December 4, 2019

MEMORANDUM

- TO: Margarita Gardea Officer, Elementary Curriculum and Development
- FROM: Carla Stevens Assistant Superintendent, Research & Accountability
- SUBJECT: Supporting School Readiness through Home Instruction for Parents of Preschool Youngsters (HIPPY) and the Texas Maternal, Infant and Early Childhood Home Visiting (MIECHV) Programs in HISD, 2018–2019
- CONTACT: Carla Stevens, 713-556-6700

Attached is a copy of the HIPPY program evaluation for the 2018–2019 academic year. The study measured the academic performance of HISD students whose parents participated in HIPPY using the kindergarten 2018 Logramos and Iowa reading and mathematics assessments. The prekindergarten CIRCLE assessment and the Bracken measured school readiness. STAAR 3–8 explored long-term impact of the program. HIPPY parents provided feedback about the program through a survey administered by the University of North Texas.

Key findings include:

- HIPPY kindergarten students attained higher mean normal curve equivalent (NCE) scores on the Logramos reading and mathematics subtests compared to the district, and comparable lowa mathematics subtest scores as the district.
- The majority of HIPPY students met benchmark by EOY on English and Spanish CIRCLE mathematics subtests.
- Students in previous cohorts outperformed the district on the 2019 combined reading and math STAAR 3–8, reflecting a positive impact of the program as students progressed through school.
- Bracken effect size analyses indicated a positive, moderate to large effect of HIPPY on school readiness in all areas measured.
- The Parent Involvement survey noted that families were more likely to engage in activities that supported literacy with their children from pre-test to post-test.

Further distribution of this report is at your discretion. Should you have any further questions, please contact me at 713-556-6700.

Carla Staning CJS

Attachment

cc: Grenita Lathan Silvia Trinh Yolanda Rodriquez Mechiel Rozas

HOUSTON INDEPENDENT SCHOOL DISTRICT

RESEARCH Educational Program Report

SUPPORTING SCHOOL READINESS THROUGH HOME INSTRUCTION FOR PARENTS OF PRESCHOOL YOUNGSTERS (HIPPY) AND THE TEXAS MATERNAL, INFANT AND EARLY CHILDHOOD HOME VISITING (MIECHV) PROGRAMS IN HISD, 2018-2019

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EVALUATION BUREAU OF PROGRAM EVALUATION

Supporting School Readiness through Home Instruction for Parents of Preschool Youngsters (HIPPY) and the Texas Maternal, Infant and Early Childhood Home Visiting (MIECHV) Programs in HISD, 2018–2019

Prepared by Venita R. Holmes, Dr.P.H.

Abstract

HIPPY targeted parents of children zoned to 100 Houston Independent School District (HISD) elementary campuses during the 2018–2019 academic year, which reflected an increase from 80 campuses the previous year. Academic performance of students whose parents participated in HIPPY was assessed using the kindergarten 2018 Logramos and Iowa assessments, the prekindergarten CIRCLE assessment, and the combined English and Spanish STAAR 3-8. HIPPY kindergarten students attained higher mean normal curve equivalent (NCE) scores on the Logramos reading and mathematics subtests compared to the district, and comparable Iowa mathematics subtest scores as the district. CIRCLE results revealed that the majority of HIPPY students met benchmark by EOY on English and Spanish mathematics subtests. However, by EOY, students' performance fell below the district on most CIRCLE English math subtests. Students outperformed the district on most Spanish math CIRCLE EOY subtests. CIRCLE English literacy results were lower, while most Spanish literacy results were higher than the district's. Students in previous cohorts outperformed the district on the 2019 combined reading and math STAAR 3-8, reflecting a positive impact of the program as students progressed through school. Bracken effect size analyses indicated a positive, moderate to large effect of HIPPY on school readiness in all areas measured. The Parent Involvement survey noted that families were more likely to engage in activities that supported literacy with their children from pre-test to post-test. Considering the theoretical model, HIPPY facilitates achievement and school readiness, particularly among Spanish language children. Additional efforts should be made by program staff to encourage parents to practice activities with their children at home to further boost student peformance among all students, regardless of background characteristics.

Introduction

The Home Instruction for Parents of Preschool Youngsters (HIPPY) is an evidence-based home visiting program that equips parents with critical skills to effectively function as their child's first and most important teacher (HIPPY USA, n.d.). Research has identified the program's impact on improving school readiness by removing barriers for low-income children, reinforcing positive relationships among children and their parents, building communities through employment of local paraprofessionals, and serving as a home-school partnership for children who are at risk for academic failure (Baker, Piotrkowski, & Brooks-Gunn, 1998; Landry, et al., 2012; Westheimer, 2003). Early childhood experiences are provided through HIPPY that are "consistent, developmentally sound, and emotionally supportive for the child and the family" (High, 2008, p. 1008, Figure 1). The HIPPY model of early education is aligned to the governor

of Texas' priority for building a better education system for all children (The State of Texas, 2015).



Figure 1: Father and son at the HIPPY Fatherhood event to get fathers more involved with their children, 2018–2019

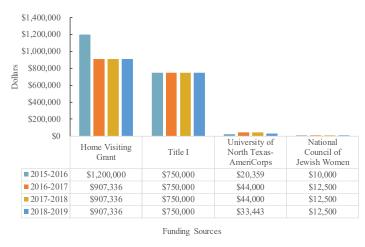


Figure 2: HIPPY Funding, 2015–2016 through 2018–2019

Background

The Houston Independent School District (HISD) launched HIPPY during the 1993–1994 school year with the intent to offer home-based, family-focused services to parents who lacked confidence in their ability to prepare their children for school or who had limited financial resources. Targeted parents had preschool children ages three to five years old. However, HISD staff focused recruitment on parents with three-year-old children.

Funding for HIPPY has consistently been provided through multiple sources, including federal Title 1 grants, the University of Texas AmeriCorps, and the National Council of Jewish Women (**Figure 2**). HISD acquired the five-year, Texas Home Visiting Grant, which allowed for program expansion and contributed to HIPPY funding beginning in the 2015–2016 academic year. Texas Home Visiting Grant funds were reallocated through the Texas Maternal, Infant and Early Childhood Home Visiting (MIECHV) program in 2016–2017 (Health Resources and Services Administration, n.d.). At the state level, the home visiting grant is funded by the Texas Health and Human Services Commission.

HIPPY school sites for the 2018–2019 academic year are depicted in **Appendix A**, p. 13. A geographical depiction of their locations, based on funding sources, is provided in **Appendix B** (p. 14). It is evident that parents and their children were impacted by HIPPY throughout the school district.

Additional information about HIPPY school sites, including the number of schools and Board Districts receiving program

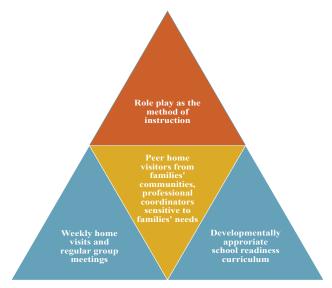


Figure 4: HIPPY Theoretical Model, 2018–2019

services, for the 2012–2013 through the 2018–2019 academic years, is shown in **Figure 3**. The total number of HIPPY schools has steadily increased over the past seven years, from 12 schools in 2012–2013 to 100 schools in 2018–2019 (Figure 3). This increase was, mostly, due to the acquisition of the MIECHV grant. It should be noted that there was a reduction in MIECHV funding in 2016–2017 from the previous year, and Title I funding has not increased over the past four years (Figure 2).

The HIPPY Theoretical Model

The U.S. Department of Health and Human Services (2017) identified four central components of HIPPY, which are reflected in its theoretical model (Figure 4). Texas HIPPY adds that these components support the development of basic academic readiness concepts and skills, including values and attitudes, concentration, confidence, successful transition from the home to school environment, empathy toward others, and positive relationships with parents (Texas HIPPY Center, 2015). Details regarding how these components were integrated in HISD HIPPY are as follows.

