ACCESS to School

FINAL EVALUATION REPORT



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Executive Summary

The United Way for Southeastern Michigan (UW SEM) was awarded a 2012-2017 Social Innovation Fund (SIF) grant. ACCESS is a sub-grantee, implementing ACCESS to School. This Sub-grantee Evaluation Plan (SEP) was prepared by the Michigan Public Health Institute (MPHI) in collaboration with ACCESS.

Program Overview

The ACCESS to School program utilizes an empowerment-based approach to school readiness which incorporates four components to address the needs of immigrant parents and caregivers with children aged 0-5 living in Southwest Detroit. These program components include 1) culturally adapted Parenting Education, 2) Parent and Child Interactive Learning Activities (PCIL), 3) Comprehensive Care-management for families, and 4) Adult English as a Second Language (ESL) instruction. These components address the educational needs of the parents and children; the basic needs of the family (including working with them to set goals around sustainability); and the parents' need for empowerment and awareness in becoming their child's first teacher. In order to address the unique and complex challenges and barriers of the target community, the program is comprehensive, culturally adapted and meet the specific needs and barriers present among immigrant families. Over the course of the SIF project, the ACCESS to School program provided services to 133 families.

Evaluation Approach

The ACCESS to School has not been previously evaluated and this current study aims to establish a moderate level of evidence for the program. The evaluation had two distinct purposes: 1) to refine and describe the ACCESS to School program and 2) to evaluate its outcomes. In year 2, evaluators used a qualitative case study design in which focus groups and interviews formed the principle means of data collection. Program fidelity was measured using adherence checklists and program dosage was captured via attendance sheets. In years 4-5, an impact evaluation was implemented to assess the program's anticipated impacts on measures of reading time to child, parenting attitudes, parenting stress, cognitive activities in the home, parenting-related self-esteem, and caregiver-reported child socio-emotional wellbeing. The Bracken School Readiness Assessment employed to assess child school readiness with 5 subsets including colors, letters, numbers/counting, size/comparison, and shapes. Parents and children in both groups were surveyed at baseline (time 1), immediate post-test (time 2), and 7 week follow-up (time 3). This study utilized a between-group design with a matched comparison group. Difference-in-difference (DID) models were used to model longitudinal data, estimating the group differences in outcomes at each time point, and relative changes (DIDs) at time 2 and time 3 from baseline and at time 3 from time 2. Entropy balanced weights were applied to the comparison group to ensure comparability and the analysis controlled for socio-demographic characteristics.

Implementation Findings

Over the course of the 4-year study, ACCESS implemented a total of 142 Parenting Education and 57 PCIL sessions. ACCESS experimented with different program formats, the days of the week in which a program was offered, and the number of sessions needed to implement program material. By end of year 5, ACCESS was able to achieve a frequency and duration for its programming which met the needs of the agency and clients. ACCESS used an array of different recruitment strategies to attract participants to the project. All 133 participants enrolled in the Parenting Education component of the program and the average parent received 61% or 15 hours of the available instruction. Of these participants, 85 also enrolled in the PCIL component and attended 65% or 13 hours of programming on average. Overall program adherence for Parenting Education ranged from 64% to 99% and 84% to 97% for PCIL. Since the ACCESS to School serves both Arab and Spanish speaking clients, the most difficult but critical aspect to program delivery was providing multi-lingual translation.

Impact Evaluation Findings

As hypothesized, those parents in the intervention group reported stronger attitudes that they have the ability to influence their child's learning at both time 2 and time 3 relative to those who did not receive the program. In addition, the intervention group showed significantly lower parenting-related stress than the comparison parents at both time 2 and time 3. However, the relative decreases (DIDs) were not significant after correcting for multiple comparison. No statistically significant improvements, relative to the comparison group were found on in-home cognitive activities, self-esteem, and reading activities.

While children with parents in the ACCESS to School program demonstrated improvements on measures of socio-emotional health (i.e. anxiety, anger/aggression, social competence), these differences were not statistically meaningful relative to the comparison group. For all five of the Bracken child subsets, the intervention group children increased their scores significantly over time. Though the comparison group children generally also improved at both time points, the increases for the intervention children at time 2 and time 3 from baseline were significantly greater than the increases for the comparison children.

Additional analyses were completed in order to determine the extent outcomes differed based on participation in Parenting Education and/or PCIL program components. Those parents who received both programs did not significantly differ from those who only participated in the Parenting Education component.

The evaluation project deviated in no significant ways with respect to timeline, budget, or staffing. Findings from this study has resulted in the continuation in the ACCESS to School Program. In addition, a book has been published describing the program so that it may be replicated in other communities. With evidence of effectiveness and efforts to scale the program, ACCESS to School has the potential to increase their reach to more families.

Chapter 1 Introduction

In 2011, the United Way for Southeastern Michigan (UWSEM) was awarded a Social Innovation Fund (SIF) Grant from the Corporation for National and Community Service (CNCS). UWSEM distributed these funds to 11 sub-grantee organizations, all of which aimed to improve school readiness among children, ages 0 to 5 within 10 regions in metropolitan Detroit. ACCESS is a sub-grantee, implementing ACCESS to School. To address the relationship between poverty, caregiving, and children's readiness for school, the program targets low-income parents of children ages 0 to 5 in Southwest Detroit. Through ACCESS to School, participants receive goal-oriented case management, parenting education, interactive learning activities and English as a Second Language (ESL) Instruction. This is the final report for the ACCESS to School implementation and impact evaluation and will cover the 5-year span of the project. The intended audience for this report includes the scientific reviewers at CNCS, program developers, and evaluation researchers with an advanced level of knowledge surrounding program design, evaluation, and statistics.

Program Background

The ACCESS to School Program targeted its services to families residing in 48209 and 48210 Southwest Detroit. This community was selected because it has a high immigrant, low-income population with a limited English proficiency rate. Families residing in Southwest Detroit face many challenges in the areas of education, basic needs, and acculturation. Due to the low English proficiency rate and lack of formal education, adults in these neighborhoods need access to adult education systems, but existing programs have limited capacity to serve the large population in need. These communities also lack resources to address their basic needs such as food, health care, and housing. There are also insufficient early childhood education programs to meet the demand and specific needs of these families.

The ACCESS to School program's intent is to establish a coordinated network of family services that work to ensure families make meaningful advancements in parenting and literacy, and in preparing children for productive academic careers. ACCESS and its contributing partners offer comprehensive wrap-around services which was used to establish the ACCESS to School program's case management system. Funds and resources to support activities were leveraged between partners to offer enhanced programming, thereby maximizing impact.

ACCESS's relationship with the Detroit Public Schools Community District (DPSCD) greatly contributed to the implementation of the ACCESS to School program and its various components. To best serve the community, ACCESS decided the implementation of the program should take place in a school. This would allow children to become familiar with a school environment and parents to feel comfortable interacting with the school faculty and staff, building trust between the community and the school. By holding the ACCESS to School program at Priest Elementary-Middle School, the program was able to educate parents on the American school system and improve parent engagement at the school. The partnership with the DPSCD Office of Adult Education allowed ACCESS to offer parents classes on-site and expand recruitment

efforts. Since the beginning of programming, ACCESS to School has grown from occupying one classroom within Priest Elementary-Middle School, to five separate classrooms for parents and children.

This empowerment-based approach to school readiness, incorporates four components designed to address the needs of the community:

Culturally adapted Parenting Education

Parent and Child Interactive Learning Activities (PCIL)

Comprehensive Case-management for families

Adult English as a Second Language (ESL) instruction

These components address the educational needs of the parents and children; the basic needs of the family (including working with them to set goals around sustainability); and the parents' need for empowerment and awareness in becoming their child's first teacher. In order to address the unique and complex challenges and barriers of the target community, the program had to be comprehensive, culturally adapted and meet the specific needs and barriers present.

Throughout the implementation, the ACCESS to School program sought to serve approximately 120 families who met eligibility requirements and demonstrated "greatest need," as identified by ACCESS and schools in these communities. Within these targeted families, ACCESS sought to reach 120 children between the ages of 0 and 5 to be involved in parent and child interactive learning activities (PCIL).

Each of these components is briefly described in the sections below. In addition, research supporting the effectiveness of each program component is provided.

Parenting Education

The ACCESS to School parenting education component is a hybrid starting with mainstream parenting education curricula: Systematic Training for Effective Parenting (STEP) Program. STEP has been the focus of primary research studies for the past four decades and a meta-analytic approach¹ (Gibson, 1999) including 61 studies has confirmed its efficacy with respect to several outcomes. In short, such outcomes include significant positive changes in parenting attitudes, empathy toward children, utilization of STEP tools, stress levels, and children's misbehavior as observed by parents, among others.

The STEP curricula was blended with topics, examples, structure and facilitation style fitting with the specific immigrant community in Southwest Detroit. Although the core topics in widely used parenting education programs were relevant, the way they are presented and the examples given are often confusing or irrelevant to an immigrant population in general—and to our specific community in particular. Additionally, there are many topics missing in mainstream programs that are important to this population.

¹ Gibson, D. (1999). A Monograph: Summary of the research related to the use and efficacy of the Systematic Training for Effective Parenting (STEP) Program 1976-1999. Prepared for American Guidance Services, Inc.

The STEP curriculum that was chosen as the foundation of the parenting education component is separated into seven topics:

- 1. Understanding Young Children
- 2. Understanding Young Children's Behavior
- 3. Building Self-Esteem in Early Years
- 4. Listening and Talking to Young Children
- 5. Helping Young Children to Cooperate
- 6. Discipline for Young Children
- 7. Young Children's Social and Emotional Development

Immigrant parents have very specific needs in addition to the basic topics, such as: learning about parenting expectations in America as compared to their native countries; navigating language barriers within and outside of their families; dealing with variances in first- and second-generation immigrant issues with their children; and exploring the often new idea of co-parenting.

The STEP curriculum is structured into seven, two-hour sessions. Given our need to adapt to our community, the ACCESS to School parenting education component now comprises 24-one-hour sessions. This provides more time for explanations, translation/interpretation and breaking down complex words and concepts into forms that parents with little to no formal education can truly engage with. This format also gives parents the information in smaller doses during shorter class times, allowing them to go home between classes and apply what the learned, come back and then discuss challenges and successes.

Parenting education covers topics that are considered private family matters that many people in the community do not feel comfortable sharing, so it was essential that the facilitator be a trusted member of the community who is skilled in facilitating sensitive topics, speaks the native language of the parents and is genuinely committed to creating a positive and supportive environment in the classroom.

Parenting education was also taught in the native language of the parents, with English support. All materials were translated into the parents' native languages, Arabic and Spanish, so that they are fully able to engage in the class.

Parent and Child Interactive Learning (PCIL)

Many adaptations were made during the creation of the ACCESS to School program, but the PCIL component was created to address the specific needs of the target community. Barbara Hanna Wasik's, Ph. D., work on child development, early education, and family literacy guided the planning process. ACCESS explored Wasik's parent coaching strategy when developing PCIL. The strategy is comprised of three steps: planning, observing, and reflecting.

PLANNING- During the planning phase, the parent identifies a learning goal and a desired outcome, with the help of the coach, who is a member of the program staff. For example, a parent may focus on increasing the quantity and quality of open-ended questions during a literacy activity with their child. The parent and coach would then discuss steps to reach this goal.

OBSERVING- Next, the coach would observe the parent's interaction with the child. During this time, the coach should record observations about the parent and child interaction. These observations should contain both strengths of the parent, in addition to areas needing improvement.

REFLECTING- Lastly, both the parent and the coach together reflect on the process. This involves discussing the process, evaluating it and making modifications (Wasik, 2004).

Drawing on the strategy above, the research of others, and ACCESS's knowledge of the community, PCIL was created: an interactive, multi-part series of sessions attended by both parents and children, focusing on empowering parents to address gaps of school readiness in the community.

Joanne Knapp-Philo, Ph.D., of Sonoma State University emphasizes the use of "intentionality and modeling" to support meaningful parent and child interactive literacy experiences (Knapp-Philo, 2006). Intentionality occurs when parents are consciously aware that specific actions support an aspect of their child's development. Modeling takes place when parents teach their child by what they do and do not do themselves. In disadvantaged homes, children often lack background information about reading and writing activities because families are not using intentionality and modeling to support literacy. For this reason, one of the primary goals of the project is to increase parental awareness about supporting literacy instruction while coaching parents on the application of effective strategies for working with their child.

The structure of PCIL is divided into three parts. The first part of a PCIL session, parents and their children are separated. While children are in one room participating in a fun warm-up activity, parents are with the main teacher, preparing for the interactive activities of the session that will follow. This initial period of adults-only preparation in which the teacher helps parents understand all aspects of the goals for the day – and the goals at home – is an essential facet of the ACCESS to School program.

After parents feel comfortable with the content and the outline of activities, parents and children are brought back together for the second part of the session: interactive learning activities with hands-on materials and resources.

The third part of the session, parents and children are separated for a final time. Children are taken to a different room for structured play and parents exchange feedback with the teacher on challenges and successes they encountered and how they can continue to implement the strategies at home.

PCIL has three key elements that make it successful:

- Early Learning Content Colors, shapes, alphabet, numbers, counting, sizes, comparisons, rhyming, and reading;
- Parent and Child Interaction Parent learns teaching techniques, parent teaches with supervision, building skills and confidence, child increases social skills, attention span, motor skills, and reduces separation anxiety;
- Building awareness of... -- Parents as first teachers at home, parents' teaching abilities, how children learn from birth, children's stages of development, school readiness as an ongoing goal.

With this model we seek a larger and different goal in interactive learning: teach parents about many kinds of educational materials and about the skills and strategies that they can use to successfully become the first teachers for their children.

Case Management

Since this project strives to serve low-income, immigrant families, many families experience obstacles or barriers, which prevent them from succeeding. For this reason, effective case management is a critical component of this project. A family's "economic, educational, language, and personal needs should balance with the family's interactions that facilitate language, literacy, and social and emotional competence"². The structure of the case management component was designed in consideration of the Arab/Hispanic communities' needs and characteristics to ensure an effective case management model. The current case management system provides interagency resources and referrals in accordance with ACCESS's wrap-around services approach which is based on the belief that families cannot thrive unless their basic needs are met.

Abraham Maslow (1954) designed a hierarchy of human needs according to two groupings: deficiency needs and growth needs. Within the deficiency needs, which include physiological and safety needs, each lower need must be met before moving to the next higher level. Once each of these needs has been satisfied, if at some future time a deficiency is detected, the individual will act to remove the deficiency. An individual is ready to act upon the growth needs, needs for belongingness and esteem, if and only if the deficiency needs are met first. The goal of the hierarchy is to become a self-actualized person who is characterized by: 1) being problem-focused; 2) incorporating an ongoing freshness of appreciation of life; 3) a concern about personal growth; and 4) the ability to have peak experiences³ (Huitt, 2004).

Understanding Maslow's hierarchy encouraged the integration of the Case Management component within the ACCESS the School program. The outline of the case management model is detailed below.

After a family agrees to participate in the ACCESS to School program, a caseworker sets up an initial meeting with the parent to fully explain both the program and what is expected of the parents and children. The caseworker also assesses the specifics, strengths, needs, and barriers within that family. If there are any basic needs that are not being met, such as food, housing, utilities, etc., the caseworker begins working to assist the family immediately. Otherwise, the caseworker talks to the parent about what Case Management involves and how it can be helpful, and tells them to start thinking about goals they want to set for themselves and their family during their time in the program.

At the next meeting, the caseworker checks in with the parents to see how the program has been going and whether or not they have any concerns or new challenges. Parents also are asked if they are in need of any resources or referrals at that time. After checking in, the caseworker sets goals with the parents. Parents may list as many goals as they would like, but they are required to identify at least one within the program. The goals are entirely self-directed by the parents and can be related to: basic needs (e.g.,

² Wasik, B. H., & Herrmann, S. (2004). Family literacy: History, concepts, services. Handbook of family literacy, 3-22.

³ Huitt, W. (2004). Maslow's hierarchy of needs. Educational Psychology Interactive. Val-dosta, GA: Valdosta State University. Retrieved [03/01/06] from, http://chiron.valdosta.edu/whuitt/col/regsys/maslow.html.

getting reliable transportation); parenting (e.g., using better discipline techniques); school readiness (e.g., reading more to my child); and their personal education (e.g., improving my English skills). The only requirements for the goals are that they be SMART (Specific, Measurable, Attainable, Relevant, Timebound) and that each goal can be broken down into specific action steps. The caseworker then guides parents through this process.

Throughout the program, the caseworker tracks each family and follows up, making at least one contact with them each month. The caseworker keeps track of their attendance in their classes and calls them if they are absent for an extended period of time, offering to help them remove barriers that are preventing them from coming to the program. Resources and referrals are given as needed through the program to interagency departments and other agencies for more specific services. The caseworker follows up with each parent about the progress they have made on their action steps and goals, gives them encouragement, and offers help completing action steps if needed.

Over time, the trusting relationship that has been built between program staff and families helps ensure that families will benefit from the wide array of services available to them. Families continue to receive case management services even after all children have aged-out of the program.

English as a Second Language (ESL) Instruction

The ACCESS to School ESL setting is a closed-enrollment, teacher-led classroom with approximately 25 learners in every class. Learners are placed into one of our class levels- based on their skill level determined at intake – ranging from learners who are illiterate in their native language and do not know any English to learners who are a few semesters away from being ready to transition into a General Education Development (GED) course to reach high school equivalency. The overall goal of ACCESS to School's ESL classes are to help parents acquire the English skills they need to better function within their families, community, and broader society.

Within the classroom, the teachers regularly use breakout groups and have learners work in pairs. According to "The Theory and Practice in Language Program Organizational Design" quality teaching is achieved not only as a consequence of how well teachers teach, but through creating contexts and work environments that can facilitate good teaching. The study indicates the importance of the following four factors: Institutional, teacher, teaching, and learner factors.

Ventures 2nd Edition curriculum (Cambridge University Press) is a six-level, four-skills, standards-based, integrated-skills series designed to meet a range of individual learning needs. Key features of the curriculum include:

- Online workbooks
- Audio CDs
- Career and Educational Pathways

Studies have shown that there are significant similarities in the skills necessary for success in employment and post-secondary education. These skills include critical thinking, communication, numeracy, reading and writing, taking initiative and working independently.

According to the study *Reading and Adult English Language Learners*, Mariam Burt et al. from the Center for Applied Linguistics, learning patterns differ greatly if the learner is preliterate, non-literate, or literate in a non-alphabetic script or non-Roman alphabetic script. Also, whether or not a learner has been exposed to formal education constitutes a great difference in the learning patterns. It is often discouraging to learn – especially for students who have little or no literacy – but research suggests that learners who engage in extensive reading guided by activities that focus their attention on the meaning of what they are reading as well as vocabulary and syntactic forms will increase their vocabulary and comfort with reading English.

The six levels-four skills *Ventures* curriculum addresses the diverse needs of adult learners, whether they want to transition to career, want to help their children, or study English to improve their lives. It teaches reading, writing, and communication as well as empowering students to recognize and achieve their career and educational goals. An online workbook provides additional activities to support learning outside the classroom and addresses computer literacy skills.

Because of the variety of levels and skills offered through the *Ventures* curriculum, ACCESS to School offers five ESL levels each semester.

- Literacy Preparation –Focuses on learners who have very little formal education and need a slower paced class and more one-on-one instruction. Topics include basic greetings, the alphabet, and beginning phonics.
- Beginning Literacy This class is for students with some type of formal education and are usually literate in their native language allowing for a faster paced class. Topics include, basic greetings, the alphabet, phonics, basic sentence structure, and memorizing of foundational vocabulary.
- Level 1 Learners move to Level 1 after they have mastered the material within the Beginning Literacy class. Here they are introduced to conversational phrases, answering common questions, and reading and writing common sentences that relate to a variety of situations encountered in daily life.
- Level 2 This class focuses more on grammar, usage, sentence structure and more complex conversation skills, to build upon what was taught in the previous two levels.
- Level 3 The most advanced level is for learners who wish to further refine their reading, writing, and speaking skills. Often these learners have higher aspirations of obtaining employment or going on to high education. Learners study paragraph structure, contextual reading skills, and conversational skills focusing on new vocabulary and pronunciation.

Learners' English proficiency is measured by CASAS (Comprehensive Adult Student Assessment Systems), which is a competency-based assessment system designed to assess the relevant, basic skills of adult learners. CASAS measures the basic skills and the English language and literacy skills needed to function effectively at work and in life. CASAS is the only assessment system whose reading tests are approved for

NRS (National Reporting Systems) reporting for both Adult Basic Education and ESL, and CASAS listening test are approved for English as a Second Language.

ESL is a core component of the ACCESS to School program for many reasons. Parents are expected to cultivate English language development in their children as part of school readiness, and it's unreasonable to think that they can be expected to do this without having those basic skills themselves. ESL also gives parents the language skills needed to access necessary resources in getting their child ready for school, and to continue to remain engaged in their child's education. But underlying all of these things – giving parents the ability to speak for themselves, be successful, achieve their goals, interact with the world around them and advocate for themselves – sets the stage for these parents to reach beyond their own homes and build a better community for families.

Program Theory

A program theory explains how and why a program is supposed to work. Articulation of a program theory is important for the success of a program since it describes a logical and reasonable description of why a program's activities should lead to intended results or benefits.

ACCESS to School is a multi-component, multi-session intervention aimed at improving children's readiness for school through parenting education and skill development. The program operates under the assumptions that 1) every parent wants their child to start school ready to succeed; 2) parents are better able to assume responsibility for their child's development if they are aware of the impact of a positive and nurturing home environment; and 3) parents play a pivotal role in preparing their children for school.

With these assumptions in mind, ACCESS to School aims to provide parents with the knowledge and skills they need to make meaningful advancements in parenting and literacy, and in preparing their children for productive academic careers. The intervention consists of 4 components, 2 of which focus specifically on parenting education and parent-child interactive learning. Within these two program components, parents are given an opportunity to practice skills and participate in observational learning through videos that are shown From the STEP curricula. Further, parents engage in these program components with a small group of other parents and children, which provides the opportunity for them to develop trusting and supportive relationships. Parents who receive more social support tend to be more responsive to their children ⁴. This is of particular importance as at-risk families often feel isolated because of economic and social conditions, such as living in high-risk neighborhoods⁵.

ACCESS to School also infuses elements of Social Learning Theory (SLT) in order to bring about behavioral change. Central to SLT, ACCESS to School utilizes observation of one's self and others as mechanisms for improving knowledge and skills needed to best prepare children for school. SLT posits that new patterns of behavior can be acquired by observing the behavior of others⁶. Studies have shown models are

⁴ Dunst, C. J., & Trivette, C. M. (1990). Assessment of social support in early intervention programs.

⁵ Garbarino, J., & Sherman, D. (1980). High-risk neighborhoods and high-risk families: The human ecology of child maltreatment. Child development, 188-198.

⁶ Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. Psychological review, 84(2), 191.

imitated most frequently when observers perceive themselves as similar to the models, making peer modeling a well-recognized method of influencing behavior⁷. ACCESS to School draws on the principles of observational learning in its use of video modeling through the STEP curriculum and through the coaching strategy employed in PCIL.

Also consistent with SLT, ACCESS to School works to change behaviors by improving parent outcome expectancies and self-efficacy. Outcome expectancies can be defined as beliefs about the likelihood of various outcomes that might result from the behaviors that a person might choose to perform, and the perceived value of those outcomes. One of the goals of ACCESS to School is to help parents understand that they can positively impact their child's development and prepare them better for school. With a parent's expectation that their child will benefit, a parent will be more likely to utilize the knowledge and skills learned in the program to improve the ways in which they interact with their children.

Self-efficacy is a person's confidence about his or her capacity to influence the quality of functioning and the events that affect his or her life. ACCESS to School aims to bolster parent confidence by practicing and rehearsing interactive literacy activities with their children through the PCIL program. SLT also suggests that skill building and self-efficacy can be enhanced by the presence of supportive peers. Thus, ACCESS to School emphasizes the importance of facilitators and participants providing one another with support throughout all four components of the program: parenting education, PCIL, ESL, and case management.

Evaluation

Over the course of the SIF-funded ACCESS to School program, the program has served 133 families⁸. The program has implemented a total 142 Parenting education and 57 PCIL sessions.

ACCESS to School is a new program and has not been evaluated for its implementation processes, whether its underlying theoretical assumptions are valid, or for its ability to impact participants. As such, this study will focus on implementation and formative evaluation, including adherence (e.g. content, dose, coverage) and moderators of adherence, such as intervention complexity, implementation facilitation, quality of delivery, participant responsiveness, recruitment, and context. Formative evaluation also aims to capture essential program components as well as outputs and possible covariates. Implementation evaluation will be more rigorous during the first year with the inclusion of focus groups.

Impact evaluation, beginning in Year 3, will be at the preliminary level, reaching moderate evidence by Year 5. To achieve a moderate level of evidence, the evaluation utilized a quasi-experimental with intervention (n=82) and comparison (n=75) groups formed by matching to assess intended program impacts. These impacts relate to ACCESS to School's ability to increase the amount a parent reads to their child, their attitudes about helping their child learn, the frequency they engage in learning activities at home, parenting-related stress, and self-esteem. In turn, the program aimed to impact school readiness among the children of these families.

⁷ Schunk, D. H. (1987). Peer models and children's behavioral change. Review of educational research, 57(2), 149-174.

⁸Note: Only a proportion of these families participated in the impact evaluation described within this report and this figure does not include those who served only in the comparison group.

Implementation Study Evaluation Questions

- 1. Content
 - a. How did the program as actually implemented compare to the original program model?
- 2. Dosage
 - a. How many sessions were implemented?
 - b. To what extent did parents participate in each component of the program?
- 3. Intervention Complexity
 - a. How complex is the program?
 - b. How did program complexity affect program implementation?
- 4. Implementation Facilitation
 - a. What strategies were used to support implementation?
 - b. How were these strategies perceived by staff involved?
- 5. Quality of Delivery
 - a. How was the quality of delivering the intervention?
 - (1) Participant Responsiveness
 - (a) How were the participants engaged in intervention activities?
 - (b) How satisfied were the participants?
 - (2) Recruitment
 - (a) What recruitment procedures were used to attract individuals to the intervention?
 - (b) What constituted barriers to maintain involvement of participants?
 - (3) Context
 - (a) What contextual factors affected implementation?

