were unable to attend because of other commitments and families who initially planned to participate but never attended. Additionally, a small-scale child assessment data collection was conducted with 18 KITS participants and 29 comparison group children. Initial findings from Year 1 suggested positive improvements over time among KITS participants, and a few positive outcomes relative to the quasi-experimental comparison group.

In Year 2 of implementation (2017), additional efforts were made during the recruitment phase, and ultimately 6 of 27 KITS groups had sufficiently large groups of potentially interested applicants to justify use of random assignment of participants to the KITS program or to community services as usual. Additionally, data from KITS participants and a similar quasi-experimental comparison group were also collected, with the intention of increasing the sample size in the study. Further, in Year 2, process study data were again collected using methods similar to those used in Year 1, although due to reduced funding after the elimination of SIF funding, the process study was scaled back in scope from Year 1.

The report includes a brief discussion of prior KITS research, description of the KITS model and theory of change, Year 2 research questions and methodology, and outcome and process study findings. Results are discussed in the context of next steps for research and implementation of the KITS program.

Prior Research

For decades, it has been recognized that the gap in school achievement between socio-economically advantaged and disadvantaged children is apparent as early as school entry (Entwistle, Alexander, & Olsen, 1997; U.S. Department of Health & Human Services, 2000). Children from low SES backgrounds tend to enter school with poorer literacy and social skills than their peers (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005; Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006). Deficits in school readiness increase risks for academic and social failures which, in turn, may lead to lower rates of educational and occupational attainment, and higher rates of drug use, delinquency, and mental health difficulties (e.g., Fothergill et al., 2008; Shochet, Dadds, Ham, & Montague, 2006; Wiesner& Windle, 2004).

Recently, a number of state governments have begun to invest in early education programs to address deficits in school readiness. The State of Oregon has embarked on an ambitious mission to improve the early learning resources across the state as well as to increase accountability for positive early education outcomes including school readiness. To increase accountability in education, the state developed a statewide kindergarten

readiness assessment system in 2013 to provide ongoing performance data. Results from the first year of statewide testing suggested that, on average, 33% and 37% of children were at high risk for reading failure given their scores on letter naming and letter sounds, respectively (http://www.oregonlive.com/opinion/index.ssf/2014/03/kindergarten_assessment_makes.html#incart_story_package). Thus, at minimum, a third of all children may fail to learn to read fluently by third grade and will be at high risk for school dropout (Hernandez, 2012). These numbers, though highly concerning, should not be surprising, in that Oregon had the 46th worst graduation rate out of 47 states in 2012 (Stetser & Stillwell, 2014).

The Kids in Transition to School (KITS) Program represents a potential model for addressing these gaps in early school readiness. KITS is a relatively brief (12 to 16-week) program designed to help prepare high-risk children and their parents for the entry into elementary school. It focuses on teaching children literacy, numeracy, prosocial and self-regulation skills that are critical for school readiness and positive school adjustment. Additionally, parents participate in workshops in which they learn skills for supporting learning at home, promoting positive child behaviors, teaching new skills, and becoming involved in their child's school. The KITS Program has been tested in 3 randomized controlled trials (RCTs) with different populations of children including children in foster care, children with developmental disabilities and behavior problems and children from low-income backgrounds. Results from those studies have laid a promising foundation for the evidence base. Positive effects on literacy and self-regulation, as well as on parenting behavior and involvement in school, have been found across populations and longer-term effects on social skills and self-competence have been demonstrated. The purpose of the funded SIF project was? to support a substantial "scale up" effort of the KITS model across multiple school districts and schools in a large county in Oregon. The purpose of this evaluation is both to understand what factors support successful replication, and to provide at least a **moderate level of evidence** regarding program effectiveness.

KITS Program Model Description

The Kids in Transition to School Program was designed to be a high-intensity, short-term school readiness intervention (24 child sessions over 16 weeks; 8 parent sessions over 8 weeks) delivered in the summer before and first 2 months of kindergarten. The KITS intervention is designed to increase school readiness prior to kindergarten entry and to promote better subsequent school functioning (Pears et al., 2013). To that end, the program occurs in two phases. The *school readiness phase* (two thirds of the curriculum) covers the 2 months before kindergarten entry and is focused on preparing children and families for school. The *transition/maintenance phase* covers the first 1-2 months of kindergarten and is focused on supporting a positive transition to school. The program is based on the idea that a high-intensity, short-term intervention delivered just before and during the transition to kindergarten is likely to result in an immediate increase in school readiness, which will improve child school adjustment in kindergarten and first grade (Pears et al., 2013). The model (described in more detail below) includes intervention directly with children to help them build early literacy, numeracy, and self-regulatory skills as well as parenting education and support to enhance parenting skills and parent efficacy related to school involvement.

Three principles underlie the KITS Program. The first is that efficacious interventions have to be *developmentally timed* to occur at the critical transition to school. Pianta and Cox (1999) argued that this period is optimal for

intervention for two reasons: (a) children are in the process of reorganizing their competencies and might be particularly open to influence and (b) this transition might set the trajectory of the child's later school career. Additionally, at transitions, it might be easier to perceive and intervene on between-group skill gaps (Entwistle, Alexander, & Olson, 2005).

The second underlying principle of the KITS Program is a *focus on self-regulatory skills* (i.e., the capacities to voluntarily regulate and control emotions and behaviors in different situations) in addition to early literacy and social skills. This emphasis is based on the recognition that self-regulatory skills are essential for school success (Blair & Diamond, 2008). Exposure to poverty appears to be a consistent predictor of poor prekindergarten self-regulatory skills (Rhoades, Greenberg, Lanza, & Blair, 2011). Further, growth in the self- regulatory skills of low-income children during the prekindergarten year predicts growth in both literacy and numeracy skills, leading some researchers to suggest that prekindergarten programs should incorporate training in self-regulation (Welsh, Nix, Blair, Bierman, & Nelson, 2010). However, many programs to address school readiness in high-risk children do not feature such a focus (Welsh et al., 2010).

The third principle is the provision of *high-density learning opportunities*. Within many typical early learning settings, children might spend less than half of their time in instructional activities, and general instructional supports can be of fairly low quality (Hamre & Pianta, 2007). The KITS curriculum is designed to provide as many learning opportunities as possible with specific foci on critical early literacy, social, and self- regulatory skills within the ecologically valid context of the classroom. Additionally, instruction occurs within a framework of a manualized set of empirically based instructional and positive behavior management strategies. Didactic instruction and modeling techniques are used to teach skills and multiple opportunities for the children to practice those skills are embedded in the program activities.

KITS consists of two primary components: a 24-session school readiness group (SRG) focused on promoting early literacy and social-emotional skills in children and an 8- session parent group (PG) focused on promoting parent involvement in early literacy and school. The intervention covers the 2 months prior to kindergarten entry and the first month of kindergarten. See Appendix A for the KITS Logic Model framework.

School Readiness Group (SRG) structure and curriculum

Like a typical kindergarten schedule, school readiness sessions have a highly structured, consistent routine with many transitions between activities. The routine includes circle times at which students engage in games and musical activities designed to promote language, rhyming, and self-regulation skills, instructional periods during which the students focus on learning social and early literacy skills, project times during which children complete art and science activities designed to reinforce the literacy and social-emotional target skills, and snack time during which children practice their conversational and other social skills. The sessions were held in classrooms in the schools.

The curriculum objectives are clearly specified for each session regarding the early literacy, prosocial, and self-regulatory skills to be emphasized. The activities are designed to promote specific skills. Instruction is also strategically sequenced to teach the simplest skills first and build toward more complex skills over subsequent sessions. A lead teacher and two assistant teachers conduct the groups of 20 children. The high staff-to-child

ratio provides children with high levels of support and feedback. A key component of the school readiness groups is the classroom behavior management system. Teachers are trained to use evidence-based behavioral support strategies. The early literacy activities include a letter of the day (letter naming and letter-sound knowledge), a poem of the week (phonological awareness, concepts about print, and language), and storybook and dramatic activities (understanding of narrative). Two components of socioemotional readiness are targeted in the KITS curriculum: prosocial skills (sharing, making a new friend, joining a game, cooperating, recognizing intentions and feelings, choosing prosocial responses to peer provocation) and self-regulatory skills (being a good sport, handling feelings, problem-solving, and using work-related skills). These skills are taught using a blend of direct instruction, role-playing, and activity-based intervention; the children receive feedback and guided practice in using the target skills. Multiple opportunities for using inhibitory control, maintaining attentional focus, and practicing newly acquired social skills are embedded across activities.

Parent Group (PG) structure and curriculum

The parent group meetings coincide with the school readiness group meeting times during session 1-4 during the summer and again after the start of school. Food is provided, and childcare is available for siblings of intervention children. Each group is led by one or two facilitators. Each facilitator presents information pertinent to preparing children for school such as how to practice literacy activities in the home and how to establish routines that will ease the transition to school and support positive adjustment. The parents are also taught evidence-based, positive behavior management skills that parallel those used in the school readiness groups. The facilitator leads structured group discussions of the materials and addresses questions. Parent groups are typically held during the day, most often while children are participating in the child workshops, although depending on the particular school, these groups are sometimes held at different times/days. If parents' work schedules don't allow them to participate in the workgroups, KITS parent facilitators work with them to develop an individualized plan for them to receive the materials, sometimes meeting them at home or in a mutually agreed-upon location to provide and review materials. Skill acquisition is reinforced via role-plays and opportunities to practice new skills. For primarily Spanish speaking parents, there is an interpreter who translates the discussion simultaneously. Parent group handouts are also available in Spanish. If a parent misses a group session, the facilitator visits or calls the parent to deliver the missed curriculum.

The KITS school readiness group teachers and parent group facilitators complete a standardized 40-hr training program. At weekly intervention team meetings, the progress of individual families within the three school readiness domains is discussed, and strategies to address behavioral and literacy needs within the broader curriculum are planned. More information about the development of the curriculum may be found in Pears et al., 2013.

Year 2 Program Implementation

During Year 2 of KITS Program implementation, 20 schools hosted 27 KITS groups within 13 school districts implementing the KITS program. In total, 42 school catchment areas were served by the 27 groups. A total of 432 children and 337 parents/caregivers were enrolled and participated at least once in the KITS program session. Generally, SRGs met twice per week for the first 4 weeks (July), 3 times per week for the next 4 weeks (August), and once per week after the start of school for 4 additional weeks. PGs met once per week for all 12

weeks. These schedules varied slightly by KITS group in order to accommodate parent/caregiver needs in group; make-up sessions were also available for those children and parents/caregivers that could not attend group on a particular day.

This evaluation of the SIF-funded KITS program sought to establish a ***moderate level of evidence*** for the effectiveness of the scaled up KITS model, as well as conduct a comprehensive implementation and process evaluation to understand those factors that support successful implementation with fidelity of the "scaled up" model. Specifically, the study was designed to address the questions outlined below.

Year 2 Impact Study Research Questions

The Impact Study addressed the follow key questions about the impact of the KITS Program on participating children and parents/caregivers. Results have been organized to address each question as seen in the Research Questions Results section below. We proposed the following goals for the Impact SEP:

1. **Conduct a randomized outcome study of KITS in 11 schools in 7 school districts.** The randomized controlled trial (RCT) component will contribute to at least the moderate level of evidence for the KITS program.
2. **Conduct a quasi-experimental outcome study of KITS in 6 small rural schools in 5 school districts.** The quasi-experimental study of KITS will contribute to the preliminary level of evidence of effectiveness of the KITS model in small rural school settings.
3. **Conduct a detailed Implementation/Process evaluation including documentation of implementation fidelity and factors supporting successful implementation of KITS.** The Implementation/Process evaluation will contribute to the evidence base by providing evidence about the level and types of implementation supports needed for effective replication and scale up of the KITS model in real world school settings.

Impact Questions

Confirmatory Outcomes - Child Outcome Questions:

Consistent with the KITS logic model (see Appendix A) and with prior KITS research, we proposed to test the following confirmatory child-level program outcomes.

1. **Confirmatory Research Question #1 (CF1):** Do children randomly assigned to the KITS program have higher self-regulation skills and more positive social behaviors at the end of the KITS program participation compared to children assigned to the control group?

2. **Confirmatory Research Question #2 (CF2):** Do children randomly assigned to the KITS program have higher scores at school entry on the Oregon Kindergarten Assessment (OKA) of early literacy, social skills, and self-regulation skills compared to children assigned to the control group[1]?

[1] Note that due to the delays in releasing the Oregon Kindergarten Readiness data, these data were not available; however, for children included in the child assessment portion of the study, these measures were included.

Confirmatory Outcomes - Parent Outcome Questions:

As shown in the KITS Program logic model (Appendix A) and consistent with prior KITS research, we propose to test the following confirmatory parent-level program outcomes.

3. **Confirmatory Research Question #3 (CF3):** At the end of the KITS program, do parents randomly assigned to KITS, relatively to controls, provide more developmental and academic supports for learning at home; specifically, do these parents read to their children more frequently and provide children with more opportunities to engage in developmentally supportive activities outside of school?

4. **Confirmatory Research Question #4 (CF4): At the end of the KITS program, do parents randomly** assigned to KITS, relative to parents in the control group, report greater confidence in their discipline methods and greater use of more positive guidance and behavioral management skills?

5. **Confirmatory Research Question #5 (CF5): At the end of the KITS program, do parents randomly** assigned to KITS, relative to parents in the control group, report higher levels of parent involvement in school?

Exploratory Impact Questions.

The study also addressed the following exploratory impact questions. First, children's ***early numeracy skills*** will be assessed and included in the study; these outcomes have not previously been examined for KITS. Second, the evaluation seeks to gain a better understanding of the ***relationship of parent outcomes to child outcomes***. This has been less fully studied in prior KITS research due to the limitations of sample sizes. Third, we will explore the association of **program implementation** (i.e., attendance) with child and parent outcomes. Specifically, the following exploratory impact questions are related to this aspect of the outcome study:

1. **Exploratory Research Question #1 (EQ1):** Do children randomly assigned to the KITS program have higher scores at school entry on the Oregon Kindergarten Assessment (OKA) of early numeracy compared to children assigned to the control group?

2. **Exploratory Research Question #2 (EQ2): *What is the relationship of changes in particular aspects of parenting behavior to child outcomes?***
   a. Are particular parenting outcomes linked more (or less) strongly to child outcomes?

3. **Exploratory Research Question #3 (EQ3): Among KITS participants, what is the relationship of program attendance to improvements in child and parent outcomes? Outcomes will include those specified in confirmatory research questions above.**
   a. Is better child attendance associated with more positive child outcomes?
   b. Is better parent attendance associated with more positive parent outcomes?

Implementation Study Questions

The implementation study will address the following primary implementation/process questions:

1. **Implementation Question #1 (IQ1): What supported or hindered recruitment and attendance for families during Year 2? What is the average level of attendance in KITS program groups?**

   a. What are the contextual factors/enabling contexts that support or hinder attendance? Specifically, what are the:
      i. Family characteristics associated with attendance.

2. **Implementation Question #2 (IQ2):** To what extent do children and parents in the control group participate in other programs that support school readiness and kindergarten transition?

3. **Implementation Question #3 (IQ3):** What can be learned about the experiences of: (1) Hispanic/Latinx and Spanish speaking children and families and (2) children with disabilities? This question was added to the original SEP proposal to respond to the emerging need to learn about cultural adaptions of the model and adaptions for children with special needs.

4. **Implementation Question #4: (IQ4):** What can be learned about the influence of KITS training on teacher practices? Specifically, how do teachers who have participated in one vs. two years of KITS training differ, and how is the KITS training and approach being used by teachers beyond the KITS program? This question was also added after results from Year 1 suggested that KITS teachers, many of whom are also kindergarten teachers, were finding the KITS training to support their ability to teach effectively in their regular kindergarten classes.

Impact Study Design & Methods

Data Collection Methods: Implementation & Process Study

The Implementation and Process study used a mixed-method design including key stakeholder interviews and quantitative surveys. These are detailed below; a few minor changes from the approved Impact SEP are noted where applicable.

KITS Teacher & Facilitator Surveys.

KITS School Readiness Group Lead Teachers, Assistant Teachers, and Parent Group Facilitators completed web-based surveys using Qualtrics in October 2017. The survey was sent to all potential respondents via email, with regular follow-up to ensure high response rates. Individuals completing the surveys were given a $15 gift card. The purpose of the surveys was to: 1) document skill improvement and professional development among KITS staff, 2) better understand the relative importance of KITS-provided supports (e.g., training, coaching) in facilitating professional development, 3) explore the specific needs of Latinx families and families with children with disabilities, within the context of KITS. Eighty-two percent (82%, n=42) of KITS teachers participated; ninety-four percent (94%, n=17) of PG Facilitators participated in the survey. Copies of both surveys are included in Appendix B.

KITS SRG Lead Teacher, PG Facilitator, PG Interpreter, and Latinx Parent Interviews

In order to better understand how KITS meets the needs of Spanish-speaking children and families, one-on-one interviews were conducted with participating Spanish-speaking families, School Readiness Group (SRG) lead teachers, and Parent Group (PG) facilitators and interpreters:

- Telephone interviews with 10 participating Spanish-speaking KITS parents (all mothers) were conducted by a bilingual/bicultural interviewer.
- From classrooms that included one or more Spanish-speaking children, 3 SRG lead teachers (representing four classrooms) were selected to participate in an interview. A range of English fluency was represented among children in their classrooms: some children spoke almost no English when they entered KITS, while other children reportedly spoke enough English to "get by."
- Interviews were conducted with two PG Facilitators working with Spanish-speaking families and two PG Interpreters, representing 7 KITS Parent Groups. These parent groups all had at least one Spanish-speaker who required interpretation: three groups included 1-2 Spanish-speaking parents; 3 groups included 4-5 Spanish-speaking parents; 1 group was majority Spanish-speaking.

Interview participants were provided with a $20 gift certificate as a thank-you for participating. A slightly different set of interview questions was developed for each respondent group; these are included in Appendix B.

Program Stakeholder Interviews: KITS Site Supervisors, Program Developers, UWLC

Interviews were conducted with 13 program key stakeholders, including KITS Site Supervisors (or other comparable site representatives), Program Developer staff, and UWLC staff. These interviews were developed to better understand program recruitment and attendance support strategies, successes, and challenges in Year 2. Interview participants were given a $20 gift certificate as a thank-you for participating. A slightly different set of interview questions was developed for each respondent group; these are included in Appendix B.

Attendance Data

In year 2, attendance data for participating children and parents/caregivers was used to document dosage and was used as an indicator of model fidelity; while the program uses videos to document and confirm fidelity of curriculum, given available resources we were not able to use these videos for fidelity assessment. Parent and child attendance at each workshop session was recorded on the School Readiness and Parent Workshop Attendance Sheets (OSLC, 2006) by the Lead Teacher/Facilitator. OSLC collected and provided attendance sheets to the PSU team for the evaluation.

Data Collection Methods: Randomized Control Trial & Quasi-Experimental Outcome Study

Participant Recruitment & Data Collection

The Oregon Social Learning Center worked with schools to determine recruitment strategies for KITS Program implementation in year 2. Five school districts worked with OSLC to implement a new strategy where initial contact with families was made by OSLC. As part of this process, parents completed a "KITS Interest Form" that, for most school districts, included a question asking for permission for the school to share the families' contact information with PSU for purposes of the evaluation. OSLC recorded family information, including whether they provided this "consent to contact" into their own local data systems. These lists of families were provided to the evaluation team for study recruitment. In school districts where consent to contact was not received through the KITS Interest Form, attempts to attain consent to contact was done through the following: a check box on the OSLC KITS website, discussed during follow-up calls from OSLC recruitment staff, and a check box or question on KITS enrollment forms. Following receipt of the interest form, OSLC recruitment staff called the

parent/caregiver to describe the KITS Program in more detail, explain program requirements (e.g., attendance at SRG and PG), confirm family interest, and explain the lottery process for families living in the three school districts where a randomized control trial was feasible. In these school districts, families were then randomized into the KITS or control group (see details of randomization process below) and contacted to tell them whether they received a space in the KITS Program. Families that received a space in KITS were contacted by the school district and given information about days and times of the program. Families that did not get a space in the program (i.e., were randomly assigned to the control group) were contacted by PSU and were offered the opportunity to participate in a 2-hour "Kindergarten Entry Party" where they had the opportunity to talk with a kindergarten teacher about expectations and preparedness for kindergarten.

In the five school districts where a randomized control trial was not feasible and OSLC staff coordinated program recruitment, families were invited to participate in the program during their initial follow up phone call with OSLC staff.

The other eight school districts decided to continue to recruit families into the KITS Program without the help of OSLC recruitment staff. These school districts generally followed similar procedures, asking parents/caregivers to complete the KITS Interest Form and followed up with interested parents/caregivers by phone. Staff from OSLC attended some kindergarten registration and orientation events as well as other community events in these school districts to help get the word out to families about the program. None of these school districts recruited enough interested families to merit a randomized control trial.

KITS Program Randomized Control Trial Procedures

Six KITS groups within three school districts recruited a sufficient number of families for a successful randomized control trial. The following describes the process of rolling random assignment (i.e., as families were confirmed as interested in participation) to groups in these three school districts.

1. OSLC made initial follow up contact with families upon receipt of the KITS Interest Form to describe program details and explain the lottery process. OSLC sent lists of confirmed interested families to PSU as often as needed; early in the recruitment period, lists were sent to PSU about once per week, and later in the recruitment period, lists were sent less frequently.

2. PSU used randomizer.org to randomly assign children and their parent/caregiver into KITS or control conditions using a 1:1 ratio.
   a. If there were an uneven # interested families in the lists of confirmed families sent by OSLC to PSU, PSU rounded up for the lottery for KITS, meaning more families were randomized into KITS than into the control group. For example, if there a list of interested families sent by OSLC included 9 families to be randomized, PSU assigned 5 families to KITS and 4 to the control.

3. PSU kept separate lists for KITS and control families and sent KITS lists to SDs for program enrollment.
   a. PSU called control group families to let them know they were on the waitlist and that, if slots were not filled by the end of the recruitment period, families from the waitlist would be enrolled in the program.
   b. Control families were assigned a randomly generated number at the time they were assigned to the control/waitlist in order to determine their place in the control/waitlist.

4. When groups filled in Bethel KITS groups and in the Eugene 4J Howard/River Road KITS group, extra families were randomized at the same designated ratio (e.g., Howard/River Road was 1:1) into the control; all other families were on a separate KITS "waitlist" but not part of the control group.

5. When school districts decided to finish recruitment and finalize enrollment, school districts confirmed participation in the program. When drop out occurred (prior to the first day of the program), PSU filled any extra slots with waitlisted families.
   a. For the Bethel and Eugene 4J Howard/River Road groups, which had randomized waitlists (i.e., half of families assigned to the waitlist and half to the control), extra KITS slots were first given to those families in the randomized waitlist. When additional families were needed to fill slots from the control group, families were sorted based on the number randomly assigned to them when they entered the control group; families at the top of the list (i.e., the lowest randomly assigned number) were assigned to any remaining KITS slots.
   b. All families that were assigned to the control group were called to let them know that they did not get a slot in the KITS Program and were invited to participate in the 2-hour "Kindergarten Entry Party."
   c. If more families submitted interest forms and were confirmed as interested after KITS enrollment was finalized, they were told by OSLC that the slots were full but they would go on a waitlist.
      i. PSU randomly assigned these families at the same designated ratio into the control; all other families were on a separate "waitlist" for KITS but not part of control group. Families were pulled from this waitlist to fill slots as needed due to drop out in the first week of the KITS Program.