The HIPPY Curriculum

HIPPY instructional materials were standardized and included story books, weekly activity packets, and manipulatives for use throughout the school year. The 30-week activity packets

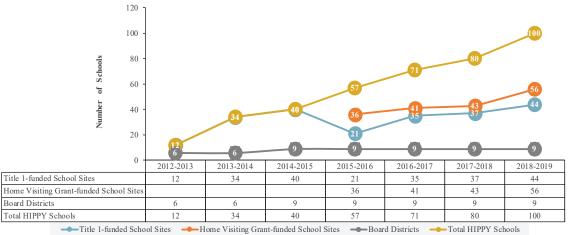


Figure 3: Number of HISD HIPPY School Sites and Board Districts, 2012–2013 to 2018–2019



Figure 5: HIPPY parent and child group activity at Cunningham ES to build self-confidence, 2018–2019

included approximately 10 activities for parents and children. These activity packets focused on building skills in the five HIPPY domains (literacy, math, motor, language, and science). Activities reinforced the development of oral language, sensory skills, perceptual discrimination, and problem solving. The materials were designed for use by parents with little or no formal schooling to successfully teach their children. Parents were encouraged to help their children recognize shapes and colors, tell stories, follow directions, solve logical problems, and acquire other school readiness skills (**Figures 5, 6, 7, and 8**).

Home Instructors and Program Coordinator

A typical home instructor provided services to up to 16 parents with children. The home instructor's main responsibility was to deliver the curriculum to his/her assigned parents. Home instructors scheduled their own appointments and met with their assigned parents at the parent's home once a week. During a home visit, home instructors provided parents with a packet containing the week's activities. The home instructors engaged in role-play with the parents, often using his or her own child. Home instructors did not work directly with the child.

Home instructors were part-time employees of HISD, and worked approximately 30 hours a week. The recruitment procedure for home instructors required that they have (1) a child of appropriate age to engage in the HIPPY curriculum, (2) a



Figure 7: HIPPY coordinator facilitating meeting at Robinson Westchase Library on healthy eating, and building math and literacy, 2018–2019

General Education Development (GED) high-school equivalent certificate, (3) a valid Texas Driver's License, (4) transportation, and (5) a valid permit to work in the United States. The home instructors received weekly HIPPY training conducted by a fulltime HIPPY coordinator. The program coordinator recruited and trained home instructors, organized group meetings, developed enrichment activities, and helped to recruit parents into the program. All home instructors were parents who had young children attending the school to which they were assigned.

There were two HIPPY program managers, one for the Title I-funded program and one for the home visiting grant program. These managers jointly supported the team by conducting home observations and telephone surveys with the families to determine whether the program was meeting their needs. They also provided trainings and recruited guest speakers to improve program implementation.

Staff and Group Meetings

Staff meetings provided home instructors with practice of the week's role-playing lessons and activities as it was taught to parents. Home instructors learned from other home instructors and the coordinator about circumstances and situations that may arise while they are training parents. Group meetings provided networking opportunities for parents of HIPPY children to discuss information and ask questions. Available community services and



Figure 6: Mother and daughter working on activity to empower the child to describe herself with positive and energetic words, 2018–2019



Figure 8: HIPPY families at Hiram Clarke Multi-Service Center/Vinson Library engaged in reading activity to promote literacy, 2018–2019

local resources that may benefit the families were shared.

HIPPY held mandatory annual conferences and retreats including:

- Annual Kickoff Agenda for all HIPPY personnel in Texas, held in Dallas in November 2018,
- Coordinators Retreat (every year for administrators and coordinators in Dallas, Texas in June 2019),
- HIPPY National Conference every other year (mandatory for administrators and coordinators at the national level), (last event was in April 2017) and,
- Once in Life HIPPY International Pre-Service training (mandatory for all new administrators and coordinators at the international level). November 5 through November 9, 2018, in Little Rock, Arkansas.

HIPPY Advisory Board

During the 2018-2019 academic year, HISD HIPPY had a 28-member Advisory Board. During the 2017-2018 academic year, there were 22 members. The Advisory Board consisted of principals, assistant principals, HISD Board members, community leaders, and parents. Wrap Around Specialists were added to the HIPPY Board in the current year. The Advisory Board was developed to help parents achieve expected outcomes related to teaching and learning for their child and themselves in the areas of literacy, self-concept, and interactions in their families, schools, and the community. Additional responsibilities of the HIPPY Advisory Board were to promote HIPPY in the community; assist in the procurement of funds; provide advice regarding planning, implementation, and problem solving; assist with program needs (e.g., special events, guest speakers); and foster cooperative working relationships with resource agencies, community and volunteer groups, and other early childhood/family support programs.

A+HIPPY

The 2018–2019 school year completed HISD's participation in the A+HIPPY pilot project. A+HIPPY was sponsored through the Texas HIPPY Center at the University of North Texas (UNT). The project was designed to recruit and retain families that had children with Autism. A+HIPPY goals were enhanced through role play and autism learning support methods; written learning support and transition materials; and training, resource materials, and support to improve services to children with autism (Texas HIPPY Backoffice, 2017). HIPPY workers spent two hours in the home to teach parents. Parents of children with autism or any disability can continue to participate in the program. The program does not discriminate against any parent who has children with disabilities.

Little Learners Program

HISD HIPPY participated in the Little Learners Program during the 2018–2019 school year. The program was designed for parents of two-year old children. HIPPY USA provided a special curriculum for two-year old children. These children completed 22 lessons using the same role-play, home-based techniques, and academic focus areas.

Home Visiting Grant Framework Early Childhood Coalition

The Texas Maternal, Infant and Early Childhood Home

HISD Department of Research and Accountability

Visiting Grant utilized an existing local early childhood coalition, Early Matters. Early Matters has merged with Good Reason Houston. The coalition's purposes were to: (1) identify communitylevel needs as they relate to school readiness and to maternal/child health outcomes, (2) integrate services to create streamlined access across different business, faith-based, and government sectors throughout Harris County, (3) implement system-level strategies that address broad policy, practice, or community infrastructure issues that impact young children and families and benefit the community at-large, and (4) build relationships with key stakeholders to create a foundation for long-term sustainability.

Sustainability

The local early childhood coalition worked to strategically design and implement a local sustainability plan. The local sustainability plan enabled the local early childhood coalition to effectively leverage state and federal funds to ensure continued financial support beyond the initial state and federal investments. HISD networked with different communities to identify champions that were sensitive to the goals of the program.

Coordinated System of Referrals

The local early childhood coalition must implement activities to coordinate cross-sector services and address broader community-level issues. The coalition worked toward integrating services in ways such that young children and families had easy and coordinated access to an effective continuum of services that impacted them (e.g., home visiting, mental health, employment, education). To improve service coordination, local coalitions developed a coordinated referral system to ensure families could easily access services to best meet their needs, identify communitywide recruitment and retention strategies, and streamline intake processes to ensure easy access to varied services. HISD worked on developing a user-friendly website, where all available resources on housing, domestic violence, and mental health, for example, are stored. Home visitors shared these resources with families in their homes.

Research Questions:

1. What were the participation trends of HISD HIPPY children over the past eight years (2010–2011 through 2018–2019)?

2. What enrichment activities were offered to HISD HIPPY participants during the 2018–2019 academic year?

3. How did the 2018–2019 HISD HIPPY kindergarten student cohort perform on the winter 2018 administration of Logramos and Iowa assessments?

4. How did HISD prekindergarten students whose parents participated in HIPPY during the 2018–2019 academic year perform on the 2018–2019 CIRCLE assessments?

5. What were the STAAR results of children whose parents participated in HIPPY during previous years (2014–2015 through 2015–2016)?

6. What was the impact of HISD HIPPY on school readiness of children whose parents participated in the program?

7. To what extent did parents engage in activities to support their child's literacy during the 2018–2019 academic year?

Review of the Literature

The role of parents has been pivotal toward strengthening the academic achievement of their child (Hilado, Kallemeyn, & Phillips, 2013). With this in mind, continuous efforts have been made by educators, social service providers, and governmental organizations to prepare children to be successful in school. Evidence-based intervention programs that utilize family coaching models, with trained paraprofessionals and community members to develop skills in children, have been paramount in these efforts (Kaminski et al. 2008; Shepard & Dickstein, 2009; Rotheram-Borus et al., 2018).

The U.S. Department of Health and Human Services (2013) has emphasized the significance of home visiting programs toward engaging parents who may be difficult to engage in supportive services for their child. Research that home visiting has the potential to yield positive results for these high-risk families has long been emphasized in the literature (Avellar & Supplee, 2013; Boller, Strong, & Daro, 2010; Callahan et al., 2010; Landry, et al., 2012; Paulsell, et al., 2010; Sweet & Appelbaum, 2004). Moreover, the significance of parents in early childhood education is documented in the Family Engagement in Education Act of 2011. The Act notes that "positive benefits for children, youth, families, and schools are maximized through effective family engagement that is continuous across a child's life from birth through young adulthood" (Family Engagement in Education Act of 2011, Section 3).

