



Get Ready to Learn Feasibility Study **Final Report**

Executive Summary

AppleTree Institute's four-week *Get Ready to Learn* (GRTL) unit was implemented in one classroom in a community based Head Start organization in Washington, D.C. This feasibility study was designed to identify any implementation and measurement challenges before implementation of a larger GRTL pilot. The GRTL program includes four weeks of core curricular lessons focused on social emotional and approaches to learning skills, twelve weeks of supplemental social-emotional small group lessons, measurement and reporting of teacher and child outcomes, and associated professional development.

Initial results from the feasibility study suggest that GRTL is associated with improvements in both teacher quality and children's social-emotional skills. Specifically, teachers showed notable improvements in Emotional Support and Classroom Organization, the first two domains on the Classroom Assessment Scoring System (CLASS). The classroom moved from mid range to high range scores in both domains, suggesting that participation in the GRTL program supported improvements in the emotional climate of the classroom and teachers' general classroom management practices. Additionally, children in the study classroom showed meaningful improvements in the Total Protective Factors subscales of the Devereux Early Childhood Assessment for Preschoolers (DECA), with gains made in children's Initiative, Self-Regulation, and Relationships. Children also showed improvements on the Positive Behavior Rating Scale (PBRs). Taken together, the results of these two teacher-completed rating-scales suggest a positive association between GRTL and teacher ratings of students' social-emotional skills. There were no meaningful changes on three other measures of teacher quality and two other measures of children's executive function over the course of the study. However, it is not surprising to see increases on social-emotional measures but not on executive function tasks, as the GRTL program is focused more heavily on developing children's social-emotional skills than their executive function skills

A final important outcome of this feasibility study was lessons learned. Implementation in this classroom uncovered the need for some curriculum content revisions, specifically focused on the need for a more adaptive classroom schedule to support Head Start teachers. An additional lesson supported the need for more front-end teacher training and support, resulting in an expanded professional development offering at the beginning of the project. Finally, the GRTL feasibility study highlighted the importance of strong relationships and communication with school-based staff. As a result, AppleTree has shifted focus to engaging partners through phone calls and relationship building as opposed to relying on email. AppleTree has taken this lesson to heart and is working hard to solidify lines of communication and build close relationships for the full pilot study that will begin in August of 2018.

In summary, the *Get Ready to Learn* feasibility study provided valuable information to inform a full pilot study. In addition to important lessons learned, initial findings are promising and suggest links from GRTL participation to improvements in teacher quality and child social-emotional outcomes.

Project Summary

Get Ready to Learn (GRTL) is a four-week, full-day program for three- and four-year-olds, designed to build social-emotional and approaches to learning skills. GRTL is the first unit in the *Every Child Ready* (ECR) curriculum and focuses on acclimating children to the school environment while helping teachers use sustainable, developmentally appropriate classroom management practices and positive behavior supports. Lessons place an emphasis on social-emotional skills and approaches to learning, and include explicit links to standards. Although integrated into the larger ECR curriculum, GRTL was developed to function in tandem with any curriculum, and has the potential to serve as a stand-alone curriculum that promotes skills to help children adjust to the classroom and excel both socially and academically (Carlson, 2013; Curby, Brown, Bassett, & Denham, 2015; Denham & Brown, 2010; Valiente, Lemery-Chalfant, Swanson, & Reiser, 2008; Winsler et al., 2008). Additionally, GRTL may be used as professional development for teachers to better understand appropriate expectations for young learners that are likely to set them up for behavioral and academic success (Hanley, Heal, Tiger, & Ingvarsson, 2007).

In the 2017-2018 school year, AppleTree Institute partnered with Community Child Development Center located in Washington, DC to complete a feasibility study for the stand-alone program. Though previous data indicated a potential positive impact for GRTL on classroom quality outcomes, it had only been previously implemented in 12 local education agencies within a single charter network benefiting from other AppleTree and *Every Child Ready* resources. Community Child Development Center provided AppleTree the opportunity to understand GRTL implementation in a new setting, outside of the existing ECR network. Further, Community operates as a Head Start program nested within a traditional “daycare” setting, allowing AppleTree to understand a new application for its instructional model and materials. The feasibility study of GRTL included the elements that will be included in the full curriculum study:

- three customized training days (4-6 hours each);
- teacher and children measurement before and after implementation, including direct children assessments;
- classroom quality observations before and after implementation; and
- classroom reporting.