Identification of Additional Comparison Families for Quasi-Experimental Design

During KITS Program recruitment, OSLC compiled a list of additional families that served as a quasi-experimental comparisons to the families participating in KITS. These families were identified in one of two ways. First, families that were interested in participating in KITS but that did not live in a school catchment area where KITS was offered were assigned to this quasi-experimental comparison group. Second, families that expressed initial interest in the KITS Program and lived in a school catchment area where KITS was offered but were unable to participate in the KITS Program due to varying circumstances were also assigned to this quasi-experimental comparison group. Reasons to decline program participation varied by family but included: participation in a full-time childcare program, participation in Safety Town (a local summer program about safety for students), and conflicting family vacations over the summer.

KITS Program Group Recruitment & Data Collection Strategies

In order to maximize parent/caregiver participation in the KITS evaluation and based on results from the feasibility study in year 1, parents were recruited into the evaluation in several ways, described below.

1. ***Introduction to the evaluation by OSLC staff during recruitment.*** In the five school districts that worked with OSLC during program recruitment, OSLC recruitment staff introduced the evaluation during their initial follow up phone calls. In addition to describing the KITS Program in more detail, they also told families that researchers from PSU would contact them at the beginning of the program to invite them to provide feedback about the program.

2. ***Evaluation Materials Mailing.*** All parents/caregivers who provided consent for PSU to contact them about the evaluation, either on the interest form and/or through follow-up phone calls by KITS staff, received a packet of materials for the evaluation. These materials included: (1) a flyer introducing the evaluation with contact information for PSU staff; (2) 2 copies of the consent form – 1 to sign and return, 1 to keep for their records; (3) the baseline parent/caregiver survey to complete and return; (4) a self-addressed, stamped envelope in which they could return a signed consent form and the baseline parent/caregiver survey. For families attending KITS groups where PSU conducted child assessments (i.e., the six RCT KITS groups), a slightly different version of the consent form, explaining the assessment portion of the evaluation, was included in the packet.

3. ***Distribution of Evaluation Materials by KITS Teachers.*** During KITS Program training, PG facilitators were given packets of evaluation materials that included the same materials as those described above. PG facilitators were asked to distribute these packets to participating parents/caregivers during the first PG session in the first week of the KITS Program.

4. ***Face-to-Face Recruitment at Initial KITS Classes.*** The Portland State University evaluation team worked with KITS program staff, including the KITS Administrative Coordinator, the Site Supervisor, and the KITS PG facilitators, to arrange a time to visit the SRG or the PG within the first two weeks of the program. The purpose of the visit was to introduce the evaluation and invite parents/caregivers to participate. PSU data collection staff attended one of the first two sessions of PGs in all 27 KITS groups. At the PGs, PSU data collection staff were given 15-30 minutes at the beginning or end of the group to introduce the evaluation and invite parents/caregivers to participate in the study. During all face-to-face interactions with parents/caregivers, for parents/caregivers that were interested in participating, PSU data collection staff walked through the consent form, introduced the baseline parent/caregiver survey, and distributed gift cards to parents/caregivers who took the time to complete the consent form and survey at that time. In the 6 KITS groups where child assessments were conducted, PSU staff also explained the assessment process, which was structured like games for children. The PSU staff person visiting the KITS group was also a child assessor, so parents/caregivers got to meet some of the staff that would be doing the assessments and ask questions about the process. For parents/caregivers that wanted to take the forms home to review and complete, PSU staff provided them with a self-addressed stamped envelope.

5. ***Individual Outreach & Recruitment by PSU Staff.*** Parents who did not attend the initial KITS PG sessions or who did not provide a consent form via mail or in-person were also contacted individually by PSU research staff members. For these families, the following recruitment steps were taken:
   a. A letter and/or email introducing the study purpose, including copies of the consent form and the baseline parent/caregiver survey were sent;
   b. Following this, PSU data collection staff attempted to contact the family by telephone, email, and/or text.

Upon reaching the families, participants were invited to participate in the study. Participants were told that the study involved collecting information from parents before and after the program, child assessments structured like games to assess early literacy and self-regulation skills (in 6 KITS groups) and gathering information from

children's school records from kindergarten through the third grade. To incentivize participation in the evaluation, parents/caregivers were told that they would receive a $20 gift card for participating in each of the two planned parent survey data collection points: baseline (July) and post-KITS Program (October). For parents/caregivers attending the 6 KITS groups where child assessments were conducted, PSU staff also explained the assessment process and answered questions that parents had about the assessment process.

KITS Control Group Participant Recruitment Strategies: Randomized Control Sample and Quasi-Experimental Sample

PSU had contact information for all RCT control families as a result of the randomization process. A list of parent/caregiver contact information for the quasi-experimental comparison group was sent to the PSU evaluation team by OSLC.

1. **Randomized Control Families**: In the 3 school districts where an RCT was conducted, families that were randomly assigned to the control group were contacted by PSU to inform them that they did not get a slot in the KITS Program. At the time of the phone call, they were invited to participate in the "Kindergarten Entry Party" and the evaluation was reintroduced. During the first evaluation recruitment phone call, families were asked to schedule an in-person meeting at the public library, their home, or another quiet, convenient location in order to complete the child assessment. Following the phone call, an evaluation packet of materials including (1) a flyer introducing the evaluation with contact information for PSU staff; (2) 2 copies of the consent form – 1 to sign and return, 1 to keep for their records; (3) the baseline parent/caregiver survey to complete and return; (4) a self-addressed, stamped envelope in which they could return a signed consent form and the baseline survey were sent to via mail. For families that were not reached by phone, text, or email and did not return the packet of materials within a week, the PSU evaluation team followed up via phone, text, and/or email to invite them to participate and schedule a time to meet in person to complete the forms and schedule an assessment with the child.

2. **Quasi-Experimental Comparison Families:** Quasi-experimental comparison parents/caregivers received a packet of evaluation materials that included (1) a flyer introducing the evaluation with contact information for PSU staff; (2) 2 copies of the consent form – 1 to sign and return, 1 to keep for their records; (3) the baseline parent/caregiver survey to complete and return; (4) a self-addressed, stamped envelope in which they could return a signed consent form and the baseline survey via mail. For families that did not return the packet of materials within 2 weeks, the PSU evaluation team followed up via phone, text, and/or email to invite them to participate by completing the forms and mailing them back to PSU.

Contact logs detailing recruitment attempts made by the research team for study recruitment were kept. These logs included time/date of contact, type of contact, and result of contact including whether consent was ultimately obtained and if so, using what recruitment method.

Participation in the evaluation was incentivized in a few different ways. RCT control families were offered the opportunity to participate in the "Kindergarten Entry Party" where they could talk with a kindergarten teacher about the upcoming school year during the summer. They could receive a $20 gift card to a local grocery store or to Amazon for the completion of each of the two parent/caregiver surveys. They were also offered a $50 gift

card to a local grocery store or to Amazon for meeting with a PSU staff person to conduct each of the two child assessments. In total, RCT control families could receive up to $140 in gift cards during the course of the evaluation.

Quasi-experimental comparison families were offered gift cards to a local grocery store or to Amazon for their participation. They could earn up to $40 in gifts during the evaluation ($20 for completion of the baseline parent/caregiver survey and $20 for the completion of the follow up parent/caregiver survey).

Parent Survey Data Collection Procedures

Parent surveys were collected in tandem with consent during the recruitment process, described above.

Child Assessment Data Collection Procedures – Randomized KITS Participants

In addition to parent/caregiver surveys, PSU conducted child assessments in the 6 KITS School Readiness Groups that were part of the randomized control trial. Similar to KITS participating parent/caregiver survey data collection at baseline, KITS child assessments were most easily completed during the KITS School Readiness Groups. The PSU evaluation team worked closely with the KITS Administrative Coordinators, KITS Site Supervisors, and KITS School Readiness Teachers to pull children out of the KITS School Readiness Groups individually. Children were taken by a PSU child assessor to a quiet room near their KITS classroom to complete the assessments. The assessments took between 5 and 15 minutes to complete, and once finished, the child returned to his/her classroom.

At follow up (i.e., KITS program-end), some children did not attend the final few KITS School Readiness Groups. For these children, the data collection team contacted and coordinated with the parent/caregiver to meet up at a convenient location (e.g., public library, child's home).

Child Assessment Data Collection Procedures – Randomized KITS Control Group

Baseline assessments for the comparison group occurred in July and August 2017. Most assessments took place at a local library, some assessments took place at another public location (coffee shop, school) or in the family's home. Follow-up assessments for the comparison group occurred later that year in October and November. Similar to baseline assessments, follow-up assessments generally took place wherever families had met assessors during the summer.

Parent Survey Measures

The parent/caregiver survey included the following measures of key program outcome (See Appendix C for copies of the parent survey; unless otherwise indicated, all items were collected at both Baseline and Follow Up):

1. **Parent Discipline Strategies: The Poor Discipline subscale of the Discipline Questionnaire (Capaldi, 1995) (Parent Survey)** was used to assess behavioral strategies taught in KITS and other parenting programs related to boundary setting and consistency of discipline strategies. This subscale includes 9 items rated on a 5-point scale from "Never/Almost Never" to "Always/Almost Always." It has been shown to be a good

measure of key changes in parenting among KITS participants with acceptable internal consistency (α=0.69-0.71; Pears et al., 2015). Additionally, the measure has been used in several studies on the transmission of intergenerational externalizing behavior and parenting (e.g., Kerr, Capaldi, Pears, & Owen, 2009). In the Feasibility study baseline sample, alpha for the Poor Discipline total score was adequate, alpha=.78).

2. **Arnold Discipline Survey, Arnold, O'Leary, Wolff, & Acker, 1993, (Parent Survey):** The Laxness scale of the Arnold Parenting Discipline Survey was used to assess the lack of strictness in the household. The 11 Laxness scale items include a question stem and two anchor points that relate to parenting "mistakes" and "effective strategies" (Arnold, O'Leary, Wolff, & Acker, 1993). Parents rate their parenting practices on a 7-point scale based on the two anchor points. The Laxness scale has shown good internal consistency (α=0.83) and good validity (Arnold et al, 1993). In the Feasibility study baseline sample, alpha for this scale was good; α=0.80.

3. **Frequency of reading to children (Entering Kindergarten Parent Survey, 2014) (Parent Survey)** was assessed by asking parents how often they read to their young child. Reading to one's child has been found to be a key precursor to early literacy development (Kuo, Franke, Regalado, & Halfon, 2004). Specifically, parents were asked how often in the past month they had read or looked at books with their child (*Not at all, Seldom, A few times, 3-4 times per week, About once a day, or More than once a day*). This item was selected for consistency with a large-scale survey of entering kindergarten parents conducted by over 20 school districts in Oregon and developed by the PSU KITS study team.

4. ***Child Social Skills: The Social Skills Rating System (SSRS; Gresham & Elliott; 1990) (Parent Survey).*** The SSRS is a widely used and well-validated tool for assessing positive and negative social behaviors in young children (Gresham, Elliott, Vance & Cook, 2011; Mashburn, Pianta, Hamre, Downer, Barbarin, Bryant, et al., 2008). For the KITS outcome study, four subscales was completed by parents as part of the Parent Survey (see below). Subscales used during the Feasibility phase included: (1) Cooperation (8 items); (2) Self-Control (7 items); (3) Externalizing behavior (7 items); and (4) Hyperactivity/Inattention (7 items). These scales will serve as a second source of (parent-reported) data related to children's self-regulation skills that can be measured both before and after program participation. Items are rated on a 4-point scale from ""Never" to ""Almost Always". The SSRS parent version has been found to have good internal reliability (α ranging from 0.83 to 0.90 on the four subscales) and inter-rater reliability (correlation ranging from 0.58 to 0.67 on the four subscales) (Gresham et al., 2011). We also examined the reliability of these items for the KITS baseline sample and found good reliability: SSRS Cooperation alpha=.87; SSRS Self-Control, alpha=.89; SSRS Externalizing alpha=.82; and SSRS Hyperactivity alpha=.82).

5. **Parent Involvement: The Parent and Teacher Involvement Scale- PATI-P; Conduct Problems Prevention Research Group, 1995) (Parent Survey, November Follow-Up only).** The parent version was used to assess key aspects of how parents are involved in children's schooling at the end of the KITS program (November only). This 21-item measure was developed to assess facets of parent and teacher involvement. The measure assesses the amount and type of contact that occurs between parents and teachers, the parent's interest and comfort in talking with teachers and the parent's degree of involvement in activities (e.g., volunteering at school, attending school events). The answers are coded on item-specific 5-point scales

where 0 represents no involvement and 4 represents high involvement. Millller-Johnson & Maumary-Gremaud (1995) identified four factors within the measure and constructed corresponding subscales: (1) Quality of the Relationship between Parent and Teacher (7 items); (2) Parent's Involvement and Volunteering at School (6 items); (3) Parent's Endorsement of Child's School (4 items), and Frequency of Parent-Teacher contact (4 items)). The subscale alphas for the combined normative/high-risk sample were: .89 for Quality of Teacher Relationship, .79 for Parent Involvement and Volunteering, .89 for Parent Endorsement, and .67 for Frequency of Contact. We do not yet have reliability information on the Feasibility sample as this measure was only included at the post-program (Follow Up) assessment.

6. **Family Demographic information (Parent Survey).** Parent surveys will also include questions about demographic characteristics, such as family income, the parents' highest levels of education, parent and child ethnicity, housing stability, languages spoken by parents, family size, and parent marital status.

Child Assessment Measures

Child direct assessments were collected by PSU staff as described above, and included the following measures:

1. **Child Literacy skills**—Two basic literacy skills that are considered to be foundations of early reading was measured using the easyCBM (Curriculum Based Measurement assessment, Anderson, Alonzo, Tindal, Farley, Irvin, Lai, Saven, & Wray, 2014). The easyCBM was used to align the KITS evaluation child level assessments of early literacy with the state Kindergarten Assessment which uses these subscales to assess literacy (and numeracy, below) at kindergarten entry for all students. To assess children's letter-naming skills the easyCBM Letter Name Measure (LN) measure was used during which children are asked to identify as many letters as possible from a randomly ordered array of upper- and lower-case letters. The score is the number of correct letters identified in 1 min. This subtest shows moderate to strong alternate form reliability, with correlations ranging from r = .61 to r= .90 (Wray, Lai, Saez, Alonzo & Tindal, 2014). The easyCBM LN is highly correlated with the DIBELS LNF measure (r=.86, Lai, Alonzo & Tindal, 2013).

   To assess children's letter sound identification, the Easy CBM Letter Sounds (LS) measure was used. The child is presented a matrix of lower and upper case letters and asked to orally produce the sound of each letter. The total score is the number of correct letter sounds produced in 1 min.

2. **Child Early Numeracy Skills –** While prior studies of KITS have not examined impacts on early numeracy skills, increasingly research has shown that numeracy, perhaps even more than literacy skills, are predictive of later third grade reading and math achievement (Duncan et al., 2007). Thus, we will include an assessment of early numeracy to examine an exploratory impact research question in the KITS evaluation. The easyCBM numbers and operations subtest was used at baseline and post program to assess early literacy skills. The general math assessments on easyCBM were developed to assess students' mastery of the knowledge and skills outlined in the National Council of Teachers of Mathematics (NCTM) Focal Point Standards. They were designed to focus more on students' conceptual understanding than on basic computational skills. The Numbers and Operations scale was used to assess early numeracy and addresses basic operations (addition, subtraction, multiplication, division) appropriate for each grade level (University

of Oregon, 2016). It has been shown to have good test-retest and inter-rater reliability, although longer-term (predictive) studies are not yet available (Irvin, Saven, Alonzo, Park, Anderson, & Tindal, 2013).

3. **Child Self-Regulatory Skills**—Children's self-regulatory skills were assessed using the Head Toes Knees and Shoulders (HTKS) Test (McClelland et al., 2007). This direct measure of behavioral regulation focuses on attention, working memory, and inhibitory control. For the HTKS, children play a 5- to 10-min game that requires them to do the opposite of what the experimenter says. For the first part of the task, which consists of 10 items, children are instructed to touch their toes when the experimenter says, "Touch your head" and to touch their head when the experimenter directs them to "Touch your toes". In the second half of the task (10 items), the children are additionally directed to touch their shoulders when the experimenter says, "Touch your knees" and their knees when the experimenter says "Touch your shoulders". Children receive 2 points if they touch the correct body part, 1 point if they first touch the wrong part but then self-correct, and 0 if they do not touch the correct body part. For this study, the proportions of times that the child touched the correct body part (i.e., scored 2 points) were averaged across the two parts of the task. Recent research has shown that the HTKS is a reliable and valid measure of children's regulation in diverse populations, including Spanish-speaking children (McClelland et al., 2007; Ponitz et al., 2007) with high levels of interrater reliability (Kappa = .91; Ponitz et al., 2007). The HTKS is significantly associated with teacher ratings of classroom behavior over time (Ponitz et al., 2007) and predicts language and math achievement (Wanless et al., 2011).

Outcomes Study Samples

Two primary samples were utilized for the Outcomes Study: (1) randomized control trial sample from 6 KITS groups in 3 school districts and (2) quasi-experimental sample from 57 KITS groups in 13 school districts across two years of expanded KITS Program implementation in Lane County (2016 & 2017). Table 1 summarizes these two samples. As can be seen, retention rates at follow up were 80% or greater for all groups.

Table 1. RCT & QE Samples for the KITS Outcomes Study

Year	Group	Total Possible to Recruit*	Total Participated at Baseline	Baseline Participation Rate	Total Participated at Follow Up	Follow Up Participation Rate
2017	RCT KITS	110	104	95%	88	85%
2017	RCT Control	79	49	62%	43	88%
2016 & 2017	KITS	802	640	80%	514	80%
2016 & 2017	Comparison	337	169	50%	138	82%

*Total Possible to Recruit for KITS families is the total number of families that participated in KITS. For controls, it is the total number of families either randomized into the control group (for RCT control families) or the total number of families that expressed interest but were unable to participate in the program (for quasi-experimental comparisons).

Baseline Equivalency: RCT Groups and QE Groups.

Understanding potential baseline inequivalence of both the randomized control trial and quasi-experimental samples is paramount, especially in making comparisons between KITS and comparison families in the quasi-experimental sample. Tables 2 and 3 show baseline scores for all key outcome measures and results of t-tests

(continuous variables) or Chi-squared (categorical variables) for the key Time 1 assessment outcome measures for RCT KITS vs. RCT control group children (Table 2) and parent/caregiver survey outcomes (Table 3); Table 4 shows baseline scores for all key outcome measures for parent/caregiver survey outcomes for the 2016/2017 quasi-experimental KITS and comparison groups. Tables 5 and 6 show the results testing for demographic differences between KITS and control/comparison families for each sample, respectively.

As can be seen, there were no significant differences ($p < 0.05$) in baseline scores between RCT KITS and RCT control children on child assessments (Table 2) and parents/caregiver surveys (Table 3). Thus, in terms of the assessed baseline outcome measures, it appears that randomization was successful. However, as shown in Table 5, KITS children were somewhat less likely, compared to controls, to have had some kind of early childhood educational experience such as preschool or Head Start (56% for KITS and 75% for controls). Thus, all analyses conducted with these groups statistically controls for early childhood program participation differences at baseline.

There were, however, some significant differences in parent/caregiver survey baseline scores in the quasi-experimental sample (Table 4). KITS parents/caregivers were more likely to report feeling welcome in their local elementary school compared to comparison families. This may be due to the fact that some families had attended at least one KITS session at the school prior to baseline data collection; whereas it may be less likely that control parents/caregivers had any level of contact, beyond the Kindergarten Roundup events, with schools when these surveys were collected. KITS parents also reported better discipline implementation and that their child was more ready for school compared to comparison parents/caregivers. The later result may be an artifact of KITS Program participation, where KITS parents/caregivers know that their child would be attending KITS in order to prepare for school, while comparison children would not have this same intensive school readiness opportunity. Additionally, comparison parents were more likely report not reading at all to their incoming kindergartner compared to KITS parents at baseline. As shown in Tables 5 and 6, in the quasi-experimental sample, KITS children were also less likely to have had some kind of early childhood educational experience such as preschool or Head Start (58%) compared to comparison children (68%). In the quasi-experimental sample only, more comparison parents/caregivers had earned a bachelor's degree or higher (36%) compared to KITS parents (20%).

Tables 3 and 4 also present internal consistency statistics for the various parent survey measures (i.e., Chronbach's alpha) for each of the two samples. Overall, most measures had adequate reliability (above .70). The Discipline implementation subscale had somewhat lower alpha (Chronbach's alpha = 0.66 and 0.67, respectively), as did the Contact subscale of the Parent-Teacher interaction scale (Chronbach's alpha = 0.47 and 0.53, respectively) and parents' reports of satisfaction of information received from the school (Cronbach's alpha = 0.68 and 0.62, respectively).