The research reiterates that when parents are involved in their child's education, students have higher grades, have higher test scores, attend school on a regular basis, are more motivated, have higher levels of self-esteem, have lower rates of suspension, and show improved behavior at home and school (Henderson & Mapp, 2002). Key program components have been found to produce effective early education intervention programs, including better trained professionals compared to paraprofessionals or lay professionals, a smaller child to staff ratio, and more intensive programs.

Hilado, Kallemeyn, and Phillips (2013) highlight research on the positive relationship between parental involvement, children's brain development, and school readiness. There were strong indications that the most effective forms of involvement are those that engage parents by working directly with their children on learning activities in the home (Henderson & Mapp, 2002). The research also shows that the earlier in a child's educational process parent engagement begins, the more powerful the effects (Kagitcibasi, Sunar, & Bekman, 2001). Early childhood programs with strong parental involvement components have demonstrated effectiveness by applying this approach (Jordan, Snow, & Porche, 2000; Mathematica Policy Research, 2001; Starkey & Klein, 2000).

A third-grade follow-up study of HIPPY conducted in Texas showed significantly higher mathematics achievement of HIPPY children compared to low-income Latino third graders in the same school district (Nievar, Jacobson, Chen, Johnson, & Dier, 2011, p. 268). In Arkansas, a modest positive impact on school suspensions, grades, classroom behavior, and achievement test scores were noted for third and sixth-grade students enrolled in the same classrooms, controlling for preschool experiences (Bradley & Gilkey, 2002). Another study examined the impact of the HIPPY program in a New York school district (Baker, Piotrkowski, & Brooks-Gunn, 1998). The study followed two cohorts of HIPPY program participants and control-group children over a two-year period, from kindergarten through first grade. In the first cohort, researchers found that HIPPY children outperformed control-group children on measures of cognitive skills at the end of kindergarten, on measures of classroom adaptation at the beginning of the first and second grades, and on a standardized reading test at the end of first grade. However, in the second cohort, the researchers found no significant differences between HIPPY and control-group students, after controlling for age, gender, ethnicity, attrition, and family background.

Barton (2016) documents widespread attention related to economic benefits of evidence-based home visiting programs, such as HIPPY, and positive benefit-cost ratios due to implementation (Aos, Lieb, Mayfield, Miller, & Pennucci, 2004; Glazner, Bondy, Luckey, & Olds, 2004; Karoly et al., 2005; Olds et al., 2010).

Baker et al. (1998) point out that gains experienced by participation in HIPPY may increase or decline over the course of the child's education. Developing systems that capture HIPPY participation are critical to school districts to document student performance as children progress through school.

Methods

Study Population

Student enrollment, demographic characteristics, and academic performance data for the evaluation were obtained using a variety of sources. First, an electronic database of children whose parents participated in HISD HIPPY during the 2018-2019 academic year was acquired from HISD HIPPY administrative staff. Next, HISD student enrollment was verified using the Public Education Information Management System (PEIMS). Data on children who were verified as HISD students based on PEIMS were used in this analysis to form the 2018-2019 HISD HIPPY student cohort. Further, this year was the first year that HISD registered children in HIPPY although they were not students in the district' student information system. Registration of these children will allow analyses in future evaluations to measure program impact over time. Student cohorts were created in previous years using the same system. Longitudinal demographic characteristics of HISD HIPPY student cohorts from 2011-2012 to 2018-2019 are presented in Appendix C (p. 15).

Data Collection and Analyses

Academic achievement measures included the Logramos and Iowa assessments for kindergarten students whose parents participated in HIPPY during the 2018–2019 academic year. Performance comparisons between the district and HIPPY were made using normal curve equivalents (NCEs). Riverside Publishing (1999) indicates that the NCE is a continuous measure, with a mean of 50 and a range of 1-99. Like the scale score, NCEs permit direct comparisons of different groups, and can be used to track performance over time to measure growth.

CIRCLE is a Texas School Ready, technology-driven, progress monitoring tool that is designed to test a child's literacy skills and measure school readiness (Children's Learning Institute, 2016). The system has demonstrated high reliability and validity in multiple research studies (Children's Learning Institute, 2016). Early Language and Literacy assessment results in this evaluation were used as a proxy to measure reading readiness. The assessments included Rapid Letter Naming, Rapid Vocabulary, Alliteration, and Letter Sounds. Rapid Letter Naming evaluated the child's ability to name letters within a timed format. Rapid Vocabulary required that students provide names for images within a timed format. Alliteration assessed components of phonological awareness, which is an important part of the early literacy process.

Letter Sounds required that students make corresponding sounds to given letters. The assessments are typically administered three times each year to HISD prekindergarten students. These windows are referred to as "waves," typically occurring at the beginning of the year (Wave 1), middle of the year (Wave 2), and end of the year (Wave 3). Wave 1 was used as a pre-test and Wave 3 was used as the post-test measure for HISD HIPPY students on the Alliteration, Rapid Letter Naming, and Rapid Vocabulary subtests. Wave 2 was used as the pre-test and Wave 3 was used as the post-test for the Letter Sounds subtest because this subtest was not administered at the beginning of the year. Only students with measures at the two points in time were used in the analyses. Results were captured on the English and Spanish language versions of the CIRCLE assessment.

The combined results for the first test administration of the state-mandated English and Spanish reading and mathematics State of Texas Assessments of Academic Readiness (STAAR) grades 3-8 determined additional academic outcomes for HISD students whose parents participated in HIPPY. Data were found for 19 students on the reading and mathematics assessments. Approximately 84% of the students were tested at the third grade level. These students' parents participated in HIPPY during the 2014–2015 and 2015–2016 academic years. The proficiency levels on STAAR (grades 3-8) were as follows: Does Not Meet Grade Level, Approaches Grade Level, Meets Grade Level, and Masters Grade Level. Performance at or above Approaches Grade Level standard indicates that students passed the test. According to the Texas Education Agency (2019), a student achieving the Approaches Grade Level standard is likely to succeed in the next grade or course with targeted academic intervention.

Results from the Bracken School Readiness Assessment (BSRA®) were used to measure the impact of HIPPY toward preparing children for school. The BSRA® is an individual, standardized, cognitive test developed by Pearson Education, Inc. The assessment is designed for children in prekindergarten through second grade. The test was administered as a pre- and post-test in the fall 2018 and spring 2019 by the University of North Texas to HISD HIPPY three to five-year old children. The assessment measured six basic skills: (1) colors - identification of common colors by name; (2) letters - identification of upper-case and lower-case letters; (3) numbers/counting - identification of single and double-digit numerals, and counting objects; (4) sizes - demonstration of knowledge of words used to depict size (e.g., tall, wide, etc.); (5) comparisons - matching or differentiation of objects based on a specific characteristic; and (6) shapes identification of basic shapes by name (Think Tonight, 2014). Descriptive statistics were calculated.

Rosenthal (1991) recommended using effect sizes for paired data. Effects sizes were calculated using Bracken results based on Hedge's g. Hedge's g follows similar criteria to Cohen's d (1988) for determining the strength of an intervention with an effect size of 0.2 = small effect, 0.5 = moderate effect, and 0.8 = large effect. According to the What Works Clearinghouse (n.d.), effect sizes of 0.25 standard deviations or larger are considered to be substantively important. Effect sizes at least this large are interpreted as a qualified positive (or negative) effect, even though they may not reach statistical significance in each study.

The HIPPY Parental Involvement Survey, administered by the University of North Texas, was used to assess the extent that parents engaged in activities to support their child's literacy development. Survey responses related directly to the HIPPY child. The pre-survey is, typically, administered between intake and week one and the post-survey is, typically, administered between exit and weeks 29-30. A matched-paired design yielded a sample of 321 parents with both pre- and post-survey results during the 2018–2019 school year.