Impact Study Research Questions

Confirmatory Research Questions

- 1. Do parents who receive the ACCESS to School program significantly superior to those in the comparison group on the following outcomes:
 - a. Reading Time
 - b. Parenting Attitudes
 - c. Parenting Stress in the Home
 - d. Cognitive Activity
 - e. Parenting-related Self-Esteem
 - f. Child Social-Emotional Well-being (Reported by parent)
 - i. Anger/Aggression
 - ii. Anxiety
 - iii. Social Competence
- 2. Are parents who participate in both the Parenting Education and PCIL components of the ACCESS to School program superior to those who only receive Parenting Education on the following outcomes:
 - a. Reading Time
 - b. Parenting Attitudes
 - c. Parenting Stress
 - d. Cognitive Activity in the Home
 - e. Parenting-related Self-Esteem

- f. Child Social-Emotional Well-being (Reported by parent)
 - i. Anger/Aggression
 - ii. Anxiety
 - iii. Social Competence
- 3. Are children of parents who receive the ACCESS to School program significantly more ready for school than children in the comparison group on the following outcomes:
 - a. Colors
 - b. Letters
 - c. Numbers
 - d. Sizes
 - e. Shapes
 - f. School Readiness Composite (SRC) of above measures
- 4. Are children of parents who participate in both the Parenting Education and PCIL components of the ACCESS to School program superior to those who only receive Parenting Education on the following outcomes:
 - a. Colors
 - b. Letters
 - c. Numbers
 - d. Sizes
 - e. Shapes
 - f. School Readiness Composite (SRC) of above measures

Exploratory Research Questions

- 1. To what extent do parent-level outcomes (such as reading time to child, parenting attitudes, parenting stress, cognitive activity in the home, parenting self-esteem) predict child school readiness?
- 2. To what extent do parent-reported improvements in child social-emotional well-being (such as social competence, anger/aggression, and anxiety) predict child school readiness?

Changes to SEP

Changes to the impact evaluation questions have been made and these are described in detail at the end of Chapter 2.

Chapter 2 Study Approach & Methods

Implementation Study

Design

The ACCESS to School Program is a new program and had not been evaluated for its implementation processes or for its ability to impact its participants prior to this SIF-funded initiative. Therefore, the evaluation during the first year of programming focused on intervention development. Specifically, the first year focused heavily on fidelity of implementation and formative evaluation. Implementation evaluation continued, although to a lesser extent, during the remaining three years of the project. Evaluation of program fidelity played an important role in intervention development as it included systematic efforts to review, critique, and revise the theoretical underpinnings and technical ingredients of intervention models⁹.

This evaluation draws on a framework for implementation fidelity developed by Carroll and colleagues (2007) ¹⁰. According to this framework, program fidelity can be best understood as adherence, i.e., how closely those responsible for delivering an intervention actually adhere to the intervention as outlined by its designers. Adherence includes several subcategories such as content, frequency, and duration and coverage. The level of adherence may be moderated by several variables such as the intervention complexity, facilitation strategies, quality of delivery, and participant responsiveness. This framework suggests that the assessment of fidelity of implementation should also involve the identification of components that are essential for the intervention to produce the intended outcomes. Similar to what others have done¹¹, recruitment and context will be assessed as additional moderators.

The evaluators adopted a qualitative case study design in which focus groups and interviews formed the principle means of data collection. Case study methods were appropriate since they seek to provide a holistic picture of a phenomenon – in this case, the implementation of the ACCESS to School program.

Data Collection

For implementation evaluation, key informant interviews and focus groups formed the principle means of data collection. Attendance logs and adherence checklists also informed evaluation findings. Case study methods sought to provide a holistic picture of ACCESS to School implementation. Most importantly, the evaluators used case study methods as a formative evaluation approach whereby findings from observations and key informant interviews were rapidly fed back to programmers so that information could be used for program improvement. Data collection responsibilities were shared between the

⁹ Kazdin, A. E., & Johnson, B. (1994). Advances in psychotherapy for children and adolescents: Interrelations of adjustment, development, and intervention. Journal of School Psychology, 32(3), 217-246.

¹⁰ Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J., & Balain, S. (2007). A conceptual framework for implementation fidelity. Implementation Science, 2(40), 1-9.

¹¹ Hasson, H. (2010). Systematic evaluation of implementation fidelity of complex interventions in health and social care. Implement Sci, 5(1), 67.

evaluators and staff at ACCESS depending on nature of the activity. The table below summarizes evaluation activities for each domain.

Table 2.1 Implementation Evaluation Questions, Measurement, and Administration

Domain	Evaluation Question	Measurement	Administration	
Adherence				
Content	How did the program as actually implemented compare to the original model?	Content Adherence Checklist	Program Facilitators	
Frequency (dose administered)	How many sessions were implemented?	Count of total number of sessions per program component	Program Facilitators	
Duration (dose received)	To what extent do parents participate in the program?	Count of total number of sessions per component attended for each participant	Program Facilitators	
Coverage	How many parents participated in the program?	Count of total number of parents in attendance	Program Facilitators	
Moderators				
Intervention Complexity	ntervention How complex is the		Evaluators	
Strategies to facilitate implementation	What strategies were used to support implementation? How were these strategies perceived by staff involved?	Interviews with program administrators and facilitators	Evaluators	
Quality of delivery	How was the quality of delivering the intervention?	Focus groups with participants	Evaluators	
Participant responsiveness How were the participants engaged in the intervention activities? How satisfied were the participants?		Focus groups with participants Participant satisfaction survey	Evaluators	
Recruitment What recruitment procedures were used to attract individuals to the intervention? What constituted barriers to maintaining involvement of participants?		Interviews with program staff	Evaluators	
Context	What contextual factors affected implementation?	Interviews with program staff	Evaluators	
Identification of ess				
	Which components of the program are essential for	Component analysis	Evaluators	

Domain	Evaluation Question	Measurement	Administration
	achieving the intended		Program
	outcomes?		Administrators

Measures

Below is a description of each measure used for the assessment of implementation:

Attendance Logs: Attendance logs were maintained by program instructors for each session of ACCESS to School to assess participant program retention, dosage, and the general composition of program participants. Evaluators used attendance to measure the percentage of sessions participants attended by program and to capture the retention rate of attendees by program. Evaluators also looked at the amount of dosage and its impact on parent and child-level outcomes in the impact evaluation findings.

Previous studies indicate that parenting interventions typically receive between 30-50% of program dosage¹² despite the best attempts of program staff to encourage attendance. There is also some research reporting that program dosage does not always have as much impact on parent outcomes as program developers might expect. ¹³ ¹⁴ Indeed, program participants oftentimes select the amount of program dosage they need based on their own previous experiences, existing knowledge, and unique needs. With the parenting education programming

Adherence Checklists: As part of the implementation evaluation, program instructors completed content adherence checklists for each session and/or topic of Parenting Education as well as PCIL. It should be noted that only the session facilitator completed the adherence checklist as programs sessions are led by only one staff member. Because evaluators were not able to observe program implementation directly, these checklists were important for gauging program fidelity as well as dosage. Curricula, lesson plans, and/or other materials for each program component were used to identify core program components for incorporation in the checklists. Questions regarding barriers, successes, key strategies employed, and lessons learned were also included. As the programs were improved over the years, the number of indicators changed to reflect the activities completed. In years 2 and 3, 166 indicators were identified for inclusion in the Parenting Education checklist and 89 indicators were identified for the PCIL checklist. In year 4, 184 indicators were identified for Parenting Education checklist and 177 for PCIL checklist. In the final year, 184 indicators remained the same for Parenting Education checklist for both fall and spring. PCIL increased in the fall to 211 indicators and then came back down to 201 indicators for the final spring semester. Completed adherence checklists for all sessions were submitted to the

¹² Lochman, J. E., Boxmeyer, C., Powell, N., Roth, D. L., & Windle, M. (2006). Masked intervention effects: Analytic methods for addressing low dosage of intervention. New Directions for Evaluation, 2006(110), 19-32.

¹³ Reynolds, A. J., Mathieson, L. C., & Topitzes, J. W. (2009). Do early childhood interventions prevent child maltreatment? A review of research. Child Maltreatment, 14(2), 182-206.

¹⁴ Reynolds, A. J., & Robertson, D. L. (2003). School–based early intervention and later child maltreatment in the Chicago longitudinal study. Child development, 74(1), 3-26.

evaluation team and included in analysis. A measure of program fidelity was developed for both the PCIL and Parenting programs. Adherence checklists were updated each semester, as needed, to account for changes to program implementation. Adherence was computed based on implementation of each component described in the checklists. Findings from the adherence checklists are discussed in the implementation evaluation findings section. Appendix 1 includes the adherence tools.

Key Informant Interviews: Key informant interviews with program instructors and administrators occurred following ACCESS to School implementation each year. Interviews lasted about 45 minutes and were conducted in-person and via phone. Evaluators conducted a total of 13 interviews with program instructors and support staff following implementation over the course of the project. In year two, four interviews were conducted. Evaluators used meetings for informal feedback in year three as no formal interviews were conducted. Year four, there were also four interviews, and in year five a total of five interviews were completed. Program instructors and leadership also participated in informal, ongoing discussion with evaluators over the course of program implementation. This provided an opportunity for, both, evaluators and program facilitators to maintain an ongoing exchange of information with one another.

Focus Groups: During year two only, focus groups with program participants were conducted following the Parenting Education and PCIL components of ACCESS to School. ACCESS staff enrolled eight participants for the Parenting Education focus group and six participants for the PCIL focus group all of whom were of Arab descent. Participants were provided with informed consent, and were asked to verbally agree to participate in these activities. All participants in both focus groups agreed to participate. Focus group questions were open-ended and emphasized program strengths and challenges, barriers, program fidelity, program adaptations, and perceived outcomes/impacts. A limitation identified through the focus groups included the fact that evaluators do not speak Arabic and it was necessary to work with a translator while conducting focus groups. Although participants were encouraged to speak one at a time, there were periods where multiple were talking at once. In these situations, the translator often provided a summary statement as she could not recall exactly what each of the participants had been saying. See Appendix 1.

Self-Sufficiency Matrix: In year five, ACCESS adapted a portion of the Arizona Self-Sufficiency Matrix¹⁵ as a pilot tool to measure case management services. This tool allows an individual's self-sufficiency to be assessed across a series of domains on a 5-point scale that describes the person's current status. ACCESS carefully reviewed the tool and identified 7 domains of focus based on ACCESS's knowledge and history with their population: housing, employment, income, food, children's education, healthcare, and transportation. ACCESS utilized the matrix with participants to measure their current status based on the scale: 1) in crisis, 2) vulnerable, 3) safe, 4) building capacity, and 5) empowered. A follow-up assessment was completed at the end of the

¹⁵ Culhane, D, PhD, Gross, K, Parker, W., Poppe, B., Sykes, E. (2007). Accountability, Cost-Effectiveness, and Program Performance: progress Since 1998. National Symposium on Homelessness Research.

programming to assess if their status had improved, remained the same or worsened. As a benchmark, the goal of ACCESS's case management program would be to move those clients who are "in crisis" or "vulnerable" to achieve a minimum rating of "safe" on any of the self-sufficiency domains. See Appendix 2.

Changes to SEP

No deviations from the approved SEP were made to the implementation evaluation.

Impact Study

Design

With the aim of building a moderate level of evidence by the end of year 5, this study utilized a quasiexperimental design with an intervention and comparison group formed by matching to evaluate anticipated program impacts. These impacts relate to the program's ability to increase the amount of time a parent reads to their child, their attitudes about being able to influence their child's learning, how often they work with their child at home in cognitive development activities, and self-esteem related to being a parent. In turn, the program aimed to positively impact school readiness among the children of those parents.

Since it was not feasible to randomly assign sites to serve as control groups, a quasi-experimental design offers the strongest analysis for building a moderate level of evidence for ACCESS's program effectiveness. ACCESS offers its parenting programs at an elementary school located in Southwest Detroit. Within one mile of this location is another elementary school which served as a recruitment site for the comparison group. Both locations draw a group of people with similar socio-demographics with large numbers of newly immigrated parents from Yemen and Mexico. These schools also have similar performance scorecards based on proficiency, graduation rates, and compliance factors (Michigan Department of Education http://www.michigan.gov/mde/0,4615,7-140-81376 25058---,00.html).

To maximize the ability to make casual inferences about ACCESS to School and observed outcomes, the evaluation design incorporates pre-post testing and matched comparison groups. Through these mechanisms, the evaluation will strive to satisfy five requirements of internal validity: that ACCESS to School demonstrates a strong conceptual basis (see logic model and discussion), ACCESS to School precedes observed outcomes, other explanations for observed outcomes have been ruled out, a statistically significant association exists between ACCESS to School and observed outcomes, and outcome measures are reliable and valid. In particular, these elements will minimize threats to common potential threats to internal validity, including ¹⁶:

History: The use of comparison groups represents a key strategy for minimizing threats to history. By observing a comparison group, which is exposed to the same external events as the intervention group over the course of the program, evaluators can better attribute observed outcomes in the treatment group to ACCESS to School programming.

Maturation: The use of comparison groups who will be recruited and surveyed at the same time points as the intervention participants, maturation threats are controlled by limiting the extent to which ACCESS to School effects can be attributed to the natural maturation of caregivers and/or children over time.

Testing: Treatment and comparison groups received the same tests and data collection assessments at pretest. Administration of the same tests to both groups will increase the likelihood that, if testing effects exist (e.g. participants' outcomes are exaggerated or understated), they will apply to both groups, maintaining their comparability.

¹⁶ Grembowski, D. (2001). The practice of health program evaluation. Thousand Oaks, CA: SAGE Publications, Incorporated.

Instrumentation: This evaluation further preserves internal validity by employing common tools across programs as well as at pre- and posttest. The use of consistent assessments at pre- and posttest and with comparison groups will support the evaluators' ability to draw conclusions about the program itself, rather than the instruments.

Statistical Regression Effects: Regression threats to ACCESS to School evaluation findings will be reduced because participants were not selected based on specific pretest scores. Further, if regression effects do occur, they will likely occur in both the treatment and comparison groups. The use of reliable and validated instruments, where possible, will further control for regression threats.

Attrition: (See missing data analysis)

Differential selection: This evaluation minimize threats to selection, or the possibility that differences in intervention and comparison treatment groups account for observed outcomes, and its potential interaction with maturation, history, and instrumentation by matching treatment and comparison groups on several characteristics and by employing a pre-/posttest design. With non-random comparison group selection, there exists the possibility that comparison and treatment groups will still vary on some unmeasured characteristics.

There were four intervention parent groups over the two-year period: two at each fall semester and two at each spring semester. After each intervention group is identified, a comparison group selected from the neighboring comparison site. Matching was done only on race since no list of potential participants their socio-demographics listed existed.

The study design also takes into account the extent to which evaluation findings may be generalized to other populations and/or settings. To do so, five threats to external validity are considered:

Interaction of selection and treatment: In general, the findings of the ACCESS to School evaluation will be best generalized to those who are similar to the socio-demographics of the participants in this study.

Interaction of testing and treatment: Some threats to validity exist with regard to ACCESS to School's ability to produce the same outcomes in the absence of many of the pretests administered to study participants. Observed program effects will demand further investigation in the absence of data collection tools.

Interaction of setting and treatment: Intervention groups were recruited from ACCESS' Southwest Detroit location and comparison groups were recruited a nearby school. While the groups are not precisely equivalent with respect to setting, these schools draw from overlapping neighborhoods which share local histories.

Interaction of history and treatment: It is not possible to control for historical events and the way in which they may affect treatment in any type of study design. Because ACCESS to School evaluation activities will continue over the course of two years and at different time points during each individual year, analyses aim to demonstrate if and how program effects persist over time. Measurements administered at program completion and at 7-week follow-up will help support this investigation.

Multiple treatment effects: Threats to external validity may occur if parents participate in other, similar programming. To control for this, caregivers were asked if they have been exposed to such programming at pre- and posttest.

Study Participants/Sample Flow

As described above, the intervention and comparison groups were recruited from two elementary schools located about ¾ of a mile away from one another. At both sites, families were approached at community events or at the schools' parent resource center. Intervention group participants were first recruited and enrolled in the study. Given that no pre-existing list of potential comparison group participants existed, it was only possible to match on race. Since it was important that the groups also be balanced with respect to parent age, age of child, educational level, years since immigration, and country of origin, we developed an entropy balanced weight for each subject in the comparison group. The entropy balancing technique is a data processing procedure to reweight a control dataset such that the reweighted control dataset and the intervention dataset are exactly balanced in the selected covariate distributions. Thus, the combination of matching and statistical balancing increase confidence that program impacts are not a function of selection bias.

This study proposed to compare 66 parents receiving the ACCESS to School program to a minimum of 66 parents who did not receive any interventions. The study also sought to compare the children of the 66 parents in the treatment group with a minimum of 66 children in the comparison group. As seen in the table below, a total of 85 intervention and 79 comparison parents were recruited into the study and provided baseline data. At immediate post-test, the retention rate was 92% (n=78) for the intervention group and 97% (n=74) for the comparison group. At 7-week follow-up, the intervention group retention rate was 92% (n=78) and 92% (n=73) for the comparison group. For the child sample, a total of 54 intervention and 50 comparison group participants were assessed at baseline. At immediate post-test, 96% (n=54) of the intervention and 100% (n=50) of the comparison group were assessed again. The retention rate at 7-week follow-up for children remained at 96% (n=54) for the intervention group and decreased to 96% for the comparison (n=48).

Table 2.2 Study Participants Flow

	Number o	of Parents	Number of Children		
Study Timepoint	Intervention Comparison I		Intervention	Comparison	
Year 4					
Baseline	48	39	23	11	
Post-Test	42	34	23	11	
Follow-up	42	34	23	11	
Year 5					
Baseline	37	40	31	39	
Post-Test	36	40	29	39	

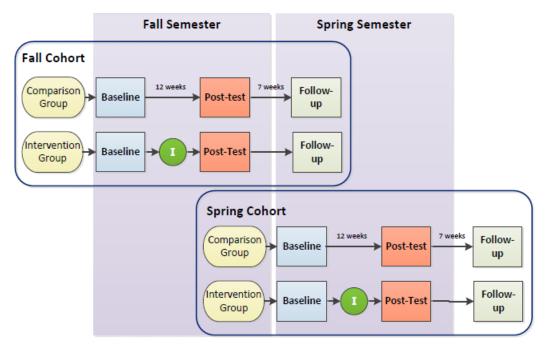
¹⁷ Hainmueller, J. (2012). Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies. Political Analysis, 20(1), 25-46.

	Number o	of Parents	Number of Children			
Study Timepoint	Intervention	Comparison	Comparison			
Follow-up	36	39	29	37		
Total						
Baseline	85	79	54	50		
Post-Test	78	74	52	50		
Follow-up	78	73	52	48		

Data Collection

Data collection for the impact evaluation described within this report took place during years 4 (2015-2016) and 5 (2016-2017) of the SIF project. Both the comparison and intervention groups included fall and spring cohorts which enrolled in the program on ACCESS's 2 semester system. Each cohort was surveyed at 3 time points: Baseline before programming, immediately after programming (or 12 weeks after baseline), and at 7-week follow-up (see figure 2.1).

Figure 2.1 Impact Evaluation Design



The parent surveys and child assessments were conducted by ACCESS staff who were trained in survey administration and IRB protocols by the evaluation team. Depending on literacy level, parent participants had the option of completing a self-administered survey or having a staff member read the survey to them. All survey data was collected via a pencil and paper format. On average, the parent survey took approximately 30 minutes to complete. Child assessments took about 15 minutes to complete on average.

Hardcopy parent surveys and child assessment forms were stored in a locked filing cabinet at ACCESS. To maintain IRB compliance, ACCESS removed any identifying information from the hardcopies before transporting to the evaluator's research facility which was located approximately 90 miles away. Upon receipt, a research assistant first checked paper surveys and assessments for logical inconsistencies and missing data. As part of this preliminary cleaning, the research assistant made notations on surveys on how data entry staff should code missing data or situations where a respondent circled more than one response option. Following data cleaning, a project assistant entered data directly into an SPSS database. A different individual verified these data to ensure accuracy. When discrepancies were found, the research assistant referred back to the survey hardcopy and inputted the correct response.

Measures

Socio-demographic information was collected, including age of parent, age of child, number of children in household, race/ethnicity, income, parent education, and length of time living in the United States. Parent-level data were collected using the tools described below. Since most of these tools have not been used with Arab or Hispanic immigrants, tools were adapted to ensure cultural and linguistic appropriateness. Below is a list of all measures which were employed for the outcome evaluation. See Appendix 3 for Parent survey and Appendix 4 for child record form.

Socio-demographic Data Form. This form collects basic demographic information such as age, race/ethnicity, years of formal education, years in the U.S., number of individuals living within the household.

Parental Stress Scale (PSS) (Berry & Jones, 1995). Stress related to caregiving was captured using the Parental Stress Scale. The PSS has a total of 18 items yielding a total score for parenting stress. On each question, participants are asked to rate how much they agree or disagree with a statement using the following choices: 1 strongly disagree, 2 disagree, 3 undecided, 4 agree, or 5 strongly agree. The scale's Chronbach's alpha has been shown to be adequate (.83)¹⁸

About Being a Parent Scale (ABPS). Parent attitudes of role in early childhood learning will be assessed using the About Being a Parent Scale ¹⁹ which is a five-item measure of parents' efficacy beliefs about their children's education. The scale taps parents' beliefs about their ability to influence their children's learning relative to other factors. Sample items are "Parents do not have a powerful influence over their children's achievement when all things are considered" and "Even parents with good teaching abilities cannot teach their children as well as a classroom teacher." Responses are made on a six-point scale with 0 indicating "strongly agree" and 5, "strongly disagree." The scale's internal consistency (Cronbach's alpha) is .86.

¹⁸ Berry, J. O., & Jones, W. H. (1995). The parental stress scale: Initial psychometric evidence. *Journal of Social and Personal Relationships*, 12(3), 463-472.

¹⁹ Wentzel, K. (1993). About being a parent. College Park: University of Maryland, Department of Human Development.

Reading recall diary. Evaluators created an instrument to assess parent frequency of reading to their child using a 24-hour reading recall diary, with validity supported in other studies²⁰. Parents report on any reading or storytelling involving the child(ren) for whom they care for during the last typical day and in what language(s) these activities occurred. Parents will also describe the material used and the duration of each reading activity that had taken place. The total reading time will be summed for the 24-hour period.

Social Competence and Behavior Evaluation (SCBE-30). This tool is used to assess social competence, anger-aggression, and anxiety-withdrawal. Administered to parents who report on their child's behaviors, each 10-item subscale has been shown to demonstrate high rater reliability (.91, .83,.78), internal consistency (.92,.86,.77), and temporal stability of a 6-month period (.79,.78,.75). The measure also showed moderate associations with teacher ratings thereby demonstrating this to be a valid instrument²¹.

Rosenberg Self Esteem Scale (RSES). This tool is used to measure parent self-esteem. This instrument asks parents to rate their level of agreement on a four point scale, with 1 meaning "strongly disagree" and 4 meaning "strongly agree," with ten statements about self-worth and value. This measure was added to gain more insight into possible changes in parent self-esteem over the course of the program. Validated translations of this scale in Spanish and Arabic were used (Baños and Guillén 2000; Zaid et al., 2015).

Home Literacy Environment Questionnaire (HLEQ). This instrument assesses activities and behaviors in the home environment that promote literacy and language development in children²² (Marjanovič, Podelesek and Urška 2005). This measure was added to better assess possible changes in the frequency of in-home learning activities over the course of the program. The parent is asked to rate the frequency they engage in these behaviors and activities on a six point scale, with 1 meaning "never" and 5 meaning "always".

Bracken School Readiness Assessment. The Child Assessment was administered at 3 time-points (baseline, immediate post-test, & 6-week follow-up) for fall and spring program participants. ACCESS and the evaluators chose to use the Bracken School Readiness Assessment 3rd Edition to assess the children's concept acquisition and literacy skills. The 5 subsets assess basic concepts such as colors, letters, numbers/counting, size/comparison, and shapes. The test may be administered with minimal training and there are no credential requirements for the interviewer. In a large psychometric study, the assessment specificity value was .96 indicating that 96% of

²⁰ Mendelsohn, A. L., Huberman, H. S., Berkule, S. B., Brockmeyer, C. A., Morrow, L. M., & Dreyer, B. P. (2011). Primary care strategies for promoting parent-child interactions and school readiness in at-risk families: the Bellevue Project for Early Language, Literacy, and Education Success. Archives of pediatrics & adolescent medicine, 165(1), 33-41.

²¹ LaFreniere, P. J., & Dumas, J. E. (1996). Social competence and behavior evaluation in children ages 3 to 6 years: the short form (SCBE-30). Psychological assessment, 8(4), 369.

²² Marjanovič Umek, L., Podlesek, A., & Fekonja, U. (2005). Assessing the home literacy environment. European Journal of Psychological Assessment, 21(4), 271-281.

those classified as not-at-risk had positive school outcomes. The positive predictive value was .73 indicating that 73% of student identified as at-risk had negative outcomes²³.

Changes to Sub-grantee Evaluation Plan

The first impact study of the ACCESS to School program was conducted during the fall semester of 2014 and the spring semester of 2015 (year 3). This study was reported to the SIF at the end of the 2015 project year and is summarized again in Appendix 5 of this final report. This study was discontinued because baseline equivalence between the comparison and intervention group was not achieved. Thus, the lack of an appropriate comparison group reduces the confidence that the between group comparisons are meaningful. To address this issue, we recruited families who were not connected with ACCESS programming and resided in Southwest Detroit. Specifically, families were recruited at an elementary school located less than one mile from the intervention site. The neighborhoods served by these schools overlap and are similar with respect to socio-demographic characteristics as presented in the approved SEP. Therefore, this final report focuses on the second study conducted during the years 4 and 5.

The evaluation of ACCESS's ESL programming was a part of the year 3 impact evaluation design. For this initial design, comparison group participants were recruited from ACCESS's other ESL program located in Dearborn, Michigan. Since this recruitment site was located within a different community, the evaluation design had to be able to account for differences in local histories and/or non-equivalence to treatment groups. Since both groups would receive ESL, we proposed the use of ESL scores to control for setting-level differences. As this initial study was discontinued and the new comparison group did not receive ESL, we do not report on the intervention group's ESL data.