Table 2. Baseline Equivalency of Child Assessment Outcomes, RCT KITS vs. RCT Controls, on (Repeated Measures) Follow-Up Sample

		RCT KITS n=96 Mean (SD)	RCT Controls n=44 Mean (SD)	t-value or z for Mann-Whitney U	*p*
Self-Regulation	HTKS	17.33 (13.71)	16.80 (13.66)	0.05	0.83
Easy CBM	CBM LN Uppercase	12.41 (9.64)	11.14 (8.89)	0.55	0.46
	CBM LN Lowercase	9.75 (8.45)	8.50 (7.22)	0.72	0.40
	CBM LS	6.55 (8.42)	3.73 (6.59)	-1.76	0.08
	CBM Numbers	6.79 (2.81)	7.50 (2.54)	2.03	0.16

Table 3. Baseline Equivalency of Time 1 Parent Survey Outcome Measures, 2017 RCT KITS vs. Controls, Repeated Measures Sample

	RCT KITS (n=100) % or Mean	RCT Comparison (n=49) % or Mean	*p*	Internal Consistency Cronbach's α	# Items
Books in the Home			0.89	NA	1
<10	9%	10%			
11-25	14%	16%			
26 or more	77%	74%			
Frequency of Reading			0.08	NA	1
Not at all	2%	6%			
1-2 times/week	23%	39%			
3 or more times/week	41%	27%			
Daily	33%	29%			
Perceived Readiness for Kindergarten (parent)	4.29	4.30	0.91	0.83	3
Perceived Readiness for Kindergarten (child)	4.41	4.21	0.08	0.88	3
Parent and Teacher Interactions Scale					
Contact	NA	NA	NA	0.47	2
Involvement	NA	NA	NA	0.82	4
Quality Relationships	NA	NA	NA	0.91	7
School Endorsement	NA	NA	NA	0.89	4
Receipt of Information from School	NA	NA	NA	0.68	3
Satisfaction with Information from School	NA	NA	NA	0.86	4
Social Skills Rating Scale					
Cooperation	2.26	2.15	0.19	0.85	6
Self Control	1.84	1.80	0.66	0.88	7
Externalizing Behavior	2.28	2.25	0.71	0.83	7
Hyperactivity	1.88	1.83	0.57	0.82	7
Parenting Style - Laxness Scale	2.62	2.55	0.62	0.84	11
Poor Discipline Implementation	2.01	2.14	0.22	0.66	4
Poor Discipline Results	2.07	2.02	0.62	0.71	5

	RCT KITS (n=100) % or Mean	RCT Comparison (n=49) % or Mean	*p*	Internal Consistency Cronbach's α	# Items
Poor Discipline (Total Scale)	2.04	2.07	0.77	0.77	9

Table 4. Baseline Equivalency of Time 1 Parent Survey Outcome Measures, 2016 & 2017 all KITS vs. Controls, Repeated Measures Sample

	2016 & 2017 Full Samples				
	QED KITS (n=635-645) % or Mean	QED Comparison (n=159-164) % or Mean	*p*	Internal Consistency Cronbach's α	# Items
Books in the Home			0.63	NA	1
<10	6%	6%			
11-25	16%	13%			
26 or more	78%	82%			
Frequency of Reading			0.02	NA	1
Not at all	2%	6%			
1-2 times/week	28%	23%			
3 or more times/week	33%	33%			
Daily	38%	38%			
Perceived Readiness for Kindergarten (parent)	4.33	4.33	0.96	0.78	3
Perceived Readiness for Kindergarten (child)	4.34	4.22	0.05	0.85	4
Parent and Teacher Interactions Scale					
Contact	NA	NA	NA	0.53	2
Involvement	NA	NA	NA	0.78	4
Quality Relationships	NA	NA	NA	0.91	7
School Endorsement	NA	NA	NA	0.89	4
Receipt of Information from School	NA	NA	NA	0.62	3
Satisfaction with Information from School	NA	NA	NA	0.89	4

	2016 & 2017 Full Samples				
	QED KITS (n=635-645) % or Mean	QED Comparison (n=159-164) % or Mean	*p*	Internal Consistency Cronbach's α	# Items
Social Skills Rating Scale					
Cooperation	2.23	2.20	0.35	0.84	6
Self-Control	1.83	1.78	0.32	0.87	7
Externalizing Behavior	2.23	2.20	0.44	0.84	7
Hyperactivity	1.86	1.80	0.16	0.82	7
Parenting Style - Laxness Scale	2.39	2.39	0.99	0.84	11
Poor Discipline Implementation	1.96	2.07	0.04	0.67	4
Poor Discipline Results	2.07	2.07	0.94	0.74	5
Poor Discipline (Total Scale)	2.02	2.07	0.33	0.78	9

Table 5. Baseline Equivalency for 2017 RCT KITS vs. Controls for Demographic Characteristics

		RCT KITS n=100 % or mean	RCT Controls n=49 % or mean	*p*-value
Parent Gender	Male	18%	6%	0.11
	Female	81%	94%	
	Prefer not to say	1%	0%	
Child Gender	Male	54%	54%	0.98
	Female	46%	46%	
Child Ethnicity	White	58%	59%	0.81
	Asian	1%	0%	
	Latinx	26%	22%	
	American Indian	1%	0%	
	Multi-Ethnic	14%	18%	
Child Home Language	English	71%	69%	0.08
	Spanish	8%	0%	
	Multi-Lingual	21%	31%	
# children in home		2.72	2.43	0.19
Early Childhood Education	No Formal ECE	44%	25%	0.03
	Formal ECE	56%	75%	
Parent Education	Some HS/no diploma	10%	11%	0.69
	High school diploma or GED	23%	15%	
	Some college or technical school	34%	48%	
	Associates degree	10%	9%	
	Bachelor's degree	12%	11%	
	Some or more graduate school	10%	7%	
Household employment	No one has FT employment	14%	22%	0.20
	At least 1 adult has FT employment	86%	78%	

Table 6. Baseline Equivalency for 2016 & 2017 all KITS vs. Controls for Demographic Characteristics

		QED KITS n=606-643 % or mean	QED Controls n=121-164 % or mean	*p*-value
Parent Gender	Male	13%	4%	0.07
	Female	87%	96%	
	Gender diverse	<1%	0%	
	Prefer not to say	<1%	0%	
Child Gender	Male	55%	53%	0.78
	Female	45%	47%	
Child Ethnicity	White	72%	67%	0.72
	African American	1%	1%	
	Asian	1%	0%	
	Latinx	13%	12%	
	American Indian	1%	1%	
	Hawaiian/Pacific Islander	<1%	0%	
	Multi-Ethnic	13%	18%	
Parent Home Language	English	84%	85%	0.42
	Spanish	8%	5%	
	Other	1%	1%	
	Multi-Lingual	7%	10%	
Child Home Language	English	84%	77%	0.06
	Spanish	4%	1%	
	Other	<1%	0%	
	Multi-Lingual	13%	22%	
# children in home		2.55	2.38	0.13
Early Childhood Education	No Formal ECE	42%	32%	0.02
	Formal ECE	58%	68%	
Parent Education	Some HS/no diploma	7%	6%	p<0.001
	High school diploma or GED	24%	14%	

		QED KITS n=606-643 % or mean	QED Controls n=121-164 % or mean	*p*-value
	Some college or technical school	35%	33%	
	Associates degree	14%	12%	
	Bachelor's degree	13%	17%	
	Some or more graduate school	7%	19%	
Household employment	No one has FT employment	19%	22%	0.41
	At least 1 adult has FT employment	81%	79%	

Attrition: Demographic and baseline score differences between KITS and comparison families with and without follow up data.

Prior to analysis, attrition analyses were conducted to identify any differences in baseline demographic or child and parent/caregiver scores for participants who were vs. were not lost to follow-up. In the RCT sample, only 9 children (4 KITS, 5 controls) had missing follow up data, so attrition analyses were conducted only on the full quasi-experimental sample.

Tables 7, 8, 9, and 10 summarize differences in baseline parent/caregiver survey responses within the KITS and control/comparison families for those with and without follow-up data. T-tests (continuous variables) or Chi-squared (categorical variables) were used to examine differences within study group for those with and without follow up. Logistic regressions were used to examine whether the likelihood of retaining the family at follow-up was predicted by the study group (KITS vs. comparison) X baseline characteristic interaction. Although there were a few significant differences *within* the KITS and control groups between those who were vs. were not retained at follow up, there was **no evidence of differential attrition** (e.g., no significant interactions between baseline characteristics and group predicted the likelihood of follow up). As shown in Table 8, KITS families with full time employment were somewhat more likely to remain in the study at follow-up, and families who read to their children daily were somewhat more likely to be retained at follow up for KITS families.

Table 7. Attrition within Study Groups: Demographic Differences for 2016 & 2017 Full Sample

	2016 & 2017 Full Sample							
	2016 & 2017 KITS				2016 & 2017 Comparison			
	Baseline Only Sample (n=100-107)	Repeated Measures Sample (n=525-539)			Baseline Only Sample (n=16)	Repeated Measures Sample (n=144-148)		
	%	%	*chi-square*	*p*	%	%	*chi-square*	*p*
Child Female	54.4%	43.6%	4.01	0.05	43.8%	46.9%	0.06	0.81
Household Full Time Employment	72.5%	83.1%	6.29	0.01	68.8%	79.6%	1.01	0.32
Parent Education - More than High School Degree	63.0%	70.2%	2.03	0.15	81.3%	80.6%	0.004	0.95
Race/Ethnicity								
White	83.7%	83.5%	0.002	0.97	68.8%	84.5%	2.52	0.11
African American	5.8%	3.3%	1.43	0.23	0.0%	8.8%	1.53	0.22
Latinx	22.1%	16.7%	1.77	0.18	31.3%	21.6%	0.77	0.38
Asian	3.8%	2.2%	0.94	0.33	0.0%	2.7%	0.44	0.51
Native Hawaiian/Pacific Islander	1.9%	1.7%	0.03	0.86	0.0%	0.0%	NA	NA
Alaska Native/American Indian	1.9%	5.2%	2.10	0.15	6.3%	3.4%	0.34	0.56
Other	1.0%	1.3%	0.08	0.78	0.0%	2.7%	0.44	0.51
Any Formal Childcare	60.7%	57.9%	0.30	0.58	80.3%	66.7%	1.41	0.24

Table 8. Differential Attrition; Demographic Differences for 2016 & 2017 Full Sample

	Interaction with Intervention on Follow Up Data	
n=761-809	B	*p*-value
Child Gender	-0.56	0.33
Child Ethnicity*		
Latinx	-1.51	0.17
Home Language**		
Spanish	0.38	0.68
Other	-1.11	0.34
Multi-lingual	20.53	1.00
# children in home	-0.28	0.24
Early Childhood Education Experiences	0.66	0.35
Parent Education	-0.06	0.77
Household employment	0.05	0.94

*White is comparison race/ethnicity (index).
**English is comparison language (index).

Table 9. Attrition within Study Samples: 2016 & 2017 Full Sample Baseline Parent Survey Scores

	2016 & 2017 Full Sample							
	KITS				Comparison			
	Baseline Only Sample (n=104)	Repeated Measures Sample (n=538-540)			Baseline Only Sample (n=15-16)	Repeated Measures Sample (n=146-148)		
	% or Mean (SD)	Mean (SD)	*t-value or chi-square*	*p*	Mean (SD)	Mean (SD)	*t-value or chi-square*	*p*
Books in the Home								
<10	7.7%	5.4%			12.5%	4.8%		
11-25	20.2%	15.0%	2.90	0.24	12.5%	12.9%	1.66	0.44
26 or more	72.1%	79.6%			75.0%	82.3%		
Frequency of Reading								
Not at all	0.0%	1.9%			0.0%	6.2%		
1-2 times/week	35.6%	26.6%	7.46	0.06	37.5%	21.1%	2.91	0.41
3 or more times/week	35.6%	32.0%			31.1%	33.6%		
Daily	28.8%	39.6%			31.1%	39.0%		
Perceived Readiness for Kindergarten (parent)	4.39 (0.79)	4.32 (0.66)	1.00	0.32	4.25 (0.89)	4.34 (0.78)	-0.41	0.68
Perceived Readiness for Kindergarten (child)	4.42 (0.76)	4.32 (0.68)	1.34	0.18	4.03 (1.19)	4.24 (0.71)	-0.65	0.53
Social Skills Rating Scale								
Cooperation	2.25 (0.52)	2.23 (0.48)	0.35	0.73	2.22 (0.64)	2.19 (0.47)	0.16	0.87
Self-Control	1.88 (0.57)	1.82 (0.54)	1.00	0.32	1.59 (0.71)	1.80 (0.56)	-1.37	0.17
Externalizing Behavior	2.23 (0.45)	2.23 (0.43)	-0.04	0.97	2.30 (0.53)	2.19 (0.41)	0.75	0.47
Hyperactivity	1.91 (0.50)	1.85 (0.49)	1.20	0.23	1.93 (0.45)	1.78 (0.51)	1.14	0.26
Parenting Style - Laxness Scale	2.37 (0.88)	2.39 (0.82)	-0.21	0.84	2.49 (1.02)	2.38 (0.75)	0.57	0.57
Poor Discipline Implementation	1.94 (0.57)	1.97 (0.58)	-0.33	0.74	2.20 (0.83)	2.05 (0.56)	0.70	0.49
Poor Discipline Results	2.12 (0.69)	2.06 (0.63)	0.89	0.38	2.28 (0.67)	2.04 (0.66)	1.34	0.18
Poor Discipline (Total Scale)	2.04 (0.53)	2.02 (0.53)	0.38	0.70	2.24 (0.54)	2.05 (0.54)	1.36	0.18
Parent Perception of School Climate	4.66 (0.80)	4.66 (0.71)	1.25	0.21	4.67 (0.90)	4.37 (0.87)	0.01	0.99

Table 10. Differential Attrition: 2016 & 2017 Full Sample Baseline Parent Survey Scores

	Interaction with Intervention on Follow Up Data	
n=799-809	B	*p*-value
Books	-0.16	0.60
Frequency of reading	-0.08	0.79
Welcoming school climate	-0.51	0.25
Perceived Readiness for Kindergarten (child)	0.53	0.14
Perceived Readiness for Kindergarten (parent)	0.29	0.40
SSRS		
Cooperation	-0.01	0.98
Self-Control	0.82	0.10
Externalizing Behavior	-0.62	0.38
Hyperactivity	-0.39	0.53
Arnold Laxness	-0.21	0.54
OSLC Poor Discipline		
Implementation sub-scale	-0.47	0.31
Results sub-scale	-0.36	0.39
Total scale	-0.55	0.28

Outcome Study Results

Confirmatory Impact Questions

Confirmatory Question: Child Outcomes

All analyses for each of the confirmatory questions were conducted using multiple regression, with Time 2 follow-up data as the dependent variable and KITS group (RCT KITS vs. control or KITS vs. comparison) as the independent variable. Analyses controlled for key demographic characteristics, including child gender, household full-time employment, parent education dichotomized as having a high school diploma or equivalent or higher, race/ethnicity comparing Latinx families and families from other backgrounds to White/Caucasian families, and children with any formal early education experiences (e.g., daycare, preschool). Also included in the model, where applicable, was the centered baseline score on the outcome being tested; thus, these model examine the relative difference in the amount of change over time for KITS families vs. control/comparison families.

Confirmatory research questions pertain to differences in children randomly assigned to the KITS and to the control groups. Random assignment occurred in 6 of the 27 KITS groups in the second year of KITS expanded implementation. As previously discussed, in addition to the RCT sample, a quasi-experimental sample was also identified. The quasi-experimental sample included a convenience sample of KITS families participating in both the first and second years of program implementation (2016 and 2017) as well as families that could not participate in the KITS Program (i.e., comparison families). For a more detailed description of these samples, see the section on Participant Recruitment and Random Selection above. Results presented here include both RCT and quasi-experimental samples; findings for each sample are presented separately. Listwise deletion was used for missing data; however, item-level missing data was 10% or less for all groups. For KITS group participants, item-level missing data was 2% (RCT) and 5% (QED) at baseline and 4.5% (RCT) and 7% (QED) at follow up. For control/comparison participants, item-level missing data was 5.5% (RCT) and 7.5% (QED) at baseline and 8% and 10% at follow up.

As shown in the KITS program logic model (Table 1) and consistent with prior KITS research, we tested the following confirmatory child-level program outcomes.

1. **Confirmatory Research Question #1 (CF1):** Do children randomly assigned to the KITS program have higher self-regulation skills and more positive social behaviors at the end of the KITS program participation compared to children assigned to the control group?

Children's self-regulation skills were assessed though direct child assessment by the PSU evaluation team before and at the end of the KITS Program. Parents/caregivers reported on children's social behaviors through the Social Skills Rating Scale (SSRS) on the parent/caregiver survey at baseline and follow-up. SSRS sub-scales for externalizing behavior and hyperactivity have been reverse coded so that higher scores mean better behavior (consistent with the other two SSRS sub-scales).

While there was a general trend for KITS children to show higher social skills at Time 2, compared to controls, these results were not statistically significant (see Table 11), and effect sizes (change in R^2) were small (Cohen,

1992). There were no significant differences between KITS and Controls for the measure of self-regulation (HTKS). Similar results were seen in the quasi-experimental sample of 2016 and 2017 KITS and comparison children (Table 12).

Table 11. 2017 RCT KITS and RCT Control Differences in Self-Control & Social Skills

	Full 2017 RCT Sample						
	T1	T2	T1	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	RCT KITS (n=78-84)		RCT Comparison (n=31-40)				
HTKS							
Self-Regulation	17.29 (13.50)	23.87 (12.96)	17.32 (14.43)	24.35 (13.64)	-1.26	0.55	0.002
SSRS							
Cooperation	2.25 (0.41)	2.25 (0.44)	2.21 (0.50)	2.20 (0.49)	0.03	0.66	0.001
Self-Control	1.81 (0.45)	1.94 (0.50)	1.88 (0.61)	1.86 (0.62)	0.12	0.14	0.01
Externalizing Behavior*	2.30 (0.43)	2.31 (0.40)	2.25 (0.43)	2.29 (0.50)	-0.03	0.65	0.001
Hyperactivity*	1.85 (0.47)	1.93 (0.46)	1.84 (0.49)	1.81 (0.51)	0.08	0.28	0.01

Note: Higher scores reflect better behavioral outcomes.

Table 12. 2016 & 2017 Full Sample of KITS and Comparison Differences in Self-Control & Social Skills

	2016 & 2017 Full Sample						
	T1	T2	T1	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	KITS (n=503-535)		Comparison (n=137-147)				
SSRS							
Cooperation	2.23 (0.48)	2.24 (0.45)	2.19 (0.47)	2.20 (0.48)	0.013	0.72	<0.001
Self-Control	1.81 (0.53)	1.88 (0.54)	1.79 (0.57)	1.82 (0.53)	0.053	0.20	0.002
Externalizing Behavior	2.23 (0.43)	2.27 (0.44)	2.17 (0.40)	2.21 (0.44)	0.013	0.70	<0.001
Hyperactivity	1.84 (0.49)	1.90 (0.51)	1.77 (0.52)	1.82 (0.48)	0.027	0.48	<0.001

2. **Confirmatory Research Question #2 (CF2):** Do children randomly assigned to the KITS program have higher scores at school entry on the Oregon Kindergarten Assessment (OKA) of early literacy, social skills, and self-regulation skills compared to children assigned to the control group?

The Oregon Kindergarten Assessment is conducted in the fall of incoming kindergartners' school year. While scores on the OKA have been collected by school districts, the Portland State University evaluation team, is still negotiating a contract with the Oregon Department of Education to obtain this data for the full sample of KITS and control/comparison children across Lane County. Therefore, results for the larger sample of study participants were not yet available as of the time of the end of this funding period.

However, anticipating the delay in receipt of OKA scores from the State, we included most of the same measures of the OKA in their direct child assessments protocol for the smaller child assessment study. The following presents results of the three early literacy indicators of the OKA. Results related to early numeracy are presented in Exploratory Research Question 1 (below). As previously discussed, child assessments were conducted with RCT KITS and RCT control children only.

While KITS and control children all improved over time, controlling for demographic characteristics there were no differences in the amount of change from pre- to post-assessment on any of the three indicators of early literacy (Table 13). It should be noted that a floor effect was seen on the letter sounds measure of early literacy for both the KITS and control children; transformations of this indicator did not improve the distribution.

Table 13. 2017 RCT KITS and RCT Control Differences in Early Academic Skills

	Full 2017 RCT Sample						
	T1	T2	T1	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	RCT KITS (n=78-84)		RCT Comparison (n=31-40)				
Letter Names Uppercase	12.57 (9.59)	15.75 (9.27)	11.48 (8.91)	14.23 (9.04)	0.56	0.57	0.001
Letter Names Lowercase	9.99 (8.56)	14.68 (13.11)	8.29 (6.51)	11.71 (7.430)	2.64	0.22	0.01
Letter Sounds	6.95 (8.76)	10.49 (9.87)	3.06 (5.34)	7.06 (7.69)	1.46	0.36	0.004

Confirmatory Questions: Parent Outcomes:

As shown in the KITS program logic model (Table 1) and consistent with prior KITS research, we tested the following confirmatory parent-level program outcomes.

3. **Confirmatory Research Question #3 (CF3):** At the end of the KITS program, do parents randomly assigned to KITS, relatively to controls, provide more developmental and academic supports for learning at home; specifically, do these parents read to their children more frequently and provide children with more opportunities to engage in developmentally supportive activities outside of school?

As seen in Table 14, when controlling for baseline reports of developmentally supportive activities as well as demographic characteristics, there were no statistically significant improvements in the number of books in the home or the frequency of reading for KITS vs. Control parents. However, there were significant improvements over time in KITS parents' reports of their confidence to support their child to be ready for school from T1 to T2; within the control parents, these scored decreased over time. This effect was statistically significant, although was small in magnitude. There were no significant improvements in parents' perceptions that their children were ready to start kindergarten.

Table 14. 2017 RCT KITS and RCT Control Differences in Supports for Learning at Home

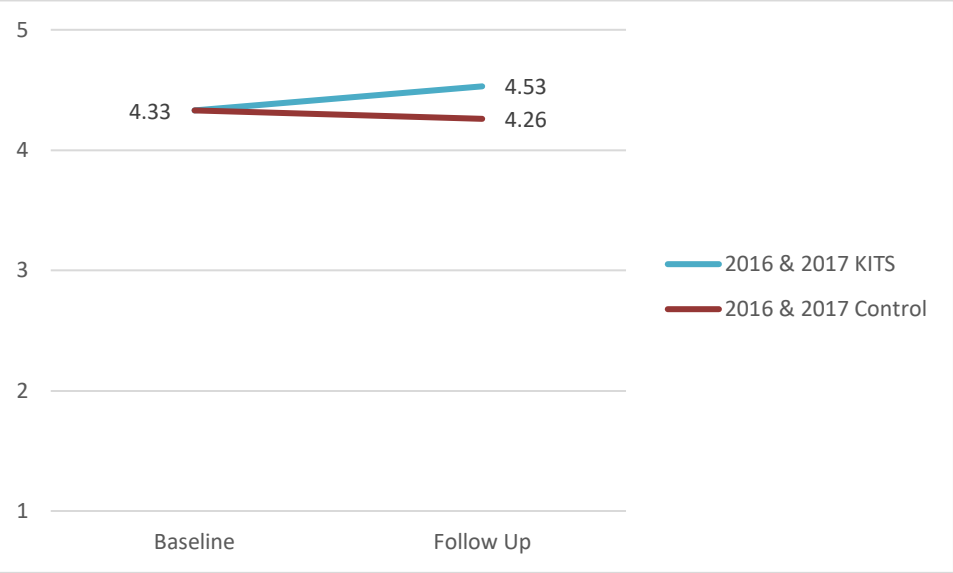
	Full 2017 RCT Sample						
	T1	T2	T1	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	RCT KITS (n=83-95)		RCT Comparison (n=39-43)				
Books in the Home	3.42 (0.92)	3.45 (0.81)	3.26 (0.99)	3.26 (0.94)	0.09	0.43	0.002
Frequency of Reading	2.15 (0.78)	2.38 (0.64)	1.85 (0.93)	2.13 (0.80)	0.11	0.37	0.01
Perceived Readiness for Kindergarten (parent)	4.33 (0.63)	4.47 (0.70)	4.35 (0.69)	4.08 (0.88)	0.43	0.002	0.06
Perceived Readiness for Kindergarten (child)	4.44 (0.54)	4.51 (0.77)	4.31 (0.63)	4.46 (0.86)	0.01	0.95	<0.001

Similar results were seen in the quasi-experimental sample, with significant improvements in KIITS parents' perceived confidence and "readiness" over time, and slight decreases in this measure for comparison families. No other outcome showed more improvement over time for KITS families (Table 15).

Table 15. 2016 & 2017 Full Sample of KITS and Comparison Differences in Supports for Learning

	2016 & 2017 Full Sample						
	T1	T2	T1	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	KITS (n=503-535)		Comparison (n=137-147)				
Books in the Home	3.33 (0.90)	3.43 (0.81)	3.42 (0.85)	3.41 (0.83)	0.07	0.18	0.001
Frequency of Reading	2.11 (0.84)	2.39 (0.69)	2.07 (0.90)	2.41 (0.70)	-0.02	0.68	<0.001
Perceived Readiness for Kindergarten (parent)	4.33 (0.65)	4.53 (0.63)	4.33 (0.78)	4.26 (0.77)	0.26	<0.001	0.03
Perceived Readiness for Kindergarten (child)	4.33 (0.67)	4.55 (0.70)	4.24 (0.70)	4.44 (0.81)	0.07	0.28	0.001

Figure 1. 2016 & 2017 Full Sample of KITS and Comparison Differences in Perceived Confidence to School Readiness



4. **Confirmatory Research Question #4 (CF4): At the end of the KITS program, do parents randomly** assigned to KITS, relative to parents in the control group, report greater confidence in their discipline methods and greater use of more positive guidance and behavioral management skills?