Study Limitations

A limitation of this evaluation is that HISD students were identified based on background information, including name and birth date extracted from HIPPY parent enrollment forms submitted to the University of North Texas (UNT). UNT houses the state-wide HIPPY Center, which provides administrative oversight for local HIPPY programs in Texas. Only children who could be verified based on these background characteristics through the Public Education Information Management System (PEIMS), annually, were included in the longitudinal participation trends of HISD HIPPY students. Academic performance analyses were conducted only for these students. A mitigation strategy consisted of working directly with HISD HIPPY staff to verify students captured through PEIMS and to augment the HISD student information system to verify student enrollment and registration.

What were the participation trends of HISD HIPPY children over the past eight years (2010–2011 through 2018–2019)?

Figure 9 (p. 7) presents the total number of children whose parents participated in HISD HIPPY over the past eight years, including the number of children of HIPPY parents who were enrolled in HISD elementary schools. The 2018–2019 academic year was the first year that HIPPY staff registered children in the HISD student information system. These children were not HISD students, typically, because they did not meet the age requirement for school enrollment.

According to the Texas HIPPY database, a total of 773 children, along with their parents, participated in HISD HIPPY during the 2018–2019 academic year. Among the 773 children, 269 were identified as students currently enrolled in HISD schools. In addition, 249 children were registered/not enrolled in the HISD student information system by HIPPY staff. The remaining 255 children were not enrolled nor registered children.

Appendix C (p. 15) shows that, in 2018–2019, there was a moderate decrease in the proportion of males (50.1 percent vs. 47.2 percent) from the previous school year. At the same time, there was an increase in the proportion of Hispanic students (84.2 percent to 86.2 percent). There was a decline in the percentage of African American students (12.9 percent vs. 11.9 percent) from 2017–2018 to 2018–2019 and in the percentage of White students (1.7 percent vs. 0.4 percent). There was also an increase in the proportion of economically-disadvantaged students (94.0 percent vs. 95.9 percent) and at-risk students (90.5 percent vs. 94.1 percent) over the past two years. Grade enrollment trends revealed that prekindergarten and kindergarten students in the sample have consistently dominated HISD HIPPY participation, representing 91.4 percent of the total student group in 2017–2018 and 97.0 percent of the group in 2018–2019 (Appendix C, p. 15).

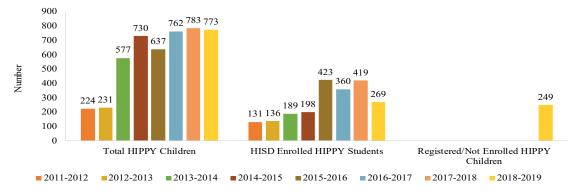


Figure 9: Number of children whose parents participated in HISD HIPPY, 2011–2012 through 2018–2019 (Note: Total figures represent all children of participating parents. In 2018–2019, 518 children were either enrolled in HISD or registered in the student information system as HIPPY.)

What enrichment activities were offered to HISD HIPPY participants during the 2018–2019 academic year?

HISD HIPPY students and parents engaged in enrichment activities to complement home instruction lessons throughout the academic year. The activities were designed to encourage parents to be more involved in their child's learning and to develop leadership skills. The culminating annual event was the HIPPY End-of-Year Celebration. Participation in this event increased over the past two years from 1,841 parents and families during the 2017-2018 school year to 2,036 in 2018-2019 (Appendix D, p. 16). Guest speakers were principals, community leaders, and an HISD Board Member. The events were held at various community sites, including BakerRipley, Vinson Library, and Ripley House. High school sites were Chavez, Energy Institute, and North Forest high schools. Elementary school sites were Coop, Grissom, and Herrera. Each HISD HIPPY child and parent was awarded a certificate for completing the 30-week curriculum. This annual event provided parents and their children with a sense of accomplishment for their challenging work throughout the school year. HISD Nutrition Services was contracted to provide lunch to families who attended the event.

During summer 2019, the Houston Astros provided approximately 150 free baseball game tickets to HISD HIPPY families. To encourage summer reading, three books, in English and Spanish, and one educational toy were placed in the children's backpacks at the end of the school year. Backpacks were provided with funds donated by the National Council of Jewish Women.

The "Back to School! Store" was initiated by the National Council of Jewish Women to assist HIPPY graduates with school supplies, new clothing, and books. Items were distributed to approximately 300 children and their siblings. Among the 300 children served, 130 were HISD HIPPY children.

HIPPY students and their families participated in field trips on December 13 and December 20, 2018, at the Houston Children's Museum. A total of 1,284 children and their families participated in the event (689 attendees on December 13th and 595 attendees on December 20th). Kids Meal provided snacks for attendees.

How did the 2018–2019 HISD HIPPY kindergarten student cohort perform on the winter 2018 administration of Logramos and Iowa assessments?

Figure 10 presents the 2018–2019 mean Normal Curve Equivalents (NCEs) on the Logramos Spanish language reading

(LA Total) and mathematics assessments for kindergarten students whose parents participated in HISD HIPPY during the 2018–2019 academic year compared to kindergarten students districtwide. The sample size is limited to 173 students on the reading assessment and 176 students on the math assessment. It is evident that students whose parents participated in HIPPY outperformed students districtwide on the Logramos LA Total assessment (47 vs. 45 NCEs). Similar findings were observed on the Logramos Mathematics assessment for the respective groups (49 vs. 44 NCEs).

Iowa English Language Arts (ELA) Total and Mathematics English language assessments results for students whose parents participated in HIPPY during the 2018–2019 academic year are depicted in **Figure 11**. Results are presented for 90 HISD HIPPY students on the ELA Total assessment and for 91 students on the Mathematics assessment. HISD HIPPY students attained a lower mean NCE score on the Iowa ELA Total assessment compared to students districtwide (42 vs. 44 NCEs, respectively). The mean

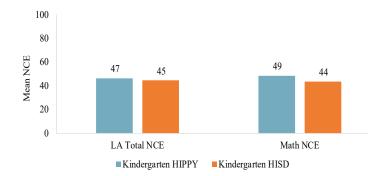


Figure 10: HISD HIPPY vs. District Logramos LA Total and Math Results, 2018

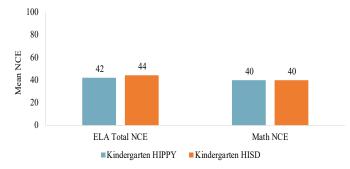


Figure 11: HISD HIPPY vs. District, Iowa ELA Total and Math Results, 2018

NCE score for HISD HIPPY students was comparable to the districtwide mean on the Iowa Mathematics assessment (40.0 NCEs for both groups).

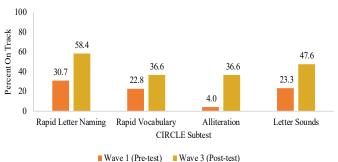
How did HISD prekindergarten students whose parents participated in HIPPY during the 2018–2019 academic year perform on the 2018–2019 CIRCLE assessments?

CIRCLE results were used as a prekindergarten school readiness measure for HISD students whose parents participated in HIPPY during the 2018–2019 academic year. Wave 1 of CIRCLE was the pre-test measure and Wave 3 was the post-test measure. Both English and Spanish language literacy and mathematics CIRCLE assessment data are presented. Only students with both BOY and EOY data were used in the analyses, and the assessments chosen for this evaluation were available in both English and Spanish. The percent of students who met the benchmark to be "on track" on the assessments at BOY and EOY are depicted.

Figure 12 shows the performance of the HISD HIPPY student group on 2018–2019 English Literacy CIRCLE assessments. There was an increase in the percentage of students who met benchmark, from BOY to EOY, on Rapid Letter Naming, Rapid Vocabulary, Alliteration, and Letter Sounds subtests. At BOY, the highest percentage of students who met benchmark was on the Rapid Letter Naming subtest (30.7%) and the lowest percentage of students who met benchmark was on the Alliteration subtest (4.0%). By EOY, the highest percentage of students who met benchmark was also on the Rapid Letter Naming subtest (58.4%), and the lowest percentage of students who met benchmark was on the Rapid Vocabulary and Alliteration subtests (36.6%). The largest increase in the percentage of students who met benchmark, from BOY to EOY, was on the Alliteration subtest (32.6 percentage points), whereas, the smallest increase was on the Rapid Vocabulary subtest (13.8 percentage points).

A comparison of EOY English Literacy CIRCLE performance of the 2018–2019 HISD HIPPY prekindergarten cohort with districtwide results is reflected in **Figure 13**. A lower percentage of the HIPPY student group met the benchmark on the Rapid Letter Naming, Rapid Vocabulary, and Alliteration subtests compared to districtwide results. HIPPY students' performance on the Letter Sounds subtests was comparable to the districts' performance (47.6 percentage points).