However, AppleTree remained flexible within each of these elements to accommodate this new, unique setting. For example, Community received a pre-training day in which we discussed their setting and allowed them to preview materials and ask questions before the introductory

training. The lessons learned then informed modifications to the curriculum and training days for the full pilot study in the Fall of 2018 (see Lessons Learned below).

Project Outcomes

Teacher Quality. Teacher quality was measured using three direct observations and one teacher survey. The Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008) and the Quality Indicators (QI; AppleTree Institute, 2011) are observational tools that focus on general classroom quality across multiple domains. The Social Emotional Learning Classroom Practices Scale - Classroom Observation (SEL-CP-CO; Sutton, 2016) targets social-emotional teaching practices only. Finally, the Social Emotional Learning Classroom Practices Scale - Teacher Report (SEL-CP-TR; Sutton, 2016) is a teacher survey that captures teachers' perceptions about their own social-emotional teaching practices. More detailed descriptions of all measures are available in Appendix A.

Table 1 displays classroom-level outcomes for each of these four measures. Clear improvements were observed in two of the three CLASS domains. The classroom moved from mid range scores in Emotional Support and Classroom Organization to high range scores. The Emotional Support domain reflects the emotional climate of the classroom, teachers' sensitivity to children's social, emotional, and academic needs, and the opportunities teachers provide for autonomy and children choice. The Classroom Organization domain reflects teachers' behavior management and children's behavior, the amount of time spent in learning activities, and teachers engagement of children. These two domains reflect practices that we would expect to improve with this treatment. Of note, Instructional Support improved slightly, increasing by 0.23 points. Although this score is still in the low range for CLASS, 2.23 is similar to the publisher-reported national average for Instructional Support of 2.72 (Pianta, La Paro, & Hamre, 2008).

There were not clear patterns in quality as measured by the QI, with improvements in some areas and decreases in others. Scores increased slightly in two of the five QI domains. Classroom scores went up in the Support for Diverse Learners domain, reflecting improved differentiated engagement and supports for all children's. Scores also increased in the Independent Learning Opportunities domain, suggesting that teachers improved in their facilitation of children's free play and independent learning opportunities. Scores decreased slightly in Direct Instruction, General Process Quality, and General Structural Quality. The improvements in Support for Diverse Learners are in line with what we would expect as a result of GRTL use, which is designed to support children's meaningful engagement in the classroom.

Both of the Social-Emotional Learning - Classroom Practices tools (SEL-CP; Sutton, 2016) showed small positive changes from the beginning to the end of the project. On the Classroom Observation (SEL-CP-CO), there was a slight increase, from two to three, in the General Social-Emotional Practices observed being used in the classroom. On the Teacher Report (SEL-CP-TR), one teacher's self-assessment of his social-emotional teaching practices

improved over the course of the study and one teacher's remained the same. However, Teacher Report results should be interpreted with caution, as both teachers rated themselves very highly on this tool at the beginning of the project, and these self-assessment ratings were misaligned with the behaviors observed in the classroom.

Table 1. Classroom Quality Outcomes			
		Pre	Post
CLASS (Scores out of 7)	Emotional Support	3.96	6.33
	Classroom Organization	3.86	6.06
	Instructional Support	2.00	2.23
		Pre	Post
QI (Scores out of 6)	Support for Diverse Learners	2.11	2.51
	Direct Instruction	2.04	1.59
	Independent Learning	1.50	1.76
	General Process Quality	2.19	1.77
	General Structural Quality	3.53	2.74
		Pre	Post
SEL-CP-CO (Number of instances - 30 possible)	General SEL Practices	2	3
		Pre	Post
SEL-CP-TR (Scores out of 120)	Teacher 1	104	114
	Teacher 2	107	107

Child Outcomes. Children's social-emotional and executive function skills were measured using rating scales and two direct assessments. The Devereux Early Childhood Assessment for Preschoolers, Second Edition (DECA-P2; LeBuffe & Naglieri, 2012) and the Positive Behavior Rating Scale (PBRIS; AppleTree Institute, 2011) are teacher-completed rating scales that focus on children's social-emotional development. Note that the DECA breaks ratings down into Total Protective Factors (TPF) and Behavioral Concerns, and TPF is comprised of ratings in the areas of Initiative, Self-Regulation, and Attachments/Relationships. The Pencil Tap task (PT; Smith-Donald, Raver, Hayes, & Richardson, 2007) and the Head/Toes/Knees/Shoulders (HTKS; McClelland, et al., 2014) are brief, direct assessments of children's executive function skills, focusing heavily on self-regulation, which is an important aspect of children's school

readiness and approaches to learning skills (Blair, 2002). More detailed descriptions of all measures are available in Appendix A.