Parents/caregivers were asked about their parenting styles and discipline at baseline and follow-up. In these measures, lower scores relate to more effective parenting styles and disciplinary techniques. In the RCT sample, when controlling for baseline scores and demographic characteristics, there was no significant difference in the amount of improvement for KITS vs. RCT control families on these measures (Table 16). In the quasi-experimental sample, KITS families showed significantly more improvement over time in their use of effective Specifically, as seen in Table 17, KITS parents reported becoming less lax in their parenting style from baseline to follow-up. Comparison parents, on the other hand, became more lax in the parenting style. This pattern was mirrored in the RCT sample, although power to detect this effect was substantially lower given the small sample size and small effect size.

Table 16. 2017 RCT KITS and RCT Control Differences in Parenting Styles

	Full 2017 RCT Sample						
	T1	T2	T1	T2	Group Effect		Effect Sizt
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	RCT KITS (n=83-95)		RCT Comparison (n=39-43)				
Parenting Style - Laxness Scale	2.64 (0.88)	2.47 (0.80)	2.54 (0.84)	2.50 (0.83)	-0.07	0.58	0.002
Poor Discipline Total Scale	2.01 (0.52)	1.90 (0.44)	2.02 (0.48)	1.99 (0.53)	-0.06	0.42	0.003
Poor Discipline Implementation	1.98 (0.61)	1.88 (0.54)	2.06 (0.52)	2.00 (0.54)	-0.06	0.47	0.003
Poor Discipline Results	2.04 (0.60)	1.92 (0.52)	1.99 (0.61)	1.97 (0.63)	-0.05	0.56	0.002

Table 17. 2016 & 2017 Full Sample of KITS and Comparison Differences in Parenting Styles

	2016 & 2017 Full Sample						
	T1	T2	T1	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	KITS (n=503-535)		Comparison (n=137-147)				
Parenting Style - Laxness Scale	2.39 (0.82)	2.32 (0.81)	2.38 (0.74)	2.45 (0.83)	-0.14	0.02	0.01
Poor Discipline Total Scale	2.01 (0.53)	1.93 (0.48)	2.06 (0.54)	2.01 (0.51)	-0.04	0.21	0.001
Poor Discipline Implementation	1.96 (0.59)	1.89 (0.53)	2.05 (0.56)	1.99 (0.56)	-0.05	0.27	0.001
Poor Discipline Results	2.05 (0.63)	1.97 (0.60)	2.06 (0.67)	2.02 (0.59)	-0.05	0.30	0.001

5. **Confirmatory Research Question #5 (CF5): At the end of the KITS program, do parents randomly** assigned to KITS, relative to parents in the control group, report higher levels of parent involvement in school?

KITS and control/comparison parents reported on their involvement and communication with the school at follow-up only, thus these models tests for the between-group differences at T2 for KITS vs. control/comparison families. As seen in Table 18, there were significant differences in several areas of parent involvement. Specifically, after controlling for demographic characteristics, parents participating in KITS reported significantly better relationships with elementary school staff and had a more positive endorsement of the school overall (e.g., feel comfortable at the school, staff pay attention to needs and suggestions) at follow-up compared to control parents. KITS parents also reported more contact with the school, compared to controls, and were more satisfied with the information they received from the school, although both these effects were marginally significant (trends). These results were mirrored in the quasi-experimental sample, although with the larger sample size, all effects were statistically significant (Table 19).

Table 18. 2017 RCT KITS and RCT Control Differences in Involvement & Contact with School

	Full 2017 RCT Sample				
	T2	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	RCT KITS (n=83-95)	RCT Comparison (n=39-43)			
Parent and Teacher Interactions Scale					
Contact	0.98 (0.99)	0.69 (0.94)	0.31	0.11	0.02
Involvement	1.66 (1.00)	1.47 (1.10)	0.17	0.40	0.01
Quality Relationships	3.47 (0.56)	3.26 (0.70)	0.23	0.03	0.03
School Endorsement	3.65 (0.47)	3.50 (0.55)	0.18	0.05	0.03
Receipt of Information from School	2.36 (1.02)	2.13 (1.09)	0.24	0.26	0.01
Satisfaction with Information from School	3.30 (0.74)	3.08 (0.74)	0.25	0.09	0.02

Table 19. 2016 & 2017 Full Sample of KITS and Comparison Differences in Involvement & Contact with School

2016 & 2017 Full Sample					
	T2	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	KITS (n=503-535)	Comparison (n=137-147)			
Parent and Teacher Interactions Scale					
Contact	1.06 (1.02)	1.01 (0.99)	0.05	0.65	<0.001
Involvement	1.70 (0.94)	1.68 (0.96)	-0.04	0.67	<0.001
Quality Relationships	3.42 (0.61)	3.19 (0.68)	0.22	<0.001	0.02
School Endorsement	3.60 (0.53)	3.41 (0.57)	0.19	<0.001	0.02
Receipt of Information from School	2.45 (0.95)	2.22 (0.98)	0.20	0.03	0.01
Satisfaction with Information from School	3.31 (0.70)	3.04 (0.82)	0.25	<0.001	0.02

Exploratory Impact Questions

The results of following exploratory impact questions are presented below. In addition, we also explored questions related to subgroup effectiveness (i.e. moderator effects). Specifically, we examine whether the KITS program had different effects for the following subgroups of families: White vs. Latinx; White vs. other families of color; families whose child did (vs. did not) attend preschool or formal child care; families in which both parents have education beyond high school (vs. have a high school diploma or less); and families with (vs. without) at least one parent employed full time.

Exploratory Research Question #1 (EQ1): Do children randomly assigned to the KITS program have higher scores at school entry on the Oregon Kindergarten Assessment (OKA) of early numeracy compared to children assigned to the control group?

As with Confirmatory Research Question 2, data from the Oregon Kindergarten Assessment are not yet available to the PSU evaluation team. Instead, we present the findings from the same early numeracy measure collected by PSU child assessors at baseline and follow-up for the RCT sample only. Results of multiple regression of early numeracy scores on intervention status found that there were no statistically significant differences in the level of improvement in child early numeracy skills from baseline to follow-up for KITs vs. control children (Table 20).

Table 20. 2017 RCT KITS and RCT Control Differences in Early Numeracy Skills

Full 2017 RCT Sample							
	T1	T2	T1	T2	Group Effect		Effect Size
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*	ΔR^2
	RCT KITS (n=78)		RCT Comparison (n=31)				
Numbers	6.85 (2.94)	8.88 (2.97)	7.48 (2.16)	8.58 (2.5)	0.73	0.16	0.001

Exploratory Research Question #2 (EQ2): What is the relationship of changes in particular aspects of parenting behavior to child outcomes?

To address question EQ2, correlations between key parent/caregiver and child outcomes (at follow-up) were conducted. Tables 21 and 22 summarize these relationships in the RCT and quasi-experimental samples, respectively. There were several significant correlations of note. First, the total number of books in the home, as reported by parents, was significantly and positively related to children's early academic skills (i.e., letter sound identification and early numeracy skills). Frequency of reading at home to the child is also positively associated with one of the early literacy indicators (i.e., uppercase letter names recognition). Counter to expectations, the number of reported books in the home was significantly but negatively related to cooperation and externalizing behavior in the RCT sample, where reporting more books in the home was associated with children being seen as less cooperative and having more externalizing behaviors, although this was not significant in the larger quasi-experimental sample.

Parents' perceived readiness to help their child with the transition into kindergarten was positively and significantly associated with all five of the child assessments outcomes in the RCT sample, where more confidence to support school readiness was related to higher early literacy, early numeracy, and self-regulation skills in their child. Additionally, it was associated with some children's positive behaviors in the quasit-experimental sample. Across both samples, the better children's self-regulation and other social behaviors were, the more their parents' perceived them to be ready to start kindergarten. This is notable as KITS showed significant or near near-significant impacts on this parenting outcome. Children's social behaviors were also positively related to parents' perceptions of the school climate; parents who felt more positively about the school also had children with more positive social skills and self-control. Correlations were generally similar in the quasi-experimental sample, with a few more associations reaching statistically significance, likely related to the increased sample size and associated statistical power.

Finally, as seen in both RCT and quasi-experimental samples, parent styles and disciplinary techniques/results were negatively and significantly associated with children's social behaviors, suggesting that better parenting styles, better disciplinary implementation techniques, and better disciplinary results (all characterized by *lower* scores) were associated with better social behaviors of their children.

Table 21. 2017 RCT KITS Correlations Between Parent/Caregiver & Child Outcomes

		RCT Full Sample (n=88-96)								
		Child Outcomes								
		EasyCBM			HTKS			SSRS		
		Uppercase Letter Names	Lowercase Letter Name	Letter Sounds	Numbers	Self-Regulation	Cooperation	Self-Control	Externalizing Behavior	Hyperactivity
Parent/Caregiver	Books in the Home	0.19	0.12	0.23*	0.26*	0.17	-0.27**	-0.16	-0.24*	-0.15
	Frequency of Reading	0.29**	0.14	0.18	0.17	0.15	0.08	0.19	0.19	0.03
	Parent Perception of School Climate	0.18	0.14	0.18	0.15	0.23*	-0.05	-0.06	-0.04	-0.02
	Perceived Readiness for Kindergarten (parent)	0.25*	0.24*	0.31**	0.29**	0.26*	0.02	0.07	-0.08	-0.01

Perceived Readiness for Kindergarten (child)	0.14	0.14	0.17	0.07	0.28**	0.25*	0.20*	0.13	0.20*
Parent and Teacher Interactions Scale									
Contact	-0.07	-0.15	-0.11	-0.07	-0.04	0.03	-0.02	-0.14	-0.10
Involvement	0.05	0.17	0.08	0.07	0.22*	0.09	0.19	0.06	0.06
Quality Relationships	0.18	0.23*	0.20	0.19	0.08	0.18	0.13	0.08	0.11
School Endorsement	0.06	0.13	0.06	-0.03	0.06	0.20*	0.10	0.09	0.04
Receipt of Information from School	-0.08	0.02	-0.02	0.16	0.19	0.14	0.11	-0.07	0.04
Satisfaction with Information from School	-0.08	0.04	0.00	-0.02	-0.05	0.25*	0.20	0.09	0.03
Parenting Style - Laxness Scale	-0.19	-0.22*	-0.17	-0.16	-0.32**	-0.15	-0.20	-0.15	-0.20
Poor Discipline Total Scale	-0.17	-0.17	-0.11	-0.14	-0.23*	-0.51**	-0.46**	-0.54**	-0.52**
Poor Discipline Implementation	-0.03	-0.14	-0.06	-0.10	-0.06	-0.21*	-0.20	-0.31**	-0.31**
Poor Discipline Results	-0.23*	-0.15	-0.12	-0.13	-0.29**	-0.59**	-0.53**	-0.56**	-0.53**

*p<.05, **p<.01

Table 22. 2016 & 2017 Full Sample of KITS and Comparison Correlations Between Parenting & Child Outcomes

		2016 & 2017 Full Sample (n=527-538)			
		Child Outcomes			
		SSRS			
		Cooperation	Self-Control	Externalizing Behavior	Hyperactivity
Parent/Caregiver Outcomes	Books in the Home	-0.04	-0.02	0.003	0.04
	Frequency of Reading	0.19**	0.20**	0.09*	0.07
	Parent Perception of School Climate	0.13**	0.11*	0.15**	0.13**
	Perceived Readiness for Kindergarten (parent)	0.17**	0.16**	0.08	0.07
	Perceived Readiness for Kindergarten (child)	0.32**	0.35**	0.31**	0.32**
	Parent and Teacher Interactions Scale				
	Contact	-0.05	-0.05	-0.09*	-0.13**
	Involvement	0.12**	0.17**	0.02	-0.01
	Quality Relationships	0.26**	0.26**	0.14**	0.13**
	School Endorsement	0.16**	0.22**	0.12**	0.10*
	Receipt of Information from School	0.11*	0.15**	-0.02	-0.01
	Satisfaction with Information from School	0.19**	0.20**	0.10*	0.09*

Parenting Style - Laxness Scale	-0.20**	-0.18**	-0.15**	-0.17**
Poor Discipline Total Scale	-0.52**	-0.46**	-0.54**	-0.54**
Poor Discipline Implementation	-0.25**	-0.23**	-0.30**	-0.29**
Poor Discipline Results	-0.57**	-0.50**	-0.57**	-0.57**

*p<.05, **p<.01

Exploratory Research Question #3 (EQ3): Among KITS participants, what is the relationship of program attendance to improvements in child and parent outcomes? Outcomes include those specified in confirmatory research questions above.

To address this issue, we first examined the frequency and descriptive information for attendance. This information is provided in Table 23. As can be seen, attendance at SRG (child groups) was considerably higher than attendance at Parent groups. Summer attendance, as was the case last year, was also higher for both groups. Because there was no reason to expect that the patterns of association between attendance and KITS outcomes would differ for the RCT vs. "Full" sample, we conducted the remaining analyses only on the combined Full 2016 & 2017 Sample.

To examine the influence of attendance on T2 outcomes, we conducted regressions using T2 scores as the dependent variable, and controlling for multiple regression models of outcomes predicted by SRG attendance rate, controlling for child and family demographic characteristics (i.e., child gender, child race/ethnicity, early education/childcare experience, household employment, and parent education), were conducted. Multi-level modeling was used for the quasi-experimental sample in order to account for nesting of children within KITS groups. Tables 24 summarizes these results for the quasi-experimental sample.

Attendance was associated with a number of key outcomes in the zero-order correlations.

Table 23. Summary of KITS Attendance in SRGs & PGs

	2017 RCT Sample (n=104)					2016 & 2017 Full Sample (n=652)				
	Average Attendance Rate	Minimum Sessions Attended	Maximum Sessions Attended	% Attending 50% or More Sessions	% Attending 75% or More Sessions	Average Attendance Rate	Minimum Sessions Attended	Maximum Sessions Attended	% Attending 50% or More Sessions	% Attending 75% or More Sessions
SRG (Child Groups)	79%	2	24	89%	66%	72%	1	24	87%	56%
SRG Summer Sessions	82%	2	20	93%	77%	80%	0	20	91%	74%
SRG Fall Sessions	56%	0	4	63%	43%	48%	0	8	55%	39%
PG (Parent Groups)	58%	0	12	66%	41%	50%	0	13	54%	31%
PG Summer Sessions	61%	0	8	68%	50%	57%	0	8	64%	48%
PG Fall Sessions	47%	0	4	53%	34%	33%	0	5	36%	24%

Table 24. 2016 & 2017 Full Sample of KITS and Comparison Regression of SRG Attendance on Child Outcomes

	2016 & 2017 Full Sample	
	SRG Attendance Effect[a]	
	b	*p*
Social Skills Rating Scale		
Cooperation	-0.07	0.72
Self-Control	-0.32	0.14
Externalizing Behavior	0.10	0.58
Hyperactivity	0.13	0.54

[a] MLM controlling for KITS group, child gender, household full-time employment, parent education, early childhood education experiences, race/ethnicity

c. Is better parent attendance associated with more positive parent outcomes?

As seen in Table 25, higher attendance in PGs for 2016 and 2017 KITS parents was correlated with having more reading to their child at home, more involvement and contact with the school, and better results of disciplinary actions (lower score is better). When controlling for demographic characteristics, parents who attended more sessions reported more books in the home, more reading to their child at home, and more involvement at school.

Table 25. 2016 & 2017 Full Sample of KITS and Comparison Regression of PG Attendance on Parent Outcomes

	2016 & 2017 Full Sample[a]	
	PG Attendance Effect	
All KITS (n=542)	b	*p*
Books in the Home	0.35**	0.003
Frequency of Reading	0.30**	0.01
Perceived Readiness for Kindergarten (parent)	0.12	0.22
Perceived Readiness for Kindergarten (child)	0.10	0.35
Parent and Teacher Interactions Scale		
Contact	0.09	0.58
Involvement	0.33*	0.02
Quality Relationships	0.17	0.08
School Endorsement	0.14	0.10
Receipt of Information from School	0.17	0.23
Satisfaction with Information from School	-0.01	0.95
Parenting Style - Laxness Scale	0.06	0.61
Poor Discipline Total Scale	-0.04	0.58
Poor Discipline Implementation	0.06	0.44
Poor Discipline Results	-0.12	0.18
Parent Perception of School Climate	0.06	0.56

[a] Analyses on full 2017 and 2016-2017 cohort samples were done using multi-level modeling to account for attendance differences between KITS Groups; attendance was group mean centered. Also controlling for child gender, household full-time employment, parent education, early childhood education experiences, race/ethnicity.

As previously mentioned, the confirmatory research questions were also evaluated on a smaller sample of KITS children and parents who had higher attendance. High attendance was defined as children or parents with at least 75% attendance in KITS sessions. To explore differences in parent and child outcomes for KITS families with high attendance to control/comparison children, multiple regression analyses of child and parent outcomes on intervention status (using the narrower sample of high attending KITS families), controlling for the same demographic characteristics, were conducted. For child outcomes, child attendance was used to refine the sample whereas parent attendance was used to narrow the sample for analyses related to parent outcomes. Because of the small RCT sample size, we conducted these analyses only with the quasi-experimental (Full) sample.

Table 26 shows results of multiple regression models predicting child outcomes by KITS group (KITS vs. comparison) when the KITS sample is restricted to those with at least 75% attendance). Results mirrored those found in the overall analysis, with the exception of self-control, where KITS children with 75% or higher attendance increased more in their levels of SSRS self-control skills than did comparison children (Table 26).

The effect of attendance had a somewhat stronger effect on parent outcomes (Table 27). Some findings mirrored those found in the overall sample, but two new effects were detected. First, KITS parents/caregivers attended 75% of sessions showed significantly more improvement in their parenting skills whereas comparison parents became more lax from pre- to post-test; a difference change that was statistically significant. Second, there was a trend such that KITS parents reported greater improvement in discipline results than did comparison parents.

Table 26. 2016 & 2017 Full Sample Child Assessment Outcomes with Repeated Measures Sample – KITS Children Who Attended 75% or More School Readiness Group Sessions

	2016 & 2017 Full Sample with ≥75% Attendance in SRG					
	KITS (n=290-291)		Comparison (n=138-140)			
	T1	T2	T1	T2	Group Effect	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	*p*
SSRS						
Cooperation	2.25 (0.45)	2.28 (0.44)	2.19 (0.47)	2.20 (0.48)	0.04	0.34
Self-Control	1.85 (0.50)	1.93 (0.49)	1.79 (0.57)	1.82 (0.53)	0.08	0.07
Externalizing Behavior	2.26 (0.38)	2.30 (0.40)	2.17 (0.40)	2.22 (0.44)	0.02	0.66
Hyperactivity	1.88 (0.45)	1.92 (0.48)	1.77 (0.52)	1.82 (0.48)	0.02	0.74
Perceived Readiness for Kindergarten (child)	4.34 (0.67)	4.57 (0.70)	4.24 (0.70)	4.44 (0.81)	0.08	0.26

Table 27. 2016 & 2017 Full Sample of Parent Survey Outcomes with Repeated Measures Sample – KITS Parents/Caregivers Who Attended 75% or More School Readiness Group Sessions

	2016 & 2017 Full Sample with ≥75% Attendance in PG					
	KITS (n=168-179)		Comparison (n=137-147)			
	T1	T2	T1	T2		Group Effect
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	b	p
Books in the Home	3.38 (0.84)	3.47 (0.74)	3.42 (0.85)	3.41 (0.83)	0.08	0.23
Frequency of Reading	2.14 (0.87)	2.51 (0.64)	2.07 (0.90)	2.41 (0.70)	0.08	0.28
Perceived Readiness for Kindergarten (parent)	4.34 (0.60)	4.55 (0.66)	4.33 (0.78)	4.26 (0.77)	0.28	<0.001
Parent and Teacher Interactions Scale						
Contact	NA	1.05 (1.04)	NA	1.01 (1.00)	0.03	0.84
Involvement	NA	1.81 (1.02)	NA	1.68 (0.96)	0.05	0.69
Quality Relationships	NA	3.51 (0.56)	NA	3.19 (0.68)	0.30	<0.001
School Endorsement	NA	3.69 (0.44)	NA	3.41 (0.57)	0.28	<0.001
Receipt of Information from School	NA	2.56 (0.99)	NA	2.23 (0.98)	0.31	0.01
Satisfaction with Information from School	NA	3.36 (0.68)	NA	3.04 (0.83)	0.20	0.001
Parenting Style - Laxness Scale	2.52 (0.82)	2.36 (0.83)	2.38 (0.74)	2.45 (0.83)	-0.18	0.02
Poor Discipline Total Scale	2.00 (0.52)	1.89 (0.48)	2.06 (0.54)	2.01 (0.51)	-0.06	0.11
Poor Discipline Implementation	1.98 (0.60)	1.90 (0.52)	2.05 (0.56)	1.99 (0.56)	-0.03	0.56
Poor Discipline Results	2.02 (0.58)	1.88 (0.56)	2.06 (0.67)	2.02 (0.59)	-0.09	0.06
Parent Perception of School Climate	4.70 (0.65)	4.76 (0.74)	4.39 (0.83)	4.61 (0.83)	0.06	0.48

Exploring Subgroup Effects for KITS

Based on some significant findings from the previous year, we explored differences in parent and child outcomes of KITS between sub-groups of families with different demographic characteristics. To explore differences in outcomes between children and parents who reflected different racial/ethnic backgrounds (White, Latinx, or other), children with and without early education experiences (no ECE vs. preschool or formal childcare), different levels of parent education (high school diploma/GED or less vs. more than a high school diploma), and household employment status (any one parent with a full time job vs. households in which neither or the only parent was not employed), moderated regressions were conducted. Specifically, we explored whether or not KITS, compared to the control group, was more or less effective for families in these groups. In each model, follow-up parent and child outcomes data served as the dependent variable, treatment status (i.e., KITS participation vs control group) and sub-group (e.g., race/ethnicity) served as the independent variables, and the interaction between treatment status and sub-group was included as the moderator. These models also controlled for baseline parent and child scores on the outcome of interest, child gender, and other family demographics (i.e., if the sub-group of interest was race/ethnicity, the model also controlled for household employment, parent education, and early educational opportunities). These analyses were conducted only on the combined sample of all KITS and control families from the 2016 and 2017 cohorts.

Differences in Outcomes for families with Different Racial/Ethnic Backgrounds

The majority of significant differences in parent and child outcomes between KITS and control groups were found between the three racial/ethnic sub-groups (White, n=490; Latinx, n=83; and families from other racial ethnic backgrounds, n=114; see Table 28). Differences in outcomes were first compared between KITS and control families from White and Latinx backgrounds. As seen in Figures 2-4, there were significant findings that indicated that KITS was particularly effective for Latinx parents/caregivers for some outcomes. Specifically, for White parents, there were no significant differences in how often parents read to their child for White families. However, Latinx parents/caregivers participating in KITS were much more likely to read at home (Figure 2). Second, while both White and Latinx parents who participated in KITS reported feeling more ready to support their child in the transition to kindergarten, this difference was larger for Latinx parents (Figure 3).

Table 28. Significant differences in parent outcomes for KITS and control for White and Latinx families.

	Interaction Effect		Effect Size
	b	*p*	ΔR^2
Frequency of Reading at Home	0.56	0.01	0.01
Parent Readiness to Support School Entry	0.47	0.05	0.01
Parenting Laxness	0.47	0.04	0.004

Figure 2. Differences in frequency of reading at follow up between KITS and Control families from White and Latinx backgrounds.