Figure 14 shows the performance of the HISD HIPPY student group on 2018–2019 English Mathematics CIRCLE assessments. There was an increase in the percentage of students who met benchmark, from BOY to EOY, on Patterns, Shape Naming, Shape Discrimination, Number Naming, Number Discrimination,



wave I (Fre-lest) wave 5 (Fost-lest)

Figure 12: CIRCLE English Literacy assessment results of HISD HIPPY prekindergarten students, 2018–2019

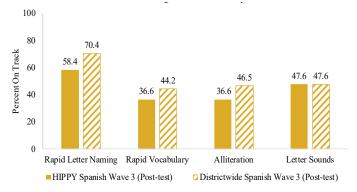


Figure 13: CIRCLE English Literacy prekindergarten HIPPY students compared to districtwide results, 2018–2019

Rote Counting, and Counting Sets subtests. At BOY, the highest percentage of students who met benchmark was on the Shape Discrimination subtest (45.7%) and the lowest percentage of students who met benchmark was on the Rote Counting subtest (12.9%). By EOY, the highest percentage of students who met benchmark was on the Shape Discrimination and Number Discrimination subtests (78.6%), while the lowest percentage of students who met benchmark was on the Rote Counting subtest (64.3%). The largest increase in the percentage of students who met benchmark, from BOY to EOY, was on the Rote Counting subtest (51.4 percentage points), whereas, the smallest increase was on the Shape Discrimination subtest (32.9 percentage points).

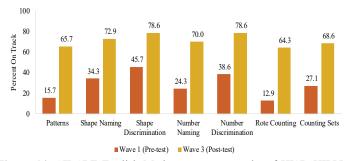


Figure 14: CIRCLE English Math assessment results of HISD HIPPY prekindergarten students, 2018–2019

A comparison of EOY English Literacy CIRCLE performance of the 2018–2019 HISD HIPPY prekindergarten cohort with students districtwide is reflected in **Figure 15**. A lower percentage of the HIPPY student group met the benchmark on all CIRCLE English mathematics assessments used in this report compared to the district.

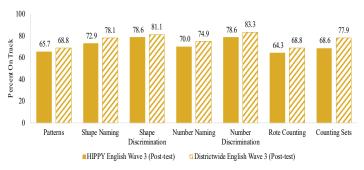


Figure 15: CIRCLE English Math post-test results of HISD HIPPY prekindergarten students compared to districtwide results, 2018–2019

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Figure 16 shows the performance of the HISD HIPPY student group on 2018–2019 Spanish Literacy CIRCLE assessments. There was an increase in the percentage of students who met benchmark, from BOY to EOY, on the Rapid Letter Naming, Rapid Vocabulary, Alliteration, and Letter Sounds subtests. At BOY, the highest percentage of students who met benchmark was on the Letter Sounds subtest (24.8%) and the lowest percentage of students who met benchmark was on the Alllteration subtest (7.8%). By EOY, the highest percentage of students who met benchmark was on the Rapid Letter Naming subtest (81.4%), and the lowest percentage of students who met benchmark was on the Letter Sounds subtest (41.9%). The largest increase in the percentage of students who met benchmark, from BOY to EOY, was on the Rapid Letter Naming subtest (62.8 percentage points); whereas, the smallest increase was on the Letter Sounds subtest (17.1 percentage points).

A comparison of EOY Spanish Literacy CIRCLE performance of the 2018–2019 HISD HIPPY prekindergarten cohort with students districtwide is reflected in **Figure 17**. A higher percentage of the HIPPY student group met the benchmark on all assessments used in this evaluation compared to the district with the exception of Letter Sounds.

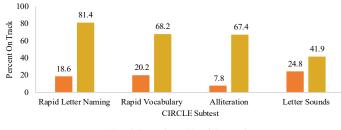




Figure 16: CIRCLE Spanish Literacy assessment results of HISD HIP-PY prekindergarten students, 2018–2019

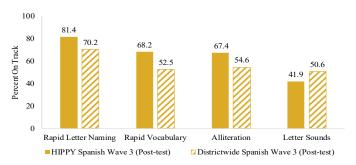


Figure 17: CIRCLE Spanish Literacy post-test results of HISD HIPPY prekindergarten students compared to districtwide results, 2018–2019

Figure 18 shows the performance of the HISD HIPPY student group on 2018–2019 Spanish Mathematics CIRCLE assessments. There was an increase in the percentage of students who met benchmark, from BOY to EOY, on Patterns, Shape Naming, Shape Discrimination, Number Naming, Number Discrimination, Rote Counting, and Counting Sets subtests. At BOY, the highest percentage of students who met benchmark was on the Number Discrimination subtest (40.6%), and the lowest percentage of students who met benchmark was on the Rote Counting subtest (9.8%). By EOY, the highest percentage of students who met benchmark was on the Shape Discrimination and Number Discrimination subtests (89.5%), and the lowest percentage of

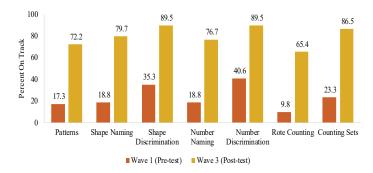


Figure 18: CIRCLE Spanish Math assessment results of HISD HIPPY prekindergarten students, 2018–2019

students who met benchmark was on the Rote Counting subtest (65.4%). The largest increase in the percentage of students who met benchmark, from BOY to EOY, was on the Counting Sets subtest (63.2 percentage points); whereas, the smallest increase was on the Number Discrimination subtest (48.9 percentage points).

A comparison of EOY Spanish mathematics CIRCLE performance of the 2018–2019 HISD HIPPY prekindergarten cohort with students districtwide is reflected in **Figure 19**. A higher percentage of the HIPPY student group met the benchmark on the Patterns, Shape Naming, Shape Discrimination, Number Naming, Number Discrimination, and Counting Sets CIRCLE Spanish mathematics assessments compared to the district.

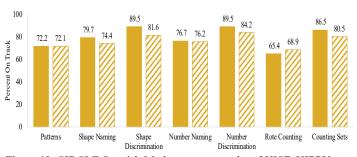


Figure 19: CIRCLE Spanish Math post-test results of HISD HIPPY prekindergarten students compared to districtwide results, 2018–2019

What were the STAAR results of children whose parents participated in HIPPY during previous years (2014–2015 and 2015–2016)?

The combined STAAR 3–8 English and Spanish results for first-time testers (spring 2019 administration) were analyzed for HISD students whose parents participated in HIPPY during the 2014–2015 and 2015–2016 academic years. A total of 19 HISD HIPPY students had English or Spanish test results. The majority of students (84.2%) were tested at the third grade level. **Figure 20** (p. 10) presents the performance of these students across grade levels compared to the districtwide combined performance. It is evident that the HISD HIPPY students outperformed the district on the reading assessment by 10.2 percentage points. In addition, HISD HIPPY students outperformed the district on the math assessment by 22.0 percentage points. These results should be viewed with caution due to the small HIPPY student sample size.

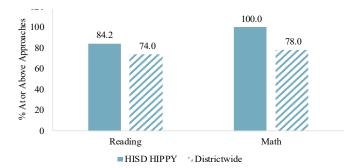


Figure 20: STAAR 3–8 combined English and Spanish across grade levels, reading and math results, spring administration, first-time testers, HISD HIPPY children vs. districtwide performance, 2018 (Source: TEA-ETS Student Data Files; Texas Assessment Analytics Portal)

What was the impact of HISD HIPPY on school readiness of children whose parents participated in the program?

Bracken (BSRA®) results were used to assess school readiness, considering children's knowledge of concepts that kindergarten teachers traditionally teach to prepare children for formal education. The five basic skills measured on the Bracken are sizes, shapes, colors, letters, and numbers/counting. Bracken data are based on parents' perceptions of their child's abilities in the targeted areas. Findings, including pre- and post-test means, standard deviations, gain scores, and effect sizes are presented in **Appendix E** (p. 17) for 633 preschool children whose parents participated in HIPPY during the 2018–2019 academic year.