An additional change to the evaluation design in year 4 was the timeline for data collection. The initial evaluation design included a 3 month follow-up survey for those participants starting in the fall semester. Those enrolling in the spring semester only received one post-test at the conclusion of programming since it was not believed to be feasible to track individuals during the late summer months. In order to obtain three time points on all subjects, we decided to conduct the final follow-up within 7 weeks of the conclusion of programming for both the fall and spring cohorts.

ACCESS staff and the evaluators also reviewed the parent survey at the end of year 4 programming and determined modifications were needed for year 5. A factor analysis was conducted with each scale and indicated that 7 items could be removed from the SCBE.

Parenting efficacy was measured in both the year 3 and year 4 impact evaluation and no change on this outcome was found. In exploring the potential reasons for this, it became clear to the team that this tool is focused on the parent's efficacy to address child behavioral problems which was not consistent with the program's theory of change. For the final year of impact evaluation, this measure was modified to assess parent efficacy related to helping their child learn. However, this measure demonstrated to be unreliable and so it was dropped from all analyses.

²³ Panter, J. E., & Bracken, B. A. (2009). Validity of the Bracken School Readiness Assessment for predicting first grade readiness. Psychology in the Schools, 46(5), 397-409.

In addition, the Family Activity Scale was replaced with the Home Literacy Environment Questionnaire. The Family Activity Scale was removed as participants were reporting little change on these measures over time during both the year 3 and year 4 impact evaluations. In examining the data, subjects typically reported high baseline scores with little room for improvement. It appeared that this scale may not have been sensitive enough to capture change over time. Therefore, the Family Activity Scale was dropped from analysis and results from the Home Literacy Environment Questionnaire are reported. The reader should note that sample sizes presented in the results section of this report are smaller since these data were only collected in year 5.

The Rosenberg Self-Esteem Scale was also added to the year 5 survey tool. ACCESS staff who were working with participants on the ground believed that parent self-esteem seemed to be an important barrier in the participants' ability to fully engage in the program. Thus, it was important to them that the evaluation examine self-esteem and the ways in which it influences outcomes.

As a final change in April of 2017, we identified a need to ensure comparability between intervention and comparison groups since propensity score matching was not feasible due to lack of a comparison pool from which to select a matched comparison group. The revised analytic plan described the computation of an entropy balanced weight for each subject in the control group. The entropy balancing technique²⁴ is a data processing procedure to reweight a control dataset such that the reweighted control and the intervention data are exactly balanced in the selected covariate distributions.

²⁴ Hainmueller, J. (2012). Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies. Political Analysis, 20(1), 25-46.

Chapter 3 Implementation Study Results

Program Content & Format

Parenting Education

Component Description

The following narrative provides a comprehensive description of the Parenting Education component focusing on content, implementation facilitation, intervention complexity and dosage. Data sources for the implementation evaluation included focus groups, key informant interviews, and adherence check lists. The following narrative summarizes the ways in which the component was implemented on-the-ground and aims to document the way the component has evolved over the course of the four-year evaluation (years 2-5).

Parenting Education was designed to teach parents about their child's cognitive, social, and emotional development and how to be full partners in their child's education. ACCESS's implementation covered the following subject areas as prescribed by the component model:

- 1. Understanding Young Children
- 2. Understanding Children's Behavior
- 3. Building Self-Esteem in the Early Years
- 4. Listening and Talking to Young Children
- 5. Helping Young Children to Cooperate
- 6. Discipline for Young Children
- 7. Young Children's Social and Emotional Development

To ensure that participants were comfortable, ACCESS strategically presented Parenting Education in English followed by parents' native languages, Arabic and/or Spanish, to create a more inviting and safe environment. Sometimes, the subject areas discussed had parents reflect on sensitive family matters; therefore, ensuring that the instructor was a trusted community member was essential to program engagement. In addition to the instructor's skill at cultivating a safe atmosphere, the fact that the instructor and most program parents were of a similar background contributed to the group's ability to be open with one another. The instructor's acute cultural sensitivity was also important for emphasizing certain aspects of the curriculum and/or adding to the program content. For example, the instructor reported the need to emphasize the cultural differences between raising children in the U.S. verses the parents' countries of origin. The facilitator discussed with participants the elevated importance of adherence to rules and laws related to children in the United States. Parents noted appreciation for the opportunity to better understand these differences. Additional staff and/or volunteers were required to be able to provide translation during sessions. One challenge with some Hispanic families took place during recruitment and their participation during Parenting sessions. ACCESS attributed this to parents

working several jobs and other multiple commitments to support their families which contributed to lower attendance and retention rates.

The flow and order of activities have generally remained the same each year. Sessions typically commenced with the instructor doing a "warm-up," during which participants reflected on their past week's interactions with their child as it related to what they discussed in Parenting Education the week before. During this time, participants had the opportunity to share successes, challenges, and participate in group problem-solving. As it applied, the group would discuss how some skills conflicted with their cultural norms. One example that an instructor provided had to do with cross-generational parenting conflicts. Among ACCESS's immigrant families, it is common for extended relatives such as grandparents, aunts, and uncles to live in the same household, each with a different parenting style, making it difficult to implement parenting and teaching techniques. Following this initial activity, the instructor typically delivered 10 minutes of content, presented instructional video(s) or supplemental materials, and then facilitated an activity where participants worked in small groups or pairs. The instructor alternated each of these components with an opportunity for discussion among the group, which was reported as key to maintaining engagement. The instructors noted that this interactive format stimulated more participant engagement when compared to a lecture-oriented approach.

The frequency and duration of Parenting Education sessions changed over the course of the project with the goal of providing the program on days and times that were most convenient for clients. The curriculum chosen by ACCESS was originally designed to be administered in seven, two-hour sessions. However, based on the additional support needed by their clients, ACCESS adapted the curriculum to be administered in 25 one-hour sessions during years four and five. This allowed for more discussion time, explanation, translation/interpretation and basic description of words and concepts. Through observation and discussion with participants, ACCESS determined Monday classes were not desirable and holding classes after ESL sessions yielded better attendance. Table 3.1 displays the frequency and duration of Parenting Education by year and semester.

Table 3.1 Parenting Education

	Year 2 (Pilot)		Year 3		Year 4		Year 5	
	Fall*	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Number of		1.4	7	21	25	25	25	25
Sessions		14	7	21	25	25	25	25
Day of Week		F	Every other F	T & TH	M, T, W	M, T, W	M, T, W, TH	T & W
Number of program hours		2	2 ½	1	1	1	1	1
*No programming in fall ye	*No programming in fall year 2.							

In year two, there were a few modifications to the Parenting Education curriculum that occurred either prior to or during the first cycle of implementation. First, the instructor translated the program curriculum so that it could be administered in Arabic as well as in English. Some paper materials were also translated to be used at home by program participants. Given the amount of material within each of the seven topic areas and the time required to deliver the program in three languages, each topic was administered over two sessions totaling 14 sessions on Friday mornings. It was still difficult for the instructor to get through some of the chapters due to the amount of information.

Year 3

In year three, fall programming occurred once every other week on Friday mornings, over the course of seven sessions. Participant feedback suggested they would have preferred two one-hour sessions rather than one longer session. Therefore, spring semester sessions moved to twice a week, on Tuesday and Thursday mid-mornings, over the course of 21 sessions. Instructors followed the typical format with the addition of displaying the chapter(s)' key points to be covered during the session in English, Arabic, and Spanish to help guide the discussion. More materials were translated into Arabic and Spanish.

Year 4

In year four, program length and time was modified to three days a week, for one-hour sessions over the course of 25 sessions. During this year, ACCESS structured the sessions somewhat differently. For instance, instructors started each session by added rules for the classroom and guidelines in English, Arabic, and Spanish. It was noted by ACCESS staff that ground rules, such as taking turns and listening to one another contributed to the comfort level of participants and helped maintain an inviting environment. Each session commenced with the instructor reviewing key words that would apply in the day's lesson followed by group discussion on interpretation of the words. This activity helped the instructor assess participant's knowledge and provided insight on how to proceed with the group. In past years, translation was a barrier to the program, specifically Spanish translation. ACCESS was able to provide a translator for part of year four.

Year 5

In year five, the frequency of sessions was changed to Monday, Tuesday, Wednesday, and Thursday mornings but continued over the course of 25 sessions for the fall semester. During the fall semester, ACCESS observed that Monday participation began to decline as the semester progressed. Therefore, the spring semester sessions were held on Tuesdays and Wednesdays over a total of 25 sessions. One new, successful method was group reading and the sharing of lessons learned after every session. ACCESS reported participants appreciated the opportunity to share experiences that allowed them to learn from one another.

By the end of year five, ACCESS staff reported that the improvements to the Parenting Education curriculum, schedule, and translation services, allowed the component to function at a higher level. These improvements allowed for more participation from parents and promoted additional practice of parenting

techniques and strategies at home. The instructors felt confident and comfortable in their process of implementation and also found a balance on how much content to cover in each session.

Parent and Child Interactive Learning (PCIL)

Component Description

The following narrative provides a comprehensive description of the PCIL componentfocusing on strategies employed for implementation, program modifications to address barriers, and successful outcomes. Data sources for the implementation evaluation included key informant interviews, focus group, and adherence check lists. The Parent and Child Interactive Learning (PCIL) component of the ACCESS to School program aims to increase parental awareness about supporting literacy instruction while coaching parents on the application of effective strategies for working with their child. The curriculum covered the following subject areas:

- 1. ABCs and Learning
- 2. Numbers and Counting
- 3. Colors and Shapes
- 4. Sizes and Comparison
- 5. Riddles, Rhymes and Songs
- 6. Reading with Preschoolers

Three coaching strategies were incorporated into the PCIL design: *planning, observing* and *reflecting*. For the first 30 minutes of each session, parents and children were separated and the instructor would utilize the *planning* strategy. The *planning* strategy encouraged the parent to identify a learning goal and a desired outcome with the help of the instructor. For example, a parent may focus on increasing the quantity and quality of open-ended questions during a literacy activity with their child. Parents and instructors would then discuss steps to reach this goal. The parents' instructor typically began this first portion by reviewing some basic words in English (e.g. match, trace, name, and point) which are key to the parents understanding of the activities they will be doing with their children later in the day. The instructor also reviewed strategies for parents to engage with their children during these activities.

The instructor leading the group of children typically began with some rapport-building activities where the instructor talked with each child while they engaged in activities focusing on the subject area for the week (ABCs, numbers, colors, etc.). This allows the child and instructor an opportunity to become familiar with one another.. However, some children experienced anxiety when separating from parents and were initially shy with one another. The first activity for the child group usually involved watching an instructional video relating to the day's topic, which the instructor reported as helping the children relax.

During the second portion of the session, parents and children would come together for approximately 45 minutes. During this time, the instructor focused on the *observing* strategy. This would involve the instructor observing the parents' interaction with their children and coaching them in the activity. The interactive activities included coloring, counting, singing, using hands-on-materials (i.e flashcards, magnet letters, colored blocks), etc.

The reflecting strategy was employed during the remaining 30 minutes of the session. During this time, parents and children separated so that parents and the instructor could reflect on what worked well, areas for improvement and sharing advice with one another. Unlike Parenting Education, the PCIL curriculum was presented exclusively in English. Instructors only provided translation in Arabic and Spanish when describing a difficult concept, such as rhyming, and during the reflection activity at the end of the session. The goal of PCIL is not necessarily to make every child master all of the covered content, but rather to educate the parent on the importance of early learning in the home and promote effective teaching strategies. ACCESS made a strategic effort to repeat this message in every session as parents would worry that their children weren't learning fast enough or have poor self-esteem around their ability to teach their children. Thus, a focus in all years was strengthening parent and child self-esteem. Instructors reported being very intentional about providing encouragement and emphasizing what participants were doing well. Common materials used throughout the program included: sign-in sheets, projector/screen/computer, videos, pencils, crayons, scissors, interactive rugs (alphabet/numbers), posters, flash cards, play-doh, construction paper, glue, blocks, books/magazines, and magnet letters. As part of ACCESS's commitment to a safe learning community bottles of water and healthy snacks such as granola bars and fruit were available.

Similar to the Parenting Education component, identifying the ideal frequency and duration of PCIL programming was a trial and error experience for ACCESS. Table 3.2 shows that programming began with five sessions held once a week for a duration of two hours and transitioned over time to 10 sessions held once a week for two hours. While it was noted that Friday classes posed a challenge being the end of the week, ACCESS found that with all other programming and availability, Fridays were the best option.

Table 3.2 Program Implementation Frequency and Dosage

	Year 2 (Pilot)		Year 3		Year 4		Year 5	
	Fall*	Spring	Fall	Spring	Fall	Spring	Fall	Spring
# of Sessions		5	6	6	10	10	10	10
Day of Week		F	Every other F	Every other F	F	F	F	F
Time of Sessions		9-11	9-11	9-11	9-11	9-11	9-11	9-11
*No programming in fall yea	*No programming in fall year 2.							

Year 2

In year two, ACCESS administered PCIL over the course of five sessions on Friday mornings. Adaptions to the original program curriculum were made primarily due to the complexity of topic areas and the wide range of English proficiency among program participants. For this reason, activities needed to be simple enough that participants with limited English skills could understand them. Other important features of ACCESS' implementation of PCIL include the addition of time for group discussion and feedback. One difficulty noted among the children was the separation anxiety at the beginning of classes. It was very

difficult for parents to leave the room and for the instructor to make the child feel comfortable. As the semester went on, children became more comfortable with instructors when parents left the classroom.

Year 3

In year three, an additional session was added in hopes to address the insufficient amount of time to cover content and therefore sessions occurred every other Friday for two hours over six sessions. Scheduling program sessions was a reported challenge due to timing of other established programs offered by ACCESS. During this year of implementation, ACCESS instructors reported to add additional hands-on activities such as creating shapes with Play-doh and using wooden blocks to work on sizes and shapes. It was noted that children's attention spans were hard to maintain for more than 20 minutes but child engagement improved with the added hands-on activities. Additionally, the instructor would walk around the room observing interactions between parents and children to determine if additional one-on-one time was needed and would offer individual feedback as necessary. Instructors noted that parents sometimes compared their child to others in the class and became frustrated when their child appeared to struggle more than their peers. Instructors applied their coaching skills by redirecting parents from focusing on other children and emphasized that every child learns differently and at their own pace. Instructors directed parents to focus on the activity at hand and discuss what they notice of their own child and how they can help them learn in their own way. Additional materials were translated to Arabic and Spanish during this year of implementation. ACCESS continued to struggle with child separation anxiety but believed it had improved from the previous year with the addition of childcare. By providing childcare, parents attended programming with fewer barriers and this also helped children adjust to the separation from their parents. In addition, rhyming was a difficult concept to explain in English. To address this, ACCESS provided examples from their own culture/language that helped them comprehend common English nursery rhymes.

Year 4

During year four, facilitators achieved a balance between frequency of sessions and day/time of the week that appeared to accommodate the needs of both the program and the participants. ACCESS increased the number of PCIL sessions from six to ten to decrease the amount of content covered in the ABC's and Learning lesson. Therefore, the ABC's and Learning lesson was divided into five sessions with each focusing on a set of letters from the alphabet. The remaining five topics were covered in proceeding sessions. Instructors followed the typical format except during the spring semester when the children stayed in the room with the parents due to the smaller number of participants. The instructor deemed that staying in the room together was beneficial for the child to continue the hands-on education activities while the parents engaged in the feedback session. Instructors reported no difficulties with children remaining in the room during the feedback session. During this project period, ACCESS implemented an activity where the parents and children created an alphabet book together and transformed the activity into a friendly competition in the class. It was noted by instructors that both parents and children enjoyed this activity. A theme that the instructor emphasized during this year's programming was focused on how to implement the skills at home and building participants' vocabulary needed for teaching the basic learning concepts to their children. The instructor provided participants with take home materials and encouraged

them to spend more time reviewing and practicing these activities for at least 20 minutes with their child at home. Rhyming continued to be a difficult concept but ACCESS continued to identify similar concepts in their native languages to increase understanding.

Year 5

By the last semester in year five, ACCESS staff reported that the curriculum and program operations were established. The instructors again felt confident and comfortable in their process of implementation and reported that the sessions flowed more cohesively than in previous years. The child instructor also noted that the children attending class did not have as much difficulty with separation anxiety as ACCESS established child care for parents when attending both ESL and Parenting Education. Therefore, the children were not as uncomfortable when it came time to separate for programming. Administering the program over ten sessions gave instructors enough time to cover the content without overloading the sessions and presenting the materials in a digestible quantity. Sessions were arranged slightly different in the final year of programming. ABC's and learning was administered over four sessions instead of five and a session was added specifically for the alphabet book. One theme during year 5 programming was that ACCESS focused on educating parents to use everyday items to teach their children, such as, a cereal box is the shape of a rectangle, counting the number of chairs around the dining room table and so on. Since many of the participants could not afford similar materials used in class, this programming enhancement provided an alternative way for them to teach their children.

Case Management

Component Description

As one of the four primary activities of ACCESS to School programming, case management services were provided to all participants. The purpose of case management was to assist families who were experiencing obstacles or barriers that prevent them from succeeding, particularly in areas related to their children. ACCESS Staff assessed each family's needs and made referrals to interagency departments and external agencies when more specific services were needed. During the assessments, ACCESS staff encouraged participants to set personal and family goals to help them succeed. Most commonly, participants' goals had to do with the enhancing their English language skills through practice and attending class.

Year 2

Case management was not launched or evaluated in year two.

Year 3

Starting in year three, ACCESS staff tracked the number of encounters with each participant documenting the time, method (in person or by phone) and the purpose of the encounter. Based on the encounter, ACCESS Staff would then identify a resource and refer the participant to the service needed. Follow-up was conducted until the referral was completed. However, case managers found it to be challenging to gain trust with their clients. Staff reported reluctance from participants to seek services or identify their

need for assistance when they first entered into programming. ACCESS also noted over the past years that self-esteem was a major contributing factor in participant's willingness to open up and feel comfortable asking for help. Throughout the course of programming, ACCESS actively followed up with participants regarding their needs and noticed that participants would soon initiate contact when they needed assistance as trust and rapport was built over time.

Year 4

No changes to case management implementation in year 4.

Year 5

In year five, the evaluators and ACCESS determined that a more robust evaluation was needed in order to better capture the effectiveness of the case management component of the program. Therefore, ACCESS began administering a portion of the Arizona Self-Sufficiency Matrix which allows an individual's self-sufficiency to be assessed across domains on a five-point scale that describes the person's current status. ACCESS carefully reviewed the tool and identified seven domains on which to focus. Based on ACCESS's knowledge and history with their population, the following domains were selected: housing, employment, income, food, children's education, healthcare, and transportation. ACCESS would review the matrix with participants to measure their current status based on the scale: one) in crisis, two) vulnerable, three) safe, four) building capacity, and five) empowered. A follow up assessment was completed at the end of the programming to assess if their status had improved, remained the same or worsened. Between the two assessments, ACCESS continued to document client contacts and provide resources and referrals.

The adoption of the Self-Sufficiency Matrix only occurred in the final year of the SIF funding and is considered a pilot trial of the tool. Therefore, the results are not used as part of impact analysis and so are presented as part of implementation evaluation as these will be used to refine the program for future clients.

During Year five, a total of 36 participants received case management services and participated in the Self-Sufficiency Matrix. The average client had a mean of five visits with their case manager. The range of visits fell between one and eight. As seen in table 3.3, participants improved in their ratings of vulnerability in the domains of employment, income, healthcare, transportation, spoken English language proficiency, and social connection between pre- and post-test and these changes were statistically significant.

Table 3.3 Year 5 Case Management Results by Self-Sufficiency Domain

		Test 36)	Post- (n=3		Test Statistic
Domain	Mean	SD	Mean	SD	Z
Housing	3.8	1.18	4.1	.97	-1.780
Employment	2.7	.99	3.2	.87	-3.218**
Income	3.4	1.09	3.7	.78	-2.183*
Food	3.0	1.32	3.0	1.22	632
Children's Education	4.3	1.41	4.6	1.0	-1.490
Healthcare	3.4	95	3.7	.99	-2.11*
Transportation	2.8	1.30	3.3	1.19	-2.941**
Legal-Social	4.9	.17	4.9	.17	0
Disabilities and/or Chronic Health	4.9	.28	4.9	.28	0
Spoken English Language Proficiency	1.7	1.18	1.9	1.19	-2.309*
Social Connections	3.1	1.32	3.7	.86	-4.031**

^{*}p<.05 **p<.01

English as a Second Language (ESL)

English as a Second Language (ESL) was offered to the intervention group during impact evaluation. ESL classes were designed to help participants acquire English skills that contribute to their transition from their native countries to the United States. As this relates to one of the four components of the program, learning English skills gives parents the basic tools to advocate for their child's learning. Parents can access necessary resources needed to prepare their child for school and to remain engaged in their education. During each semester, participants receive approximately 100 hours of ESL which occurs for two hours a day, four days a week. Participants were placed into a class based on their skill level through an intake process. This process used the Comprehensive Adult Student Assessment System (CASAS) to assess their abilities in reading, writing, listening and speaking English. Based on their score, they are placed in the appropriate class level.

Program Recruitment, Retention, & Dosage

In collaboration with ACCESS, the evaluators monitored recruitment and retention to determine the extent that the program would be able to recruit and retain participants. Program staff at ACCESS were responsible for recruitment. As reported by program instructors, participants were primarily recruited across all years through announcements made during other programs ACCESS provided, specifically ESL programs, through word of mouth and events. Many parents knew each other prior to participation in ACCESS to School programming as their children attended the same school and/or they themselves attend ESL classes together. Instructors also created flyers and contacted all ACCESS clients with children between the ages of 0 and 5 years to encourage program enrollment.

Over the course of the project, ACCESS began to experience hardship in maintaining their levels of enrollment in the parenting programming. These recruitment difficulties occurred because the pool of eligible participants became smaller as the catchment zip code had become over saturated with similar programming offered by another SIF grantee agency. Additionally, identifying participants for the comparison group was challenging since many parents switched schools, taking a large portion of

potential comparison group participants. To address these concerns, ACCESS developed an enhanced recruitment plan to ensure they would meet the sampling requirements required for the impact evaluation by the end of the project. Part of this recruitment plan involved onboarding a Program Client Recruiter whose primary responsibility was to go out into the communities and identify eligible contacts that fit the programming criteria or could be a match for the comparison group. ACCESS also created a calendar of events where staff could promote the program and also to become more visible in the community as a resource. As it was previously mentioned in this report, trust has been a key component in gaining participation and having ACCESS staff on the ground in this community helped build rapport.

ACCESS's revised recruitment plan also included ways the program was marketed. For instance, one lesson learned over the course of the SIF project was that participants were highly motivated to participate in ESL. Therefore, ACCESS used the ESL program as leverage to encourage participation in the parenting interventions. For instance, those on ACCESS's waitlist for ESL were prioritized if they also agreed to participate in the parenting programs. It should be noted that it was made clear to these participants that they were not required to take part in the research aspect of this project per IRB protocols. In addition, those who completed the program were encouraged to refer eligible families to the program.

As shown in Tables 3.4 and 3.5, recruitment during the fall semesters for both the Parenting and PCIL programs had significantly higher recruitment numbers when compared to the spring. ACCESS staff reported that fall semesters tend to be easier to recruit as this is when new students typically enroll in the ESL program. In addition, the weather in southeast Michigan is less of a barrier during the fall and the early winter months. Indeed, the majority of ACCESS's female parents and parents do not drive and so adverse weather conditions can deter those who must walk to the facility. To help address this barrier to participation, ACCESS began providing transportation in fall of 2015.

As displayed in the tables, attendance was relatively stable after the year two pilot study. The average Parenting Education participant received 61% of programming while PCIL participates attended about 65% of the scheduled sessions. Very few participants attended all sessions for either programs.

Table 3.4 Recruitment & Retention for Parenting Education

	Year 2 (Pilot)		Ye	Year 3		ar 4	Year 5	
	Fall*	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Number of Participants		17	31	7	30	12	26	10
% Sessions Attended		54.3%	62%	47%	65%	67%	65.8%	65.2%
% Attending All Sessions		5.9%	3.5%	0%	0%	0%	0%	0%
*No programming in fall y	ear 2.							

As shown in Table 3.5 for PCIL, the number of sessions attended varied over the years with the most success in year four with the average parenting receiving 73% in the fall and 78% of programming in the spring. More participants attended all program sessions for PCIL then in Parenting Education across program years but slightly decreased as programming continued. ACCESS reported that year five retention

for both programs became difficult after the new administration took office and believed that it may have impacted participation. The Arab and Hispanic community became more frightened of possible negative consequences given the administration's strengthened efforts to deport undocumented immigrants. Thus, parents were reluctant to both attend the program and provide any information which may put them at-risk. Through conversations by ACCESS, it was reported that other neighboring programs noticed a decrease in attendance within their programs as well. ACCESS approached these concerns by supporting participants and encouraging them to be prepared and aware of what they need to know if something were to happen.

Table 3.5 Recruitment & Retention for PCIL

	Year 2 (Pilot)		Ye	Year 3		ar 4	Year 5	
	Fall*	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Number of Participants		10	19	3	17	6	24	6
% Sessions Attended		64%	50%	60%	73%	78%	68%	61.7%
% Attending All Sessions		40%	11%	33.3%	18%	10%	8.3%	0%
*No programming in fall year 2.								

Table 3.6 displays program dosage by year. The majority of clients enrolled in all three program components including parenting education, PCIL and case management. Over the study period, the percentage of participants enrolling in all three components of the ACCESS to School program increased.

Table 3.6 Dosage Overall by Year

	Year 2	(Pilot)	Yea	r 3	Ye	ar 4	Ye	ar 5
	Fall*	Spring **	Fall	Spring	Fall	Spring	Fall	Spring
Parenting					400/		15 40/	
Education + Case			39% (12)	57% (4)	40%	50% (6)	15.4%	40% (4)
Management					(12)		(4)	
Parenting					600/		72 10/	
Education + PCIL +			55% (17)	43% (3)	60%	50% (6)	73.1%	60% (6)
Case Management					(18)		(19)	
PCIL + Case			60/ (2)	00/ (0)	00/ (0)	00/ (0)	00/ (0)	00/ (0)
Management			6% (2)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
*No programming in fall year 2. **Case management not offered.								