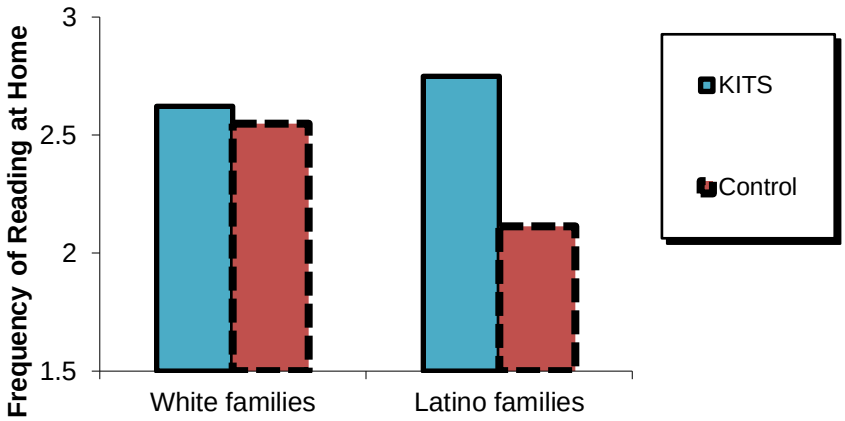
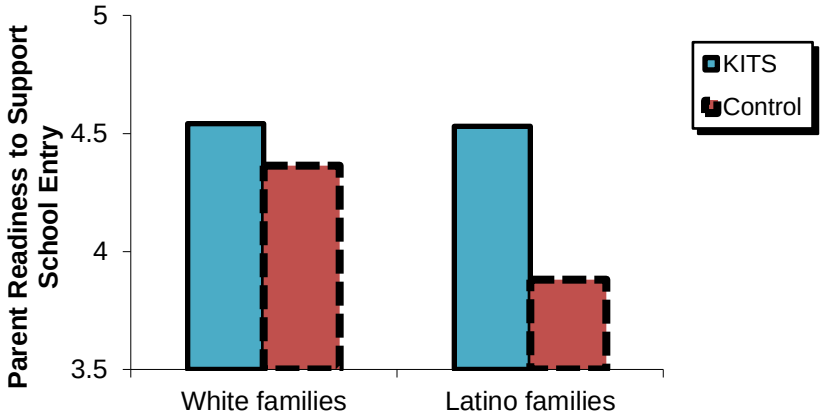
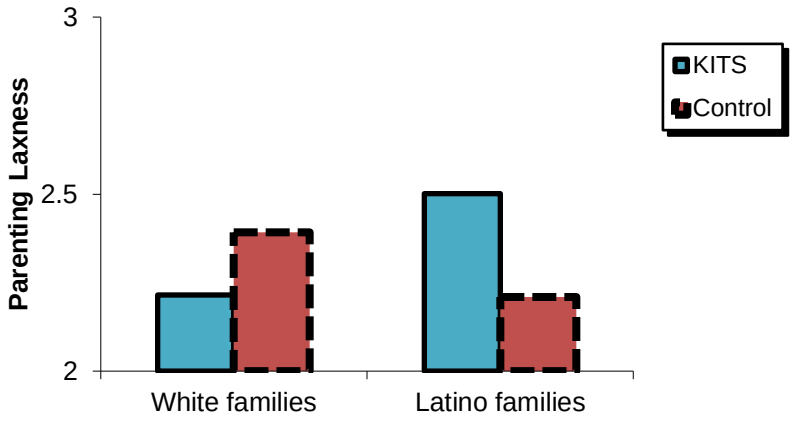


Figure 3. Differences in parent readiness to support school entry between KITS and Control families from White and Latinx backgrounds.



For parenting behavior, there was a somewhat different pattern. As seen in Figure 4, we also found that White parents/caregivers in KITS were less likely to report lax parenting styles (e.g., not setting boundaries, not following through with consequences for disruptive behavior) compared to White control parents. However, this difference was reversed for Latinx families where Latinx parents in KITs were more likely to report lax parenting styles than their control peers.

Figure 4. Differences in lax parenting styles* between KITS and Control families from White and Latinx backgrounds.



**Lower scores are better, suggesting less lax parenting.*

Additionally, there was one other marginally significant interaction (p=0.07) between KITS participants from White vs. Latinx background on parent involvement at school. Overall, both groups of KITS families reported better relationships with their child's teacher in the fall compared to control families; however, Latinx parents in KITS were even more likely to report good relationships with the teacher compared to Latinx parents in the control group. There were no other significant differences in parent or child outcomes between KITS and control families from White and Latinx backgrounds.

Parent and child outcomes for KITS and control families were also compared between White families (n=490) and families from other racial/ethnic backgrounds (n=114; see Table 29). Unfortunately, sample sizes were too small to examine effectiveness for any of the other *specific* racial ethnic subgroups. Therefore, these families were collapsed into a single group for comparisons. These families included participants reporting the following ethnic/racial backgrounds:

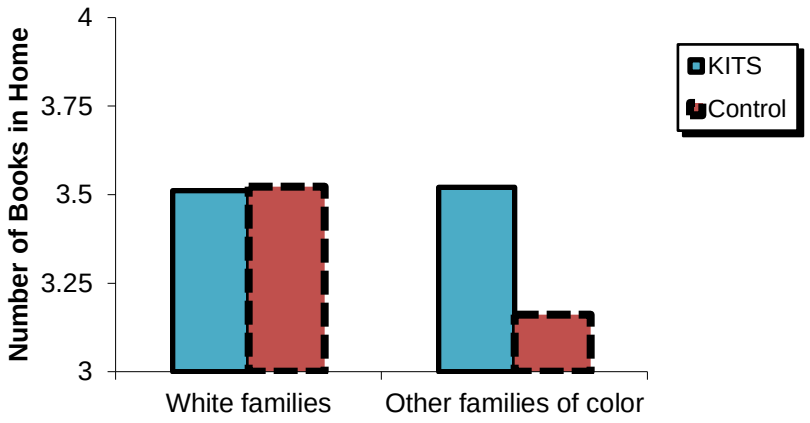
- Multi-ethnic/multi-racial: n=93
- American Indian/Alaska Native: n=10
- African American: n=6
- Asian: n=2
- Other: n=3

Results of these analyses showed some more positive effects for families of color. As show in Figure 5, there was very little difference in the number of books at home for White families in the KITS and control group. However, families from other racial/ethnic backgrounds who participated in KITS reported significantly more books at home at the end of KITS compared to other families of color in the control group. Note that this moderator effect was not seen for White vs. Latinx parents (Latinx parents showed similar patter as White families, e.g., no significant difference between KITS and control).

Table 29. Significant differences in parent outcomes for KITS and control for White families and families from other backgrounds.

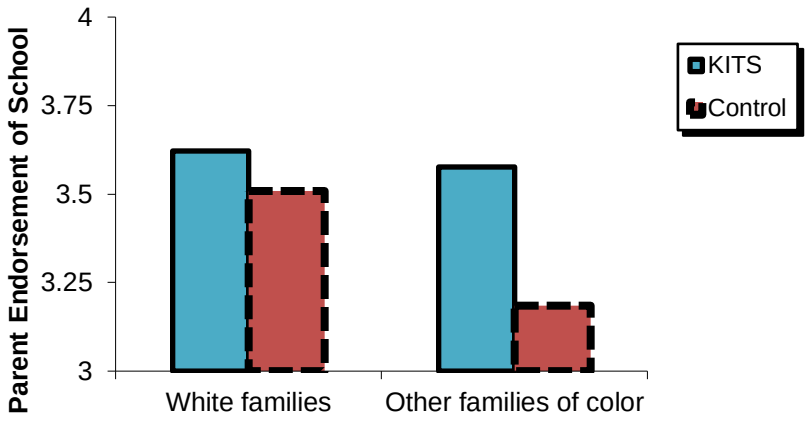
	Interaction Effect		Effect Size
	b	*p*	ΔR^2
Number of Books in the Home	0.37	0.01	0.01
Parent Endorsement of School	0.28	0.03	0.01
SSRS Externalizing Behavior	0.22	0.01	0.01

Figure 5. Differences in number of books at home at follow-up between KITS and Control families from White and other racial/ethnic backgrounds.



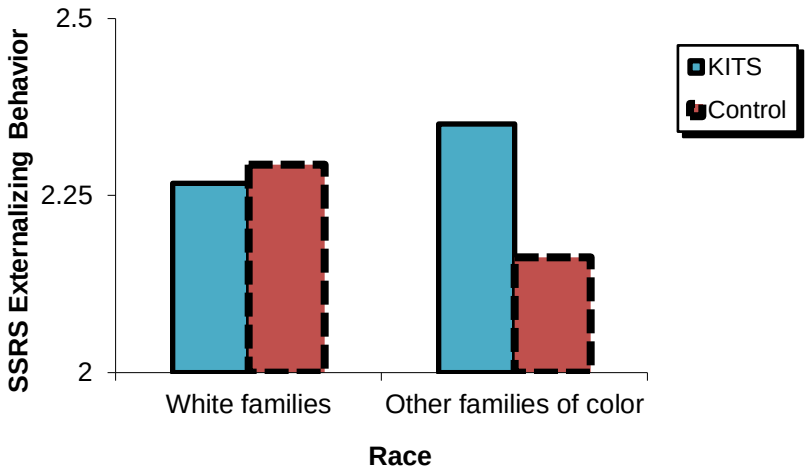
Similar differences were also seen in parents' endorsement of the school at the end of KITS. While there was no difference in how positive White KITS vs. control families felt about their child's school at follow-up, this difference was much greater for other families of color (Figure 6).

Figure 6. Differences in parents' feelings of positivity towards their child's school at follow-up between KITS and Control families from White and other racial/ethnic background



Results also suggested that KITS was more effective in reducing externalizing behavior for children of color than for White children (Figure 7). While there was very little difference in White children's externalizing behavior at follow-up, parents/caregivers of other children of color who participated in KITS reported significantly less externalizing behavior than their peers in the control group (Figure 6). Here, higher scores suggest *less* externalizing behavior.

Figure 7. Differences in children's externalizing behavior* between KITS and Control families from White and other racial/ethnic backgrounds.



**Higher scores are better, suggesting less externalizing behavior.*

Additionally, a marginally significant (p=0.09) result was found for children's cooperation. Specifically, there was very little difference in White children's cooperation between the KITS and control groups at follow-up.

However, children of color in KITS were tended to be more cooperative than other children of color in the control group.

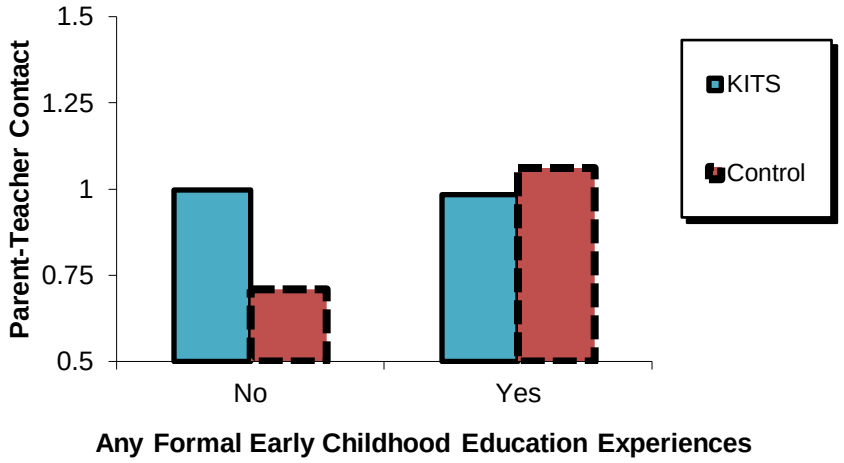
Early Childhood Education Experiences

Analyses were also conducted to examine differences in parent and child outcomes between KITS and control families whose child did and did not have early educational experiences such as preschool or formal childcare. The majority of subgroup tests were nonsignificant, suggesting that there were no difference in program impacts for children who did versus did not have formal early education experiences. There was one marginally significant finding (p=0.08, Table 30 and Figure 8). Specifically, there was very little difference in parents' reports of how often they communicated with their child's school between KITS and control families whose child had attended preschool or formal childcare. However, for families of color, KITS parents who child had attended preschool or formal child care reported significantly more contact with their child's school at follow-up compared to controls.

Table 30. Significant differences in parent outcomes for KITS and control for by early childhood educational experiences.

	Interaction Effect		Effect Size
	b	p	ΔR^2
Parent-Teacher Contact	-0.37	0.08	0.1

Figure 8. Differences in parents' contact with school between KITS and Control families whose child did versus did not attend preschool/childcare.



Parent Education and Household Employment Status

Similar moderated multiple regression models were conducted to examine differences in parent and child outcomes for KITS and control families with different levels of education (high school diploma or less versus some higher education) and families where at least one adult holds a full-time position. Results of these analyses showed no significant interactions, suggesting that there was no difference in program impacts for parents with different educational backgrounds and families with and without full-time jobs.

Summary

KITS participation had a greater impact for Latinx families compared to White families in terms of:

- Frequency of reading to young children
- Parents' readiness to support their child during the transition to kindergarten

KITS participation had a greater impact for other families of color (multi-racial or non-Latinx) compared to White families in terms of:

- Number of books in the home
- Parents' positive perceptions of the school
- Children's externalizing behavior
- Children's prosocial/cooperative behavior

Implementation Study Questions

The implementation study addressed the following primary implementation/process questions, and results are presented below.

Implementation Question #1 (IQ1): What can be learned about KITS recruitment, participation, and facilitators/barriers to family attendance in the program? What supported or hindered recruitment and attendance for families during Year 2?

Results of the interviews with stakeholders related to 2017 recruitment success and challenges are summarized below.

Recruitment Successes and Challenges

According to respondents, successful recruitment strategies reportedly included inviting staff from OSLC to attend kindergarten roundups; personal follow-up phone calls with interested families; including KITS information in kindergarten registration packets; and word-of-mouth from families and teachers.

> *"The #1 thing that stands out is kindergarten round-up. Someone from KITS would talk about KITS and then the school would say things in support - worked really nicely."*

> *"But giving parents a personal phone call seemed directly related to getting them through the door on day one. Calling parents and giving them that one-on-one time to ask questions and letting them know*

that we were excited to have their child coming to KITS, that's what seemed to get them through the door on day one."

"Word of mouth, which we didn't have last year, since it was our first year. We already have families interested in participating in KITS this coming year. They've already contacted us about having their kids involved, just from word of mouth."

Reported challenges to recruitment included:

- Confusion and miscommunication in some schools regarding participation in parent groups, with some staff not enrolling families whose parents could not participate and not working flexibly to accommodate these parents' situations.
- Confusion among families regarding the waitlist process (in randomized sites only);
- Concerns about the cultural responsiveness of KITS.

Following-Up with Interested Families

After families completed interest forms, either the school district or OSLC followed-up with families to determine their eligibility and give them more information about the program. OSLC tried to follow-up with families within a week of when they submitted their interest form. However, because there were multiple channels for submitting interest forms (schools, community boxes, community organizations, etc.), interest forms did not always reach OSLC within a week, sometimes causing a delay in follow-up. OSLC staff had a specific list of questions and information to talk with families about, and documented information collected in a spreadsheet. Towards the end of the recruitment period, one OSLC staff would even drive registration packets directly to families' homes (and/or pick them up from families' homes), to aid families who needed extra support registering for KITS.

In the majority of sites (non-lottery), OSLC would make the initial contact with families and then pass off participant rosters to individual schools to complete enrollment and follow-up regarding transportation and other site-specific program logistics. In the case of the lottery sites, interested participants would first be randomized by PSU, and then a list sent back to OSLC for transfer to the school district for enrollment. In both cases, it sometimes it took time for schools to get in touch with families; some families in turn contacted OSLC to ask when they would be hearing from the school.

Sites that did their own follow-up with families had varying approaches to follow-up. Respondents reported that following-up with an initial phone call seemed to be more effective than sending families a registration packet with instructions to complete and return in the mail.

"One-on-one phone calls for those who we just didn't get any movement on and the flyer didn't seem to be responded to -- it was that phone call to introduce myself, answer questions on the phone that helped the most."

"Families who were overwhelmed (single parents, grandparents) maybe hadn't opened letter from KITS, so to have someone on the phone where they could say, well, I'm interested in this but how do I get started?"

"We have low-income families, and Hispanic families, and a lot of these families it was their first child entering school, and they didn't know what to expect and they had a lot of questions, and sometimes it was answering the same question 2 or 3 times. Just building that trust between the school and families."

Some sites reported being relatively unfamiliar with specific details regarding the KITS program and struggling to answer certain questions from families. Efforts in some sites to over-recruit families in order to create a control group for the evaluation were also described as challenging. Families were reportedly confused/frustrated by being put on a waitlist when they saw ongoing recruitment occurring in their community.

Keeping in Touch with Families after Enrollment

For some families, it was as long as three or four months between KITS registration and the first day of the program. Sites tried different strategies to keep in touch with families during that lag, in order to ensure family's participation. Strategies consisted of mailing flyers, phone calls, and emails. Phone calls and emails seemed to be the best way to keep in touch with families. Some sites had one person who was tasked with maintaining contact with families.

"We called families when they got in the program, and then our parent group folks, started reaching out before the program, and the transportation folks reached out before the program, so there are a variety of kind of touches with families until the program starts. So I feel like all of those reach outs keep folks pretty engaged."

"Most of the families appreciated follow up phone calls around logistics. We were able to clarify any issues, questions or concerns immediately. Some families liked the emails because they had all the information they needed like calendars and schedule."

Some respondents reported that they were unable to get in touch with families after the initial enrollment; such families often missed the first few sessions or ended up not attending the program at all. In some cases, respondents felt that families were screening calls regarding KITS.

Family Obstacles to Participation

Respondents reported a number of common barriers to participation in KITS, including:

- Parent or caregiver's work schedules;
- Summer vacation plans;
- Shared custody with another parent;
- Family's need for full-day childcare.

"Mainly about work schedules. We tried to troubleshoot around doing home visits, making up sessions with phone calls, etc. Also we heard from split families and the challenges of going back and forth between households."

"We do hear from families sometimes that just a couple of hours/day is not enough - they need full-day care."

One obstacle that the school districts may be able to address is the required background check for parents in need of transportation.

"Some districts in order for transportation require a background check for parents, so there was a concern there around legal status. Plus, I think there is just a basic uncertainty regarding who these KITS people are - unfamiliarity."

Some sites creatively tried to work around these barriers, for example, delivering Parent Group content during home visits, phone calls, or meeting in the evening at a community location. For some parents, having some free childcare through KITS during the week was better than no childcare. The KITS model states that if parents were unable to attend, another family member could go in their place, which happened in some cases Free lunch and transportation were also mentioned as important supports for participation.

"We reach out in a variety of ways to share the parent group information with them, so we meet with them in the evenings at a restaurant or make phone calls, if we can't get them in person. Any way we can connect with them outside of the parent group time. So we just are really consistent in trying to reach out and find other ways to get out the information to families. Allow them to come to parent group meetings that aren't just when their kids are there. We just try whatever we can to get them in."

Recommendations for KITS Recruitment in 2018

Respondents were also asked about their plans for recruitment in 2018, as well as any concerns and/or suggestions they had around recruitment. A few KITS programs reported sufficient resources and understanding to undertake recruitment efforts on their own, but a number of programs indicated that they would likely need financial, logistic, and staff support in order to implement an effective recruitment strategy.

Specific needs were identified, such as: recommendations for effective recruitment strategies; a larger budget for staff hours for recruitment; additional printed materials; and communication support for outreach to community agencies. Also mentioned was the importance of identifying incoming kindergarten cohorts, and being able to specify a target number for recruitment.

"One thing that would be helpful is a target number for recruitment. Last year it was, oh, just do as many as you can. But there should be some comparison data I would think for like-sized districts on what would be a typical [size] of class to recruit, to know if recruitment efforts are being successful or not. What are the target goals for a town of 3,000 families, what would be and average range for KITS participation, what would be a good number. We had a lot of families, but it was our first year and we came in late. I could have used more information about how our recruitment efforts were doing."

Several respondents emphasized **the need for greater visibility of KITS in the community**, and suggested hosting a variety of information sessions, in different kinds of settings, to raise awareness of the program.

> *"Have [the] opportunity for parents to meet people in person, maybe a meeting in town at the community center or at the schools, or at both places, where parents can come and ask questions to see if this is something they'd be interested in."*

> *"It'd be great if we had a night for all the PreK parents, before kindergarten roundups, come in and talk families, try to catch these parents. Explain what KITS is about…. I think some families don't know."*

Others highlighted **social media as a venue for connecting with harder to reach families**.

> *"After we finished Parent Group, some of the parents established a Facebook page. I think that would be a great place to spread the word about KITS….Parents needed more information about what KITS does, and we need to be able reach those families for whom we don't have any data on, no phone number or name or any specifics."*

Additional suggestions included **designating a primary KITS contact person** to explain the KITS program to families, answer questions and troubleshoot barriers to participation. Ideally, that person would be someone close to the community, with established personal relationships:

> *"I was the only one making calls, and I didn't know all the families. Having our parent coordinator who usually works with the families during the school year through the Family Resource Center make phone calls would be a great strategy to try. In this community, the personal contact and personal knowledge of families can go a long way."*

Several respondents also suggested **adding demographic questions to KITS interest forms** in order to track the characteristics of interested families, and better understand patterns in enrollment.

At the time of the interviews, it was unclear whether recruitment support from OSLC would continue to be available the following year. Most sites were able to share strategies for assuming responsibility for KITS recruitment, but **some sites expressed considerable concern about losing that support**.

> *"So, they just do so much advertising in the community and getting the word out at like doctor's offices and grocery stores and all that kind of stuff. I don't know that we would be able to replicate that. We could do maybe some newspaper advertisements, and the postcards again, you know that sort of thing. I think we will need to strategize ways to pick up the slack for that big advertising push that they are able to do in the county. And more district time for sure. It will just take more time and people."*

> *"Well, really what I want to say is I don't ever want OSLC to leave us, although I know that has to happen one day. I don't know how to answer that. I think we're just going to have to figure it out. I don't know- get our communications person more onboard. And just handle it internally. It's kind of scary."*

If OSLC is able to provide recruitment support in 2018, respondents made the following recommendations:

- Put in place a clear plan to guide communication between sites and OSLC, in order to ensure effective coordination of recruitment activities.
- Begin recruitment efforts earlier in the year.
- Encourage buy-in and support from school leadership.

Understanding KITS Attendance- Program Successes and Challenges

Outcome data from Year 1 of KITS implementation suggested that program attendance was a key factor in child and parent outcomes, with higher attendance associated with better outcomes. In order to better understand the factors that support consistent program attendance, interviews were conducted with three site supervisors, two parent group facilitators, and one Student Readiness Group teacher who represented the KITS sites with particularly strong attendance in their Student Readiness Groups (SRG) and Parent Groups (PG). "Good attendance" was defined as being between 51% - 74% sessions attended; "Great attendance" was defined as greater than 74% of sessions attended.

Overall, attendance was more consistent for SRGs than for PGs, and more consistent during the summer portion of KITS than during the fall. Most sites indicated that attendance was consistent across groups of families; however, some respondents noted lower attendance for families that did not have transportation (often Latinx families). Although KITS program guidelines call for the provision of transportation to families who need it, there were logistical issues with the busses at the beginning or towards the end of some KITS groups. This presented a barrier to attendance for those families who needed transportation support.