Table 2 displays child-level outcomes for each of the four measures. Substantial improvements were measured in the average PBRS scores for childrens, with gains in both the Behavioral Regulation and Social & Self-Awareness subscales. The average score grew from 2.8 out of 5 at the beginning of the study to 4.4 by the end of the study. Based on the publisher's guidelines, a score of 4 reflects meeting expectations for this age group.

Children improved in the Total Protective Factors areas of the DECA, with average growth in percentile rankings between 6.0 and 24.6. Children showed the greatest improvement on the Initiative subscale. There were no meaningful differences in average percentile rank for Behavioral Concerns. This suggests that being in a GRTL classroom may improve children's social-emotional protective factors, but does not seem to have an impact on their behavioral concerns.

Children did not display improvement in the PT or HTKS tasks, with low scores at both baseline and outcome. Of note, we have reported both the mean and the median scores here as there was one children who had very high scores at baseline but very low scores at outcome. Only nine children were assessed at both baseline and outcome, so the performance of this one children substantially influenced the reported means. These values should be interpreted with caution.

It is not surprising that there were notable increases on social-emotional measures but not on executive function tasks. The GRTL program is focused more heavily on developing children's social-emotional skills than their executive function skills. Teachers in this classroom also did not implement the twelve weeks of supplemental small group lessons included as part of the GRTL program (as described in the Lessons Learned section below). It is possible that children's executive function skills would have been further developed through these lessons, but this effect was not captured in the current small study.

Table 2. Child-Level Outcomes				
		n	Pre	Post
Positive Behavior Rating Scale (Scores out of 5)	Behavioral Regulation	13	3.1	4.6
	Social & Self-Awareness	13	2.5	4.3
	Total	13	2.8	4.4
			Pre	Post
DECA (Percentile, ranging from 0-99)	Initiative	13	18.4	43.0
	Self-Regulation	13	22.1	28.1
	Attachments	13	23.3	40.7
	Total Protective Factors	13	17.1	35.7
	Behavioral Concerns	13	59.3	59.8
			Pre	Post
Pencil Tap (Scores out of 16)	Mean Score	9	2.89	2.22
	Median Score	9	2	3
			Pre	Post
Head Toes Knees Shoulders, Part 1 (Scores out of 20)	Mean Score	9	2.56	1.56
	Median Score	9	1	1

Lessons Learned

The *Get Ready to Learn* curriculum feasibility study helped AppleTree Institute understand the standalone implementation and preliminary impacts of the four-week GRTL curriculum. The majority of AppleTree's previous work has been in 3- and 4-year-old public charter school classrooms, whereas the current feasibility study took place in a community based organization with no previous experience with ECR. The resulting lessons learned have allowed AppleTree to adjust GRTL to be more readily used in a variety of early childhood settings outside of Washington, DC. These are summarized below.

Curricular Constraints. During the initial training, it became evident that a combination of compliance requirements (e.g. minimum time spent outdoors each day) and teacher preference

for daily schedules posed constraints on the proposed GRTL schedule. As a result, the daily schedule was modified to better suit varying classroom requirements without reducing rigor. This process involved identifying essential learning standards and using those essential standards to select which components or lessons to remove from the program. By doing this, Community was better poised to keep a consistent daily schedule after the conclusion of *Get Ready to Learn*. This is particularly important for future Head Start users with associated compliance requirements, and Head Start requirements were considered in these modifications. The modified schedule has become a part of the finalized *Get Ready to Learn* program that will be offered for the full pilot study in August 2018.

Enrollment Challenges. The feasibility study at Community did not begin until approximately six weeks after the anticipated start date. The center typically receives the bulk of its preschool enrollment after Washington, D.C.'s charter school enrollment is finalized. It was difficult to pinpoint a start day after the initial training, creating a lag between the training and implementation. This did have some unintended consequences for data collection, as the AppleTree team was kept on standby waiting for enrollment goals to be met and the classroom roster to stabilize. It was an unanticipated challenge, but can be accommodated during the full pilot study through school-based relationship building and increased communication around such challenges.

Teacher Pedagogy. The feasibility study provided the opportunity for us to pinpoint specific areas of need when supporting teachers in launching and implementing *Get Ready to Learn* in new communities or settings. Teachers ultimately required more than the planned four-hour introductory training to successfully launch GRTL. The initial training has been extended to six hours with an option for individualized consultation to support classroom setup.