Fidelity to Program Design

To eliminate the possibility of influencing program implementation and/or disrupting instructor rapport with program participants, evaluators did not conduct any direct observation of Parenting Education or PCIL delivery. Alternatively, evaluators developed adherence checklists that captured core program components as well as barriers, successes, key strategies employed, and lessons learned. For each session delivered, program instructors completed an adherence checklist which contained indicators of program

content. As Parenting Education and PCIL were improved upon, the number of indicators changed to reflect the activities completed.

Program facilitators and instructors were responsible for completing the implementation checklists. When an item was not adhered to, it was always a minor deviation. For instance, facilitators sometimes would substitute a video with a hands-on activity or not provide a snack. As seen in the table below, fidelity to the prescribed Parenting Education curriculum was very strong and did not significantly change over the course of the project.

Table 3.7 Adherence for Parenting Education Overall by Year

	Year 2	Year 2 (Pilot)		Year 3		ar 4	Year 5	
	Fall *	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Percent Adherence		98.8%	64%	94.5%	94%	94%	97%	97%
Percent Non Adherence		0%	14.2%	5%	6%	6%	3%	3%
Percent Missing		1.2%	21.8%	.5%	0%	0%	0%	0%
*No programming in fall yea								

As displayed in table 3.8, adherence to PCIL programming was also strong and remained fairly consistent across the project years. As described above only slight deviations were made from programming that were based on the participation and instructor judgment on continuing an activity or not. For PCIL, the primary deviation was not watching a movie or providing a snack.

Table 3.8 Adherence for PCIL Overall by Year

	Year 2 (Pilot)		Ye	Year 3		Year 4		ar 5
	Fall *	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Percent Adherence		84.3%	97%	92.3%	97%	92%	95%	95%
Percent Non Adherence		2.2%	1.9%	3.9%	3%	8%	4%	4%
Percent Missing		13.5%	1.1%	3.8%	0%	0%	1%	1%
*No programming in fall year 2.								

Satisfaction

To obtain participant-level satisfaction with program implementation two focus groups were conducted, one for Parenting Education and one for PCIL, with participants during year two only. Participants reported enjoying all aspects of the Parenting Education component and found everything they learned to be practical and applicable. In particular, most participants appreciated homework that was given as it was a positive challenge to use at home with their children. Group reflection on the homework also afforded participants the opportunity to participate in collective problem-solving and to learn from each other. Participants also reported particular satisfaction with exercises in reflective listening to use at home with their children, especially during situations of conflict. Parents also reported a high level of satisfaction with PCIL. Specifically, they cited being together in a group while also working with their children was very

encouraging and made the session feel more family-oriented. Participants also reported strong satisfaction with the instructors. In particular, PCIL participants noted a desire to observe the child instructor while they work with their children as an additional way to supplement their learning.

The final year of programming, satisfaction surveys were used to assess client satisfaction with both Parenting Education and PCIL. Figure 3.1 shows that participants uniformly "agreed" or "strongly agreed" that the program materials were easy to understand, that the classes offered useful information, and that they would recommend the Parenting Education to other people within their communities. There were a small minority of survey respondents who were less satisfied with the program in areas of instructor communication and preparedness.

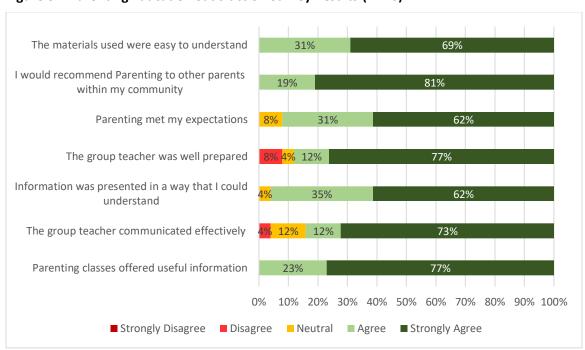
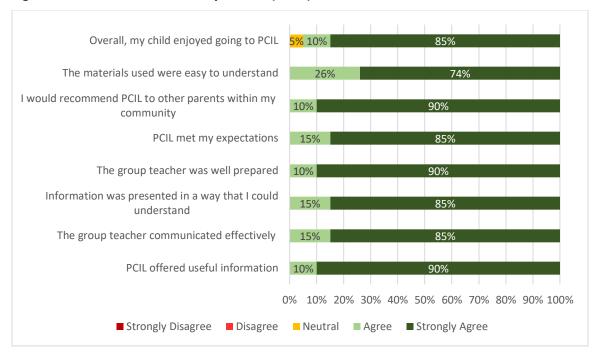


Figure 3.1 Parenting Education Satisfaction Survey Results (N=26)

Figure 3.2 displays the results from the PCIL satisfaction survey. Twenty participants completed the PCIL satisfaction survey an overwhelming majority of participants either "agreed" or "strongly agreed" that the program offered useful information, that the teacher's was able to communicate effectively and was well-prepared, and that PCIL met their expectations and they would recommend it to another parent. The only deviation from this trend was one parent who reported to be neutral on whether their child enjoyed the program. In summary, these results suggest that parents found both programs to be highly satisfactory although they rated PCIL more favorably.

Figure 3.2 PCIL Satisfaction Survey Results (N=20)



Chapter 4 Impact Study Results

Analysis

Data

The parent sample originally included 85 subjects in the intervention group and 76 in the comparison group. Four parents were found to be duplicates. One parent was in intervention in Year 4 and in comparison in Year 5 and the Year 5 data were removed. Three parents were in comparison in Year 4 and intervention in Year 5 and their Year 5 data were removed since their children were only measured in Year 4. The child dataset contained 54 subjects in the intervention group and 50 in the comparison group. Five sets of twins were found in the dataset. To reduce bias, one of each set of twins was randomly selected and removed. Another child from the comparison group in Year 5 was also deleted due to the removal of the parent as the parent was not a valid comparison subject. Table 4.1 presents the numbers of subjects in each dataset.

Table 4.1 Numbers of Subjects in Parent and Child Datasets

		Original	Parent D	ataset	Final F	Parent Da	taset
Group	Cohort	Year 4	Year 5	Total	Year 4	Year 5	Total
Comparison (Group=0)	Fall	24	20	44	24	19	43
	Spring	15	17	32	15	17	32
	Total	39	37	76	39	36	75
Intervention (Group=1)	Fall	32	26	58	32	23	55
	Spring	16	11	27	16	11	27
	Total	48	37	85	48	34	82
Total		87	74	161	87	70	157
		Origina	l Child Da	itaset	Final	Child Dat	aset
		Year 4	Year 5	Total	Year 4	Year 5	Total
Comparison (Group=0)	Fall	8	22	30	8	19	27
	Spring	3	17	20	4	17	21
	Total	11	39	50	12	36	48
Intervention (Group=1)	Fall	17	24	41	16	22	38
	Spring	6	7	13	5	7	12
	Total	23	31	54	21	29	50
Total		34	70	104	33	65	98

Missing Data

There were two sources of missing values: one was attrition, and the other was incompleteness of the survey items. For the parent comparison group, there were 5 and 6 attritions at time 2 and time 3,

respectively; for the parent intervention group, there were 6 attritions from time 2 onward. For the child dataset, all missing values were from attrition: just 1 at time 3 for the comparison group, 2 from time 2 onward for the intervention group. As with almost all survey research, item-level missing data is inevitable. Researchers have routinely applied thresholds of missingness for computing scale scores with 20% to 50% of missing items. The analyses in this report used the 50% cutoff, i.e., a scale score for a subject was computed only when at least 50% of the items comprising the scale were not missing, otherwise it was counted as missing data. Table 4.2 presents the missing scales in the two datasets from both missing sources, with numbers from attrition in the parentheses.

Table 4.2 Missing Data

Scales	Group		Time 1			Time 2			Time 3	
Parent		#Data	#	%	#Data	#	%	#Data	#	%
		Points	Missing	Missing	Points	Missing	Missing	Points	Missing	Missing
Reading Time	0	75	0	0%	70	5(5)	7%	69	6(6)	8%
	1	82	0	0%	76	6(6)	7%	76	6(6)	7%
Negative Attitude	0	75	0	0%	70	5(5)	7%	68	7(6)	9%
	1	82	0	0%	75	7(6)	9%	75	7(6)	9%
Stress	0	75	0	0%	70	5(5)	7%	68	7(6)	9%
	1	82	0	0%	75	7(6)	9%	75	7(6)	9%
Cognitive Activity	0	36	0	0%	36	0	0%	35	1(1)	3%
	1	34	0	0%	33	1(1)	3%	33	1(1)	3%
Self Esteem	0	35	1(0)	3%	36	0	0%	35	1(1)	3%
	1	34	0	0%	33	1(1)	3%	33	1(1)	3%
Social Competence	0	68	7(0)	9%	65	10(5)	13%	66	9(6)	12%
	1	81	1(0)	1%	74	8(6)	10%	71	11(6)	13%
Anger/	0	72	3(0)	4%	67	8(5)	11%	67	8(6)	11%
Aggression	1	81	1(0)	1%	74	8(6)	10%	74	8(6)	10%
Anxiety	0	71	4(0)	5%	66	9(5)	12%	66	9(6)	12%
	1	82	0	0%	75	7(6)	9%	75	7(6)	9%
Child										
Colors	0	48	0	0%	48	0	0%	47	1(1)	2%
	1	50	0	0%	48	2(2)	4%	48	2(2)	4%
Letters	0	48	0	0%	48	0	0%	47	1(1)	2%
	1	50	0	0%	48	2(2)	4%	48	2(2)	4%
Numbers	0	48	0	0%	48	0	0%	47	1(1)	2%
	1	50	0	0%	48	2(2)	4%	48	2(2)	4%
Sizes	0	48	0	0%	48	0	0%	47	1(1)	2%
	1	50	0	0%	48	2(2)	4%	48	2(2)	4%
Shapes	0	48	0	0%	48	0	0%	47	1(1)	2%

Little's MCAR Tests (Missing Completely At Random) test was performed on the outcome variables with any missing data, and the tests were not significant (p>0.109 for parent dataset and p=0.743 for child dataset), i.e., the hypothesis that the missing data was MCAR was not rejected.

The Mixed model used in the analysis does not listwise delete missing values, it analyzes the "long" form of the data, in which the measurements at different time points are stacked, if a subject misses data at one time point, the subject's other time points are still in the data and being used to estimate the model. The mixed model requires that the missing data is MAR (Missing At Random, a less strict requirement than MCAR), which means that the missing values in the datasets should not invalidate the use of the mixed model.

However, to preserve the already small sample sizes and statistical power (among other advantages of multiple imputation), multiple imputation was applied to all the outcome variables before the mixed models were run. Five imputed datasets were generated, each outcome variable was imputed through linear regression on both the demographic variables (parent age, child age, race, highest grade, household size, and years in US since immigration) and the outcome variable at other time points.

Statistical Models

Linear Mixed model (SPSS Version 23), with repeated measures to measure and account for correlations between time points, was applied on the five imputed datasets for each outcome variable, and pooled results were reported.

With the comparison group being a convenient group, it was not possible to use propensity score matching (PSM), as originally proposed, to select a comparison group, therefore, a weighting technique was used to produce a weight variable so that the weighted comparison group was comparable to the intervention group on the observable variables believed to influence their outcomes. The entropy balancing weighting technique, developed by Hainmueller²⁵, was used in this analysis. The entropy balancing technique can be understood as a generalization of the conventional propensity score weighting approach, but its key advantage is that it directly adjusts the unit weights to the known sample moments (means, variances, etc.) such that exact moment matching is obtained in finite samples. More specifically, the weights are chosen by minimizing a distance metric (a loss function), such that a set of balancing constraints, such as the weighted comparison group means/variances equal to those of the intervention are satisfied. The implementation of this procedure in R was subsequently developed (https://cran.r-project.org/web/packages/ebal/). In this analysis, the goal was to achieve balance between the group means of the following demographic variables: parent age at time 1, child age at time 1, indicator for Arab race, parent highest grade (0 - 14 years), household size (number of persons living in the house), and fraction of parent's life in the US since immigration (number of years living in the US divided by age in years). The entropy balancing "ebal" R package was used to generate and trim a scalar weight for each subject in the comparison group (while an intervention subject was assigned weight = 1)

²⁵ Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies, Political Analysis [2012] 20:25–46

such that the weighted comparison and the intervention group were exactly balanced on the means of the above variables. The weight was used in the models as the regression weight.

Parent outcomes included parent's reading time in minutes, parent's negative attitude (1-6 scale), parent's stress (1-5 scale), parent's cognitive activities (1-5 scale), parent's self-esteem (1-4 scale), and parent-reported child's social-emotional well-being, including social competence (1-6 scale), anger/aggression (1-6 scale), and anxiety (1-6 scale). Child outcomes were scores on colors (0-10), letters (0-15), numbers (0-18), sizes (0-22), shapes (0-20), and the School Readiness Composite (the sum of the above five scores, 0-85). The predictors were group, time, and interaction between group and time. In addition to using the weight variable to account for variation in the outcome across groups, the models also controlled for the following demographic variables: parent age at time 1, child age at time 1, race (indicator of Arab), parent highest grade (0-5 years, 6-8 years, 9-11 years, >=12 years), household size, and years in the US since immigration, as well as for which cohort and which year the subject was in. The models can be described as follows:

Outcome = β_0 + β_1 Group + β_2 Time + β_3 Group*Time + β_4 *Parent Age + β_5 *Arab + β_6 *Highest Grade + β_7 *Child Age + β_8 *household Size + β_9 *Years in US + β_{10} *Cohort + β_{11} *Year + ε

Where Group=1 for the intervention group, and 0 for the control group; Time=T1, T2, and T3; Cohort=1 for the fall, and 2 for the spring; Year=Year 4, and Year 3. Significant interaction term or difference-in-difference (DID) would indicate group difference over time.

Analysis was repeated on parent and child outcomes for the intervention group only, assessing whether participation in PCIL had any impact on the outcomes. All the parents participated in the parenting education programs, but not all of them participated in the PCIL program. An indicator was created to indicate the participation in parenting only or in both parenting and PCIL. The models can be similarly described by replacing Group with the parenting only indicator in the above equation, and adding an additional covariate (percent of parenting sessions received) to control for the amount of parenting program received.

Finally, moderator analysis was conducted on the child outcomes to investigate whether parent's reading time, attitude, stress, cognitive activities, self-esteem, and parent-reported child's social-emotional well-being, including social competence, anger/aggression, and anxiety, impact child outcomes differently between intervention and comparison groups.

Child Outcome = $\beta_0 + \beta_1 Group + \beta_2 Time + \beta_{12} Parent Outcome + \beta_{13} Group*Parent Outcome + \beta_3 Group*Time + \beta_4 *parent Age + \beta_5 *Arab + \beta_6 *Highest Grade + \beta_7 *Child Age + \beta_8 *household Size + \beta_9 *Years in US + \beta_{10} *Cohort + \beta_{11} *Year + \varepsilon$

All the models were estimated with the Restricted Maximum Likelihood (REML) estimation method, and an unstructured covariance matrix for the repeated outcome measurements over time was estimated. Confidence intervals are at 95% level.

Multiple comparisons were addressed in three ways: 1) in each individual model, Bonferroni correction was used to correct for group comparisons at multiple time points; 2) correlations between the outcome variables were tested, if the correlation coefficient was greater than 0.3 and significant, then the significance level for the estimates in the related outcomes were adjusted using Bonferroni correction. E.g., if two outcomes were correlated, the significance level for these outcomes were 0.05/2=0.025; 3) a composite score, created from the highly correlated outcomes, was analyzed and interpreted, as well as the individual outcomes.

Effect sizes of group mean differences and DIDs were computed as the Standardized Mean Differences (SMD). The calculations were shown in the Results section.

Results

Baseline Equivalence

The parent sample included 82 intervention and 75 comparison group participants. Comparisons were made on socio-demographic variables between the intervention and comparison group at baseline time 1 (T1). As seen in the table below, the mean age for parents at baseline was 31 for both groups. With respect to race, both intervention (63%) and comparison (61%) were largely Arab/Chaldean. Educational level was also similar for both groups as parents reported about seven and a half years of schooling. The children of the parents in the study were also of similar age for both intervention (mean=3.1) and comparison (mean=3.2) groups. Intervention group families had an average of 5.6 members living within their households while those in the comparison group had 5.5 and the difference was not statistically different. The average number of years (or fraction of life) a participant lived in the United States was significantly higher among those in the comparison group (mean=9.8) in relation to those receiving the intervention (mean=7.0).

The child sample was comprised of 50 intervention and 48 comparison subjects. The mean age of the children in both groups was 3.9. Parent-level data such as race, parent highest grade in school, parent age, household size, and years in the United States were also included in the child data so that these variables could be included as covariates. Of these, the only statistically significant difference between the groups was again the number of years in the United States.

Entropy balancing weights were calculate and trimmed for each subject in the comparison groups. The mean weight for the parent comparison group is 1.09 (min=0.39, max=2.48), the mean weight for the child comparison group is 1.04 (min=0.21, max=2.98). Table 4.3 presents both un-weighted and entropy balancing weighted results on the demographic variables at baseline for both datasets.

Table 4.3 Unweighted and Entropy Balancing Weighted Demographics at Baseline

	Intervention		Compar	rison
		Unwe	eighted	Entropy-weighted
	Mean	Mean	T-Test Sig.	Mean
Parent Dataset				
Number of subjects	82	75		82
Age at Time 1 (Average)	31.1	31.0	.963	31.1
Race-Arab (%)	63.4%	61.3%	.790	63.4%
Parent Highest Grade (Average)	7.5	7.6	.899	7.5
Child Age at Time 1	3.1	3.2	.556	3.1
Household Size (Average)	5.6	5.5	.651	5.6
Years in US Since Immigration (Average)	7.0	9.8	.007	7.0
Fraction of Life in US (Average)	0.2	0.3	.004	0.2
Child Dataset				
Number of subjects	50	48		50
Age at Time 1 (Average)	3.9	3.9	0.725	3.9
Race-Arab (%)	68.0%	70.8%	0.764	68.0%
Parent Highest Grade (Average)	7.5	7.3	0.776	7.5
Parent Age at Time 1	30.2	31.3	0.310	30.2
Household Size (Average)	5.9	5.6	0.430	5.9
Years in US Since Immigration (Average)	6.6	9.6	0.025	6.6
Fraction of Life in US (Average)	0.2	0.3	0.031	0.2

Parent Results

Group Comparisons

Examination of the correlations between the parent outcomes revealed that Negative Attitudes was correlated with Stress (r=0.352, p<0.001), parent-reported child's Social Competence was correlated with Anger/aggression (r=0.313, p<0.001), Anger/aggression was also correlated with Anxiety (r=0.416, p<0.001). The other correlations were ether mostly non-significant or with lower than 0.3 Pearson Correlation. To account for multiple comparisons and correlated outcomes testing, Bonferroni corrections were applied in each individual outcome model, and also in interpreting the significance of the DID estimates, so that the overall significance level was kept at 0.05.

Table 4.4 presents model-adjusted outcome means (also in Figure 4.1) and DIDs with 95% confidence intervals (CIs) by group over time. Negative Attitudes was the only outcome with significant DID estimates. There was no group difference in negative attitude at time 1, but the intervention group had significantly lower negative attitude at time 2 and time 3. Additionally, at both time 2 and time 3, the intervention parents has significant relative decreases (DIDs) in negative attitude from time 1. Similarly, Stress was not different between the groups, but significantly lower for the intervention parents at time 2 and 3. However, the relative decreases in Stress for the intervention parents were not significant. For the parent-

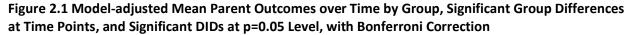
reported child social-emotional well-being outcomes, the intervention group was significantly lower at time 1 in anger/aggression, and at time 3 in anxiety.

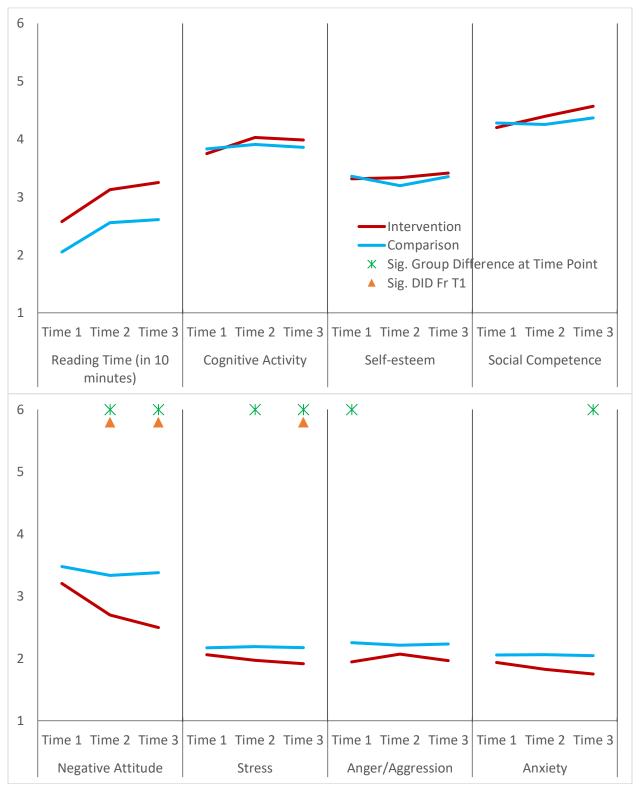
Table 4.4 Model-adjusted Means and DIDs for the Parent Outcomes

			Intervention		Comparison		DID		
Outcome	Time Point	N	Mean (95% CI)	N	Mean (95% CI)	_	Estimate (95% CI)	Sig.	Effect Size
Reading	T1	82	25.8 (20.8,30.7)	75	20.5 (15.6,25.4)				
Time	T2	82	31.3 (25.6,36.9)	75	25.6 (19.9,31.2)	Fr T1	0.4 (-8.93,9.81)	0.926	0.02
	T3	82	32.5 (26.7,38.3)	75	26.1 (20.5,31.7)	Fr T1	1.2 (-8.15,10.47)	0.807	0.05
						Fr T2	0.7 (-8.81,10.25)	0.882	0.03
Negative	T1	82	3.2 (3.0,3.4)	75	3.5 (3.3,3.7)				
Attitude	T2 ^L	82	2.7 (2.5,2.9)	75	3.3 (3.1,3.5)	Fr T1 ^D	-0.4 (-0.67,-0.06)	0.020	-0.39
	T3 ^L	82	2.5 (2.3,2.7)	75	3.4 (3.2,3.6)	Fr T1 ^D	-0.6 (-0.88,-0.34)	0.000	-0.67
						Fr T2	-0.2 (-0.51,0.02)	0.073	-0.26
Stress	T1	82	2.1 (2.0,2.2)	75	2.2 (2.1,2.3)				
	T2 ^L	82	2.0 (1.9,2.1)	75	2.2 (2.1,2.3)	Fr T1	-0.1 (-0.24,0.02)	0.094	-0.25
	T3 ^L	82	1.9 (1.8,2.0)	75	2.2 (2.1,2.3)	Fr T1	-0.1 (-0.29,0.00)	0.049	-0.32
						Fr T2	0.0 (-0.15,0.08)	0.518	-0.08
Cognitive	T1	34	3.8 (3.6,3.9)	36	3.8 (3.5,4.1)				
Activity	T2	34	4.0 (3.8,4.3)	36	3.9 (3.7,4.1)	Fr T1	0.2 (-0.10,0.51)	0.195	0.17
	T3	34	4.0 (3.7,4.2)	36	3.9 (3.6,4.1)	Fr T1	0.2 (-0.13,0.55)	0.224	0.17
						Fr T2	0.0 (-0.26,0.28)	0.957	0.01
Self-esteem	T1	34	3.3 (3.2,3.5)	36	3.4 (3.2,3.5)				
	T2	34	3.3 (3.2,3.5)	36	3.2 (3.1,3.3)	Fr T1	0.2 (-0.02,0.38)	0.081	0.27
	T3	34	3.4 (3.3,3.6)	36	3.4 (3.2,3.5)	Fr T1	0.1 (-0.07,0.29)	0.248	0.17
						Fr T2	-0.1 (-0.24,0.10)	0.402	-0.11
Social	T1	82	4.2 (4.0,4.4)	75	4.3 (4.1,4.5)				
Competence	T2	82	4.4 (4.2,4.6)	75	4.3 (4.0,4.5)	Fr T1	0.2 (-0.10,0.53)	0.173	0.21
	T3	82	4.6 (4.3,4.8)	75	4.4 (4.1,4.6)	Fr T1	0.3 (-0.01,0.57)	0.063	0.28
						Fr T2	0.1 (-0.20,0.33)	0.643	0.06
Anger/Aggre	T1 ^L	82	1.9 (1.7,2.1)	75	2.3 (2.1,2.5)		· · · · · · · · · · · · · · · · · · ·		
ssion	T2	82	2.1 (1.9,2.3)	75	2.2 (2.0,2.4)	Fr T1	0.2 (-0.10,0.43)	0.221	0.18
	T3	82	2.0 (1.8,2.2)	75	2.2 (2.0,2.4)	Fr T1	0.0 (-0.26,0.35)	0.781	0.05
			,		, ,	Fr T2	-0.1 (-0.46,0.21)	0.461	-0.13
Anxiety	T1	82	1.9 (1.8,2.1)	75	2.1 (1.9,2.2)		· · · · · · · · · · · · · · · · · · ·		
•	T2	82	1.8 (1.6,2.0)	75	2.1 (1.9,2.2)	Fr T1	-0.1 (-0.36,0.13)	0.368	-0.15
	T3 L	82	1.7 (1.6,1.9)	75	2.0 (1.9,2.2)	Fr T1	-0.2 (-0.44,0.09)	0.204	-0.22
			, ,		, ,	Fr T2	-0.1 (-0.33,0.21)	0.665	-0.07

^L Intervention group mean is significantly lower than comparison group mean. ^H Intervention group mean is significantly higher than comparison group mean. ^I Significant DID: relative increase from reference time point for intervention group, compared to comparison group. ^D Significant DID: relative decrease from reference time point

for intervention group, compared to comparison group. Bonferroni correction was applied to the group comparisons at time points. DID significance markings were based on Bonferroni corrected p values. Effect Sizes of DID are Standardized Mean Difference (SMD). Fr: From.