Effective Attendance Supports

Respondents attributed consistent KITS attendance to a number of factors:

- On the most basic level, **providing concrete supports** such as transportation and childcare for families was critical to attendance for many families. One site provided lunch before each group.
- In many sites the parent group facilitator or site supervisor made **personal phone calls, emails, and/or texts to parents/caregivers** every week reminding parents of the group, and checking in with how things were going at home.
- **Skilled, committed staff** were also noted as key to supporting consistent attendance.

KITS Parent Group attendance was typically less consistent than SRG attendance. Factors that reportedly supported parent attendance in the sites represented here included:

- Having a **non-judgmental, inclusive, and responsive parent facilitator** who can make personal connections to parents and partner with parents, including being responsive to parent's requests, such as providing coffee during the PG or changing the seating arrangement of the group.
- Emphasizing **the importance of regular program attendance,** and **providing positive feedback for attendance** was also mentioned as an effective approach.
- Parental recognition of the importance of the program, and **the positive impacts on their family** were likewise mentioned as factors supporting attendance.

- For a few sites, **providing incentives for attendance** such as the gift card raffle and attendance sticker chart were reported to be effective.
- Several sites highlighted the **bonding and commitment parents had to each other** as a major contributor to strong attendance in the parent groups.
  "Overall the parents saw the value in the group and had a commitment to each other. More than once the PG had better attendance than the SRG. This happened in at least one instance; when the child didn't want to go, and the parent said, fine, but you have to come and sit at the PG, because the parent wanted to participate. "

Generally, respondents emphasized the **importance of personal contact** over written materials:

> *"Newsletters. A lot of things in writing are not read or don't come back. Face to face or phone call interaction makes a greater impact than any newsletters. We made a fancy calendar but lots of times things didn't get taken out of the folder, it was still there the whole summer. Parents would ask questions that we had already given them the answers to in writing. Then we realized that face to face and phone calls were how most of them were wanting information."*

Key stakeholders reported providing particular supports to Spanish-speaking families, such as:

- Providing reminder calls in the parent's native language;
- Having materials in English and Spanish;
- Providing experienced, Spanish-speaking childcare staff;
- Having an effective translator skilled at building relationships.

Respondents likewise noted the **importance of being culturally responsive**, taking into account the particular needs, perspectives and preferences of non-dominant groups:

> *"…The fact that we were responsive to parent concerns about seating arrangement and where we put the translator, where we are grouping the Spanish-speaking families, how we're integrating that and trying some new things until we came up with something that worked for everyone. I think the responsiveness and openness to communicate around equity issues is important."*

> *"My group was good at respecting the cultural differences. Everyone was really on board with the differences and were able to open up the discussion, like 'in my culture we do this.' Everyone was really respectful and recognizing that not everyone looks at the world the same way."*

Less Effective Attendance Supports

A few sites shared approaches to supporting attendance that they reported to be relatively ineffective:

- One site sent out text messages on a regular basis but was unsure whether that was effective at supporting attendance.
- Another site distributed KITS newsletters to families but reported that they were rarely read.
- One site attempted to do makeup sessions with families but no one ever indicated interest.

Reasons for Absences

According to respondents, the most commonly parent-reported reason for KITS absences was conflict with family schedules, such as sibling soccer practice or vacation plans. Similarly, a frequently reported reason for missing KITS was conflict with the parent/caregiver's work schedule. The next most commonly reported reason was illness in the family, either on the part of the student or of a parent. A few sites encountered transportation challenges that negatively affected attendance. Finally, according to respondents, some parents were simply not interested in participating in the parent group.

Following Up with Families after Absences

Respondents were asked about follow-up with families after a child and/or parent absence. For the most part, SRG teachers were reportedly unable to deliver missed content to students, but most sites tried to make sure parents received any missed SRG homework materials, so they could help their child at home:

> *"If a student is absent, there's no way to really make up the content. PG facilitator did provide parents with homework for the kids through Parent Group (even though it was SRG content). So a parent could always choose to do sort of a make-up session on their own….There was always a letter to parents about what the kids were learning so that parents could focus on that content if they want."*
> *"And on a weekly basis, if anyone wasn't there, we made sure they got all the materials from the previous week (both parent and child) so that they could catch up and not be behind."*

For the parent groups, most sites were able to schedule makeup sessions with parents who missed a session or multiple sessions. These makeup sessions usually took the form of a phone call or a home visit. The amount of content delivered during makeup sessions seemed to vary depending on the site.

> *"…we wanted to catch the parents up on some of the content, so the translator and [the parent group facilitator] did a home visit for a couple of hours to catch up on several weeks of content."*

> *"I couldn't do the whole class with all the details of the lecture, but at least they got the information and materials, like if there was a week where we explained sticker charts, I would show them how to do that."*

> *"She [parent group facilitator] would meet on Saturdays or at a coffee shop, sometimes one on one, sometimes in small groups. She was really diligent about any content that was missed, she gave multiple options as far as when they could meet to go over it with them. We built it into the budget here that there would be time for us to do make-up sessions."*

Some sites were able to follow-up with Spanish speaking families and provide an interpreter for makeup sessions. However, that was not the case for all sites. Sites that had to rely on translation apps reportedly encountered more challenges:

> *"We would have translators present during Parent Group meetings, but we couldn't always get in contact with parents every time a child was absent from the SRG….We didn't have access to a translator to call and find out the reasons. When Latinx parents weren't at PG, I would send out a text in Spanish*

through Translator. One mom wouldn't respond, but other parent would respond using some sort of translator, and would let us know if she wasn't going to be there. The language barrier was an issue because Translator isn't always accurate. I did ask our translator once to call them towards the end. I should probably have asked her more often [when] anyone was missing, but as far as I understand, the translator doesn't get paid for anything outside of Parent Group. I felt bad asking her to take time out of her schedule to call them when she wasn't going to get paid for it, but she did so gladly when I asked her to."

Addressing Barriers to Attendance

Sites reported a variety of creative strategies to address barriers to family attendance. In some cases, district policies had to be negotiated:

"Had to get special permission to do the home visit. It wasn't actually okay at first; [the District] wasn't excited about it. But they went through some hoops to get us permission to go to a family's home. At first they weren't going to let us do it, but a week later they gave us permission. This was a special case, where the parent wanted the information and had a very sick child and was unable to attend. Had to go through some hoops to get that permission to do that, but we did it and it was worthwhile to the parents."

In one case, KITS staff walked a child home from class:

"One parent lived too close to get a bus, but had a bad back and couldn't walk her child to the site, so we would walk the child home from the site."

When KITS transportation was discontinued by the district in September, facilitators at that site supported parents to organize a carpool, ensuring that all parents could continue to attend:

"Biggest barrier was buses during September, and we solved that the first week by arranging the rideshare program. A couple people missed the first Saturday because they couldn't get there. But it was only because they had no transportation….[So] parents exchanged phone numbers and called everybody and they worked it out themselves, which I thought was pretty amazing."

One site noted an advantage of having parent groups on Saturdays in the fall meant that parents who worked during the week were able to attend.

Suggestions for Improvement

Respondents had a number of suggestions for improving attendance for KITS families.

In terms of tangible supports, one suggestion was to **partner with local agencies that could provide meals or other services** before and/or after the program:

"Food for Lane County to be onsite. Free breakfast and lunch programs could be onsite, whether a permanent thing or a cooler that's provided, so that families could have breakfast, and then take-home

lunch would be an incentive. Partnering with other social services at same site, if it's nurses or immunization clinics, ways to partner more closely with social services."

Another suggestion was to **build in more specific information regarding the school entering kindergarteners would be attending**; consistent feedback from parents indicates this is one of the biggest perceived benefits of KITS:

"Parents…had questions about the school that I couldn't answer. On my end, to have that as part of my job, let's see if we can reach out to teachers, would be helpful. A lot of parents have no knowledge of anything about the school that their child is about to go to. As foresources, I was supposed to do some research about resources, and I printed up some information, but wasn't really sure what the schools offer. Maybe having the school principal come in and tell a little about the school and what they have to offer, that would be super cool. I can only do so much not knowing anything about the school."

A few respondents suggested **changes to the KITS model that they thought might enhance parent participation and attendance**, including:

- Discontinuing the child homework component;
- Making PG content less repetitive;
- Discontinuing the fall portion of KITS;
- Providing a daily newsletter, summarizing SRG lessons, so that parents can reinforce at home.

Some respondents also suggested **better targeting of families "in need" of KITS**, either those who haven't had preschool experience and/or those whom might benefit from support specific to self-regulation and social-emotional skills. Respondents observed that some families seemed to decide that KITS wasn't challenging enough for their child (usually because they'd already been in preschool) and attendance would suffer as a consequence.

Finally, respondents suggested **building time into the budget for the interpreter to make phone calls to families and attend clinical meetings**, so that there is better representation of the needs and perspectives of Spanish-speaking families.

Implementation Question 1B. How many child or parent groups are attended by KITS participants? What was the average level of attendance? What family characteristics relate to attendance?

Table 23 (see Results section) summarizes KITS SRG and PG participation in summer and fall sessions as well as across the entire program (total) for the 2017 RCT and 2016/2017 quasi-experimental samples. The average participation rate for children was 72-79%, and for parents, 50-58%. Participation in KITS was higher in the summer for both children and parents/caregivers across both samples, and children consistently participated more than their parents/caregivers. While between 56 and 66% of children participated in at least three-quarters of all SRG sessions, only between 31 and 41% of parents participated in three-quarters of programming.

Correlations between attendance and child/family demographics were examined in order to explore the question of which family characteristics were associated with more or less attendance. Table 31 summarizes these correlations. Generally there were few significant associations between family characteristics and attendance. There were some indications that attendance rates differed for families of color. Fewer African American children had high attendance rates, and Latinx parents were more likely to have participated in more PG sessions.

Table 31. Correlations between Attendance and Family Demographic Characteristics: KITS 216 & 2017 Full Study Sample

	SRG Average Attendance Rate	PG Average Attendance Rate
Child Gender - Female	0.08	-0.01
Household Full Time Employment	0.02	-0.05
Parent Education	0.01	-0.03
Race/Ethnicity		
White	-0.02	-0.04
African American	-0.09*	-0.03
Latinx	0.07	0.11*
Asian	0.05	0.03
Native Hawaiian/Pacific Islander	0.02	0.01
Alaska Native/American Indian	-0.06	-0.06
Other	-0.02	-0.07
Any Formal Childcare	-0.07	-0.03

*p<.05, **p<.01

Implementation Question #2 (IQ2): To what extent do children and parents in the control group participate in other programs that support school readiness and kindergarten transition?

Descriptive statistics were conducted to examine the kinds of early childhood educational experiences and school readiness opportunities were available to the control/comparison samples. As seen in Table 32, the majority (67-72%) of the RCT control children had some kind of early childhood education (i.e., formal childcare). Most of these children attended a preschool other than Head Start. Children in the RCT and quasi-experimental control/comparison groups also attended a local school readiness safety training called Safety Town (12-15%), Kindergarten Readiness workshops offered by the library or other community organizations (11-14%), transition meetings with their early intervention team of support (19-28%), and transition nights held by Relief Nurseries and Head Start programs (10-12%).

Table 32. Control Family Participation in Other School Readiness Events

	2017 RCT Controls		2016 & 2017 Comparisons[a]	
	n	%	n	%
Any Formal Childcare	31	72%	98	67%
Family Day Care	5	12%	14	10%
Head Start	9	21%	31	21%
Preschool (not Head Start)	19	44%	64	44%
Safety Town	5	12%	14	15%
Kinder Readiness workshops or events	6	14%	10	11%
EC-CARES transition meetings	12	28%	18	19%
Relief Nursery or Head Start Kinder transition night	5	12%	9	10%

[a] Results for Safety Town, Kinder Readiness workshops, EC-CARES transition meetings, and transition night from 2017 comparison families only.

Implementation Question #3 (IQ3): What can be learned about the experiences of: (1) Hispanic/Latinx and Spanish speaking children and families and (2) children with disabilities?

This question was added from the original SEP proposal to respond to the emerging need to learn about cultural adaptions of the model and adaptions for children with special needs. In Year 2, a major focus of the Process Study was an in-depth examination of the needs and experiences of Latinx families in KITS, as reported by Latinx parents, SRG teachers, PG facilitators and PG interpreters. Major findings are summarized below.

Understanding KITS for Latinx and Spanish Speaking Families

Language Interpretation in the SRG Classroom

Currently, the KITS model does not require that interpretation services be provided for Dual Language Learners in the SRG classroom; nor does it specifically advise against providing language interpretation. As the population of Latinx families grows in Oregon, however, it is increasingly important to consider how best to serve DLLs in the context of KITS. Public, policy-maker, and scholarly opinion are somewhat divided on the best course of action for serving for DLLs in the classroom. In order to better understand the perspectives and experiences

found in this particular community, individual interviews were conducted with participating Latinx parents and SRG teachers; relevant questions were likewise included on the SRG teacher survey.

One-third of teachers surveyed (n=36) said that they had one or more children in their KITS classroom who needed or might have benefitted from language interpretation services. Most indicated that the child(ren) in question spoke Spanish as their first language. It is important to note that multiple teachers from the same classroom were invited to participate, so this may be a duplicated count; in addition, 6 teachers chose not to answer this question.

About a third of survey respondents indicated that no language interpretation services had been provided for DLL children in the KITS classroom. When interpretation was provided, respondents reported using a variety of strategies. Half of respondents reported that an Assistant Teacher had provided interpretation. In a smaller number of cases, the Lead Teacher or another KITS staff (e.g., the Parent Group interpreter) provided interpretation. A quarter of respondents indicated that a bilingual child in the KITS classroom had informally interpreted for the DLL child(ren) in question.

Table 33. Strategies used to meet the language needs of DLL children (n=12)*

	Percent reporting
Lead teacher provided interpretation	17%
Assistant teacher provided interpretation	50%
Other KITS staff provided interpretation	17%
Another child in the classroom provided interpretation	25%
No interpretation provided	33%

*Percentages add up to > 100% because respondents could endorse more than one response category.

When asked how effective this method of interpretation had been for the DLL children in their classroom, half of all respondents indicated that it had been **"very" or "somewhat" ineffective.** One-third indicated that it had been "somewhat" effective, while only 17 percent reported that their approach to meeting the language needs of DLL children had been "very effective." Despite these challenges, three-quarters of teachers reported feeling as though they had been mostly or completely able to effectively support DLL children in their KITS classroom.

The majority of Spanish-speaking parents interviewed (70%) indicated that their child either needed or would have benefitted from language interpretation in the classroom. A number of these children spoke no English at all, or very little English. The other three parents reported that their child already spoke English and thus did not need language interpretation. Of the children who reportedly needed or would have benefitted from language interpretation, only three received such services. In all cases, it appears it was a Spanish-speaking Assistant Teacher who provided the interpretation.

When language interpretation was provided, parents indicated that it was helpful. Where no language interpretation was provided, parents expressed a variety of perspectives regarding their child's, or other children's experience in the classroom. Several parents said they believed their child "tries harder" to learn English when an interpreter is not available; another reported that her son was fine because he has a very adaptable temperament. Others shared the belief that children get frustrated when they do not understand

what is being said, and although their own child spoke English, other Spanish-speaking children in the class would have benefitted from an interpreter. One parent argued that it depends in part on the particular child, and on the teachers' skill levels and strategies – so having an interpreter might be really important for some kids, while perhaps less necessary for others. Importantly, every parent said that their child felt comfortable in the KITS classroom; indeed, most said that their child really enjoyed KITS.

In the four classrooms represented by the teacher interviews, no formal language interpretation was provided. In one of the classrooms, however, the lead teacher and the assistant teachers all spoke "a little" Spanish – enough to provide some language support to the Spanish-speaking students in their classroom. When asked about how many children in their class might have needed or benefitted from language interpretation, two of the three teachers indicated that it would have been helpful for all of the Dual Language Learners (DLLs). The third teacher agreed that language interpretation would have been helpful for all of the Spanish-speaking children, but wasn't necessarily critical to their success -- with the exception of one child whom had very limited English skills. It should be noted that this is the same teacher (and team) that was able to use her own Spanish skills to better communicate with the Spanish-speaking students.

In particular, two of the teachers highlighted the sometimes frightening transition period when children are first beginning KITS as a particular challenge for Spanish-speaking children, in the absence of language interpretation. Without language interpretation, some of the more academic KITS activities were reportedly also challenging for the Spanish-speaking children. In particular, teachers mentioned the "Magic Pocket" literacy activity as being difficult for Spanish-speaking children. Despite these challenges, all of the teachers felt that the Spanish-speaking children transitioned well, felt comfortable and were able to participate, after the first few weeks. Overall, teachers reported growth in Spanish-speaking students' English language skills, literacy skills, and social skills. Finally, one teacher argued that the lack of language interpretation was an accurate reflection of what Spanish-speaking children would experience in kindergarten; as such, it might provide useful practice in negotiating an English-only classroom.

Several teachers suggested that if interpretation was not available, it might be helpful for them to receive a brief training/handbook that covered commonly used phrases in Spanish. More generally, a number of teachers also mentioned the importance of going slowly, choosing very simple language, and using visual cues whenever possible. One teacher suggested integrating other languages into the Magic Pocket activity, as well as songs in other languages for "warm ups" [We note that some examples of this were provided in KITS training although may not have been widely utilized in practice].

Child Homework

The KITS program includes weekly homework practice for participating children. According to respondents, homework for children was provided in English; in a few cases, parents received a copy of their child's homework in Spanish, but in other cases they did not (facilitator/interpreter respondents were somewhat unclear on this; some could not recall). Only a few parents reported receiving the assignments in Spanish. It should be noted that the KITS Program provides homework on letter names and sounds in Spanish specifically for the Spanish speaking parents so that they can practice working with their children. It appears that the districts may have been uneven in making that available to the teachers and parent group facilitators.

Parents of DLL children uniformly reported that their children were able to consistently complete the weekly KITS homework assignments. Many likewise volunteered that their child was motivated and/or enjoyed doing their homework. Most parents said the homework was "easy" for their child – in many cases, their child did not want nor require assistance. Three parents (all of boys) did talk about some difficulty and frustration experienced by their child when trying to trace letters. Most parents reported that they or somebody in their family (older siblings, husband) was able to help their child with homework, if needed. Several mentioned being able to speak English, or some English, which allowed them to play a supporting role. Having the parent version in Spanish, and going over the homework instructions during Parent Group [as the KITS model specifies] were also highlighted as helpful supports. PG facilitators and interpreters similarly noted the importance of providing a parent version in Spanish. One facilitator/interpreter noted that children in KITS are given books in English to read, but there often isn't a Spanish-language equivalent to share with parents.

Cultural Representation in the KITS classroom

In the 2017 KITS sample, 14% of participating children were identified as Latinx. Parents were asked the extent to which they felt the KITS classroom reflected their cultural heritage. A few parents reported that their child's KITS classroom had incorporated a song in Spanish, or that a book had been read aloud in Spanish. Most parents, however, were not aware of any Spanish language activities and/or activities reflecting Latinx culture. At the same time, the Latinx parents interviewed were unanimous in believing that it was important for classrooms to reflect the cultural heritage of children and families. In addition, parents repeatedly expressed a desire for their children to be bilingual, and most especially not to lose their Spanish language skills.

When asked the extent to which they had incorporated activities or approaches that were reflective of the cultural heritages reflected in the KITS classroom, two of the three teachers reported few or no efforts to do so. However, one teacher described using several approaches to being linguistically responsive, i.e., incorporating some elements of Spanish language into the day, such as a song in Spanish or counting in Spanish. Two of the three teachers expressed the belief that culturally responsive classrooms were beneficial for all the students. The third teacher described focusing more on creating a welcoming classroom environment, rather than on "individual similarities or differences." One teacher reported receiving useful resources and support from their OSLC coach, including songs and books in Spanish; another teacher independently expressed a need for just that kind of support

Language Interpretation in the KITS Parent Group

Parents of children participating in KITS are asked to attend a weekly Parent Group. These groups are facilitated in English, with an interpreter provided for any non-native speakers (usually Spanish-speaking, in this geographic area). Typically, the interpreter and any Spanish-speaking parents are seated at a small distance from the group; the interpreter provides simultaneous interpretation and facilitates any questions or interactions between the PG facilitator and/or English-speaking participants.

Almost two-thirds of Parent Group facilitators and interpreters surveyed (n=17) reported that they had ELL parents in their KITS Parent Group, primarily Spanish speaking. (Because facilitators and interpreters for the same groups were invited to participate, this may be a duplicated count). Most of these Parent Groups included

only 1-2 ELL parents, although at least two groups included a sizeable proportion of ELL parents, i.e., 5-10 ELL participants.

In terms of participation, a little less than half (46%) of respondents reported that ELL parents participated "a lot" in the PG, while a little more than half (54%) reported that ELL parents participated "very little" or "somewhat." When asked what method of interpretation they would recommend for KITS Parent Groups, more than two-thirds of survey respondents endorsed the current KITS model; about a fifth recommended separate Parent Groups by language; and a little more than 10% recommended using headphones to deliver simultaneous interpretation.

To gain a more in-depth understanding of Latinx parent experiences in the PG, interviews were also conducted with both Spanish-speaking parents and PG facilitators and interpreters. Interview responses are summarized below.

Parent Perspectives on Language Interpretation in KITS PG

Spanish-speaking parents in this sample were asked about their experiences with interpretation in the KITS PG. Several parents reported that the approach to interpretation had worked well for them. Some parents were less certain about the quality of interpretation, wondering if they might have missed something. A number of parents expressed misgivings about the quality of the interpretation provided, noting that they either noticed inaccuracies in the interpretation, could not follow the interpretation, and/or experienced interruptions or delays due to the interpretation. There was also a sense of discomfort or even shame expressed, and/or a feeling of being viewed negatively by the English-speaking parents. In response, multiple Spanish-speaking parents recommended separate KITS Parent Groups for Spanish-speaking parents.

When asked more generally about their comfort level in the PG, most Latinx parents reported that they felt accepted by the group. Several Latinx parents mentioned that they already knew other parents in the group, which was reportedly helpful. Others talked about the efforts the facilitator made to support a sense of safety and cohesion. Two parents reported feeling uncomfortable due to the language barrier. The main recommendation made to increase the comfort level of Latinx parents was to offer a PG in Spanish.

PG Facilitator/Interpreter Perspectives on Language Interpretation in the KITS PG

The PG facilitators and interpreters interviewed indicated that interpretation had been provided in all the groups. Somewhat different approaches were taken to providing interpretation, but for the most part, groups followed the recommended KITS strategy. When the facilitator was bilingual (one group), they sometimes answered questions from Spanish-speaking parents in Spanish, and then the interpreter would repeat what had been said in English, for the English-speaking parents.

In response to feedback from the Spanish-speaking parents, one group decided to modify their structure and process somewhat. According to the interpreter, when Spanish-speaking parents saw that they were being grouped separately from the English-speaking parents, they expressed a feeling of being marginalized, saying to the (bilingual, bicultural) interpreter, "Oh, they are treating us like 'the Latinxs'" (as paraphrased by the interpreter). The interpreter encouraged them to express their concerns to the facilitator, which one parent was

willing to do. In response, the seating arrangements and approach to facilitation were modified to support a greater sense of inclusion.

All four facilitators and interpreters described a strong commitment to meeting the needs of Spanish-speaking parents and concerted efforts to make the language interpretation effective. All four likewise felt that the Spanish-speaking parents had benefited from their participation in the KITS PG. At the same time, all the respondents also expressed the opinion that a Spanish-only group would be preferable. In particular, one facilitator talked about how the PG was intended to foster conversation and exchange, rather than being strictly didactic. In the case of simply delivering content, she argued, a mixed group with language interpretation might work reasonably well, but becomes much more challenging when trying to facilitate reciprocal communication. One bilingual/bicultural respondent spoke at length about the dynamics at play when Spanish-speaking parents are in the minority and participation is inhibited.