Figure 21 shows increases in the mean number of items correct on all Bracken subscales from pre-test to post-test. The most gain on the Bracken was on the subscales that measured children's knowledge of colors and letters (*Gain Score* = 4.9 for both subscales). The mean number of items correct on the colors subscale at pre-test was 6.5 and the mean number of items correct at post-test was 11.4. In addition, the mean number of items correct on the letters subscale at pre-test was 13.2. Children made the least gain on the subscale that measured their knowledge of sizes (*Gain Score* = 1.8; 7.4 mean items correct at post-test vs. 9.2 mean items correct at post-test).

Rosenthal (1991) recommended conducting effect size analyses using paired data. Hedge's g effect sizes using Bracken results are presented in Figure 21. The effect sizes ranged from .63 to .83. Thus, the effect of HIPPY on school readiness was positive in all areas. The magnitude of the effect ranged from moderate to large.

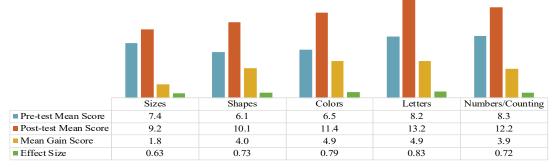
To what extent did parents engage in activities to support their child's literacy during the 2018–2019 academic year?

The HIPPY Parental Involvement Survey, administered by the University of North Texas, was used to assess the extent that parents engaged in activities to support their child's literacy development. Survey responses relate directly to the HIPPY child. The presurvey is, typically, administered between intake and week one and the post-survey is, typically, administered between exit and weeks 29–30. Only new families for the school year complete the survey. A matched-paired design yielded a sample of 321parents with both pre- and post-survey results for the 2018–2019 school year. All of the survey results are presented in **Appendix F** (pp. 18–19). The survey items are presented in tables based on the frequency that the activity occurred and response choices.

Notable findings, where gains were found, are discussed. Specifically, **Table Fa** shows pre- and post-test results relative to the extent that anyone in the family usually, sometimes, or never engaged in specific literacy activities. Don't know responses were also noted. There was an increase in the percentage of respondents who indicated they "usually" stop reading and ask their child to tell them what is in a picture (34.3% vs 57.9%), stop reading and point out letters (23.7% vs 41.1%), ask their child to read with them (24.3% vs 41.4%), and talk about the story when the book is done (40.5% vs 69.8%).

Table Fb addressed activities that the family engaged in a "typical week" with the child. The response choices were not at all, once or twice, 3 to 6 times, everyday, or don't know. There were increases, from pre- to post-test, in the percentage of families that read books to the child (22.1% vs. 31.5%) and told stories to the child (13.7% vs. 19.9%) "everyday." However, the overall percentages seemed low for these activities. The largest increases were seen at 3 to 6 times a week.

Table Fc presents activities that families engaged in during the "past month" with the child. The response choices were not at all, once or twice, 3 to 6 times, everyday, or don't know. There were increases in the percentage of families that taught the child letters (25.2% vs. 30.5%), words (24.0% vs. 27.7%), numbers (28.3% vs. 40.2%), helped the child learn shapes (15.0% vs. 23.7%), patterns (8.1% vs. 15.3%), played games that involved arranging objects by size, height, or color with the child (6.9% vs. 13.4%), and did counting activities (17.1% vs 25.5%) "everyday." Again, the overall percentages seemed low for most of these activities. Although the largest increases were evident at the 3 to 6 times a month response.



Pre-test Mean Score Post-test Mean Score Mean Gain Score Effect Size

Figure 21: Bracken assessment results, mean number of items correct, gain scores, and effect sizes, HISD HIPPY children, 2018-2019 (numbers rounded to the nearest tenth) (Hedge's g: small effect = 0.2, moderate effect = 0.5, and large effect = 0.8.)

Table Fd presents activities that families engaged in during the "past three months" with the child. The response choices were not at all, once or twice, 3 to 6 times, everyday, or don't know. There were decreases in the percentages of families that indicated "not at all" to engaging in the following activities in the past three months: visited the library (62.0% vs. 48.6%), visited a bookstore (65.7% vs. 49.8%), or went to a play, concert, or other live show (69.5% vs. 55.1%). The frequency of these activities may be expected, considering the types of activities measured.

Discussion

HIPPY was designed to assist parents from disadvantaged backgrounds with educational opportunities to prepare their preschool children for school. During the 2018–2019 academic year, HIPPY targeted parents who resided in geographical areas surrounding 100 elementary schools dispersed throughout HISD boundaries. This number reflected an increase of 25 percent, from 80 HISD elementary schools during the 2017–2018 academic year. HIPPY continues to, predominately, receive both Title I and Texas Home Visiting Grant funding to support the additional parents and their children served in the program.

Over the past eight years, the vast majority of students whose parents participated in HISD HIPPY was Hispanic. There have been low percentages of African American students served in the program and even lower percentages of White and Asian students participating in the program over the years. The students have been largely limited English proficient, economically disadvantaged, and at risk of dropping out of school. HIPPY program administrators should explore strategies to ensure that more children and their families from varying cultural backgrounds and communities are engaged in the program.

Academic performance of HISD students whose parents participated in HIPPY during the 2018–2019 academic school was assessed using the winter administration of Logramos and Iowa reading and mathematics assessments for kindergarten students, the CIRCLE assessment for prekindergarten students, and STAAR 3–8 for students in grade 3 or higher. The CIRCLE assessment was designed to measure school readiness.

Notable findings were HISD HIPPY kindergarten students attained higher mean normal curve equivalent (NCE) scores on the Spanish language Logramos reading and mathematics subtests compared to the district, and comparable English language Iowa mathematics subtest scores as the district. CIRCLE results revealed that the majority of HIPPY students met benchmark by EOY on English and Spanish mathematics assessments. However, students' CIRCLE EOY performance tended to fall below the district on most English mathematics assessments, while they outperformed the district on most Spanish mathematics assessments. Moreover, the performance of HIPPY students on the CIRCLE English literacy assessments were lower than the district, while they outperformed the district on most Spanish literacy assessments. The need to address cultural differences in program implementation may be reflected in the data.

An analysis of the academic performance of students whose parents participated in HIPPY in previous cohorts was conducted to determine long-term impact of the program. The study found that HIPPY cohorts outperformed the district on the combined English and Spanish 2019 STAAR 3–8 reading and mathematics subtests. Most students included in the analyses were third-grade students. Measures captured by HIPPY staff provided additional information on HIPPY impact. Effect size analyses of Bracken results indicated a positive, moderate to large effect of HIPPY on children's school readiness in all areas measured. The Parent Involvement survey noted that families were more likely to engage in activities with their children that supported literacy from pre-test to post-test. However, the frequency of occurrence of activities measured on the survey remained fairly low over time.

Considering the program's theoretical model, the HISD HIPPY program facilitates academic achievement and school readiness among preschool children and children in early education programs. However, there were several limitations to the evaluation which related to identification of HIPPY students. Specifically, student identification was based on demographic data captured on parent enrollment forms. Verification of this information at enrollment rather than at the end of the year may help to ensure that all students whose parents participated in the program are captured for longitudinal tracking of academic outcomes. During the 2018-2019 academic year, HISD expanded the student information system to register or enroll all children whose parents participated in HIPPY. Previous year cohorts were included in the expansion. This system will help to determine the impact of the program as children transition to formal school environments and progress through school.

References

Avellar, S., & Supplee, L. (2013). Effectiveness of Home Visiting in Improving Child Health and Reducing Child Maltreatment. *Pediatrics*; 132 (Supplement 2) S90-S99; DOI: 10.1542/ peds.2013-1021G

Aos, S., Lieb, R., Mayfield, J., Miller, M., & Pennucci, A. (2004). Benefits and costs of prevention and early intervention programs for youth (No. 04-07, p. 3901). Olympia, WA: Washington State Institute for Public Policy.

Baker, A. J. L., Piotrkowski, C. S., & Brooks-Gunn, J. (1998). The effects of the Home Instruction Program for Preschool Youngsters (HIPPY) on children's school performance at the end of the program and one year later. *Early Childhood Research Quarterly*, 13(4), 571–588. EJ580313.

Barton, J. (2016). Federal Investments in Evidence-Based Early Childhood Home Visiting: A Multiple Streams Analysis. *Povery and Public Policy*. Retrieved from https://onlinelibrary.wiley.com/doi/epdf/10.1002/pop4.142

Boller, K., Strong, D., & Daro, D. (2010). Home visiting: Looking back and moving forward. *Zero to Three*, 30(6), 4–9.