Impact of PCIL Participation

Within the parent intervention group, compared to parents who received parenting only, parents who received both parenting and PCIL programs had significantly more reading time at every time point, less cognitive activity at time 2, less self-esteem at time 1 and time 3, and reported less child's anger/aggression at time 2; there was no significant difference between parents who received both programs and parents who received parenting only on negative attitude, stress, and their child's social competence and anxiety at any time point; (Table 4.5 and Figure 4.2).

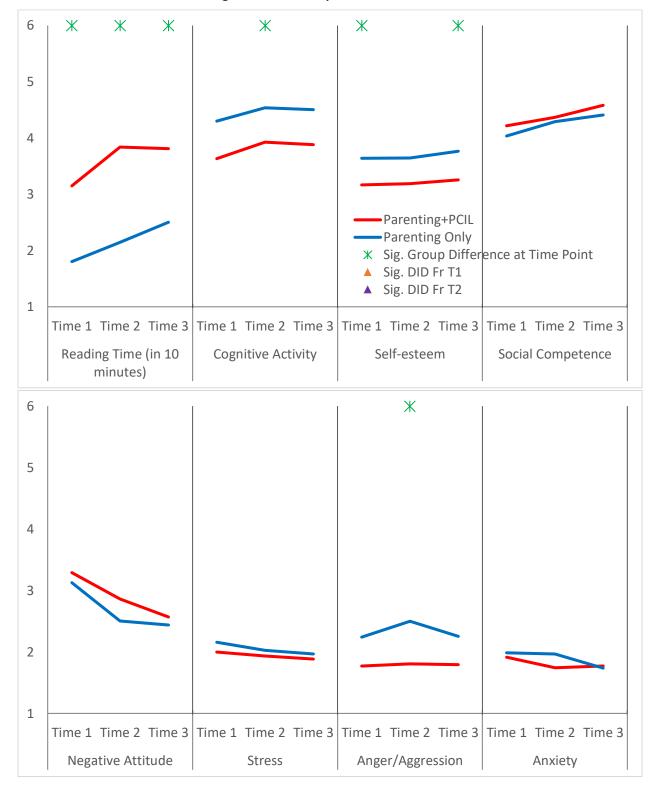
There was no significant DIDs across all the outcomes indicating that those who received both parenting and PCIL did not demonstrate better outcomes when compared to those who only received the parenting program.

Table 4.5 Model-adjusted Means and DIDs for Parent Outcomes, Comparing Parents Received both Parenting and PCIL with Parents Received Parenting only

	Mean (95% CI) 18.0 (9.8,26.2) 21.4 (11.8,31.1) 25.0 (15.5,34.6) 3.1 (2.8,3.5) 2.5 (2.1,2.9) 2.4 (2.1,2.8) 2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2) 4.3 (3.7,4.9)	Fr T1 Fr T2 Fr T1 Fr T2 Fr T1 Fr T2 Fr T1 Fr T2	3.5 (-10.75,17.71) -0.4 (-13.69,12.88) -3.9 (-16.37,8.60) 0.2 (-0.20,0.60) 0.0 (-0.41,0.35) -0.2 (-0.56,0.10) 0.1 (-0.12,0.25)	0.632 0.952 0.538 0.331 0.867 0.169	0.09 -0.01 -0.10 0.14 -0.02 -0.16
Time T2	21.4 (11.8,31.1) 25.0 (15.5,34.6) 3.1 (2.8,3.5) 2.5 (2.1,2.9) 2.4 (2.1,2.8) 2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T2 Fr T1 Fr T2 Fr T1 Fr T2 Fr T1 Fr T1	-0.4 (-13.69,12.88) -3.9 (-16.37,8.60) 0.2 (-0.20,0.60) 0.0 (-0.41,0.35) -0.2 (-0.56,0.10)	0.952 0.538 0.331 0.867	-0.01 -0.10 0.14 -0.02
Negative	25.0 (15.5,34.6) 3.1 (2.8,3.5) 2.5 (2.1,2.9) 2.4 (2.1,2.8) 2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T2 Fr T1 Fr T2 Fr T1 Fr T2 Fr T1 Fr T1	-0.4 (-13.69,12.88) -3.9 (-16.37,8.60) 0.2 (-0.20,0.60) 0.0 (-0.41,0.35) -0.2 (-0.56,0.10)	0.952 0.538 0.331 0.867	-0.01 -0.10 0.14 -0.02
Negative Attitude T1 49 3.3 (3.0,3.6) 33 Attitude T2 49 2.9 (2.6,3.1) 33 T3 49 2.6 (2.3,2.9) 33 Stress T1 49 2.0 (1.9,2.1) 33 T2 49 1.9 (1.8,2.1) 33 T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 ¹ 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 ¹ 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 ¹ 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33	3.1 (2.8,3.5) 2.5 (2.1,2.9) 2.4 (2.1,2.8) 2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T1 Fr T2 Fr T1 Fr T1 Fr T1	-3.9 (-16.37,8.60) 0.2 (-0.20,0.60) 0.0 (-0.41,0.35) -0.2 (-0.56,0.10)	0.538 0.331 0.867	-0.10 0.14 -0.02
Attitude T2 49 2.9 (2.6,3.1) 33 T3 49 2.6 (2.3,2.9) 33 Stress T1 49 2.0 (1.9,2.1) 33 T2 49 1.9 (1.8,2.1) 33 T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 ¹ 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 ¹ 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 ¹ 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33	2.5 (2.1,2.9) 2.4 (2.1,2.8) 2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T2 Fr T1 Fr T1	0.2 (-0.20,0.60) 0.0 (-0.41,0.35) -0.2 (-0.56,0.10)	0.331 0.867	0.14
Attitude T2 49 2.9 (2.6,3.1) 33 T3 49 2.6 (2.3,2.9) 33 Stress T1 49 2.0 (1.9,2.1) 33 T2 49 1.9 (1.8,2.1) 33 T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 ¹ 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 ¹ 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 ¹ 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33	2.5 (2.1,2.9) 2.4 (2.1,2.8) 2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T2 Fr T1 Fr T1	0.0 (-0.41,0.35) -0.2 (-0.56,0.10)	0.867	-0.02
Stress T1 49 2.6 (2.3,2.9) 33 Stress T1 49 2.0 (1.9,2.1) 33 T2 49 1.9 (1.8,2.1) 33 T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 L 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 L 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 L 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 L 49 1.8 (1.5,2.1) 33	2.4 (2.1,2.8) 2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T2 Fr T1 Fr T1	0.0 (-0.41,0.35) -0.2 (-0.56,0.10)	0.867	-0.02
Stress T1 49 2.0 (1.9,2.1) 33 T2 49 1.9 (1.8,2.1) 33 T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 L 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 L 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 L 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 L 49 1.8 (1.5,2.1) 33	2.2 (2.0,2.3) 2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T2 Fr T1 Fr T1	-0.2 (-0.56,0.10)		
T2 49 1.9 (1.8,2.1) 33 T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 ¹ 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 ¹ 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33	2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T1		0.169	-0.16
T2 49 1.9 (1.8,2.1) 33 T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 ¹ 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 ¹ 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33	2.0 (1.8,2.2) 2.0 (1.8,2.2)	Fr T1 Fr T1	0.1 (-0.12,0.25)		
T3 49 1.9 (1.7,2.0) 33 Cognitive T1 25 3.6 (3.3,4.0) 9 Activity T2 ¹ 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 ¹ 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 ¹ 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33	2.0 (1.8,2.2)	Fr T1	0.1 (-0.12,0.25)		
Cognitive Activity T1 25 3.6 (3.3,4.0) 9 Activity T2 L 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 L 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 L 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 L 49 1.8 (1.5,2.1) 33	. , ,	Fr T1		0.470	0.09
Activity T2 L 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 L 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 L 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 L 49 1.8 (1.5,2.1) 33	4.3 (3.7,4.9)	F., T2	0.1 (-0.13,0.28)	0.460	0.11
Activity T2 L 25 3.9 (3.7,4.2) 9 T3 25 3.9 (3.6,4.2) 9 Self-esteem T1 L 25 3.2 (3.0,3.4) 9 T2 25 3.2 (3.0,3.4) 9 T3 L 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 L 49 1.8 (1.5,2.1) 33	4.3 (3.7,4.9)	Fr T2	0.0 (-0.17,0.19)	0.913	0.01
Self-esteem T1					
Self-esteem T1	4.5 (4.1,4.9)	Fr T1	0.1 (-0.55,0.66)	0.856	0.03
T2 25 3.2 (3.0,3.4) 9 T3 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 49 1.8 (1.5,2.1) 33	4.5 (4.0,5.0)	Fr T1	0.0 (-0.61,0.70)	0.897	0.02
T2 25 3.2 (3.0,3.4) 9 T3 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 49 1.8 (1.5,2.1) 33		Fr T2	0.0 (-0.47,0.44)	0.956	-0.01
T3 ^L 25 3.3 (3.0,3.5) 9 Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 ^L 49 1.8 (1.5,2.1) 33	3.6 (3.3,4.0)				
Social T1 49 4.2 (3.9,4.6) 33 Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 L 49 1.8 (1.5,2.1) 33	3.6 (3.3,4.0)	Fr T1	0.0 (-0.31,0.33)	0.937	0.01
Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33	3.8 (3.4,4.1)	Fr T1	0.0 (-0.35,0.28)	0.821	-0.03
Competence T2 49 4.4 (4.0,4.7) 33 T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 ¹ 49 1.8 (1.5,2.1) 33		Fr T2	0.0 (-0.35,0.25)	0.748	-0.04
T3 49 4.6 (4.2,4.9) 33 Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 49 1.8 (1.5,2.1) 33	4.0 (3.6,4.4)				
Anger/ T1 49 1.8 (1.5,2.1) 33 Aggression T2 49 1.8 (1.5,2.1) 33	4.3 (3.9,4.7)	Fr T1	-0.1 (-0.49,0.27)	0.573	-0.07
Aggression T2 \(49 \) 1.8 (1.5,2.1) 33	4.4 (4.0,4.8)	Fr T1	0.0 (-0.41,0.39)	0.964	-0.01
Aggression T2 \(49 \) 1.8 (1.5,2.1) 33		Fr T2	0.1 (-0.29,0.49)	0.617	0.06
Aggression T2 ¹ 49 1.8 (1.5,2.1) 33	2.2 (1.9,2.6)				
	2.5 (2.1,2.9)	Fr T1	-0.2 (-0.61,0.17)	0.257	-0.15
	(,_,_,		0.0 (-0.35,0.37)	0.951	0.01
	2.3 (1.9,2.6)	Fr T2	0.2 (-0.20,0.67)	0.283	0.16
Anxiety T1 49 1.9 (1.7,2.2) 33	· · · · · · · · · · · · · · · · · · ·				
T2 ⁴⁹ 1.7 (1.5,2.0) ³³	· · · · · · · · · · · · · · · · · · ·	Fr T1	-0.2 (-0.50,0.19)	0.387	-0.13
T3 49 1.8 (1.5,2.0) 33	2.3 (1.9,2.6)		0.1 (-0.30,0.51)	0.601	0.09
,	2.3 (1.9,2.6) 2.0 (1.7,2.3)	Fr T1	. , ,	0.238	0.22

^L Intervention group mean is significantly lower than comparison group mean. ^H Intervention group mean is significantly higher than comparison group mean. ^I Significant DID: relative increase from baseline for intervention group, compared to comparison group. ^D Significant DID: relative decrease from baseline for intervention group, compared to comparison group. Bonferroni correction was applied to the group comparisons at time points. Effect Sizes of DID are Standardized Mean Difference (SMD). FR: From.

Figure 4.2 Model-adjusted Mean Parent Outcomes over Time by Program Participation, Significant Differences at Time Points, and Significant DIDs at p=0.05 Level, with Bonferroni Correction



CHILD RESULTS

Group Comparisons

All the five outcomes: Colors, Letters, Numbers, Sizes, and Shapes, were highly positively correlated. Therefore, a school readiness composite score (SRC) was created as the sum of the five scores, to address the multiple comparison issue when the outcomes are dependent with each other. The individual outcomes were also analyzed and presented, but the composite score represents the impact of the intervention on the overall child school readiness.

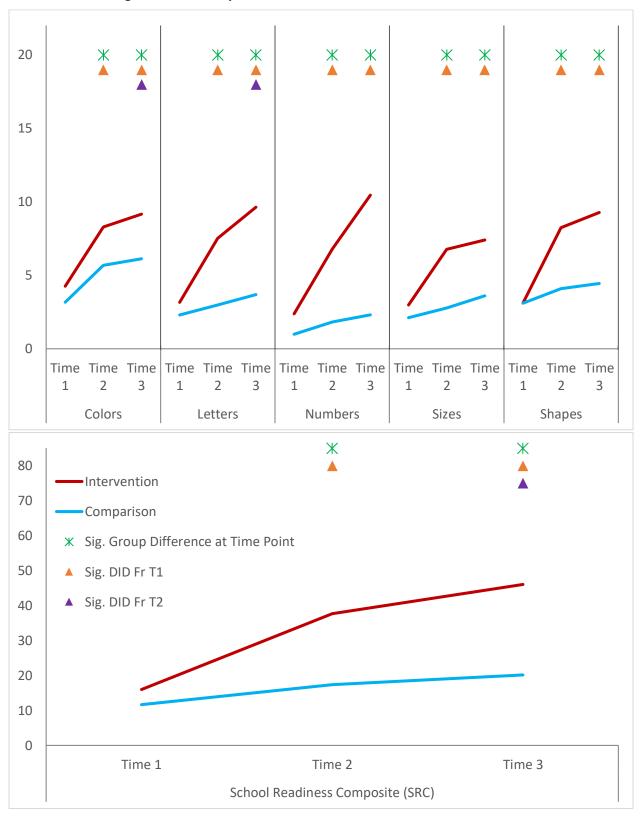
There was no significant group difference at baseline in the school readiness composite score; the intervention group had significantly higher composite score at every follow-up time point; the relative increases (DIDs) for the intervention group at Time 2 and Time 3 from baseline, as well as at time 3 from time 2, were all highly significant with p < 0.001 (see Table 4.6 and Figure 4.3).

Table 4.6 Model-adjusted Means and DIDs for the Child Outcomes

		Intervention n=50	Comparison n=48		DID		
Outcome	Time Point	Mean (95% CI)	Mean (95% CI)		Estimate (95% CI)	Sig.	Effect Size
Colors	T1	4.3 (3.1,5.4)	3.2 (1.9,4.4)				
	T2 ^H	8.3 (7.3,9.3)	5.7 (4.6,6.8)	Fr T1	1.5 (0.18,2.85)	0.026	0.30
	T3 ^H	9.2 (8.1,10.2)	6.1 (8.1,10.2)	Fr T1	1.9 (0.42,3.47)	0.012	0.38
				Fr T2	0.4 (-0.32,1.18)	0.263	0.09
Letters	T1	3.2 (2.1,4.2)	2.3 (1.1,3.5)				
	T2 ^H	7.5 (6.4,8.7)	3.0 (1.7,4.2)	Fr T1 ¹	3.7 (2.32,5.06)	0.000	0.70
	T3 ^H	9.6 (8.4,10.8)	3.7 (8.4,10.8)	Fr T1 ¹	5.1 (3.62,6.56)	0.000	0.95
				Fr T2	1.4 (0.29,2.51)	0.014	0.25
Numbers	T1	2.4 (1.4,3.4)	1.0 (-0.1,2.1)				
	T2 ^H	6.8 (5.4,8.1)	1.8 (0.4,3.2)	Fr T1 ¹	3.6 (2.20,4.94)	0.000	0.65
	T3 ^H	10.5 (9.2,11.7)	2.3 (9.2,11.7)	Fr T1 ¹	6.8 (5.14,8.38)	0.000	1.26
				Fr T2 ¹	3.2 (1.83,4.55)	0.000	0.53
Sizes	T1	3.0 (2.1,3.9)	2.1 (1.1,3.1)				
	T2 ^H	6.8 (5.7,7.9)	2.8 (1.6,3.9)	Fr T1 ¹	3.1 (1.92,4.34)	0.000	0.66
	T3 ^H	7.4 (6.4,8.4)	3.6 (6.4,8.4)	Fr T1 ¹	2.9 (1.61,4.26)	0.000	0.64
				Fr T2	-0.2 (-1.61,1.21)	0.783	-0.04
Shapes	T1	3.1 (2.2,4.0)	3.1 (2.1,4.1)				
	T2 ^H	8.2 (7.2,9.3)	4.1 (3.0,5.2)	Fr T1 ¹	4.1 (2.96,5.32)	0.000	0.89
	T3 ^H	9.3 (8.2,10.4)	4.4 (8.2,10.4)	Fr T1 ¹	4.8 (3.53,6.11)	0.000	1.01
				Fr T2	0.7 (-0.36,1.73)	0.198	0.14
Composite	T1	16.0 (12.2,19.8)	11.6 (7.4,15.9)				
(SRC)	T2 ^H	37.7 (33.6,41.8)	17.3 (12.8,21.8)	Fr T1 ¹	16.0 (12.31,19.78)	0.000	0.85
	Т3 ^н	46.0 (41.8,50.2)	20.1 (41.8,50.2)	Fr T1	21.5 (17.06,26.04)	0.000	1.14
				Fr T2 ¹	5.5 (2.46,8.55)	0.000	0.28

^L Intervention group mean is significantly lower than comparison group mean at the time point. ^H Intervention group mean is significantly higher than comparison group mean at the time point. ^I Significant DID: relative increase from baseline for intervention group, compared to comparison group. ^D Significant DID: relative decrease from baseline for intervention group, compared to comparison group. Bonferroni correction was applied to the group comparisons at time points. DID significance markings were based on Bonferroni corrected p values. Effect Sizes of DIDs are Standardized Mean Difference (SMD). FR: From.

Figure 4.3 Model-adjusted Mean Child Outcomes over Time by Group, Significant Group Differences at Time Points, and Significant DIDs at p=0.05 Level, with Bonferroni Correction



Impact of Program Dosage

Among the 50 children in the intervention group, there were only three subjects whose parents did not receive the additional PCIL programs. Therefore, no analysis comparing parents who received both programs to parents who received only parenting could be conducted for the child dataset. However, program dosages (percent of parenting sessions received) and PCIL dosage (percent of PCIL sessions received) were tested for their impact on the school readiness composite score and each of the child outcomes. Table 4.7 presents the estimates for these two dosage variables. For the impact on each individual outcome to be significant at 0.05 level, the p value had to be no greater than 0.01, adjusting for five highly correlated outcomes. There was no significant impact of parent program dosages on each individual outcome and on the overall school readiness composite score.

Table 4.7 Estimates of Effects of Proportion of Parenting and Proportion of PCIL

Outcome	Program Dosage	Estimate	Std. Error	Sig.
Colors	Percent Parenting	0.01	0.02	.384
	Percent PCIL	-0.01	0.01	.205
Letters	Percent Parenting	0.00	0.03	.939
	Percent PCIL	-0.04	0.02	.044
Numbers	Percent Parenting	-0.03	0.03	.322
	Percent PCIL	-0.03	0.02	.118
Sizes	Percent Parenting	-0.02	0.02	.335
	Percent PCIL	-0.01	0.02	.551
Shapes	Percent Parenting	0.00	0.02	.966
	Percent PCIL	-0.02	0.01	.267
Composite	Percent Parenting	-0.05	0.10	.635
	Percent PCIL	-0.11	0.07	.107

Moderator Analysis

The last of the research questions was whether any of the parent outcomes affected the child outcomes differently across the intervention and comparison groups. Since all the individual child outcomes were highly correlated, the analysis was conducted on the school readiness composite score. Taking into account of multiple testing, none of the moderator effects was significant (Table 4.8).

Table 4.8 Estimates of Effects of Interaction Terms between Group and Patient Outcomes on SRC

Moderator	Estimate	Std. Error	Sig.
Read Time*Intervention	05	.04	.257
Negative Attitude*Intervention	3.11	1.40	.026
Stress*Intervention	1.19	3.09	.700
Cognitive Activity*Intervention	96	2.22	.665
Self-esteem*Intervention	-4.76	3.87	.220
Social Competence*Intervention	-1.10	1.39	.426
Anger/Aggression*Intervention	-1.92	1.39	.165
Anxiety*Intervention	.62	1.49	.676

Effect Sizes and Calculations

In addition to the statistical significances reported above, effect sizes were computed for the group mean differences (Table 4.9) and the DIDs (in the DIDs' tables). These effect sizes were Standardized Mean Differences (SMD), calculated as follows,

$$d = \frac{\textit{intervention group mean} - \textit{comparison group mean}}{\textit{pooled standard deviation}}$$

$$pooled \ standard \ deviation = \sqrt{\frac{n_1*(n_1-1)*\ SE_1^2+\ n_0*(n_0-1)*\ SE_0^2}{n_1+\ n_0-2}}$$

Where n_1 and n_0 and are sample sizes for intervention and comparison groups, respectively; SE_1 and SE_0 are standard errors of the intervention group mean and the comparison group mean, respectively.

The effect sizes for the DIDs were similarly calculated. First, within-group mean differences between time 2 and time 1, time 3 and time 2, and their standard deviations were computed. Then, the difference between within-group 1 difference and within-group 0 difference, for between time 3 and time 1, for example, was the DID at time 3 from time 1. The standard deviation for the DID was pooled from the standard deviations for the two differences.

The effect size provides a simple way of quantifying the effectiveness of an intervention measured by outcomes of different scales. The absolute values of effect sizes for the parent outcomes at time 1 ranged from 0.06-0.35, at time 2 ranged from 0.11-0.67, and at time 3 ranged from 0.10 to 0.96 (clearly growing bigger over time). The largest effect size was in Negative Attitude at Time 3 (-0.96). For the child outcomes and the composite score, there was no significant group differences at time 1 (effect size ranged from 0-0.29), mean differences were all positive and significant at time 2 (effect size ranged from 0.54 to 1.05) and time 3 (effect size ranged from 0.64 to 1.31). The largest effect sizes were 1.05 and 1.31 for the composite score at time 2 and time 3, respectively.

Table 4.9. Effect Sizes

Parent Outcome	Time Point	Mean Difference	Pooled Standard Deviation	Effect Size	Chile Out	d come	Mean Difference	Pooled Standard Deviation	Effect Size
Reading Time	T1	5.25	22.16	0.24	Colc	ors	1.09	5.34	0.20
_	T2	5.69	25.40	0.22			2.61 ^H	4.79	0.54
	T3	6.41	25.66	0.25			3.04 ^H	4.77	0.64
Negative Attitude	T1	-0.27	0.91	-0.30	Lett	ers	0.86	5.03	0.17
_	T2	-0.64 ^L	0.95	-0.67			4.55 ^H	5.46	0.83
	T3	-0.88 ^L	0.92	-0.96			5.95 ^H	5.64	1.05
Stress	T1	-0.11	0.43	-0.25	Nun	nbers	1.39	4.71	0.29
	T2	-0.22 ^L	0.46	-0.48			4.96 ^H	6.17	0.80
	T3	-0.26 ^L	0.48	-0.53			8.14 ^H	5.93	1.37
Cognitive Activity	T1	-0.08	1.27	-0.06	Size	S	0.86	4.38	0.20
	T2	0.12	1.05	0.11			4.00 ^H	5.07	0.79
	T3	0.13	1.17	0.11			3.80 ^H	4.78	0.79
Self Esteem	T1	-0.04	0.67	-0.07	Sha	pes	0.01	4.44	0.00
	T2	0.14	0.65	0.21			4.14 ^H	4.87	0.85
	Т3	0.06	0.63	0.10			4.83 ^H	5.13	0.94
Social	T1	-0.08	1.00	-0.08	Com	posite	4.33	18.17	0.24
Competence	T2	0.14	1.03	0.13	(SRC	C)	20.37 ^H	19.38	1.05
	Т3	0.20	1.02	0.20			25.87 ^H	19.72	1.31
Anger/Aggression	T1	-0.31 ^L	0.89	-0.35					
	T2	-0.14	0.91	-0.16					
	T3	-0.27	0.95	-0.28					
Anxiety	T1	-0.12	0.74	-0.16					
	T2	-0.24	0.79	-0.30					
	T3	-0.29 ^L	0.82	-0.36					

^L Intervention group mean is significantly lower than comparison group mean at the time point. ^H Intervention group mean is significantly higher than comparison group mean at the time point.

Power Analysis

Power analysis for group comparisons was re-conducted, using the effect sizes in Table 4.9, the actual sample sizes, and the actual correlations between time points. At 95% confidence level, the powers were greater than 85% for Negative Attitudes and Stress, and less than 60% for the rest of the parent outcomes. The powers were greater than 90% for all the child outcomes.

Chapter 5 Conclusion

Summary of Findings

Implementation Evaluation

To evaluate program implementation, process monitoring data was collected through implementation checklists, attendance sheets, focus group, and key informant interviews. The implementation evaluation addressed the following areas: program content, dosage, implementation facilitation, quality of delivery, participant responsiveness, recruitment, and evaluation context. The evaluation team adopted a troubleshooting strategy with the goal of providing rapid-cycle feedback for key themes to program developers, particularly those around program successes and barriers. Results and recommendations were provided to program stakeholders on an ongoing basis in order to equip them to continuously remedy problems and refine programming.

Over the course of this 4 year project, ACCESS implemented a total of 142 Parenting Education and 57 PCIL sessions. Establishing the right configuration of days and times of the sessions in ways that could support the delivery of the needed content along with translation, while encouraging participant attendance took some trial and error. However, by the end of year 5, ACCESS was able achieve a frequency and duration for its programming which met the needs of both the agency and the clients.

ACCESS utilized an array of different recruitment strategies to attract participants to its parenting programs. One of the most successful methods used for recruitment was word of mouth as program instructors encouraged participants to tell the parents within their community about ACCESS to School. Since some parts of the catchment area were new to ACCESS, the agency worked hard to make entrée into these communities by participating in local events. With increased visibility within the Southwest Detroit community and backing from community members who have been through ACCESS's program, the agency was able to build trust and draw new enrollees.

Participation in the program was strong. All 133 participants enrolled in the Parenting Education component of the program and the average parent received 61% or 15 hours of the available instruction. Of these participants, 85 also enrolled in the PCIL component and attended 65% or 13 hours of programming on average. Overall program adherence for Parenting Education ranged from 64% to 99% and 84% to 97% for PCIL. Participant engagement of Parenting Education, PCIL and case management increased from year three to year five. In year three fall semester 55% of participants engaged in all three components, by year five 73% participated in all three areas. Spring semesters also increased from 43% in year three to 60% by year five.