Two respondents likewise noted that Spanish-speaking parents did not get the same amount of "talk time" in the group, a commonly observed phenomenon. One respondent talked about the awkwardness of "interrupting" the flow of English-language conversation between majority English-speaking parents.

The Role of Culture in the KITS PG

Participating Latinx parents were also asked about the congruence between the parenting information presented in the KITS PG and Latinx parenting practices and values. A number of parents reported that the parenting approaches were similar in many regards. On the other hand, differences were noted in some of the KITS approaches to behavior management, including both discipline and reward systems.

In response to the web-based survey questions, about half of PG facilitators and interpreters (n=17) indicated that the KITS PG curriculum was only "somewhat" **consistent** with Latinx cultural values and norms around parenting; more than half also reported that the Parent Group was only a little, or somewhat responsive to the needs of Latinx families (see Table 34).

Table 34. Cultural Responsiveness of the KITS PG Curriculum: Facilitator/Interpreter Perceptions (n=17)

	Very little %	Somewhat %	A lot %
To what extent do you think the KITS PG curriculum is consistent with Latinx cultural values and norms around parenting?	8	50	42
To what extent do you think the KITS PG is responsive to the needs of Latinx families?	18	36	46

When asked the extent to which the PG reflected the cultural heritages of participating Spanish-speaking families, all PG facilitators and interpreters interviewed agreed that the PG curriculum reflects a more "Western" [White, middle class] notion of the nuclear family. Facilitator/interpreter respondents agreed that some of the approaches used/taught in the both the SRG and PG may be more "universal," but that many were also culturally specific – and unacknowledged as such. Some examples offered included:

- Culturally-specific notions around time management with children (e.g., the role of schedules, curfews, routines);
- Assumptions of computer literacy and access to computers;
- Instructions to support the child in reading/homework, with little guidance as to how, when the parent speaks no or little English;
- Homework assignments that reflect/reference concepts or experiences common to dominant White culture (may be unfamiliar and thus harder to understand);
- Encouragement to communicate with teachers/volunteer at the school, with little acknowledgement of the language barrier and/or time constraints;
- Promoting literacy without talking about the benefits of bilingualism;
- Encouraging "independence" and "self-care" on the part of children (e.g., allowing a young child to choose her own clothing and dress herself may conflict with cultural norms around appropriate grooming/appearance);
- The kinds of classroom snacks provided (unfamiliar to the children).

More generally, respondents talked about how Latinx parents don't see themselves, or their families, reflected in the KITS curriculum. This invisibility may make it harder for Latinx parents to engage with KITS as well as engender a sense of shame or inadequacy.

Two bilingual/bicultural facilitator and interpreter interview participants discussed at length the importance of having a deep understanding of both the KITS material and (in this case) Latinx culture, in order to serve as a kind of "translator" between mainstream, "Western" parenting expectations/advice and more typically, Latinx approaches to parenting. In particular, one facilitator highlighted the challenges of translating the often-technical aspects of behavior management techniques, especially through an interpreter not necessarily schooled in such techniques.

Benefits of KITS for Spanish-speaking Parents

Despite the challenges around interpretation and the perception that the parenting strategies were different than those used within the Hispanic/Latinx culture, all respondents (parents, PG facilitators and PG interpreters) agreed that participation in the KITS PG was of considerable benefit to Spanish-speaking parents. Parents overwhelmingly reported that the information they learned in the PG had been useful to them. When asked to share the biggest benefits of participating in the PG, a number of these parents reported better understanding how to support their child with their studies, and prepare them for kindergarten. Other benefits mentioned included:

- Gaining valuable information from the experiences of other parents;
- Learning about community resources and sources of support;
- Feeling cared for.

Several parents spoke movingly about the benefits of learning to prioritize one-on-one time with their children. One parent said that learning new discipline techniques had been the biggest benefit of PG participation. When asked about any techniques or strategies that they started using at home, after learning about them in the KITS PG, parents gave a variety of examples, including:

- Instituting a reading routine at home;
- Using time out/new methods of discipline;
- Using rewards to motivate;
- Eating together as a family;
- Importance of quality time;
- Limiting screen time;
- Instituting a bedtime routine.

All facilitator/interpreter respondents likewise agreed that they felt that Spanish-speaking families had benefitted from participation in KITS. Although time-out was not widely implemented as a behavior management strategy, a number of other suggested strategies were reportedly embraced with considerable success, including pre-teaching, rewards/incentives, counting to 10, focusing on the positive, phrasing demands as statements rather than questions, etc. Particularly in the majority Spanish-speaking group, it seems a real rapport developed among the parents that supported experimentation and shared learning. Another significant benefit of KITS participation reported for Latinx parents was learning more about kindergarten and the school system more generally. Last but not least, respondents also talked about Latinx parents' satisfaction with the SRG portion of KITS, and the positive developments they observed in their children.

Latinx parent suggestions for program improvement

Parents were asked a series of questions about how the KITS program could be improved for Latinx families. Primary recommendations included:

- Making KITS more culturally and linguistically responsive;
- An expanded schedule for children and/or more flexible times for PG, in order to enable greater participation on the part of Latinx families;
- Facilitating the PG in Spanish for Spanish-speaking parents, or offering an alternate, less intrusive, and more effective approach to interpretation.

When asked what an ***ideal*** KITS program might look like for Latinx families, responses included:

- A different schedule for working parents;
- Language supports for Spanish-speaking children (suggested options included making the program bilingual; having a Spanish-speaking Assistant Teacher);
- Incorporation of Spanish-language activities into the classroom (songs, books, crafts);
- Offering the PG in Spanish;
- Outreach to and recruitment of more Latinx families.

The quotations below illustrate many Latinx parents' interest in a **more culturally and linguistically responsive KITS:**

> *"I would make sure all the kids were comfortable, and I would help those who don't speak English to be able to communicate in their own language.*
>
> *I would implement more activities for the Hispanic kids. I would teach the kids to sing in Spanish and to read and write in Spanish. I would have a bilingual program, including books in Spanish too, and other activities in Spanish…….like crafts and things like that.*
>
> *To offer [PG] classes in Spanish, to be able to participate in the class. In English it's okay, but it's not the same. I wanted to participate more, but I couldn't because of the language barrier.*
>
> *I would ensure that all teachers have an assistant who speaks Spanish. I would have equality, 50 percent in English and 50 percent in Spanish. In the same way that Americans need English, we need Spanish too."*

A number of parents interviewed strongly recommended reaching out to and involving greater numbers of Latinx families. Suggestions for how to do so included:

- Continuing to promote via Head Start;
- Motivating parents by providing parent classes in Spanish;
- Offering more convenient hours for working families, e.g., expanded SRG hours, evening PG classes;
- Sharing the information with churches like Santa Maria and San Marcos;
- Sharing the information with Latinx stores;
- Promoting on the Spanish radio station;
- Promoting at English-language classes for adults;
- Doing robocalls from participating schools;
- Mailing flyers;
- Doing a TV commercial;
- Advertising more on Facebook.

It was repeatedly suggested that outreach to families should include not only information regarding KITS, but information about the importance of early learning experiences for children. In effect, respondents seemed to be recommending a kind of public education campaign aimed at increasing this awareness specifically within the Latinx community.

Reported Benefits of Engaging Spanish-speaking Families in KITS

SRG teachers, PG facilitators and PG interpreters were asked about any broader benefits of engaging Spanish-speaking families in KITS. All of the teachers interviewed reported significant benefits of having Spanish-speaking children in the KITS classroom, most especially the value of experiencing and accepting cultures other than one's own:

I think it's really important for experiencing different cultures and working with people from different cultures.

I think it brought another layer of acceptance to the classroom. We're all different and some of us speak different languages.

And it gives me a better appreciation for all the hard work they (Spanish speaking children) do. And getting to know their culture a little bit – that's a bonus too.

Similarly, one teacher talked about the benefits for the English-speaking students in the classroom:

The kids would also learn from each other. There's always those students who are a little more intuitive; who help others, which then enhances their own learning. That was neat to see – the English speaking students who kind of took on the role of "teacher." And they picked up a little Spanish too.

When respondents reference, "experiencing different cultures," or bringing "another layer of acceptance to the classroom," the implication is that White children and/or teachers are learning tolerance through exposure to the unfamiliar. No doubt, Latinx children also experience a kind of exposure to "the other," given their young age and sometimes limited experiences outside the home. At the same time – and especially when children of color are in the minority and/or don't speak the dominant language -- the benefits are unlikely to be equivalent. The meaning and experience of being exposed to someone "different" may well vary according to one's insider/outsider status. This by no means is an argument against the value of multicultural classrooms, but instead a recognition of the power dynamics at play. Both White children and children of color may experience benefits of interacting with one another in the classroom. What should not be overlooked is that children of color likely also experience unique *challenges*, not experienced by White children, in multicultural classrooms; it's not a purely reciprocal relationship.

The responses regarding the benefits of engaging Latinx parents in the KITS PG were similarly nuanced. Everyone agreed that there was value in having diverse perspectives represented and shared:

We're all learning from each other. All the English speaking families were respectful. Giving your ideas and getting ideas from them, that's great.

One facilitator spoke about the patience it requires to have a conversation across languages, and the built-in opportunity to pay closer attention:

For the group as a whole, it helped expose some parents to learn a little more patience. I think having that translator and having those differences in language forced people to slow down and listen, really listen to what other people are saying. It builds a sense of a larger community. These families who are culturally distinct, linguistically distinct, they're having the same issue of having their kid have a tantrum at Target. Seeing those bonds despite language differences was something that was really great to see.

Another facilitator characterized her experience as, *"…one of the most important things I've done as a teacher. I'd gladly do it again next year if they want me to*." She went on to express her heartfelt appreciation for the group of Latina women she came to know, and the authentic relationships that were formed:

> *I really made friends with these people – I loved these Latina women. They had so much to say and were so fun to talk with. The first week or two, I was a little nervous, but now I'm really comfortable doing it. I could do it again and again.*

The facilitator for the majority Spanish-speaking PG noted that the English-speaking parents were *"…kind of a minority. They were kind of dominated by the Spanish speakers – it was kind of funny, if you know what I'm saying.*" In this statement, the facilitator seems to be referring to the "oddness" (and insight) that is often experienced with a role reversal. Likewise, the facilitator described some extended conversations in Spanish that may have required patience on the part of English-speaking participants. This, however, was not represented as a drawback, but instead, as another learning opportunity:

> *Sometimes the Spanish conversation would go along for 10 minutes or more and I'd have to kind of interrupt, just to get caught up – but it was great. People really bonded, exchanged phone numbers, made plans together. And by the end of the summer, my Spanish had gotten a lot better too!*

Summary of Process Study Findings: Latinx Families

Latinx parents, SRG teachers, PG facilitators and interpreters agreed that the KITS program offers many important benefits for Latinx children and parents. Spanish-speaking children reportedly made gains in their English language development and kindergarten readiness; Latinx parents benefited from mutual support, gained knowledge about the school system and community resources, and had opportunities to try out new parenting strategies. KITS staff reported both professional and personal growth/rewards, as they confronted challenges and experienced the rewards associated with serving non-dominant families. Latinx parents strongly suggested reaching out to and including larger numbers of Latinx families, and expressed a perceived need in the community for greater awareness around the importance of early childhood education.

At the same time, respondents across all types also generally agreed that at least some Spanish-speaking children and parents may have missed out on the opportunities/benefits offered by KITS, due to the language barrier, unavailability of and/or method of interpretation, lack of representation of Latinx culture in the SRG and/or PG, and the reliance on what was characterized as a "White," middle class model of parenting. It was also noted that the KITS schedule, both for the SRG and the PG, was inaccessible to many low-income, working parents (including, but not specific to, Latinx parents).

SRG Language Interpretation

Responses from both Latinx parents and SRG teachers interviewed suggest that language interpretation for DLL KITS participants would be helpful, especially for easing the transition into KITS, supporting participation, and realizing the full instructional benefits. Parents repeatedly referenced the frustration that may be experienced when children do not understand what is being said. Teachers additionally noted the fear/emotional distress that may be present, as well as the loss of important learning opportunities.

Some parents expressed the belief that children learn English faster when not provided with interpretation. The primary purpose of KITS, however, is not English language acquisition. KITS is intended to support growth in both the social emotional and academic learning required for kindergarten, as well as give children the opportunity to become familiar with the kindergarten classroom and practice the routines that support successful participation. Without language interpretation, Spanish-speaking children may improve their English language skills, yet not have full access to the kindergarten-specific learning opportunities offered by KITS.

In order to maximize the likelihood that Spanish-speaking children are able to participate at the same level and realize the same benefits as English-speaking children, KITS may want to consider incorporating language interpretation as a standard component of the KITS model. It appears that a number of participating schools have already moved in that direction on their own, suggesting growing recognition in the community of the need for language supports for young DLL children. Similarly, some participating schools have adopted the materials recently developed by OSLC which have provided Spanish-speaking parents with Spanish-language versions of child homework assignments and Spanish-language versions of any assigned books, in order to facilitate equal participation in KITS and access to the same learning opportunities as English-speaking parents.

PG Language Interpretation

In a similar vein, there was agreement between the Latinx parents and PG facilitators and interpreters interviewed that KITS should seriously consider offering Spanish-language Parent Groups. Although some parents reported that the interpretation provided worked reasonably well for them, others, including PG facilitators, found the quality inconsistent and the process relatively unconducive to true sharing and exchange. Some Latinx parents reported significant discomfort and a sense of stigma associated with being a non-native speaker.

The expected advantages of a Spanish-only KITS PG might include:

- Greater numbers of participating Latinx parents;
- More consistent attendance;
- Better comprehension of KITS content;
- Increased participation in sharing and discussion;
- Greater comfort with asking questions;
- Enhanced understanding of the child component of KITS, and how best to support their child;
- Greater willingness to experiment with and get feedback on KITS strategies;
- Stronger bonds formed with participating parents;
- Strengthening of the family-school connection;
- Overall improved experience of inclusion and support.

One of the rationales for the current KITS Parent Group model (mixed English and Spanish-speaking, with interpretation) is that it allows for cross-cultural learning and appreciation. Feedback, however, suggests that when the number of Spanish-speaking participants is relatively low, participation on the part of Spanish-

speaking parents may be inhibited. Under such circumstances, it is unlikely that cross-cultural benefits are being realized for either the Spanish-speaking or the English-speaking participants.

Likewise, the assumption of "cross-cultural" learning in mixed groups may be misguided; in other words, the learning may not flow equally in both directions. People of color are always having "cross cultural" experiences, simply in the course of navigating dominant institutions, whereas Whites are often able to keep themselves insulated from the realities experienced by other groups. There may be benefits for Whites of engaging with individuals of color, but that should be weighed carefully against the potential risk of having non-dominant voices silenced. For that reason, so-called affinity groups (be it around race, gender, sexual orientation, etc.) are often used to create protected spaces for sharing common concerns, offering support and building community.

Rather than being an argument against integration or cultural exchange, this observation simply highlights the complexity of such interactions and the need to carefully consider and take into account the sometimes invisible or unacknowledged power dynamics that differentially affect the parties to the interaction. In other words, because of the power differential between Latinx families and White families (especially in this climate of anti-immigrant sentiment), Spanish-language groups should not be considered a form of segregation, but instead an effort to provide equitable access to the same learning and support opportunities that KITS offers English-speaking parents.

Cultural Responsiveness of the KITS Model

SRG Classroom

Both the Latinx parents and SRG teachers interviewed supported the idea of integrating aspects of Latinx culture and/or Spanish-language activities into the KITS classroom. Parents expressed the belief that it is important to the preservation of Latinx culture, while SRG teachers noted the importance of children feeling recognized and included, as well as the valuable cross-cultural opportunities available.
SRG teachers would appreciate guidance and support in realizing this vision.

For these reasons, KITS might consider adding an intentionally culturally responsive element to the SRG classroom, perhaps including (but not limited to) greater integration of Spanish-language materials and activities. It is worth noting that language and culture were often conflated by these respondents; providing Spanish-language versions of standard materials may be linguistically-, but not necessarily culturally responsive. Efforts to become more *culturally responsive* might include: integrating culturally-specific stories, books, nursery rhymes and/or songs; playing culturally-specific games; acknowledging culturally-specific holidays, persons of importance, geographical features; displaying relevant visuals, particularly of children/families of color – and many more. Additional training and support for SRG teachers in this area likewise was requested by respondents**.**

PG Group

Latinx parents, PG facilitators and interpreters all reported meaningful benefits of KITS PG participation for Latinx parents. At the same time, respondents also reported that aspects of the KITS PG curriculum were not a good fit -- or at least not an "easy" fit -- with what might be characterized as typically Latinx parenting

styles/practices. Some parents highlighted this disconnect as a positive, e.g., in the case of learning more effective discipline strategies, whereas others expressed a relative lack of interest in adopting some of the strategies recommended by KITS. PG facilitators and interpreters were likewise agreed that the KITS curriculum reflects a White or "dominant culture" model of parenting that does not always acknowledge legitimate cultural differences, nor the lived realities of non-dominant groups. In part, this probably explains some Latinx parents' rejection of (some) KITS parenting strategies.

Given that KITS apparently offers benefits for Latinx parents, yet is reportedly at odds with some aspects of Latinx parenting culture, the question then becomes -- how best to engage Latinx parents in the curriculum and maximize the learning opportunities available? The PG facilitators are trained by the KITS model to offer an approach that recognizes there is no one "right" way of parenting, instead inviting Latinx parents to experiment with a variety of perhaps unfamiliar tools to see what, if anything, works for their family. This is more likely to be persuasive than a statement that the KITS program is "evidence based," which may be interpreted as meaning other parenting approaches are incorrect or inferior. This may be particularly true for cultural groups that do not assign the same value to Western notions of empiricism – and who may associate "science"/academia with oppressive structures. One bilingual/bicultural PG facilitator observed that simply invoking the "authority" of science may not be very effective, and suggested providing families with more information about the studies themselves, and a compelling rationale for trying out new behavior management strategies.

As discussed earlier, Latinx parents in this sample were likewise worried about their children "losing their culture" and becoming disconnected from their heritage, suggesting a particular need for sensitivity to this perceived risk when advocating new approaches to parenting. While often considered a "success," assimilation to American culture may also be experienced as a loss. In order to be most effective, facilitators should be aware of and skilled in supporting discussion of such dilemmas in the KITS PG. As a number of interviewees suggested, employing more bicultural KITS staff, who are familiar with the challenges of negotiating both cultures and well-prepared to "translate" concepts -- especially around behavior management strategies -- would be especially beneficial. One (White) PG facilitator likewise brought attention to the under-acknowledged expertise of the PG interpreter, recommending the inclusion of PG interpreters in the KITS clinical meeting, and utilization of their unique skills to do outreach and follow-up with Latinx parents.

Finally, Latinx parents, PG facilitators and interpreters all noted the significant benefit for Latinx families of becoming familiarized with the school system, school expectations, rights as students/parents, and the facility itself. Also mentioned was the benefit of learning more about community resources, especially culturally specific organizations and resources. These findings echo themes reported in the previous year's Process Study report, particularly the suggestion that KITS build into the curriculum an intentional "acculturation" piece for non-dominant families, i.e., provide families with an orientation to and coaching regarding the social mores, power structures, and effective strategies for negotiating an unfamiliar system. Indeed, such frank discussions might help to address some of the fears about losing touch with Latinx culture by acknowledging the trade-offs and supporting parents in pursuit of an informed, strategic approach that maximizes adaptation to the a culture while retaining desired aspects of the home culture (a strategy many families likely already use). Research increasingly suggests that the best psychosocial outcomes are seen for immigrants who maintain a complex,

bicultural identity, adopting some aspects of the new culture, in certain contexts, while retaining aspects of their home culture in other contexts (Schwartz, Unger, Zamboanga & Szapocznik, 2010).

All interview participants were asked for their recommendations for how the KITS program might best serve Latinx families. Respondents shared a number of suggestions, including:

- Reaching out to Latinx families about the importance of early childhood education and the benefits offered by KITS;
- Offering an expanded SRG schedule and/or more flexible times for PG, in order to enable more participation on the part of Latinx families;
- Offering language interpretation for children in the SRG, at least during the initial transition phase;
- Offering Spanish-language-only PGs for Latinx parents;
- Utilizing more bilingual/bicultural staff;
- Including the benefits of bilingualism when promoting English literacy;
- Incorporating more Spanish-language and culturally-specific materials and activities in the SRG classroom;
- Looking specifically at how complex behavior management strategies can be "translated" and explained, not only in a different language, but in a different cultural context;
- Sharing more information about and inviting parents into a dialogue around the research supporting the KITS approach;
- Using the approach in PG of inviting Latinx parents to experiment with new strategies that may or may not be a good fit for their family;
- Including interpreters in the clinical meetings;
- Continuing to ask Latinx families what works best for them;
- Being flexible and open to troubleshooting when concerns arise, while maintaining the "spirit" of fidelity;
- Providing training, resources and support to KITS staff to enable culturally responsive teaching/facilitation.

Echoing last year's Process Study, respondents also suggested that the KITS PG include more information regarding community resources, particularly linguistically- and culturally-responsive supports. According to Latinx parents interviewed last year, this was one of the most beneficial aspects of attending PG. Even more important, according to respondents, is providing families with targeted and specific guidance regarding school entry and the supports available to Latinx families, as well as facilitating early contacts with school personnel, e.g., by inviting a District guest speaker to PG and/or referring families to school staff who may be able to assist with questions or concerns.

In the spirit of supporting the kind of strategic acculturation discussed earlier, KITS PG facilitators might acknowledge this reality and provide the necessary information/coaching, while also validating the legitimacy of non-dominant cultural norms. Likewise, Latinx parents could be encouraged to get involved, not only to support their own children, but to bring their unique and valuable skills and perspectives to the school environment, with the hopes of creating a more inclusive environment over time.

Serving children & parents with disabilities

Teacher surveys included a number of questions related to working with children with special needs in implementing the KITS program. The great majority (81%) of teachers surveyed reported that they had one or more children in their KITS classroom who needed or might have benefited from specialized behavior support services (multiple teachers from the same classroom were included in the sample, so the true proportion of kids with disabilities in KITS may be somewhat lower). A majority of teachers reported being able to mostly or completely support these children in the KITS classroom, but more than a third (38%) reported being only "somewhat" able to do so.

Teachers had a number of suggestions for how best to meet the needs of children with developmental challenges in the context of the KITS classroom. By far, the most frequent suggestion made was to provide one-on-one support and/or the involvement/consultation of a behavior support specialist:

- *An additional assistant teacher to be with them most of the time.*
- *It would be helpful to have a specialist available. We did have a school psychologist who shared time between our 4 sites.*
- *Last year, one of our students had a one-on-one. That was amazing because when a student has to leave the room so much, the lead is left with just one assistant for a large class.*

Several respondents likewise mentioned the value of identifying special needs early on and communicating with the child's kindergarten teacher prior to school entry.