Bradley, R. H., & Gilkey, B. (2002). The impact of the Home Instructional Program for Preschool Youngsters (HIPPY) on school performance in 3rd and 6th Grades. *Early Education and Development*, 13(3), 301-311.

Callahan, J., Gavaghan, B., Howard, K., Kelley, M., Schwartz, M., & Walzer, S. (2010). The National Home Visiting Coalition: A History of Collaboration. *Zero to Three* (J), 30(6). 22-27. Retrieved from https://eric.ed.gov/?id=EJ926588

Children's Learning Institute. (2016). CIRCLE Progress Monitoring. Retrieved from https://www.childrenslearninginstitute.org/ resources/circle-progress-monitoring/

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

Family Engagement in Education Act of 2011, H.R. 1821/S. 941, 112d Cong. (2011).

Glazner, J., Bondy, J., Luckey, D., & Olds, D. (2004). Final report to the Administration for Children and Families: Effect of the Nurse Family Partnership on government expenditures for vulnerable first-time mothers and their children in Elmira, NY, Memphis, TN, and Denver, CO. Washington, DC: Office of Planning, Research & Evaluation, Administration for Children & Families, U.S. Department of Health & Human Services.

Health Resources and Services Administration. (n.d.). Maternal, Infant, and Early Childhood Home Visiting Program web page. Retrieved from http://mchb.hrsa.gov/programs/homevisiting/index.html

Henderson, A. T., & Mapp, K. (2002). A new wave of evidence: The impact of school, family, and community connections on student achievement. Austin, TX: National Center for Family & Community Connections with Schools.

High, P. (2008). School Readiness. *Pediatrics*. 121(4), e1008 -e1015 (doi: 10.1542/peds.2008-0079). Retrieved from http://pediatrics.aappublications.org/content/ 121/4/e1008.full.html

Hilado, A., Kallemeyn, L., & Phillips, L. (2013). Examining Understandings of Parent Involvement in Early Childhood Programs. *Early Childhood Research and Practice*. 15(2).

HIPPY USA. (n.d.). Public Policy Brief. Retrieved from http:// hippyusa.org/ Public_Policy/public_policy.html

Jordan, G. E., Snow, C. E., & Porche, M. V. (2000). Project EASE: The effect of a family literacy project on kindergarten students' early literacy skills. *Reading Research Quarterly*, 35(4), 524–546. EJ616175.

Kagitcibasi, C., Sunar, D., & Bekman, S. (2001). Long-term effects of early intervention: Turkish low-income mothers and children. *Applied Developmental Psychology*, 22, 333–361.

Kaminski, J. W., Walle, L., Filene, J. H., & Boyle, C. L. (2008). A metga-analytic review of components associated with parent training program effectiveness. *Journal Abnormal Child Psychology*; 35(4): 567-89. doi: 10.1007/s10802-007-9201-9

Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). Early childhood interventions: Proven results, future promise. Santa Monica, CA: Rand Institute.

Landry, S. H., Smith, K. E., Swank, P. R., Zucker, T., Crawford, A. D., & Solari, E. F. (2012). The effects of a responsive parenting intervention on parent-child interactions during shared book reading. *Developmental Psycholology*; 48(4), 969–986.

Mathematica Policy Research, Inc., and Center for Children and Families at Teachers College, Columbia University. (2001). Building their futures: How Early Head Start programs are enhancing the lives of infants and toddlers in low-income families. Washington, DC: Administration on Children, Youth, and Families, Department of Health and Human Services. Retrieved from http://www.acf.dhhs.gov/programs/core/ongoing_research/ehs/ ehs_reports.html

Nievar, A. M., Jacobson, A., Chen, Q., Johnson, U., & Dier, S. (2011). Impact of HIPPY on home learning environments of Latino families. *Early Childhood Research Quarterly*, 26(3), 268-277.

Olds, D. L., Kitzman, H. J., Cole, R. E., Hanks, C. A., Arcoleo, K. J., Anson, E. A., & Stevenson, A. J. (2010). Enduring effects of prenatal and infancy home visiting by nurses on maternal life course and government spending: Follow-up of a randomized trial among children at age 12 years. *Archives of Pediatrics & Adolescent Medicine*, 164, 419–424.

Paulsell, D., Avellar, S., Sama Martin, E., & Del Grosso, T. (2010). Home visiting evidence of effectiveness: Executive sum-

mary. Princeton, NJ: Mathematica Policy Research.

Riverside Publishing. (1999). Glossary of Testing, Measurement, and Statistical Terms. Retrieved from http://www.riversidepublishing.com/pdfs/WebGlossary.pdf

Rotheram-Borus, M. J., Swendeman, D., Rotheram-Fuller, E., & Youssef, M. K. (2018). *Clinical Child Psychol Psychiatry*; 23(1): 96-109. doi: 10.1177/1359104517721958

Rosenthal, R. (1991). Meta-analytic procedures for social research. Newbury Park, CA: Sage.

Shepard, S., & Dickstein, S. (2009). Preventive Intervention for Early Childhood Behavioral Problems: An Ecological Perspective. *Child Adolescent Psychiatric Clinics of North America*, 18(3), 687-706. http://doi.org/10.1016/j..chc.2009.03.002

Starkey, P., & Klein, A. (2000). Fostering parental support for children's mathematical development: An intervention with Head Start families. *Early Education and Development*, 11(5), 659–680. EJ618579.

Sweet, M. A., & Appelbaum, M. I. (2004). Is home visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Development* 75(5):1435-1456.

Texas Education Agency. (2019). 2018 Comprehensive Biennial Report on Texas Public Schools: A Report to the 86th Legislaturefrom the Texas Education Agency. Retrieved from https://tea. texas.gov/acctres/comp_annual_biennial_2018.pdf

Texas HIPPY Center. (2015). Our Story. Retrieved from http:// www.unt.edu/hippy/story/pages/story.html

Texas HIPPY. (n.d.). Retrieved from http://www.unt.edu/hip-py/story/pages/story.html

Texas HIPPY Backoffice. (2017). A+HIPPY. Retrieved from http://backoffice.texashippy.org/p/ahippy.html

The State of Texas, Office of the Governor. (2015). Governor Abbott Delivers State Of The State Address, Releases Governor's Budget. [Press Release]. Retrieved from http://gov.texas.gov/ news/press-release/20543

Think Tonight. (2014). About the Bracken School Readiness Assessment (BRSA). Retrieved from http://www.thinktonight. com/BSRA_s/248.htm

U.S. Department of Health and Human Services. (2017). Implementing Home Instruction for Parents of Preschool Youngsters (HIPPY)[®]. Retrieved from https://homvee.acf.hhs.gov/Implementation/3/Home-Instruction-for-Parents-of-Preschool-Young-sters--HIPPY--Model-Overview/13

U.S. Department of Health and Human Services. (2013). Evidence of Effective Model. Retrieved from https://homvee.acf.hhs. gov/effectiveness/Home%20Instruction%20for%20Parents%20 of%20Preschool%20Youngsters%20%28HIPPY%29®/In%20 Brief

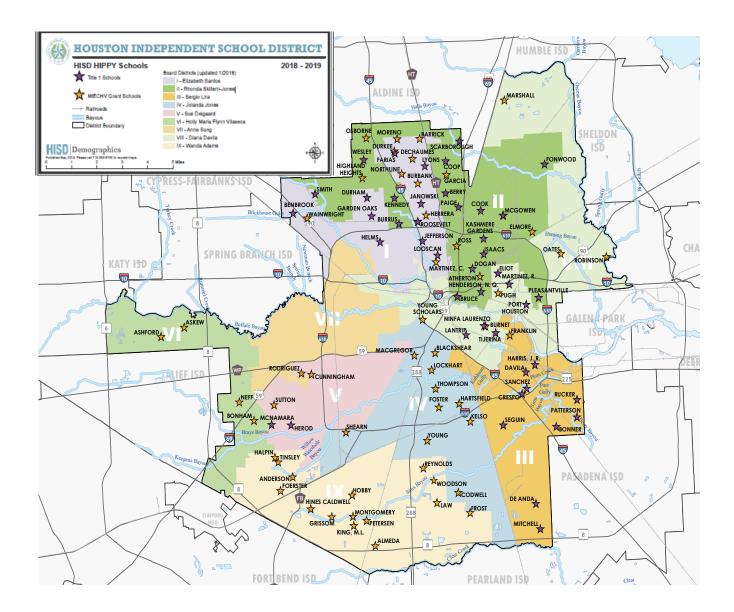
Westheimer, M. (2003). Parents Making a Difference: International Research on the Home Instruction for Parents of Preschool Youngsters (HIPPY) Program. Jerusalem: The Hebrew University Magnes Press.