ACCESS utilized several strategies to support program implementation. One of the most difficult but critical aspect was having a translator in the sessions to help with program administration. Additionally, the translation of the program curriculum and materials into Arabic and Spanish was also critical. Other strategies that worked well for program implementation for both Parenting and PCIL were group

discussion and problem-solving, hands on activities, and small group work such as reading out loud or problem solving. Displaying key concepts for the session around the activity room helped the group stay focused on the objective of the sessions. Furthermore, engaging participants in establishing ground rules encouraged trust and respect within the group, thereby creating a safe space for open dialog. These strategies were successful in supporting the successful implementation of the ACCESS to School program and also fostered a high level of participant engagement. Indeed, parents participating in both programs reported a high degree of satisfaction as a large majority of participants reported to have found these interventions to be enjoyable and useful. Furthermore, 100% of the parents surveyed either "agreed" or "strongly agreed" that they would recommend PCIL and Parenting Education to other parents in their community.

The facilitation of the ACCESS to School program appeared to be strong. According to client satisfaction surveys, 85% of Parenting Education participants "agreed" or "strongly agreed" that the instructor communicated effectively, 96% "agreed" or "strongly agreed" that the instructor presented information in ways that could be easily understood, and 88% "agreed" or "strongly agreed" that the facilitator was well prepared. With regard to PCIL, 100% of participants "agreed" or "strongly agreed" that the intervention instructor communicated effectively, presented information in a way that they could understand, and was well prepared.

Fidelity of implementation was assessed through adherence checklists and key informant interviews. The overall level of adherence for Parenting was 64% and 99%, and 84% to 97% for PCIL. Minor changes to programming were made over the four years of implementations in order to better accommodate ACCESS's multi-cultural client population. Overall, this evaluation finds that has ACCESS implemented these programs to a high degree of adherence to the program's procedures and underpinning theoretical model.

Contextual factors were found to be very important in assessing the implementation of ACCESS to School. Since ACCESS to school serves both Spanish and Arabic speaking parents, information needed to be presented in two languages and the agency was not always able to provide translation services. Moreover, some concepts were not easily translatable such as the rhyming session for PCIL. Further, participants often live in multi-generational households with other caretakers being involved in their children's care. Thus, the program had to adapt in ways to help parents integrate learnings into the home environment and gain buy-in from caregivers who did not receive the intervention. In addition, obtaining a commitment from Hispanic caregivers to attend all programming was a challenge as these individuals often held multiple jobs which were needed to support their families. Finally, enrolling parents into the program and encouraging consistent attendance became even more difficult in year 5 due to the increased efforts by the Trump administration to deport undocumented immigrants.

A full summary of barriers and success factors for each component of the "ACCESS' to School program is displayed below in table 5.1.

Table 5.1 Barriers and Success Factors by Program Component

	Barriers	Success Factors
Parenting Education	 ✓ Translating 3 languages during programming was difficult. ✓ Identifying frequency and duration of programming sessions ✓ Hispanic population had different barriers that affected program engagement ✓ More class materials need to be translated to Arabic and Spanish. 	 ✓ More sessions improved class discussions, practice of skills at home, and feedback for participants. ✓ Transportation and childcare services were helpful for participants. ✓ Similar parenting cultural norms among Hispanic and Arabic families created common ground for discussion. ✓ Parents were engaged and improved attendance as additional barriers were addressed
PCIL	 ✓ Friday classes can affect attendance for religious reasons. ✓ Separation anxiety between parent and child affects child attention and parent learning. ✓ Children can get restless by the end of PCIL session. ✓ Rhyming in English was a difficult concept to understand for Arabic speakers. 	 ✓ Children became more comfortable in class over time. ✓ Time apart from children at the end of the session gave parents an opportunity for follow up questions. ✓ Consistent classroom space and routine made the class easier for children. ✓ The alphabet book activity is popular and engaging for both parents and children. ✓ Hands-on or physical activities engage children. ✓ Program increased self-confidence in parents and children.
Case Management	✓ Client identified goals are usually related to ESL and the goal setting process makes it easy to miss more urgent areas of need.	 ✓ Rapport building efforts increase clients' comfort levels asking for help. ✓ Clients are treated with a high level of individual attention. ✓ Clients continue to use ACCESS services even when aware of other area service providers. ✓ Client contact log is useful for tracking the number of times and reason why a client has been contacted.
Recruitment	✓ Initially, ACCESS staff had fewer connections with the Hispanic community.	✓ Waiting list for following semester was a good incentive for participation in the control group

Barriers	Success Factors
Potential control participants were kept from participating due to research participation restrictions in some area schools SIF eligibility requirements such as zip code and age restricted interested people from participating. Area is oversaturated with SIF programming. Insufficient time and manpower limit recruitment efforts. Difficult to recruit for comparison group: finding effective incentives and breaking through participants' busy lives. Spanish language barriers, need more staff who speak Spanish.	 and led to a large waiting list for the next round of programming. ✓ ACCESS reaches women in need of services during comparison group recruitment who can enroll in programs after the evaluation. ✓ Previous SIF participants were a good source of referrals. ✓ Arabic and Spanish speaking staff members were helpful. ✓ Recruiting during the ESL intake process and other ACCESS program brought in SIF participants. ✓ Marketing ESL, Parenting Education and PCIL as a package increased participation.

Overall, this evaluation finds that the participants who participated in this program were highly satisfied. Many participants were reluctant to participate in programming as many felt teaching their children was not something they could do. A large majority of parents "strongly agreed" or "agreed" that both programs were beneficial and met their expectations.

By the end of year five, ACCESS staff reported that the curriculum and program operations were well-established. The instructors felt confident and comfortable in their process of implementation and found a balance on how much content to cover in each session.

Impact Evaluation

In order to determine the impacts of the ACCESS to School program, this evaluation utilized a quasi-experimental design with a comparison group formed by manually selecting participants at a comparison site, aiming to match with the intervention group on race. Difference-in-difference (DID) models were used to model longitudinal data, estimating the group differences in outcomes at each of 3 time points (baseline, immediate post-test, and 7 week follow-up), and relative changes (DIDs) at time 2 and time 3 from baseline and at time 3 from time 2. As matching participants perfectly was a challenge, entropy balanced weights were applied to each subject in the control group to ensure comparability between the intervention and control group. The analysis controlled for parent age, child age, race, parent highest grade, household size, years in the US since immigration, as well as which cohort and year the subject was in.

For the parents, we hypothesized that that those receiving the ACCESS to School program would read more to their children, have more positive attitudes, report decreased stress, engage in more in-home cognitive activities with their children, and demonstrate improved self-esteem relative to the comparison

group. As hypothesized, those parents in the intervention group reported stronger attitudes that they have the ability to influence their child's learning at immediate post-test and these attitudes continued to improve seven weeks after the program had ended relative to those who did not receive the program. In addition, the intervention group showed significantly lower parenting-related stress than the comparison parents at both immediate post-test and at follow-up, however, the relative decreases (DIDs) were not significant after correcting for multiple comparison. No statistically significant improvements, relative to the comparison group were found on in-home cognitive activities, self-esteem, and reading activities.

This study also hypothesized that those children with parents in the ACCESS to School program would show improvements on measures of socio-emotional health (e.g. anxiety, anger/aggression, and social competency), colors, letters, numbers, sizes, and shapes when compared to their peers whose families did not participate in programming. While there was no strong evidence that the children with parents in the ACCESS to School program reported better social-emotional outcomes, the results of this study confirm the hypothesis on the school readiness outcomes. Those children of parents in the ACCESS to School program far surpassed their comparison peers in all 5 domains and as well as the composite scores.

This impact evaluation also sought to determine the extent to which parent-level outcomes such as frequency of reading, parenting attitudes, parenting stress, cognitive activities in the home, and self-esteem had an impact on child school readiness. Our analysis found increases on these parent-level measures had no statistically meaningful effect on overall school readiness. We also hypothesized that increases in program dosage would predict improvements in both parent- and child-level outcomes. This evaluation finds no evidence to support this hypothesis.

Level of Evidence

The current study sought to achieve a moderate level of evidence for the ACCESS to School program. We believe this study has reached this goal by adequately minimizing the plausible threats to both internal and external validity. Certainly, selection bias was a challenge to external validity and this was addressed through targeted on-the-ground recruiting at the comparison site. Recruitment staff manually matched participants on race since this was the most feasible option in a community-based setting and entropy weighting was employed to further balance the groups. Attrition was low for the current study and there were no significant differences in participants who were lost to follow-up. External validity threats due to history were addressed by drawing participants from schools who serve similar socio-demographic populations, who serve from overlapping geographic locals, and have similar performance scorecards. The use of a comparison group also accounts for effects due to maturation and testing since these would not affect participants among both groups differently. It is possible that program participants report themselves higher on measures at post-tests because they believe they are being helped or should be improving on some outcomes. Though this can't be ruled out to explain the findings among the parents, it's very unlikely to be at play with the children due to their very young age. Indeed the results from the child sample provide the most compelling evidence for the program's impact and are the most robust to these potential threats.

This study aims to attain a moderate level of evidence as its quasi-experimental design yields a high level of internal validity. However, the external validity of this study is limited as these results cannot be

generalized to beyond a specific target population of Hispanic and Arab immigrants residing in an urban mid-western locale. Additional studies of the ACCESS to School program should be done on a wide range of participants from diverse settings to further strengthen the program's level of evidence.

Next Steps

Findings from this study has resulted in the continuation in the ACCESS to School Program. In addition, a book has been published describing the program so that it may be replicated in other communities. With evidence of effectiveness and efforts to scale the program, ACCESS to School has the potential to increase their reach to more families.

Study Limitations

As with most program evaluations, the current study is not without some limitations which should be considered in light of these findings. First, these results are based on self-reports. It is possible that some participants may have reported inaccurate information about their parenting activities as well as on other questions which may make them look vulnerable such as self-esteem and stress. Thus, fears of being stigmatized as a bad parent, as well as biases associated with social desirability may have led to misreporting.

Second, all of the participants in this study were immigrants from Arab and Latin countries. Though validation studies were conducted on most of the instruments used, none were validated with Arab-Americans and only the Bracken was validated with Hispanic populations. Though these instruments were reviewed with representatives from the target populations, revised, translated and back translated to increase comprehension and cultural appropriateness, resource constrictions prohibited the research team from conducting formal validation studies.

Third, one challenge in evaluating the effect of social programs is identifying measures with are sensitive enough to detect change over time. The within subject variations on the parent outcomes in this report were very small, resulting high correlations between the time points, and therefore reducing the power to detect changes. This may be due to the insensitivity of the measures themselves, or the time points were too close to each other to allow changes to happen. Indeed, the follow-up period was only 7-weeks after post-test and a longer follow-up period would have allowed for this study to capture outcomes which may take more time develop. In addition, range effects may be at play because participants sometimes clustered on at high favorable extremes. Thus, ceiling effects may have prevented this study from adequately assessing the program's impact on some measures.

Finally, the ACCESS to School program was adapted over the course of this project to best meet the needs of an Arab and Hispanic immigrant population living in Southeastern Detroit. It is unknown whether the results of this evaluation would hold true if this program were implemented with other populations living within other geographical locals. Thus, replication and evaluation of the ACCESS to School program are needed to build a case for the program's generalizability.

Human Subjects Protections

No problems in securing IRB approval were encountered during the course of the project.

MPHI is dedicated to maintaining an institutional environment that is conducive to the responsible conduct of research. MPHI's Institutional Review Board (IRB)/Privacy Panel reviews all research projects, as well as reviewing projects for compliance with the HIPAA Privacy Rule, and compliance with MPHI policy for handling of privacy-sensitive data. This project was submitted to the IRB upon approval of the evaluation plan. The documents submitted will included the workplan, evaluation plan, data collection instruments and protocols, and informed consent procedures/documents.

Active informed consent was obtained from caregivers and program facilitators at every wave of data collection. Prior to data collection, the MPHI IRB reviewed and approved the protocols. Key informant interviews were audio-recorded and transcribed. Audio files and transcription files were stored on MPHI's secure server with access only granted to members of the evaluation team. After the transcriptions were cleaned, the audio files were permanently deleted. Transcriptions did include any information which could identify the respondent.

Inclusion of Women/Girls: The participants in this study will be parents/caregivers, children aged 0-5, and program facilitators. A large majority of participants were women.

Inclusion of Minorities: No one was excluded from participation based on racial or ethnic background. Metropolitan Detroit is very diverse and includes African-Americans, Hispanics, and Arab Americans.

Inclusion of Children: Participants in this evaluation included children who are aged 0-5. Parents and caregivers were able to opt their children out of participation.

Risks: We believe that the risks associated with participation in this study were minimal. Caregivers may at times experienced some discomfort in answering some of the questions contained in the survey instruments regarding their parenting practices. Prior to giving consent, the details of the study were explained in simple and straightforward language to the potential participants. Furthermore, it was carefully explained and emphasized that participants can discontinue their participation in the study at any point.

Potential Benefits: As part of receiving programming, caregivers received information on what they can do to better prepare their children for school. Caregivers reported to enjoy learning more about their child's behavior and development. Findings from this study has resulted in the continuation in the ACCESS to School Program. In addition, a book has been published describing the program so that it may be replicated in other communities. With evidence of effectiveness and efforts to scale the program, ACCESS to School has the potential to increase their reach to more families.

Confidentiality: It is MPHI policy that all employees with access to confidential records, reports and data files have the obligation to maintain their accuracy, completeness and confidentiality. It applies equally to information and data processing and communication, whether or not data are owned by or located at MPHI. Guidance on principles and specific procedures to assure this confidentiality are provided to all employees at MPHI. Project data was used only for the purpose of carrying out the goals of this evaluation. MPHI will only release data in aggregate, summarized, unidentifiable form in reports. However, full de-

identified datasets have been submitted to the UWSEM (SIF grantee) for the purpose of conducting their SIF portfolio-level evaluation.

Several steps were taken to assure the confidentiality of participants. First, no personal identifiers were included in the data analysis database. Unique identification numbers were used to link data for each subject across data collection waves. All data is stored on MPHI's secure server with access granted only to members of the evaluation team. All MPHI staff have received training and passed a test on protecting human research subjects.

Evaluator/Subgrantee Role & Involvement

ACCESS's Role

The grantee provided guidance on the development of the SEP to ensure that met the requirements of SIF evaluation standards. The sub-grantee reviewed and guided the development of the SEP with the evaluators to ensure the evaluation could be feasibly implemented as proposed. MPHI conducted all evaluation activities related to instrument development, IRB, sample design and data analysis. MPHI developed all data collection protocols. ACCESS was responsible for all data collection with the exception of key informant interviews and focus groups which were facilitated by MPHI. The grantee provided feedback on the development of interim reports and final report to verify that the findings presented were fair and balanced

Dissemination

ACCESS and MPHI work jointly with UWSEM to develop all dissemination plans; including press releases; publications; and conference presentation.

Scientific Evidence

The grantee reviewed all evaluations and provided ongoing monitoring of the evaluation process to ensure that the evaluation meets the targeted standard of scientific evidence in accordance with the SIF guidelines.

Conflict of Interest

ACCESS does not have any conflicts of interest with MPHI, UW SEM, or SIF. If any conflicts of interest arise, ACCESS will address it with UW SEM.

Budget

An estimated budget has been developed for years 2-5. Each year, prior to evaluation activities beginning, the budget will be reviewed and adjusted as needed. These costs reflect only those activities to be conducted by the external evaluation team including IRB submission. For instance, ACCESS will be responsible for all data collection in years 3-5 and these costs are not included. There is no unfunded evaluation activity anticipated.

The total award amount for years 2-5 is \$876,580 which is matched 1:1, resulting in a project budget of \$1,753,160. The cost of the external evaluation is \$127,173 for five years which is 7% of the project's budget.

Task	Number of Hours	External Evaluation Staff Responsible (Hours)
Instrument Development	162	Senior Evaluator (66)
		Research Associate (74)
		Research Assistant (22)
RB Approval	26	Senior Evaluator (26)
Sampling	75	Senior Evaluator (39)
		Research Associate (36)
Data Collection	108	Research Associate (10)
		Research Assistant (98)
Data Analysis	934	Senior Evaluator (450)
		Research Associate (484)
Report Writing	684	Senior Evaluator (335)
		Research Associate (349)
Presentations	100	Senior Evaluator (50)
		Research Associate (50)
Other Tasks	240	Senior Evaluator (12)
		Research Associate (20)
		Research Assistant (208)
Total Hours	2,329	

The costs, by tasks, are presented in the following table:

Costs by Task			
	Personnel	Other Costs	Total
Year 2			
Instrument development	\$2,198	\$802	\$3,000
IRB Application	\$330	\$120	\$450
Sampling	\$550	\$200	\$750
Data collection	\$4,397	\$1,603	\$6,000
Data analysis	\$6,156	\$2,244	\$8,400
Report writing	\$4,397	\$1,603	\$6,000
Presentations	\$660	\$240	\$900
Other tasks	\$3,298	\$1,202	\$4,500
Total costs	\$21,984	\$8,016	\$30,000
Year 3	·		
Instrument development	\$3,299	\$1,202	\$4,501
IRB approval	\$227	\$83	\$310
Sampling	\$825	\$300	\$1,125
Data collection	\$0	\$0	\$0
Data analysis	\$9,896	\$3,605	\$13,501
Report writing	\$6,234	\$2,271	\$8,505
Presentations	\$1,024	\$373	\$1,397
Other tasks	\$2,199	\$801	\$3,000
Total costs	\$23,704	\$8,635	\$32,339
Year 4			
Instrument development	\$420	\$153	\$573
IRB approval	\$241	\$88	\$329
Sampling	\$875	\$319	\$1,194
Data collection	\$0	\$0	\$0
Data analysis	\$10,498	\$3,824	\$14,322
Report writing	\$7,086	\$2,582	\$9,668
Presentations	\$1,086	\$396	\$1,482
Other tasks	\$2,011	\$733	\$2,744
Total costs	\$22,217	\$8,095	\$30,312

Costs by Task Continued			
	Personnel	Other Costs	Total
Year 5			
Instrument development	\$433	\$158	\$590

IRB approval	\$249	\$91	\$340
Sampling	\$721	\$263	\$984
Data collection	\$0	\$0	\$0
Data analysis	\$10,813	\$3,939	\$14,752
Report writing	\$9,732	\$3,545	\$13,277
Presentations	\$1,243	\$453	\$1,696
Other tasks	\$2,113	\$770	\$2,883
Total costs	\$25,304	\$9,219	\$34,522

Appendices

Part 1.

Start Time:

Facilitator Name(s):

Date: Click here to enter a date.

Introduction

Appendix 1. PCIL Implementation Checklists

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 1- ABC's & Learning

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Activity

Conclusion

End Time:			
Introduction			
Parents			
Named letters A,	B, C, D, E and F?		☐ Yes ☐ No
Pointed to letters	s A, B, C, D, E and F?		☐ Yes ☐ No
Found letters A, I	B, C, D, E and F?		☐ Yes ☐ No
Sounded letters /	A, B, C, D, E and F?		☐ Yes ☐ No
Matched the lett	ers A, B, C, D, E and F to th	ne picture?	☐ Yes ☐ No
Children			
■ Danced while singing the alphabet song? □ Yes □ No			☐ Yes ☐ No
Named letters A, B, C, D E and F with flash cards?		cards?	☐ Yes ☐ No
Identified letters A, B, C, D, E and F on the alphabet mat?		alphabet mat?	☐ Yes ☐ No
Part 2.			
Facilitator Name(s):			
Date: Click here to enter	a date.		
	Introduction	Activity	Conclusion
Start Time:			
End Time:			
PCIL Activity			
Parents and children: □ Yes □ No			
a. Named the alphabet? ☐ Yes ☐ No			

b. Sounded the alphabet?	□ Yes	□ No
c. Traced the alphabet?	□ Yes	□ No
d. Matched uppercase and lowercase letters?	□ Yes	□ No
 Instructor needed to prepare extra materials if activities went too quickly? 	□ Yes	□ No

Part 3.				
Facilitator Name(s):				
Date: Click here to e	nter a date.			
	Introduction	Activity	Conclusion	n
Start Time:				
End Time:				
Session Conclusion				
Parents				
Reflected w	ith parents (e.g. what w	ent well? what didn't v	work? what ☐ Yes	□ No
could have been different to improve the activity)?			□ NO	
Noted any	potential for follow-up	activities based on p	oarent-child Yes	∏ No
interactions	?			
Parents had	snack?		☐ Yes	□ No
Children				
Children had	I snack?		□ Yes	□ No
Children wat	ched alphabet video?		☐ Yes	□ No
Children play	yed games?		☐ Yes	□ No

- Did you make any modifications or additions to Session 1?
- Did you experience any barriers or challenges to administering Session 1?
- What strategies worked best when administering Session 1?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 2- ABC's & Learning Continued

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.

Facilitator Name(s):

Date: Click here to enter a date.

	Introduction	Activity	Conclusion	
Start Time:				
End Time:				
Introduction				
Parents				
 Named letters G, 	H, I, J, K and L?		☐ Yes ☐ No	
Pointed to letters	s G, H, I, J, K and L?		☐ Yes ☐ No	
Found letters G,	H, I, J, K and L?		☐ Yes ☐ No	
Sounded letters (G, H, I, J, K and L?		☐ Yes ☐ No	
Matched the lett	ers G, H, I, J, K and L to	the picture?	☐ Yes ☐ No	
Children				
■ Danced while singing the alphabet song? □ Yes □ No			☐ Yes ☐ No	
Named letters G, H, I, J, K and L with flash cards?			☐ Yes ☐ No	
Identified letters G, H, I, J, K and L on the alphabet mat?		☐ Yes ☐ No		
Part 2.				
Facilitator Name(s):				
Date: Click here to enter	a date.			
	Introduction	Activity	Conclusion	
Start Time:				
End Time:				
PCIL Activity				
Parents and child	Parents and children: □ Yes □ No			
a. Named t	a. Named the alphabet?			

b. Sounded the alphabet?	□ Yes	□ No
c. Traced the alphabet?	□ Yes	□ No
d. Matched uppercase and lowercase letters?	□ Yes	□ No
 Instructor needed to prepare extra materials if activities went too quickly? 	□ Yes	□No

Part 3. Facilitator Name(s):	
Facilitator Name(s):	
Date: Click here to enter a date.	
Introduction Activity Conclusion	
Start Time:	
End Time:	
Session Conclusion	
Parents	
 Reflected with parents (e.g. what went well? what didn't work? what □ Yes □ 	l No
could have been different to improve the activity)?	INO
 Noted any potential for follow-up activities based on parent-child □ Yes □] No
interactions?	1110
Parents had snack? □ Yes □] No
Children	
Children had snack?] No
Children watched alphabet video?] No
Children played games?] No

- Did you make any modifications or additions to Session 2?
- Did you experience any barriers or challenges to administering Session 2?
- What strategies worked best when administering Session 2?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 3- ABC's & Learning Continued

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.

Facilitator Name(s):				
Date: Click here to enter a date.				
	Introduction	Activity	Conclusion	
Start Time:				
End Time:				
Introduction				
Parents				
Named letters M	, N, O, P, Q and R?		☐ Yes ☐ No	
Pointed to letters	s M, N, O, P, Q and R?		☐ Yes ☐ No	
Found letters M,	N, O, P, Q and R?		☐ Yes ☐ No	
Sounded letters I	M, N, O, P, Q and R?		☐ Yes ☐ No	
Matched the lett	ers M, N, O, P, Q and R to	the picture?	☐ Yes ☐ No	
Children				
■ Danced while singing the alphabet song? □ Yes □ No				
Named letters M	Named letters M, N, O, P, Q and R with flash cards? □ Yes □ No			
Identified letters	M, N, O, P, Q and R on the	e alphabet mat?	☐ Yes ☐ No	
Part 2.				
Facilitator Name(s):				
Date: Click here to enter	a date.			
	Introduction	Activity	Conclusion	
Start Time:				
End Time:				
PCIL Activity	PCIL Activity			
◆ Parents and children:				

a.	Named the alphabet?	□ Yes	□ No
b.	Sounded the alphabet?	□ Yes	□ No
C.	Traced the alphabet?	□ Yes	□ No
d.	Matched uppercase and lowercase letters?	□ Yes	□ No
Instructionquickly	ctor needed to prepare extra materials if activities went too v?	□ Yes	□ No

Part 3.				
Facilitator Name(s):				
Date: Click here to ente	er a date.			
	Introduction	Activity	Conclusion	on
Start Time:				
End Time:				
Session Conclusion				
Parents				
 Reflected with 	ected with parents (e.g. what went well? what didn't work? what			
could have been different to improve the activity)?				
 Noted any po 	Noted any potential for follow-up activities based on parent-child			∏ No
interactions?			☐ Yes	
 Parents had sna 	ack?		☐ Yes	□ No
Children				
 Children had sr 	nack?		□ Yes	□ No
Children watch	ed alphabet video?		□ Yes	□ No
Children played	d games?		□ Yes	□ No

- Did you make any modifications or additions to Session 3?
- Did you experience any barriers or challenges to administering Session 3?
- What strategies worked best when administering Session 3?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 4- ABC's & Learning Continued

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.