Feedback regarding support from KITS in addressing developmental challenges in the KITS classroom was somewhat mixed:

- *We did have a child with developmental challenges. It was difficult at first to keep him engaged with the group and to stay with the group. The brainstorming during the clinical sessions really helped and we were able to modify activities for him. He was involved and successful at the end.*
- *Even though we talked about kids during our clinical meetings, there were never any plans developed to help them. It was all on the teachers, even though we asked several times for help.*

Facilitator/Interpreter Survey Results: Serving children with disabilities

The majority (73%) of PG facilitators and interpreters surveyed also reported having parents of children with developmental challenges in their Parent Group (1-4 such parents per Parent Group). The great majority (85%) of respondents reported that the KITS PG curriculum was responsive to the needs of parents of children with developmental challenges, and that they were mostly or completely able to effectively support these parents in the context of the Parent Group (80%).

PG facilitators and interpreters were also asked for their suggestions as how best to meet the needs of parents of children with developmental challenges in the context of the KITS PG. Several facilitators noted that some of the KITS curriculum/approach does not account for children with speech or other developmental delays, e.g., the heavy reliance on verbal communication. It was suggested that modifications or adaptations could be made for parents of children with developmental challenges:

- *I found it most challenging to make the beginning sessions relevant for parents in regards to literacy and teaching through routines. This does not account for children who may have speech or developmental delays.*
- *Emphasizing the use of picture charts and nonverbal communication, as well as adaptations for reading with your child would be useful.*
- *I was able to break down the behavior management principles, but only because of my fluency in that content area. Special care should be taken such that the curriculum accounts for managing severe behaviors/ adapting limit setting for children who may be nonverbal.*
- *We had a student/parent of student working through the challenges of the student having Apraxia. The KITS curriculum would need more developing, as it is heavily reliant on verbal communication between student and parent.*

One facilitator suggested expanding the PG curriculum to include ideas for adapting the weekly content for parents of children with developmental challenges. Given the high number of children in KITS identified by teachers as needing or potentially benefitting from specialized support services, this could be a timely and useful modification to the KITS program. Another PG facilitator likewise pointed out that information around IEPs and supports for children with developmental disabilities should be provided much earlier in the program. Other respondents highlighted the need in some circumstances for more one-on-one attention or support for parents, although this would require a more significant investment of resources:

- *Extended time with parent group facilitators- maybe a one on one session or a small group session to adapt behavioral suggestions.*
- *I think some of the curriculum is very helpful for broad behavioral and developmental challenges. But every family and child is different. Being able to provide more guidance and discussion on specific topics would be helpful.*

Implementation Question #4: (IQ4): What can be learned about the influence of KITS training on teacher practices?

Specifically, how do teachers who have participated in one vs. two years of KITS training differ, and how is the KITS training and approach being used by teachers beyond the KITS program?

Findings from the Year 1 KITS Implementation Study suggested that in addition to offering direct benefits for children and families, KITS might confer indirect benefits for participating staff, most notably in the areas of professional development and job satisfaction. In order to explore this question, and in particular, the cumulative benefits for more experienced KITS staff (those with more than one summer of experience), a web-based survey was administered in Year 2 to all participating KITS School Readiness Group (SRG) teachers (both lead and assistant) and Parent Group (PG) facilitators. Forty-two (82%) SRG teachers participated; 17 PG facilitators (94%) participated. Analyses of teacher responses were broken out by new/returning status, in order to explore any potential effects of an additional year of KITS experience. Although no statistically significant differences emerged, some suggestive patterns in the data were observed, as discussed below. Sample size was not sufficient to conduct the same analyses for new/returning PG facilitators.

Overall, the findings strongly suggest that a second year of KITS training, coaching, and experience support growth in understanding, skill development, and confidence on the part of SRG and PG staff.

Impacts of KITS Training, Coaching, and Participation on SRG Teacher Knowledge and Skills

Both new and returning KITS teachers were provided with comprehensive training in the KITS model and weekly feedback and coaching to support and improve a variety of relevant skills. Not surprisingly, new KITS teachers were much more likely than returning KITS teachers to say that participation in the KITS training deepened their understanding of the KITS model "a lot" (See Table 35). Nonetheless, the great majority of returning teachers likewise reported that participation in a second year of training had deepened their understanding of the model, suggesting that understanding is built over time.

Similarly, new SRG teachers were somewhat more likely to report that participation in the KITS training helped them "a lot" to improve their child behavior management skills; to improve their instructional skills; to feel more confident in the classroom; and to improve their own self-reflection skills. Interestingly, however, returning teachers were more likely overall to report improvements in these same areas, if not of the same magnitude (although in most areas, more than a third still reported improving "a lot"). In other words, it appears that returning teachers continue to realize significant benefit from participation in a second year of KITS training.

The greatest reported benefits of participation in KITS training were in the areas of improving child behavior management skills; improving instructional skill; improving self-reflection skills; and increasing confidence in the classroom.

Table 35. Reported impact of KITS training on SRG teacher knowledge and skills

	New Teachers (n=16)			Returning Teachers (n=26)		
Participating in KITS training…	Not really %	Somewhat %	A lot %	Not really %	Somewhat %	A lot %
Deepened my understanding of the KITS model	0	27	73	8	50	42
Increased my understanding of child behaviors	6	67	27	13	58	29
Increased my understanding of young children's social emotional development	20	53	27	13	54	33
Helped me improve my child behavior management skills	13	40	47	4	61	35
Helped me feel more confident in the classroom	20	27	53	8	50	42
Helped me improve my instructional skills	27	20	53	8	50	42
Helped me improve my own self-reflection skills	20	33	47	4	63	33

A similar pattern was observed for the reported benefits of participation in KITS coaching: new teachers were more likely to say they improved "a lot," but returning teachers were more likely overall to report improvement

(See Table 36). The greatest reported benefits of participation in KITS coaching appear to be in the areas of team building, self-reflection, and child behavior management skills.

Table 36. Reported impact of KITS coaching on SRG teacher knowledge and skills

	New Teachers (n=16)			Returning Teachers (n=26)		
Participating in KITS coaching…	Not really %	Somewhat %	A lot %	Not really %	Somewhat %	A lot %
Deepened my understanding of the KITS model	8	42	50	14	57	29
Increased my understanding of child behaviors	15	39	46	14	57	29
Increased my understanding of young children's social emotional development	16	42	42	9	62	29
Helped me improve my child behavior management skills	17	25	58	5	62	33
Helped me feel more confident in the classroom	17	25	58	14	48	38
Helped me improve my instructional skills	17	33	50	10	57	33
Strengthened our KITS team	18	9	73	5	57	38
Helped me improve my own self-reflection skills	17	17	66	5	62	33

SRG teachers were also asked about the impacts of KITS teaching experience on their reflective practice and leadership skill development (See Table 37). Close to half of both new and returning teachers reported improving "a lot" across multiple skill domains. In this case, returning teachers were both more likely than new teachers to report improving "a lot," *and* to report improving overall. These findings suggest KITS supports skill development in a variety of key areas, but that continued participation in KITS confers even greater benefit.

Table 37. Reported impact of KITS teaching experience on reflective practice and leadership skills

	New Teachers (n=16)			Returning Teachers (n=26)		
To what extent has participating in KITS helped you improve the following skills?	Not really %	Somewhat %	A lot %	Not really %	Somewhat %	A lot %
Using self-reflection	21	29	50	4	48	48
Using feedback	14	43	43	0	44	56
Providing support to colleagues	7	43	50	0	48	52
Using leadership skills	14	36	50	0	44	56
Asking for help	23	46	31	12	36	52
Using self-assessment	21	36	43	8	48	44
Stress management	21	36	43	12	56	32

Returning SRG teachers were specifically asked about perceived changes from Year 1 to Year 2 in their skill levels and experience of the classroom (See Table 38). Overall, the great majority of SRG teachers reported growth from Year 1 to Year 2, across all of the items. Half or more of respondents reported "a lot" of growth for most of the items. In particular, SRG teachers said that in Year 2, they felt more confident; felt calmer in the KITS classroom; were better able to establish norms and routines; used more positive reinforcement; were better prepared for lessons; and felt more comfortable with the scripted material. These findings echo those above: another year of experience appears to make a big difference for SRG teachers.

Areas that remained more challenging for SRG teachers in Year 2 seemed to be covering all of the daily lesson content; using less corrective feedback; and responding to disruptive behaviors. The behavior management strategies mentioned may represent a particularly challenging skillset to develop, especially for teachers with little prior training in behavioral management specific to this age group.

Table 38. Self-Reported Growth from Year 1 to Year 2 for Returning SRG Teachers (n=26)

Compared to Year I, In Year 2…	Not at all %	Somewhat %	A lot %
I felt calmer in the KITS classroom	0	32	68
I was better prepared for lessons	0	41	59
I was able to cover more of the daily content	5	62	33
I was better able to respond to disruptive behaviors	4	50	46
I was able to deliver KITS content with greater fidelity	4	41	55
I used more specific praise, rewards and positive incentives	4	32	63
I was more comfortable with the scripted material	0	41	59
I was better able to establish classroom norms and routines	0	36	64
I used less corrective feedback	4	64	32
I felt more confident as a KITS teacher	0	29	71

Returning SRG teachers were also asked about the relative helpfulness of various supports designed to facilitate KITS learning and skill development in Year 2 (See Table 39). Ninety-one percent reported that simply continuing to practice KITS skills for a second summer had been helpful – again underlining the notion of KITS teaching experience as cumulative. Eighty-six percent of respondents indicated that continued KITS coaching and feedback had been helpful in Year Two, with fully half saying it had helped "a lot." Interestingly, the greatest proportion of respondents indicated that support from their own team members had been helpful, with 82% saying it had helped "a lot." A key component of KITS coaching is team-building; this finding seems to indicate that implementation was very successful in that regard. A sizeable proportion of respondents also reported that support from school/district administrators had been helpful in Year 2.

SRG teachers were less enthusiastic about continuing to be videotaped for fidelity monitoring in Year 2, and about participating in the Year 2 KITS training. At the same time, the majority of respondents still indicated that these elements of the KITS model had been "somewhat" helpful in Year 2.

Table 39. Self-Reported Helpfulness of KITS Supports for Returning SRG Teachers (n=26)

To what extent were the following helpful to you in Year 2?	Not really %	Somewhat %	A lot %
Additional KITS training	18	73	9
Additional opportunities to use/develop KITS skills	9	59	32
Support for the KITS program from school/district administrators	18	41	41
Additional KITS coaching and feedback	14	36	50
Being videotaped while teaching	32	64	4
Support from my team members	0	18	82

KITS is an evidence-based program, a label that can elicit both positive and negative reactions from educators. Perceptions of evidence-based programs may influence implementation, in particular, the degree to which a program is implemented with fidelity. SRG teachers were asked for their opinion of evidence-based programs before and after becoming involved in KITS (See Table 40). For both new and returning SRG teachers, it appears that participating in KITS increased support for evidence-based programs among most participants, virtually doubling the percentage that strongly agreed that evidence-based programs were "important and useful to [their] work." For a small percentage of new teachers that initially disagreed with that statement, participation in KITS seems to be associated with a solidifying of that position, i.e., they moved from disagree to strongly disagree.

Table 40. Opinion of evidence-based programs prior to and after becoming involved with KITS

	New Teachers (n=16)				Returning Teachers (n=26)			
Evidence-based programs (with curriculum, scripts, fidelity requirements) are important and useful to my work.	Strongly disagree %	Disagree %	Agree %	Strongly agree %	Strongly disagree %	Disagree %	Agree %	Strongly agree %
Prior to becoming involved in KITS	14	7	50	28	0	15	58	27
After becoming involved in KITS	21	0	21	57	0	0	35	65

For the purposes of this project, KITS coaching was provided by the KITS model developers. The goal is for pilot sites to eventually assume responsibility for their own in-house coaching and dissemination. SRG teachers were asked two questions to gauge interest in and perceived readiness for this responsibility (See Table 41). Half or more of both new and returning SRG teachers reported having already shared their KITS approach with colleagues. A smaller percent expressed interest in becoming a KITS coach for their own program. Unsurprisingly, returning teachers were more likely than new teachers to report having already shared the KITS approach with colleagues, and to express interest in becoming a KITS coach for their own program.

Table 41. Self-Reported interest and participation in KITS dissemination

	New Teachers (n=16)			Returning Teachers (n=26)		
	Not at all %	Somewhat %	A lot %	Not at all %	Somewhat %	A lot %
To what extent have you shared the KITS approach with your non-KITS colleagues and/or administrators?	29	21	50	0	42	58
To what extent would you be interested in becoming an in-house KITS Coach for your program?	57	29	14	34	35	31

Impacts of KITS Training, Coaching, and Participation on PG Facilitator Knowledge and Skills

PG facilitators were asked a series of questions similar to those asked of SRG teachers. Due to the smaller number of PG facilitators, however, responses were not analyzed separately by new/returning status. When asked about the impact of the KITS training on their knowledge and understanding, half or more of PG facilitators indicated they had learned or improved "a lot" on most items (See Table 42). One area in which the training was perceived as less helpful was in building understanding of adult learning styles.

Table 42. Reported Impact of KITS Training on PG Facilitator Knowledge and Understanding (n=17)

Participating in in the Year 2 KITS training….	Not at all %	Somewhat %	A lot %
Deepened my understanding of the KITS model.	6	23	71
Increased my understanding of adult learning styles	18	53	29
Helped me improve my group facilitation skills	12	35	53
Helped me feel more confident as a PG facilitator	6	38	56
Helped me improve my instructional skills	12	41	47
Helped me improve my own self-reflection skills	6	35	59

PG facilitators likewise indicated that KITS coaching had been helpful, particularly in the areas of team building, increasing self-confidence, and improving self-reflection skills (See Table 43). There seemed to be room for improvement in coaching around understanding adult learning styles and improving group facilitation skills.

Table 43. Reported Impact of KITS Coaching on PG Facilitator Knowledge and Understanding (n=17)

Participating in in the SECOND Year KITS coaching….	Not at all %	Somewhat %	A lot %
Deepened my understanding of the KITS model.	6	53	41
Increased my understanding of adult learning principles.	24	47	29
Helped me improve my group facilitation skills	18	47	35
Helped me feel more confident as a PG facilitator	6	44	50
Strengthened our KITS team	6	29	65
Helped me improve my own self-reflection skills	12	47	41

PG facilitators were also asked about the impacts of KITS facilitation experience on their reflective practice and leadership skill development (See Table 44). Even more so than SRG teachers, PG facilitators reported significant skill improvements as a result of participating in KITS. The greatest reported benefits were in the areas of using leadership skills, providing support to colleagues, and using self-reflection. Somewhat fewer respondents indicated that participating in KITS had helped them improve their stress management skills, although more than 80% still reported some benefit in that regard.

Table 44. Self-Reported impact of KITS PG facilitation experience on reflective practice and leadership skills (n=17)

To what extent has participating in KITS helped you improve the following skills?	Not really %	Somewhat %	A lot %
Using Self-reflection	6	29	65
Using feedback	6	44	50
Providing support to colleagues	0	29	71
Using Leadership skills	0	29	71
Asking for help/support	12	35	53
Using self-assessment	6	35	59
Stress Management	18	47	35

Similar to returning SRG teachers, returning PG facilitators were asked an additional set of questions designed to gauge any cumulative impact of an additional year of KITS participation. Returning PG facilitators were specifically asked about perceived changes from Year 1 to Year 2 in their skill levels and experience of the Parent Group (See Table 45). Even more so than returning SRG teachers, the great majority of returning PG facilitators reported growth from Year 1 to Year 2, across all of the items – and in most cases, “a lot” of growth. The greatest improvements were reported in the following areas: class preparation, confidence as a facilitator, ability to respond to off-topic behavior, and fostering participation in the PG. Areas that were reportedly more challenging included supporting PG attendance, delivering KITS content with fidelity, and facilitating group discussion.

These findings provide further support for the notion that KITS skills continue to improve significantly with experience, at least over the first two years of participation.

Table 45. Self-Reported Growth from Year 1 to Year 2 for Returning PG Facilitators (n=11)

Compared to Year 1, In Year 2….	Not Really %	Somewhat %	A lot %
I felt calmer while facilitating group.	0	36	64
I was better prepared for group.	0	9	91
I was able to cover more of the weekly content.	10	20	70
I was better able to respond to off-topic behavior.	9	9	82
I was able to deliver KITS content with greater fidelity.	9	27	64
I was better able to support PG attendance	10	40	50
I used more specific praise, rewards and positive incentives.	9	27	64
I was better able to facilitate group discussion.	9	36	55
I was more comfortable with the scripted material.	0	27	73
I was better able to foster parent participation in group.	10	10	80
I felt more confident as a group facilitator.	10	0	90

Returning PG facilitators were asked about the relative helpfulness of various supports designed to facilitate KITS learning and skill development in Year 2 (See Table 46). Almost the exact same percent of PG facilitators as SRG teachers (90%) reported that simply continuing to practice KITS skills for a second summer had been helpful. One-hundred percent of respondents indicated that continued KITS coaching and feedback had been helpful in Year Two, with more than half saying it had helped “a lot.” Again, the greatest proportion of respondents indicated that support from their own team members had been helpful, with 82% saying it had helped “a lot,” highlighting the importance of KITS team building heard elsewhere. Similar to SRG teachers, a sizeable proportion of PG facilitators reported that support from school/district administrators had been helpful in Year 2.

For returning PG facilitators, the KITS training seems to have conferred greater benefit than for returning SRG teachers. Interestingly, a concerted effort reportedly was made to expand and improve the PG facilitator component of the KITS training this year –an apparently well-received strategy. Returning PG facilitators also reported greater benefit than did returning SRG teachers from continued videotaping and feedback on fidelity. Typically, PG facilitators bring a wider variety of backgrounds and experience levels to KITS than do the SRG teachers (many of whom work as kindergarten teachers or teaching assistants during the regular school year). This variability in experience may in part explain the greater perceived benefit of KITS training and coaching for PG facilitators.

Table 46. Self-Reported Helpfulness of KITS Supports for Returning PG Facilitators (n=11)

To what extent were the following helpful to you in Year 2?	Not really %	Somewhat %	A lot %
Additional KITS training	9	64	27
Additional opportunities to use/develop facilitation skills	10	40	50
Support for the KITS program from school/district administrators	27	27	46
Continued KITS coaching and feedback.	0	46	54
Being videotaped while facilitating group	36	46	18
Support from my team members.	9	9	82

Both new and returning facilitators were asked for their perceptions of evidence-based programs before and after their participation in KITS. Again, a doubling in strong support for the importance and value of evidence-based programs was observed. For this group, those who initially disagreed with the statement about the importance of evidence-based programs seemed to change their opinion after participating in KITS (See Table 47).

Table 47. PG Facilitator Opinion of evidence-based programs prior to and after becoming involved with KITS (n=17)

Evidence-based programs (with curriculum, scripts, fidelity requirements) are important and useful to my work.	Disagree %	Agree %	Strongly Agree %
Prior to becoming involved in KITS	6	65	29
After becoming involved in KITS	0	41	59

A somewhat smaller percentage of PG facilitators than of SRG teachers reported sharing the KITS approach with their colleagues, perhaps in part due to the greater variability in their occupations outside of KITS, i.e., the KITS approach may not be directly relevant to their non-KITS role (See Table 48). A higher proportion of PG facilitators than of SRG teachers expressed interest in becoming an in-house KITS coach, perhaps because PG facilitators are more used to and experienced with facilitating adult (rather than child) education.

Table 48. Self-Reported interest and participation in KITS dissemination (n=17)

	Not at all %	Somewhat %	A lot %
To what extent have you shared the KITS approach with your non-KITS colleagues and/or administrators?	6	53	41
To what extent would you be interested in becoming an in-house KITS Coach for your program?	6	59	35

Discussion

Results of this two-year study of the KITS program have documented a number of key successes, as well as challenges. Outcome findings suggest the program leads to important changes in parents' self-efficacy and confidence in knowing how to support children to be ready and successful in school. There is also preliminary evidence that the model may lead to improvements in parenting skills – in particular, on parents' ability to set clear boundaries and more effectively support children's self-regulation. Further, there were clear and consistent results suggesting that the model helps create the key positive relationships between parents and elementary school staff that have been shown to be important to successfully engaging parents in supporting their children's learning through the elementary school years. Building positive relationships between parents and schools, especially for those parents who are less confident and comfortable within the school system, is an important goal for kindergarten transition programs such as KITS.

Results were somewhat less encouraging in terms of measured effects on child outcomes. However, it is important to note that the measures included in this study, especially those related to more "academic" outcomes are largely not the intentional focus of the KITS program. Further, for measures of child self-regulation and social skills, the study relied primarily on parent report measures – and not on what may be more directly influenced by KITS, namely, child behavior in the classroom setting. Given the emphasis of the model on helping children build the self-regulatory and social skills needed within the classroom environment, using measures based on teachers' ratings of student behavior may yield more promising results. Further, it should be noted that the sample sizes for the only direct measure of self-regulation were small and therefore these analyses may have lacked power to detect statistical significance. For several key child outcomes, the pattern of results did, in fact, suggest that KITS children improved in these areas to a greater extent than did controls, however, the sample size may have been insufficient to detect these differences.

Recommendations

Results are encouraging, especially in terms of the success of the model in strengthening parenting support for children's transition to kindergarten. Clearly, the parent education aspect of the program is having meaningful effects in helping to bridge the gap between families and schools, a key aspect of family engagement. This may be due to a number of programmatic elements, including having KITS classes located at local elementary schools, staffing groups with elementary school staff, parent group content that includes an emphasis on helping parents understand how to navigate school systems, communicate with teachers and advocate for their child, and having some KITS groups continue into the fall, providing opportunities for sharing information and answering parents' questions after school starts. Clearly, these are key elements of the program that resonate with parents and help facilitate important parent-school relationships and which should be retained in any future changes or adaptation of the model.

One area that warrants further attention is that of cultural adaptation, and especially in regards to adaptions for Latinx and/or Spanish speaking families. First, KITS results were promising for this group, as well as for other children of color. Given the growing racial/ethnic diversity nationally and in Oregon, as well as the well-

documented disparities in kindergarten readiness skills for children of color, an intentional focus on understanding how to maximize effectiveness of the model for this group is well warranted. While results of this study suggest that in some areas the program may be more effective for children of color, it may be possible to increase culturally-specific outcomes even more. The interviews with staff and Latinx parents, for example, suggest key areas where the program could be improved in terms of engaging and supporting Latinx parents and children. Future program development, testing, and research specific to this type of cultural adaptation is important.

Further research on the KITS model would do well to focus on increasing the sample size within a rigorous designed (e.g., randomized) study, collecting measures of child behavior either through classroom observations or from teachers, and on identifying key characteristics of families or children who might be most likely to benefit from the program. While the overall program effects documented in this study were modest, it may be that particular subgroups of families or children who are most likely to benefit could be identified, and then comprise a more focused target population for service delivery. Finally, future research should collect additional information on teacher and KITS group characteristics that might be related to stronger outcomes. Even with the relatively large number of KITS groups in this study (26) there were too few groups to conduct meaningful statistical analyses of how group or teacher characteristics or implementation fidelity might influence outcomes. Larger studies that could explore this issue would be helpful in improving training and implementation.

In sum, results of this study suggest that the KITS program can meaningfully impact important kindergarten readiness and family engagement outcomes. More research that can help identify what families and children may benefit most, and how the model might be tailored to meet the needs of these different populations is needed and could further strengthen the program. Moreover, it should be noted that implementation support in the form of staff to help with outreach and recruitment of families and ongoing training and coaching of KITS staff is critical to success. While the original intent of this project was to move towards a sustainable model through ongoing support and a “train the trainer” approach, the elimination of federal funding did not allow for the sustainability phase to be implemented as planned. Future funding and research on how KITS can be realistically sustained within a community or school district is needed.

List of Appendices