School Communication. Finally, relationships with school-based staff were key for successful implementation, but that was challenged by communication barriers. AppleTree had planned for majority email-based communication, but frequent phone and in-person conversations proved necessary. An unintended outcome of these communication challenges was teachers did not use the follow up small group lessons that are provided as part of the GRTL program. Moving forward, communication with new GRTL implementers will rely heavily on phone and in-person contact, with special attention and resources allocated to relationship building.

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Appendix A: Descriptions of Measures

The Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008) observational tool for pre-K classrooms was completed at baseline and outcome. Scores range from 1 to 7, with 7 representing the highest quality. Scores are aggregated into three broad domains: Emotional Support, Classroom Organization, and Instructional Support. Each domain is made up of three to four dimensions which are averaged to create the aggregate domain scores. CLASS observers must meet rigorous reliability standards prior to observing.

The Quality Indicators (QI; AppleTree Institute, 2011) observational tool was completed at baseline and outcome. Scores on the QI range from 1 to 6, with 6 representing the highest quality. Scores are aggregated into five broad domains: Support for Diverse Learners, Direct Instruction, Independent Learning, General Process Quality, General Structural Quality. Each domain is made up of four indicators which are averaged to create the aggregate domain scores. QI observers must meet rigorous reliability standards prior to observing.

The Social Emotional Learning Classroom Practices Scale - Classroom Observation (SEL-CP-CO; Sutton, 2016) is a 17-item observational tool focused on the presence or absence of various classroom practices that support children's social-emotional learning. Observers observe for four distinct 20 minute cycles, coding behaviors as observed or not observed. Scores are averaged across the cycles and yield information in the following areas: general SEL practices, practices during book reading, and practices in response to children misbehavior or conflict. These last two sections can only be coded if a book reading or misbehavior take place.

The Social Emotional Learning Classroom Practices Scale - Teacher Report (SEL-CP-TR; Sutton, 2016) is a 24-item survey designed to gauge the presence of classroom practices that support children's social-emotional learning. The teacher respondent indicates how often they use the practice or strategy described in each item on a 5-point scale ranging from 1 (Never) to 5 (Almost Always). Example items include, *I teach active listening practices (e.g., have childrens summarize what they just heard from me or another children)* and *My childrens and I discuss different strategies for resolving conflicts*.

The Positive Behavior Rating Scale (PBRS; AppleTree Institute, 2011) is a teacher-completed 10-item survey designed to measure a children's social-emotional development. The teacher indicates how often a child exhibits the strength described in each item on a 5-point scale ranging from 1 (Never) to 5 (Always).

The Devereux Early Childhood Assessment for Preschoolers, Second Edition (DECA-P2; LeBuffe & Naglieri, 2012) is a teacher-completed 38-item survey designed to measure how often a child exhibits positive or negative behaviors in the previous four weeks on a 5-point scale ranging from 0 (Never) to 4 (Very Frequently). Each item is attributed to one of four scales: Initiative, Self-Regulation, Attachments, and Behavioral Concerns. The first three domains are also measured in a composite Total Protective Factors scale. The DECA-P2

manual provides nationally normed t-scores and percentile ranks associated with the sum of the raw scores of the items on each scale.

The Pencil Tap (PT) is part of the Preschool Self-Regulation Assessment (PSRA; Smith-Donald, Raver, Hayes, & Richardson, 2007) and is used to measure executive function skills such as self regulation, inhibitory control, and working memory. In the training phase of the task, children are taught to tap a pencil either one or two times on a table, responding with the opposite action of that displayed by the assessor. For the test phase of each task, the children is instructed to perform the opposite action as the assessor for several test trials. On each trial, childrens receive 2 points for correctly performing the opposite action, 1 point for performing the same action as the assessor but self-correcting, and 0 points for any other response.

Head/Toes/Knees/Shoulders (HTKS; McClelland, et al., 2014) is a direct assessment of children's executive function skills, such as self regulation, inhibitory control, and working memory. In the training phase of the task, children are taught to touch their head or touch their toes, responding with the opposite action of that displayed by the assessor. For the test phase of each task, the children is instructed to perform the opposite action as the assessor for several test trials. On each trial, childrens receive 2 points for correctly performing the opposite action, 1 point for performing the same action as the assessor but self-correcting, and 0 points for any other response.