Facilitator Name(s):					
Date: Click here to enter a date.					
	Introduction	Activity	Conclusion		
Start Time:					
End Time:					
Introduction					
Parents					
Named letters S,	T, U, V, W, X, Y and Z?		☐ Yes ☐ No		
Pointed to letters	s S, T, U, V, W, X, Y and Z	?	☐ Yes ☐ No		
◆ Found letters S, T, U, V, W, X, Y and Z?			☐ Yes ☐ No		
◆ Sounded letters S, T, U, V, W, X, Y and Z?			☐ Yes ☐ No		
■ Matched the letters S, T, U, V, W, X, Y and Z to the picture? □ Yes □			☐ Yes ☐ No		
Children					
Danced while sin	ging the alphabet song?		☐ Yes ☐ No		
Named letters S,	T, U, V, W, X, Y and Z wit	h flash cards?	☐ Yes ☐ No		
Identified letters	S, T, U, V, W, X, Y and Z	on the alphabet mat?	☐ Yes ☐ No		
Part 2.					
Facilitator Name(s):					
Date: Click here to enter	Date: Click here to enter a date.				
	Introduction	Activity	Conclusion		
Start Time:					
End Time:					
PCIL Activity					

Parents and children:	□ Yes	□ No
a. Named the alphabet?	☐ Yes	□ No
b. Sounded the alphabet?	□ Yes	□ No
c. Traced the alphabet?	□ Yes	□ No
d. Matched uppercase and lowercase letters?	□ Yes	□ No
 Instructor needed to prepare extra materials if activities went too quickly? 	□ Yes	□No

Part 3.				
Facilitator Name(s):				
Date: Click here to ente	er a date.			
	Introduction	Activity	Conclusion	on
Start Time:				
End Time:				
Session Conclusion				
Parents				
 Reflected with 	eflected with parents (e.g. what went well? what didn't work? what			
could have bee	could have been different to improve the activity)?			
 Noted any po 	Noted any potential for follow-up activities based on parent-child			□No
interactions?			☐ Yes	
 Parents had sna 	ack?		☐ Yes	□ No
Children				
 Children had sn 	ack?		□ Yes	□ No
Children watch	ed alphabet video?		□ Yes	□ No
Children played	games?		□ Yes	□ No

- Did you make any modifications or additions to Session 4?
- Did you experience any barriers or challenges to administering Session 4?
- What strategies worked best when administering Session 4?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 5- ABC's & Learning Continued

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.				
Facilitator Name(s):				
Date: Click here to enter	a date.			
	Introduction	Activity	Conclusion	
Start Time:				
End Time:				
Introduction				
Parents				
Named letters?			☐ Yes ☐ No	
Pointed to letters	s?		☐ Yes ☐ No	
Found letters?			☐ Yes ☐ No	
Sounded letters?			☐ Yes ☐ No	
■ Matched the letters to the picture? □ Yes □ No		☐ Yes ☐ No		
■ Made an alphabet book? □ Yes □ No			☐ Yes ☐ No	
Children				
Danced while sin	ging the alphabet song?		☐ Yes ☐ No	
Named letters with	ith flash cards?		☐ Yes ☐ No	
Identified letters	on the alphabet mat?		☐ Yes ☐ No	
Part 2.				
Facilitator Name(s):				
Date: Click here to enter	a date.			
	Introduction	Activity	Conclusion	
Start Time:				
End Time:				

PCIL Activity		
Parents and children:	☐ Yes	□ No
a. Named the alphabet?	□ Yes	□ No
b. Sounded the alphabet?	☐ Yes	□ No
c. Matched letters to the picture?	☐ Yes	□ No
d. Made an alphabet book?	☐ Yes	□ No
 Instructor needed to prepare extra materials if activities went too quickly? 	□ Yes	□ No

Part 3.					
Facilita	ator Name(s):				
Date: (Click here to ente	er a date.			
		Introduction	Activity	Conclusi	on
Start T	ime:				
End Ti	me:				
Session	n Conclusion				
Parent	rs .				
•	Reflected with parents (e.g. what went well? what didn't work? what				П №
could have been different to improve the activity)?			□ 163		
•	 Noted any potential for follow-up activities based on parent-child 			☐ Yes	□No
	interactions?			□ 1C3	□ 1 10
•	Parents had sna	ack?		☐ Yes	□ No
Childre	en				
•	Children had sn	ack?		□ Yes	□ No
•	Children watch	ed alphabet video?		□ Yes	□ No
•	Children played	games?		☐ Yes	□ No

- Did you make any modifications or additions to Session 5?
- Did you experience any barriers or challenges to administering Session 5?
- What strategies worked best when administering Session 5?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 6- Numbers & Counting

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.

Facilitator Name(s):						
Date: Click here to enter	Date: Click here to enter a date.					
	Introduction	Activity	Conclusion			
Start Time:						
End Time:						
Introduction						
Parents						
Named numbers	1-10?		□ Yes □ No			
Pointed to numb	ers 1-10?		□ Yes □ No			
Found numbers 1	1-10?		□ Yes □ No			
Traced numbers	Traced numbers 1-10?					
Counted and mat	tched numbers 1-10?		☐ Yes ☐ No			
Children						
Danced while sin	ging the number song?		□ Yes □ No			
Named the number	pers with flash cards?		□ Yes □ No			
Identified number	ers 1-10 on the number ma	t?	□ Yes □ No			
Part 2.						
Facilitator Name(s):						
Date: Click here to enter						
	Introduction	Activity	Conclusion			
Start Time:						
End Time:						
PCIL Activity						

Parents and ch	ildren:		☐ Yes	□ No
a. Named	l numbers 1-10?		□ Yes	□ No
b. Pointed	d to numbers 1-10?		☐ Yes	□ No
c. Found	numbers 1-10?		☐ Yes	□ No
d. Traced	numbers 1-10?		□ Yes	□ No
e. Counte	ed and matched numbers 1	1-10?	□ Yes	□ No
Instructor nee quickly?	ded to prepare extra m	aterials if activities went too	□ Yes	□ No
Part 3.				
Facilitator Name(s):				
Date: Click here to ente	er a date.			
	Introduction	Activity	Conclus	sion
Start Time:				
End Time:				
Session Conclusion				
Parents				
	parents (e.g. what went n different to improve the	well? what didn't work? what eactivity)?	□ Yes	□ No
 Noted any pointeractions? 	tential for follow-up ac	tivities based on parent-child	□ Yes	□ No
Parents had sna	ack?		П Уос	П No

- Did you make any modifications or additions to Session 6?
- Did you experience any barriers or challenges to administering Session 6?
- What strategies worked best when administering Session 6?
- Other notes:

Children

• Children had snack?

Children watched video?

Children played games?

☐ Yes

☐ Yes

☐ Yes

 \square No

□ No

 \square No

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 7- Colors and Shapes

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented. Note: Colors = red, blue, green, yellow, pink, purple, brown, black, orange and white. Shapes = circle, triangle, square, diamond, star, rectangle, heart and oval.

Part 1.

Facilitator Name(s):

Date: Click here to enter a date.			
	Introduction	Activity	Conclusion
Start Time:			
End Time:			
Introduction			
Parents			
Named the color	s and shapes?		☐ Yes ☐ No
Pointed to the co	olors and shapes?		☐ Yes ☐ No
Traced the shape	es?		☐ Yes ☐ No
Matched the sha	pes with an object?		☐ Yes ☐ No
Children			
Named the color	and shapes?		□ Yes □ No
Found the shape	s on the floor mat?		☐ Yes ☐ No
Part 2.			
Facilitator Name(s):			
Date: Click here to enter	a date.		
	Introduction	Activity	Conclusion
Start Time:			
End Time:			
PCIL Activity			
Parents and children:			

a.	Named the colors and shapes?	□ Yes	□ No
b.	Pointed to the colors and shapes?	□ Yes	□ No
C.	Traced the shapes?	□ Yes	□ No
d.	Matched the shapes with an object?	□ Yes	□ No
 Instruction quickly 	tor needed to prepare extra materials if activities went too ?	□ Yes	□No

Part 3.				
Facilitator Name(s):				
Date: Click here to ente	er a date.			
	Introduction	Activity	Conclusio	n
Start Time:				
End Time:				
Session Conclusion				
Parents				
	parents (e.g. what went wn different to improve the a	ell? what didn't work? what ctivity)?	□ Yes	□ No
 Noted any po interactions? 	tential for follow-up activ	rities based on parent-child	□ Yes	□ No
Parents had sna	ack?		☐ Yes	□ No
Children				
 Children had sn 	ack?		□ Yes	□ No
Children watch	ed video?		□ Yes	□ No

- Did you make any modifications or additions to Session 7?
- Did you experience any barriers or challenges to administering Session 7?
- What strategies worked best when administering Session 7?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 8 – Sizes and Comparison

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.

Facilitator Name(s):						
Date: Click here to enter a date.						
	Introduction	Activity	Conclusion			
Start Time:						
End Time:						
Introduction						
Parents						
Identified same,	different, short, long, and	big sizes?	□ Yes □ No			
Circled same, diff	ferent, short, long, and big	sizes?	□ Yes □ No			
Copied, glued, ar	nd colored same, different,	short, long, and big sizes?	□ Yes □ No			
•	☐ Yes ☐ No					
Children						
Practiced shapes and colors? □ Yes □ No						
Practiced same, or	Practiced same, different, big, small, short, tall, long sizes? □ Yes □ No					
Part 2.						
Facilitator Name(s):						
Date: Click here to enter a date.						
	Introduction	Conclusion				
Start Time:	tart Time:					
End Time:						
PCIL Activity						
Parents and children:						

Facilita	tor Nan	20/5):			
Part 3.					
	quickly?				
 Instructor needed to prepare extra materials if activities went too 			□ Yes	П №	
		sizes?	□ Yes	□ No	
	c.	Copied, glued, and colored same, different, short, long, and big	□Vos	ПМа	
	b.	Circled same, different, short, long, and big sizes?	□ Yes	□ No	
		shapes, pencils and crayons of different sizes)?	□ Yes	□ No	
	a.	Identified same, different, short, long, and big sizes (Plastic			

Part 3.					
Facilitator Name(s):					
Date: Click here to ente	er a date.				
	Introduction	Activity	Conclusion		
Start Time:					
End Time:					
Session Conclusion					
Parents					
 Reflected with parents (e.g. what went well? what didn't work? what could have been different to improve the activity)? 					
 Noted any potential for follow-up activities based on parent-child interactions? 					
Parents had snack?			☐ Yes ☐ No		
Children					
Children had snack? □ Yes □ No			☐ Yes ☐ No		
Children watched video? Tes			☐ Yes ☐ No		

- Did you make any modifications or additions to Session 8?
- Did you experience any barriers or challenges to administering Session 8?
- What strategies worked best when administering Session 8?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 9 – Reading with Preschoolers

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.

Facilitator Name(s):

Date: Click here to enter a date.					
	Introduction	Activity	Conclusion		
Start Time:					
End Time:					
Introduction					
Parents					
 Instructor modele to encourage a st 	ed an example of reading a tory talk?	book, using the strategies	□ Yes □ No		
Instructor asked	parents to describe what t	hey see on the cover?	□ Yes □ No		
Instructor read st	Instructor read story to parents?				
	 Instructor asked questions about the story, characters, setting, what occurred and how the story ended? 				
Children					
Children watched	d the story of "The very hu	ngry caterpillar"?	□ Yes □ No		
Part 2.					
Facilitator Name(s):					
Date: Click here to enter a date.					
	Introduction	Conclusion			
Start Time:					
End Time:	End Time:				
PCIL Activity					

Parents and children:		
d. Parents asked child(ren) to describe what they see on the cover?	□ Yes	□ No
e. Parents read the story to their child(ren)?	□ Yes	□ No
f. Parents asked questions about the story, characters, setting, what occurred and how the story ended?	□ Yes	□ No
g. Child(ren) retold the story to parent or described parts of the story to parent?	□ Yes	□ No
 Instructor needed to prepare extra materials if activities went too quickly? 	□ Yes	□ No

Part 3.						
Facilitator Name(s):						
Date: Click here to ente	er a date.					
	Introduction	Activity	Conclusion	on		
Start Time:						
End Time:						
Session Conclusion						
Parents						
 Reflected with parents (e.g. what went well? what didn't work? what could have been different to improve the activity)? 						
 Noted any potential for follow-up activities based on parent-child interactions? 			□ Yes	□ No		
Parents had snack?			□ Yes	□ No		
Children						
 Children had sn 	ack?		□ Yes	□ No		
Children watched video?			□ Yes	□ No		

- Did you make any modifications or additions to Session 9?
- Did you experience any barriers or challenges to administering Session 9?
- What strategies worked best when administering Session 9?
- Other notes:

Parent Education and Parent-Child Interactive Literacy (PCIL) Implementation Checklist Session 10 – Riddles, Rhymes, and Songs

The following checklist should be completed for each session of PCIL. The implementation checklist will be completed as sessions are administered in three parts: Part 1 – Part 3. Please complete the checklist on the day the session is implemented.

Part 1.

Facilitator Name(s):

Date: Click here to enter a date.

	Introduction	Activity	Conclusion			
Start Time:						
End Time:						
Introduction						
Parents						
Discussed the preschoolers?	importance of phonol	ogical awareness with	□ Yes □ No			
Parents identified	d rhyming words?		□ Yes □ No			
Parents matched	the rhyming words?		□ Yes □ No			
Parents sang, ide	ntified and colored a rhym	ing book?	□ Yes □ No			
Children	Children					
Children watched "I Spy"?	□ Yes □ No					
Part 2.						
Facilitator Name(s):						
Date: Click here to enter a date.						
	Introduction Activity Conclusion					
Start Time:						
End Time:						
PCIL Activity						

Parents and or	children:				
h. Pare	nts asked child(ren) to identify	the rhyming words?	□ Yes	□ No	
i. Pare	nts asked child(ren) to match	rhyming words?	☐ Yes	□ No	
j. Pare book	nts and children sang, ident	ified and colored a rhyming	□ Yes	□ No	
k. Pare	nts asked child(ren) to match	different items that rhyming?	□ Yes	□ No	
l. Pare	nts played with child(ren) "I Sp	oy" with items that rhymed?	☐ Yes	□ No	
 Instructor needed to prepare extra materials if activities went too quickly? 				□ No	
Part 3.					
Facilitator Name(s):					
Date: Click here to er	nter a date.				
	Introduction	Activity	Conclus	ion	
Start Time:					
End Time:					
Session Conclusion					
Parents					
 Reflected with parents (e.g. what went well? what didn't work? what could have been different to improve the activity)? 				□ No	
 Noted any potential for follow-up activities based on parent-child interactions? 					

• Did you make any modifications or additions to Session 10?

• Parents had snack?

• Children had snack?

• Children watched video?

- Did you experience any barriers or challenges to administering Session 10?
- What strategies worked best when administering Session 10?
- Other notes:

Children

☐ Yes ☐ No

☐ Yes ☐ No

□ No

☐ Yes

Appendix 2. Self-sufficiency

Rating Type : Initia	I: ☐ Semester end: ☐	☐ Follow up: ☐ Ye	ar end: 🗆	Com	pleted by :	
	ACCESS SIF - Self Sufficiency Matrix					
Client Name :		Semester/year	enrolled in SIF:		Date:	
Domain	1-IN CRISIS	2-VULNERABLE	3-SAFE	4-BUILDING CAPACITY	5-EMPOWERED	Domain #
HOUSING	☐ Homeless or threatened with eviction	☐ In transitional, temporary, or substandard housing, and/or current rent/mortgage payment is unaffordable (over 30% of income)	☐ In stable housing that is safe but only marginally adequate	Household is in safe, adequate, subsidized housing	☐ Household is safe, adequate, unsubsidized housing	
EMPLOYMENT (household)	□ No job	Temporary, part-time or seasonal; inadequate pay, no benefits	Employed full-time; inadequate pay; few or no benefits	Employed full-time; inadequate pay and benefits	☐ Maintains permanent employment with adequate income and benefits	
INCOME (household)	□ No Income	☐ Inadequate income and/ or spontaneous spending or inappropriate spending; difficulty managing a budget	Can meet basic needs with subsidy; appropriate spending	Can meet basic needs and manage debt without assistance	☐ Income is sufficient, well managed; has discretionary income and is able to save	
FOOD (household)	No food or means to prepare it. Relies to a significant degree on other sources of free or low-cost food	Household is on food stamps	Can meet basic food needs, but requires occasional assistance	Can meet basic food needs without assistance	Can choose to purchase any food household desires	
CHILDREN'S EDUCATION	☐ One or more eligible children are not enrolled in school	All eligible children enrolled in school, but one or more children not attending classes	☐Enrolled in school, but one or more children only occasionally attending classes	☐ Enrolled in school and attending classes most of the time	All eligible children enrolled and attending on a regular basis and making progress	
HEALTHCARE	☐ No medical coverage with immediate need	No medical coverage and great difficulty accessing medical care when needed. Some household members may be in poor health	Some members (i.e. children) on MiChild, but adult lacks coverage	☐ All members can get medical care when needed but may strain budget	☐ All members are covered by affordable adequate health insurance	
TRANSPORTATION	☐ No access to transportation, public or private; may have car that is inoperable	Transportation is available but unreliable, unpredictable, unaffordable; may have car but no insurance, license, etc.	Transportation available (including bus) and reliable, but limited and/or inconvenient; at least one driver in house is licensed and car is minimally insured	☐ Transportation (including bus) is generally accessible to meet basic travel needs, and client has license.	☐ Transportation is readily available and affordable; car is adequately insured	

Domain	1-IN CRISIS	2-VULNERABLE	3-SAFE	4-BUILDING CAPACITY	5-EMPOWERED	Domain #
LEGAL- SOCIAL	Has significant legal problem, recognizes the legal issues but does not know what to do OR has significant legal problem(s) (defined as a legal problem affecting basic needs issues of living) but does not understand that the problem involves legal issues AND does not know what to do	Correctly identifies the problem as legal problem; knows what to do but lacks ability to proceed without legal assistance OR has received legal information/advice and correctly identifies the problem as a legal problem, but may not know what to do next	With legal assistance, has initiated or responded to legal actions, and is in the court system OR has obtained pro se assistance (assistance to individuals representing themselves) OR representation sufficient to initiate legal action or respond to actions initiated by others	Has legal representation and issues are moving towards resolution	No legal issues or legal issues fully resolved through litigation, negotiation, dismissal or other legal means	
DISABILITIES AND/OR CHRONIC HEALTH (household)	Acute or chronic issues affecting ADL's, housing, employment, social interactions, etc. always	Sometimes has acute or chronic issues affecting housing, employment, social interactions, etc. Can't access support for these issues.	Rarely has acute or chronic symptoms affecting housing, employment, social interactions, ADL's, etc.	Asymptomatic- condition may be controlled by services, support, and/or medication	☐ Thriving; no identified disability or chronic health conditions	
SPOKEN ENGLISH LANGUAGE PROFICIENCY	Functions minimally, if at all, in English. Communicates only through gestures and a few isolated words. Would have difficulty handling an entry-level job that requires oral communications in English	Functions with some difficulty in daily situations. May have some simple oral communication abilities using basic learned phrases and sentences, which may need to be spoken slowly and repeated often. Can handle routine entry-level jobs that involve only the msot basic communication in English and in which all tasks can be demonstrated	Can satisfy limited social demands. Can follow oral directions in familiar contexts, and understand new simple phrases containing familiar vocabulary. May still need words to be spoken slowly and frequently repeated. Can handle entry level jobs that involve some simple oral instructions but may need demonstrations	Can satisfy daily functions and meet social demands. Has some ability to understand and communicate on the telephone on familiar topics. Can participate in conversations on a variety of topics. Can handle jobs that invlove following oral and simple written instructions	Can participate in social and work situation independently. Can understand and participate in technical discussions in own field. Can meet work demands with confidence	
SOCIAL CONNECTIONS	Socially isolated and/or no social skills and/or lacks motivation to become involved.	Lacks knowledge of ways to become involved in community but may have 1 or 2 interactions (spouse, child, neighbor) not complete social isolation	☐ Knows of ways in which to get involved but is not constantly involved. Interactions with family/ few friends.	Some community involvement (church, advisory group, support group) but still has barriers such as transportation, childcare, etc.	Actively involved in community (church, groups etc.).	

ACCESS to School

Parent/Caregiver-Level Outcomes Survey

Instructions to Facilitator: Ask the participant the following question before moving on to the reading recall diary.
Have you ever participated in any parenting program within the past 6 weeks? □ Yes □ No
If yes, please describe the program in the box below.

Updated 09/15/2016	ID:

Instructions to Facilitator: Ask participants the following questions, completing the table below as parents describe their reading activities with their child. Begin by asking parents what reading activity they did with their child and proceed to ask what they read, how long they read, and in what language. Repeat question 1, including 1a-1c, until caregiver has no more reading activities to report.

Note: Remind participant to only think about reading activities with one child, age 0-5, if they have more than one in this age range. If a child is participating in the child assessment, remind participant to only think about that child while completing this survey.

Think about the last typical day you had with your child. Did you do any reading activities on that day? Reading activities can include reading a book or story, storytelling, practicing letter sounds, or any other activities that will help your child learn to read.

- 1. What reading activity did you do first? [e.g. reading a story, learning the alphabet, practicing letter sounds]
 - a) What did you read or what materials did you use? [e.g. book, letter blocks, magazine, iPad]
 - b) How long did you read or do the activity?
 - c) In what language did you read?

	No Reading Activities (Check ONLY if participant has no reading activities to report on)							
	Reading Activity	Reading Material	Reading Duration	Language				
1								
2								
3								
4								
5								
6								
7								

Jpdated 09/15/2016	ID:
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Trial Items

Instructions to Facilitator: Once you have completed the "Reading Recall Diary," ask the participant to complete the trial item(s). You may encourage, demonstrate, repeat, and prompt as needed to teach the task. Do NOT precede to the test items until you are certain that the participant understands the task demands and expectations.

The next set of questions is for you to practice. Please answer the following questions, selecting the response option that best represents how you feel.

Please circle the response that comes closest to how you feel.	Strongly Disagree	Disagree	Sort of Disagree	Sort of Agree	Agree	Strongly Agree
Trial #1. Winter in Michigan is my favorite season.	1	2	3	4	5	6
Trial #2. If the weather is nice, I prefer to walk to the store rather than drive	1	2	3	4	5	6

Instructions to Facilitator: Once you have reviewed and practiced the trial items with the participant, ask whether they would like to read and complete the survey themselves or if they would like you to read the survey to them while they fill in their responses.

would like you to read the survey to them while they fill in their responses.	
Would you like to:	
☐ Continue the survey on your own?	
☐ Have the survey read to you while you circle your responses?	
☐ Have the survey read to you and responses circled by interviewer?	

ID:		

The next set of questions has to do with children's education. While you may not find a response that exactly states your feeling, your first reaction to each question should be your answer.

Please circle the response that comes closest to how you feel.		Strongly Disagree	Disagree	Sort of Disagree	Sort of Agree	Agree	Strongly Agree
1.	Parents have less of an influence on their child's learning than their child's teacher.	1	2	3	4	5	6
2.	A parent can't do much to help their children at school because most of a child's motivation and performance depend on the teacher and classroom environment.	1	2	3	4	5	6
3.	Parents could do more for their children if teachers would do more for their students.	1	2	3	4	5	6
4.	Parents do not have a powerful influence on children's achievement.	1	2	3	4	5	6
5.	Even a parent with good teaching abilities cannot teach their child as well as a classroom teacher.	1	2	3	4	5	6

The next set of statements, describe feelings and perceptions related to being a parent.

Think of each of the statements in terms of how your relationship with your child or children typically is.

Н	ow much do you agree or sagree with the following?	Strongly Disagree	Disagree	Neither Disagree or Agree	Agree	Strongly Agree
6.	I am happy in my role as a parent.	1	2	3	4	5
7.	I would do anything or almost anything for my child(ren) if it was necessary.	1	2	3	4	5
8.	Caring for my child(ren) sometimes takes more time and energy than I have to give.	1	2	3	4	5

How much do you agree or disagree with the following?	Strongly Disagree	Disagree	Neither Disagree or Agree	Agree	Strongly Agree
I sometimes worry whether I am doing enough for my child(ren).	1	2	3	4	5
10. I feel close to my child(ren).	1	2	3	4	5
11. I enjoy spending time with my child(ren).	1	2	3	4	5
12. My child(ren) is/are an important source of affection for me.	1	2	3	4	5
13. Having child(ren) gives me a more certain and optimistic view for the future.	1	2	3	4	5
14. The major source of stress in my life is my child(ren).	1	2	3	4	5
15. Having child(ren) leaves little time and flexibility in my life.	1	2	3	4	5
16. Having child(ren) has been a financial burden.	1	2	3	4	5
17. It is difficult to balance different responsibilities because of my child(ren).	1	2	3	4	5
18. The behavior of my child(ren) is often embarrassing or stressful to me.	1	2	3	4	5
19. I feel overwhelmed by the responsibility of being a parent.	1	2	3	4	5
20. Having child(ren) has meant having too few choices and too little control over my life.	1	2	3	4	5
21. I am satisfied as a parent.	1	2	3	4	5
22. I find my child(ren) enjoyable.	1	2	3	4	5

ID:		
11 1		

How much do you agree or disagree with the following?	Strongly Disagree	Disagree	Neither Disagree or Agree	Agree	Strongly Agree
23. I find myself giving up more of my life to meet my children's needs than I ever expected.	1	2	3	4	5
24. I feel trapped by my responsibilities as a parent.	1	2	3	4	5
25. I have been unable to do new and different things since having my child(ren)	1	2	3	4	5
26. I feel that I am almost never able to do things that I like to do since having my child(ren).	1	2	3	4	5
27. Having a child has caused more problems than I expected in my relationship with my spouse and/or family members.	1	2	3	4	5
28. I feel alone and without friends.	1	2	3	4	5

Continue to think about you and your child as you read the following statements.						
How much do you agree or disagree with the following?	Strongly Disagree	Disagree	Neither Disagree or Agree	Agree	Strongly Agree	
29. I know what I need to do with my child(ren) even though I may not be able to do it.	1	2	3	4	5	
30. I am able to do things that will help my child learn.	1	2	3	4	5	
31. The things I do make a positive difference in my child(ren)'s learning.	1	2	3	4	5	

ID:		
11).		

How much do you agree or disagree with the following?	Strongly Disagree	Disagree	Agree	Strongly Agree	
32. On the whole, I am satisfied with myself.	1	2	3	4	
33. At times, I think I am no good at all.	1	2	3	4	
34. I feel that I have a number of good qualities.	1	2	3	4	
35. I am able to do things as well as most other people.	1	2	3	4	
36. I feel I do not have much to be proud of.	1	2	3	4	
37. I certainly feel useless at times.	1	2	3	4	
38. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4	
39. All in all, I am inclined to feel that I am a failure.	1	2	3	4	
40. I take a positive attitude toward myself.	1	2	3	4	

Please tell us a little about how you spend time with your children age 5 and under at home.										
How much do you agree or disagree with the following?	Never	Rarely	Frequently	Very Frequently	Always					
41. I talk to my child about how he/she has spent her day.	1	2	3	4	5					
42. I answer my child's questions and offer explanations, even if she repeats a question many times.	1	2	3	4	5					
43. I read picture books with my child.	1	2	3	4	5					

ID:		
ID.		

How much do you agree or disagree with the following?	Never	Rarely	Frequently	Very Frequently	Always
44. I read to my child when he/she wants me to.	1	2	3	4	5
45. I read books to my child.	1	2	3	4	5
46. When I'm with my child, I name and describe different objects and toys.	1	2	3	4	5
47. I allow my child to ask questions while I'm reading to him/her.	1	2	3	4	5
48. I allow my child to create his/her own stories while I'm reading to her.	1	2	3	4	5
49. When reading to my child, I talk to him/her about the content of the book.	1	2	3	4	5
50. I teach my child to count.	1	2	3	4	5
51. I encourage my child to learn a few words (e.g. Name).	1	2	3	4	5
52. I encourage my child to learn letters (e.g. I show letters in books, I teach letters in their name).	1	2	3	4	5

Think about materials you have	e at home that you	ır child uses fo	or learning.
53. Do you have any of the following materials/items for learning (check No or Yes for each material/ item)?	No	Yes	If Yes, please describe what materials/items:
Computer			
Books			
Educational Toys			
Educational TV Programs/Videos			
Educational Songs			
Other Items			

_		
ID:		
1.7		

The next set of statements, describe your child's social and emotional characteristics. Think of each of the statements in terms of your child's behaviors that you may observe while caring for your child. Please circle the answer that reflects how often each statement occurs.

occurs.			1	-		G)=	
How often does your child do the following?	Never	Some	etimes	Off	ten	Always	Cannot Evaluate
54. Becomes tired.	1	2	3	4	5	6	7
55. Becomes easily frustrated.	1	2	3	4	5	6	7
56. Gets angry easily.	1	2	3	4	5	6	7
57. Helps other children with problems.	1	2	3	4	5	6	7
58. Worries.	1	2	3	4	5	6	7
59. Is shy or afraid (e.g. avoids new situations).	1	2	3	4	5	6	7
60. Is sad, unhappy, or depressed.	1	2	3	4	5	6	7
61. Is uncomfortable with other children.	1	2	3	4	5	6	7
62. Screams or yells.	1	2	3	4	5	6	7
63. Has a neutral facial expression (e.g. doesn't smile or laugh).	1	2	3	4	5	6	7
64. Avoids being in a group.	1	2	3	4	5	6	7
65. Is considerate of other children's feelings.	1	2	3	4	5	6	7
66. Hits, bites, or kicks other children.	1	2	3	4	5	6	7
67. Gets into arguments or fights with other children.	1	2	3	4	5	6	7
68. Gets mad or annoyed easily.	1	2	3	4	5	6	7
69. Shares toys with other children.	1	2	3	4	5	6	7

How often does your child do the following?	Never	Some	etimes	Of	ten	Always	Cannot Evaluate
70. Doesn't talk or interact with other children during group activities.	1	2	3	4	5	6	7
71. Helps or plays with younger children.	1	2	3	4	5	6	7
72. Works easily in groups.	1	2	3	4	5	6	7
73. Hits you or destroys things when angry at you.	1	2	3	4	5	6	7
74. Helps with everyday tasks (e.g. cleaning up).	1	2	3	4	5	6	7
75. Forces other children to do things they don't want to do.	1	2	3	4	5	6	7
76. Takes pleasure in own accomplishments.	1	2	3	4	5	6	7

Appendix 4. Child Assessment/Bracken Record Form

Bracken	
School Readiness Assessment	
Third Edition	7

Name.

English Edition Record Form

 $\square M \square F$

School/Agency _								Gr	ade
Teacher						Examiner			
			Pi	etest			Po	sttest	
			Year	Month D	ay		Year I	Month Day	
	100	e of Test				Date of Test			
	1.7770	of Birth				Date of Birth			
	Chronolog	ical Age				Chronological Age			
50 50	100 100 200				core Sum	mary	N Contract	F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1000
	Pretest/	Raw Score						22 22 27 27 2	
Subtest	Posttest	(# Correct)	% Maste	ry*	Schoo	ol Readiness Concepts to T	arget for Inst	truction/Remediati	011
1 Colors	Pre	A	0						i (
	Past	10					No.	II HOMORES	
2 Letters	Pre	A	5						
	Post	A	5						
3 Numbers/Counting	Pre	4	8						
o tyumbers/Counting	Past	18							
4 Sizes/Comparisons	Pre	A						- 100	
* Sizes/Compartsons	Post	A							
Shapes	Pre	20							
5 Shapes	Post	20				and the said		de la	
	Pretest/ Posttest	Raw Score (# Correct)		ry* Horms	** Standard Score	Confidence Interval (% Level)	Percentile Rank	Descriptive Classification	Concept Age Equivalent
	Fre	4		N/L		to			

Post

N/L

PEARSON

Composite (SRC)

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16 17 18 19 A B C D E

Product Number 0154033871

^{*} See Appendix A for percent mastery calculations for each subtest and School Readiness Composit a.

^{**} For national norms (N) see Appendix B. Local norms (L) can be established at the discretion of each district/agency (see Appendix D).

Say,	Look at all of the	colors. Show m	e whic	h color is	Sa	y, Look at all of the num	bers/pictures	. Show	v me		
	Item	Pretest	Score	Posttest	core		Pretest		Post	0.000	*
Items	1-10	Response	Score	Response Si		Item ms 1–5	Response	Score	Response		Score
1.	red	NR	1 0	NR 1	0	the one	NR	1 0		NR	1 (
2.	blue	NR	1 0	NR 1	0 :	the three	NR	1 0		NR	1 (
3.	green	NR NR	1 0	NR I	0 2	3. the two	NR	1 0		NR	1 (
4.	black	NR	1 0	NR 1	2000	the four		1 0		NR	1 (
	yellow			NR 1		i, the zero		1 0			1 (
	pink		1 0	NR 1		i. three flowers					
	orange	The state of the s	1 0	NR 1	0.021	7. six ducks					
			1 0	NR I							
	purple				Time	3. nine ants	1 2 3 4 NK	1 0	1 2 3 4	NK	1 (
	white	20000	1 0	NR 1	0	the five	NR	1 0		NR	1 (
10.	brown	NR	1 0	NR 1	200000	the seven	NR	1 0		NR	1 0
		Rew Score		Rew Score	1	, the eight	NR	1 0		NR	1 (
c.1	test 2 Letters				-	the six.		1 0			1 (
No page	Look at all of the		10		100	the nine		1 0			1 (
ony,	LOOK at all of the	Protest	10	Posttest		ns 14–18	NA	1 0		NR	1 1
	Item	Response	Score			the forty-one	NR	1 0	300	NR	1 0
	the A		1 0	NR 1		the eleven	NR	1 0		NR	1 0
2.	the \mathbf{W}	NR	1 0	NR 1	0 16	the ninety-five	NR	1 0	La	NR	1 0
3.	the X	NR NR	1 0	NR 1	0	the twenty-seven		(4E) (17)			1 0
	the \mathbf{S}	NR	1 0	NR 1	0	the fifty-three		1 0			1 0
tems		002	97.152	-		the miy-three	81-19	1 0	1 10 10		1 1
	the K		1 0	NR 1	0		Row Score	_	Raw So	are	
6.	the H	NR NR	1 0	NR 1	0						
7.	the Q	NR	1 0	NR 1	0						
	the D	NR	1 0	NR 1	0						
	9-11										
	the m			NR 1							
	the i		1 0	NR 1							
	the b	NR	1 0	NR I	0						
	12-15 the e	ND	1 0	NR 1	0						
	the e										
	the t		1 0	NR 1							
	the j	NR	1 0	NR 1	0						
14.			1 0		1000						

Sau	Look at all of the picture	. 6	The	er me	and the										Con Tark at all after the Co	
Day	, LOOK at all of the picture	8- 5		w mi		÷				D.,	stte				Say, Look at all of the pictures. Show me	
	Item	Res	spor			core			Res	pon		38	50	ore	Profest Posttest Item Response Score Response Sc	ore
1.	which animal is big1	2	3	4 NI	R 1	0	1	2	2 8	1 4	1 1	VR.	1	0	1. the star NR 1 0 NR 1	(
2.	which dog is $\textbf{small}, \dots 1$	2	3	1 NI	R 1	0	1	2	2	3 4	N	IR	1	0	2. the heart 1 2 3 4 NR 1 0 1 2 3 4 NR 1	(
3.	which girl has long hair 1	2	3	1 NI	3 1	0	1	2	- 3	4	N	R	1	0	3. the circle NR 1 0 NR 1	0
4.	which ball is little 1	2 :	3	1 NI	2 1	0	1	2	3	4	N	IR	1	0	4. which children are in a line 1 2 3 4 NR 1 0 1 2 3 4 NR 1	
5.	which animals are not the same 1	9	0	AIT		0		0					,		Items 5-6	
6.	which girl has														5. the square NR 1 0 NR 1	0
	short pants 1														6. the triangle NR 1 0 NR 1	0
	which shoes match 1 which fruits	2 /	3 .	NE	6 1	0	1	2	3	4	N	K	1	0	7. the cone	0
0.	are different 1	2 :	3 -	NE	1	0	1	2	3	4	N	R	1	0	8. which one is round 1 2 3 4 NR 1 0 1 2 3 4 NR 1	0
9.	which fence is $tall \dots 1$	2 ;	3 4	NB	1	0	1	2	3	4	N	R	1	0	Items 9-11	
10.	which water is deep	2 :	3 4	NB	1 1	0	1	2	3	4	N	R	1	0	9. the diamond	0
11.	which rock is large, 1	2 :	3 (NB	1	0	1	2	3	4	N	R	1	0	10. the oval	0
12.	which balloons are the same 1			310				-		- V					11. the rectangle NR 1 0 NR 1	0
13.	which boats														12. the check mark 1 2 3 4 NR 1 0 1 2 3 4 NR 1	0
	are alike 1												56		13. which ducks are in a row	0
	which boat is wide1	2 ;	3 4	NR	1	0	1	2	3	4	N	R	1	0	14. the pyramid 1 2 3 4 NR 1 0 1 2 3 4 NR 1	
	fits exactly $\dots \dots 1$	2 8	3 4	NR	1	0	1	2	3	4	N	R	1	0	15. the cylinder 1 2 3 4 NR 1 0 1 2 3 4 NR 1	0
16.	which person is reading something other than a book 1	9 0	2 1	ND	-1	0	1	9	9	4	M	D		0	16. the cube	
17.	which animals							ī					7	ň	17. the curve	0
18.	are similar	2 3	3 4	NR	1	0	1	2	3	4	N	R	1	0	18. the column	0
	of equal size 1							R		J.					19. the diagonal 1 2 3 4 NR 1 0 1 2 3 4 NR 1	
	which book is thin 1	2 3	4	NR	1	0	1	2	3	4	N	R	1	0	1771	
	which ribbon is narrow 1	2 3	4	NR	1	0	1	2	3	4	N	R	1	0	20. the angle	0
	which glasses have unequal			3775			-			100					Raw Score Raw Score	_
2.	amounts of juice 1 which water															
-	is shallow 1				1	0	1	2	3	4	N.	R	1	0		
		Ro	w S	core					Roy	w 50	оге					

Appendix 5. Year 3 Impact Evaluation Results

Analysis

Data analysis consisted of descriptive and bivariate statistical analyses. Multivariate analysis as described in the SEP were planned to be carried out at the end of year 5 after adequate sample size was achieved. However, since this study was discontinued after its first year, these analyses could never be conducted to due insufficient power.

To prepare data for analyses, the frequency distributions for all study variables were examined to identify potential problems. Following examination of the data for missing data, descriptive statistics were run, including means, medians, and standard deviations for continuous variables. Visual inspection of histograms, normal probability plots, and box plots were examined in order to examine the distributional properties of continuous variables. In addition, Fisher's skewness and kurtosis coefficients were calculated to confirm whether distributional problems existed.

For determining baseline equivalence on socio-demographic variables between the intervention and comparison groups, we conducted Chi-square tests for categorical variables. The Mann-Whitney U test was used to compare sum score medians of the dependent variables based on dichotomous variables. The Mann-Whitney U test was used in this study because it is effective with small sample sizes and does not assume normality of distributions.

To test within group differences overtime, the Wilcoxon Signed Ranks Test was employed. The Wilcoxon Signed Ranks Test is appropriate for continuous variables and paired observations. As reported below, baseline equivalence was not achieved and so between-group analysis was conducted only for exploratory purposes. In order to examine time by group interactions, change scores were computed (post score – pre score) and subjected to the Mann Whitney U test. The results presented should be interpreted with caution in light of the limitations of the available statistical methods.

Results

Comparisons were made on socio-demographic variables between the intervention and comparison group. The table below shows characteristics for all those who completed a baseline survey and at least one post-test as seen in the table, both intervention (78.6%) and comparison group (61.3%) were largely Arab/Chaldean. However, the proportion of Hispanic participants within the intervention group was higher than the comparison group (38.7% vs. 21.4%) but the differences were not statistically different.

With respect to country of origin, the comparison group largely immigrated from Yemen (73.8%) or Mexico (21.4%). Those coming from Yemen (58.1%) and Mexico (22%) were also the largest groups within the intervention sample though a large minority from Central America were also represented (13%). Due to small cell sizes, the Chi-square test could not be used to examine whether country of origin differences were statistically different. Members of both groups were about 33 years old. Though not statistically significant, the intervention group appeared to be less educated with only 6 years of school compared to 8 years among those in the comparison group. Household size emerged as a statistically significant difference (p<.01) as the intervention group participants reported to have fewer people living within their households (mdn=3) when compared to their peers who did not receive the intervention (mdn=5). A median of 6 years residing in the United States was reported among participants in both groups.

Table 1. Parent Socio-Demographic Characteristics (N=74)

	Intervention (n=32)		Comp (n=	χ²	
	%	n	%	n	
Race/Ethnicity					2.582

	Intervention (n=32)		Compa (n=4		χ²
	%	n	%	n	
Arab/Chaldean	61.3%	19	78.6%	33	
Hispanic/Latino	38.7%	12	21.4%	9	
Country of Origin					-
Yemen	58.1%	18	73.8%	31	
Mexico	22.6%	7	21.4%	9	
Honduras	3.2%	1	-	0	
Guatemala	12.9%	4	-	0	
Saudi Arabia	3.2%	1	-	0	
United States	-	0	2.4%	1	
United Emirates	-	0	-	0	
			_		Mann-
	Median	n	Median	n	Whitney
					U
Parent Age	33.2	32	32.9	42	621.5
Years of School	6.0	32	8.0	42	584.5
Household Size	3.0	32	5.0	42	206.5**
Years in US	6.0	32	6.0	41	534.5

^{*}p<.05 **p<.01 [†]p<.10

Parent-Level Outcomes

Table 2 displays median changes between baseline and immediate post-test on parent/caregiver outcomes. The results of the Wilcoxon signed ranks test indicated that those children with parents participating in the intervention significantly reduced their anxiety from baseline (mdn=2.0) to post-test (mdn=1.88) (p=.03). Although only marginally significant among intervention participants, children from both groups were reported by their parents to have reduced their anger/aggression between baseline and immediate post-test. Intervention respondents uniquely reported decreased anger/aggression among their children from baseline (mdn=2.0) to immediate post-test (mdn=1.63) (p=.06). Although there we no other statistically significant changes, the direction of effects were positive among parents receiving the intervention as they improved in the frequency in which they read to their child, reported decreased parenting stress, improved parenting efficacy, increased family activities, and improved the attitudes related to parenting. Those in the comparison group also reported to read to their children more, to have improved efficacy, to have decreased family activities, and remained stable over time with respect to stress and attitudes.

Table 3 displays median change from baseline to 3-month follow-up. Among those in the intervention group, improvements in child anxiety and anger/aggression reported at the immediate post-test were not sustained at the 3-month follow-up. Moreover, there were no statistically significant changes on any outcomes over the longer 3 month follow-up period among program recipients. Unexpectedly, comparison group participants improved on several outcomes including reading to child (mdn=15 vs. mdn=30) (p=.03) and parenting attitudes (mdn=3.8 vs. mdn=3.0) (p=.03).

Table 2. Within-Group Change on Parent-Level Outcomes over Baseline and immediate post-test

	Interve	Intervention Group (n=27)			Comparison Group (n=37)			
Variable	Time 1 Median	Time 2 Median	z	Time 1 Median	Time 2 Median	z		
Frequency of Reading SCBE	17.5	20.0	-1.423	22.5	30.0	814		
Anger/Aggression	2.0	1.88	-1.829*	1.78	1.45	-1.967*		
Anxiety	2.0	1.63	-2.234*	1.60	1.50	-1.506		
Social Competence	3.1	2.4	857	2.9	2.4	1.401		
Parenting Stress (PSS)	2.11	2.05	254	2.06	2.06	-1.351		
Efficacy	3.80	4.00	262	4.00	4.40	-1.897 [†]		
Family Activities	2.72	2.82	306	3.23	3.00	205		
Negative Attitudes	3.20	3.60	213	3.40	3.40	986		

^{*}p<.05 **p<.01 *p<.10

Table 3. Within-Group Change on Parent-Level Outcomes over Baseline and 3 Month Follow-up

	Intervention Group (n=23)			Comparison Group (n=29)			
Variable	Time 1 Median	Time 3 Median	Z	Time 1 Median	Time 3 Median	Z	
Reading to Child	20.0	30.0	415	15.0	30.0	-2.127*	
SCBE Anger/Aggression	2.06	2.20	-1.382	1.87	1.50	-2.331*	
Anxiety Social Competence	2.33 2.90	1.80 2.37	-1.650 [†] 926	1.63 3.00	1.50 2.80	-2.826** -2.086*	
Parenting Stress (PSS) Efficacy	2.13 3.80	2.0 3.60	-1.218 -1.334	1.94 4.20	1.97 4.40	-1.233 -1.693 [†]	
Family Activities Negative Attitudes	2.72 3.20	3.00 3.00	475 400	3.17 3.80	2.83 3.00	-2.579* -3.193**	

^{*}p<.05 **p<.01 †p<.10

Table 4 shows the results of the Mann Whitney U test for between-group differences in change scores from baseline to the immediate post-test. Between these time points, there were no group by time effects on any of the parent outcomes.

Table 4. Between-Group Differences in Parent-Level Change Scores: Baseline to Immediate Post-Test

Inte	Intervention (n=32)			Comparison (n=42)			
Median Change	Mean Change	SD	Median Change	Mean Change	SD	U	
0	4.41	34.9	1.95	0	30.16	604.5	
0	.13	1.03	0	12	.92	459.0	
30	28	.69	22	30	.77	416.5	
38	32	.66	26	20	.75	363.0	
07 08	15 - 07	1.03 54	30 - 06	38 - 13	1.4 49	387.5 427.5	
	Median Change 0 0 30 38	Median ChangeMean Change04.41 0.133028 383832 070715	Median Change Mean Change SD 0 4.41 34.9 0 .13 1.03 30 28 .69 38 32 .66 07 15 1.03	Median Change Mean Change SD Median Change 0 4.41 34.9 1.95 0 .13 1.03 0 30 28 .69 22 38 32 .66 26 07 15 1.03 30	Median Change Mean Change SD Median Change Mean Change 0 4.41 34.9 1.95 0 0 .13 1.03 0 12 30 28 .69 22 30 38 32 .66 26 20 07 15 1.03 30 38	Median Change Mean Change SD Median Change Mean Change SD 0 4.41 34.9 1.95 0 30.16 0 .13 1.03 0 12 .92 30 28 .69 22 30 .77 38 32 .66 26 20 .75 07 15 1.03 30 38 1.4	

Efficacy	0	.07	.59	.20	.26	.75	366.0
Family Activities	.07	.04	.46	.07	.05	.59	324.0

^{*}p<.05 **p<.01 *p<.10

Group differences in change scores between baseline and 3-month follow-up are displayed in table 5. Negative attitudes about parenting decreased at a higher rate (mdn=-.80) among comparison group participants than for intervention recipients (mdn=-.20) though this difference was only marginally significant (p=.08). Improvements in parenting efficacy also improved among comparison group participants (mdn=.20) and decreased among those in the intervention group (mdn=-.20) and the difference in these change scores were statistically significant (p=.04). Change in family activities also differed between the two groups with a decrease among the comparison participants and no change among the intervention group parents/caregivers.

Table 5. Between-Group Differences in Parent-Level Change Scores: Baseline to 3 Month Follow-up

	Inte	rvention (n=2	23)	Com	Comparison (n=29)			
Variable	Median Change	Mean Change	SD	Median Change	Mean Change	SD	U	
Frequency of Reading	0	1.3	24.11	15.0	14.11	27.44	181.5	
Negative Attitudes	20	12	1.19	80	67	1.17	239.5 [†]	
SCBE								
Anger/Aggression	20	20	.932	35	37	.782	249.5	
Anxiety	35	38	.978	30	418	.688	259.0	
Social Competence	10	18	.673	38	49	1.12	216.5	
Parenting Stress	12	09	.502	14	14	.515	307.0	
Efficacy	20	23	.699	.20	.31	.819	191.5*	
Family Activities	0	.08	.825	33	40	.674	151.0*	

^{*}p<.05 **p<.01 *p<.10

Child-Level Outcomes

Table 6 displays median changes between baseline and immediate post-test on child outcomes. The results of the Wilcoxon signed ranks test indicated that those children with parents participating in the intervention significantly improved on Bracken subscales for letters and shapes (p<.05). Improvements on colors, numbers, and sizes subscales were also demonstrated though these changes were only marginally significant (p<.10). Conversely, there were no statistically significant changes in any of the bracken subscales among those children in the comparison group between baseline and 3-month follow-up.

Table 6. Within-Group Change in School Readiness Outcomes over Baseline and Immediate Post-Test

	Interv	ention Group (n=	17)	Con	nparison Group (n=20)	
Variable	Basline	Post-Test	_ z	Basline	Post-Test	-
Variable	Median	Median		Median	Median	Z
Colors	7.0	10.0	-1.75 [†]	7.5	10.0	-1.45
Letters	2.0	4.0	-3.31**	5.0	5.5	806
Numbers	1.0	2.0	-1.85 [†]	8.0	13.0	995
Sizes	4.0	6.0	-1.79 [†]	4.0	4.5	-1.59
Shapes	4.0	9.0	-2.46*	4.5	4.0	-1.16

^{*}p<.05 **p<.01 [†]p<.10

Table 7 displays median change from baseline to 3 month follow-up. Children in the intervention group demonstrated statistically significant gains on all Bracken subscales including colors, letters, numbers, sizes, and shapes (p<.05). Similar improvements on letters, sizes, and shapes were observed among those in the comparison group (p<.05) though changes in color and number recognition were only marginally significant (p<.10).

Table 7. Within-Group Change in School Readiness Outcomes over Baseline and 3 Month Follow-up

	Intervention Group(n=15)			Comparison C	Group	(n=19)
Verichle	Basline	3-Month		Basline	3-Month	_
Variable	Median	Median	Z	Median	Median	Z
Colors	6.0	10.0	-3.06**	7.0	10.0	-1.79 [†]
Letters	1.0	5.0	-3.05**	5.0	10.0	-2.02*
Numbers	1.0	8.0	-3.11**	4.0	8.0	-1.75 [†]
Sizes	4.0	10.0	-3.15**	4.0	10.0	-2.92**
Shapes	5.0	11.0	-3.10**	4.0	10.0	-2.35*

^{*}p<.05 **p<.01 *p<.10

Table 8 shows the results of the Mann Whitney U test for between-group differences in change scores from baseline to immediate post-test and table 9 displays these data from baseline to 3 month follow-up. Differences in change scores did not reach statistical significance. However, two marginally significant differences did emerge. Letter comprehension improved at a greater rate (mdn=2.0) among the intervention group children when compared to the control (mdn=0) (p<.10) between baseline and 3 month follow-up. In addition, number comprehension among program participants also improved at a higher rate (mdn=7) than those in the comparison group (mdn=4) (p<.10).

Table 8. Between-Group Differences in School Readiness Change Scores over Baseline and Immediate Follow-Up

	Intervention (n=17)			Com	0)	Test	
Variable	Median Change	Mean Change	SD	Median Change	Mean Change	SD	U
Colors	0	1.71	3.61	.50	1.35	4.83	163.0
Letters	2.0	3.82	4.16	0	1.0	5.52	112.0 [†]
Numbers	0.0	2.0	3.91	.50	1.85	6.78	162.5
Sizes	2.0	1.76	3.70	1.5	2.0	5.93	163.0
Shapes	4.0	2.88	4.32	.50	1.35	4.32	132.0

^{*}p<.05 **p<.01 *p<.10

Table 9. Between-Group Differences in School Readiness Change Scores over Baseline and 3 Month Follow-up

Intervention (n=15)				Com	9)	Test	
Variable	Median Change	Mean Change	SD	Median Change	Mean Change	SD	U
Colors	3.0	3.67	3.20	2.0	2.26	5.39	119.0
Letters	4.0	5.73	5.65	1.0	3.53	6.74	108.0
Numbers	7.0	6.4	5.2	4.0	2.89	6.20	94.5 [†]
Sizes	4.0	4.8	4.38	4.0	4.26	5.16	141.5
Shapes	4.0	4.2	3.38	3.0	3.21	5.38	114.0

^{*}p<.05 **p<.01 [†]p<.10

Appendix 6. Satisfaction Survey Satisfaction with PCIL

The following questions are about your satisfaction with the PCIL program. Please indicate how much you disagree or agree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The PCIL classes offered useful information	1	2	3	4	5
The group teacher communicated effectively	1	2	3	4	5
The information was presented in a way that I could easily understand	1	2	3	4	5
The group teacher was well prepared	1	2	3	4	5
The PCIL classes met my expectations	1	2	3	4	5
I would recommend PCIL to other parents and caregivers within my community	1	2	3	4	5
7. The materials used during the classes were easy to understand	1	2	3	4	5
Overall, my child enjoyed going to PCIL	1	2	3	4	5

Satisfaction with Parenting

The following questions are about your satisfaction with the Parenting program. Please indicate how much you disagree or agree with the following statements:

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1.	The Parenting classes offered useful information	1	2	3	4	5
2.	The group teacher communicated effectively	1	2	3	4	5
3.	The information was presented in a way that I could easily understand	1	2	3	4	5
4.	The group teacher was well prepared	1	2	3	4	5
5.	The Parenting classes met my expectations	1	2	3	4	5
6.	I would recommend Parenting to other parents and caregivers within my community	1	2	3	4	5
7.	The materials used during the Parenting classes were easy to understand	1	2	3	4	5