What Work's Clearinghouse. (n.d.). Procedures and Standards Handbook (Version 3.0). Retrieved from http://ies.ed.gov/ncee/ wwc/pdf/reference_resources/wwc_procedures_v3_0_draft_standards handbook.pdf

Appendix A

	2018-2019 HISD HIPPY Fitle I Schools (N=44)	2018-2019 HISD HIPPY Maternal, Infant and Early Childhood Home Visiting Grant Schools (N = 56)					
Benbrook ES	McNamara ES	Almeda ES	Lockhart ES				
Berry ES	Mitchell ES	Anderson ES	MacGregor ES				
Bonner ES	Paige ES	Askew ES	Marshall ES				
Bruce ES	Patterson ES	Ashford ES	Martinez, C. ES				
Burrus ES	Pleasantville ES	Atherton ES	McGowen ES				
Cook ES	Port Houston ES	Barrick ES	Montgomery ES				
Coop ES	Roosevelt ES	Blackshear ES	Moreno ES				
Crespo ES	Rucker ES	Bonham ES	Neff ES				
Davila ES	Sanchez ES	Burbank ES	Northline ES				
De Anda ES	Scarborough ES	Burnet ES	Oates ES				
Dogan ES	Seguin ES	Codwell ES	Osborne ES				
Durham ES	Smith ES	Cunningham ES	Petersen ES				
Eliot ES	Tijerina ES	DeChaumes ES	Pugh ES				
Farias ECC	Wesley ES	Durkee ES	Reynolds ES				
Fonwood ECC		Elmore ES	Robinson ES				
Harris, J.R. ES		Foerster ES	Rodriguez ES				
Helms ES		Foster ES	Ross ES				
Henderson, N.Q. ES		Franklin ES	Roosevelt ES				
Herod ES		Frost ES	Shearn ES				
Isaacs ES		Garcia ES	Sutton ES				
Janowski ES		Grissom ES	Thompson ES				
Jefferson ES		Halpin ECC	Tinsley ES				
Kashmere Gardens ES		Hartsfield ES	Wainwright ES				
Kennedy ES		Herrera ES	Woodson ES				
Lantrip ES		Highland Heights ES	Young ES				
Laurenzo ECC		Hines Caldwell ES	Young Scholars ES				
Looscan ES		Hobby ES					
Lyons ES		Kelso ES					
Martinez, R. ES		King, M.L. ECC					
		Law ES					

Appendix B



Appendix C

Academic Year	2011	-2012	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017		2017-2018		2018-2019*	
		-			-010	-	2011		2010	1						
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total Enrolled in HISD	136	100.0	159	100.0	131	100.0	136	100.0	402	100.0	360	100.0	419	100.0	269	100.0
Gender																
Male	70	51.5	70	44.0	63	48.1	70	51.5	196	48.8	170	47.2	210	50.1	127	47.2
Female	66	48.5	89	56.0	68	51.9	66	48.5	206	51.2	190	52.8	209	49.9	142	52.8
Ethnicity																
Asian	0	-	1	0.6	2	1.5	0	-	3	0.7	0	-	2	0.5	2	0.7
African Amer.	11	8.1	5	3.1	12	9.2	11	8.1	87	21.6	59	16.4	54	12.9	32	11.9
Hispanic	124	91.2	150	94.3	117	89.3	124	91.2	300	74.6	296	82.2	353	84.2	232	86.2
White	0	-	2	1.3	0	-	0	-	11	2.7	4	1.1	7	1.7	1	0.4
Two or More Races	1	0.7	1	0.6	0	-	1	0.7	1	0.2	0	-	3	0.7	2	0.7
Grade																
EE	0	-	0	-	2	1.5	0	-	6	1.5	7	1.9	5	1.2	5	1.9
РК	82	63.2	134	84.3	90	68.7	82	63.2	312	77.6	256	71.1	281	67.1	191	71.0
К	49	36.0	25	15.7	39	29.8	49	36.0	72	17.9	80	22.2	102	24.3	70	26.0
First	1	0.7	0	-	0	-	1	0.7	5	1.2	12	3.3	17	4.1	1	0.4
Second	0	-	0	-	0	-	0	-	4	1.0	2	.6	9	2.1	2	0.7
Third	0	-	0	-	0	-	0	-	1	0.2	2	.6	3	0.7	-	-
Fourth	0	-	0	-	0	-	0	-	1	0.2	1	.3	1	0.2	-	-
Limited English Proficient	107	78.7	126	79.3	104	79.4	107	78.7	255	63.4	250	69.4	277	66.1	174	64.7
Economically Disadvantaged	135	99.3	152	95.6	125	95.4	135	99.3	382	95.0	335	93.1	395	94.0	258	95.9
At-Risk	129	94.9	140	88.0	120	91.6	129	94.9	373	92.8	318	88.3	379	90.5	253	94.1
**Total Enrolled or Registered in HISD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	518	100.0

Notes:

Enrollment data based on PEIMS.

*The 2018-2019 academic year was the first year that HIPPY staff registered children in the HISD student information system who were not current students. Demographic data are depicted only for HIPPY children who were enrolled at an HISD campus during the 2018-2019 school year.

**Total HIPPY children represent all children of parents who participated in the program. This data point was captured during the 2018-2019. There were 518 children either enrolled or registered in HISD's student information system. However, 773 children were documented in a database provided by HIPPY program administrators as participating in the program.

Appendix D

Date	Location	Number of Projected Adults Attending	Number of Projected Children Attending	Total Number of Expected Attendees	Total Number of Actual Attendees 272	
May 18, 2019	BakerRipley Gulfton 6500 Rookin Houston, TX 77074	153	119	250		
May 22, 2019	Vinson Library 3810 Fuqua St Houston, TX 77045	43	38	100	81	
May 23, 2019	Chavez HS 8501 Howard Houston, TX 77017	107	143	100	250	
June 1, 2019	Ripley House 4410 Navigation Houston, TX 77011	101	103	100	204	
June 4, 2019	Coop ES	80	107	75	187	
June 4, 2019	Grissom ES	78	91	125	169	
June 5, 2019	Herrera ES	177	204	350	381	
June 5, 2019	Vinson Library 3810 Fuqua St Houston, TX 77045	39	44	80	83	
June 6, 2019	North Forest HS	158	168	400	326	
June 6, 2019	Energy Institute HS	42	41	100	83	
	Total	978	1,058	1,680	2,036	

Appendix E

Bracken Pre-and Post	Survey Res	sults, 2018-20)19			
	1	1	1	I	1	
(n = 633)	Pre Mean	Std. Devia.	Post Mean	Std. Devia.	Gain Scores	Hedge's g Effect Size
Sizes	7.37	3.56	9.15	2.15	1.78	0.63
Shapes	6.14	5.63	10.13	5.36	3.99	0.73
Colors	6.50	6.38	11.43	6.10	4.93	0.79
Letters	8.23	5.84	13.17	6.08	4.94	0.83
Numbers/Counting	8.27	5.48	12.15	5.30	3.88	0.72

(Hedge's g: small effect = 0.2, moderate effect = 0.5, and large effect = 0.8.)

Appendix F

				Pre			Р	ost	
(n = 321)		Usually	Sometimes	Never	Don't Know	Usually	Sometimes	Never	Don't Know
Stop reading and ask your child to tell you what is in a picture?	n	110	162	43	6	186	130	4	1
	%	34.3	50.5	13.4	1.9	57.9	40.5	1.2	.3
Stop reading and point out letters?	n	76	140	96	9	132	158	25	6
	%	23.7	3.6	29.9	2.8	41.1	49.2	7.8	1.9
Ask your child to read with you?	n	78	130	105	8	133	155	30	3
	%	24.3	40.5	32.7	2.5	41.4	48.3	9.3	.9
Talk about the story when the book is done?	n	130	125	58	8	224	85	8	4
	%	40.5	38.9	18.1	2.5	69.8	26.5	2.5	1.2

In a typical week, has an	yone in	your fai	mily done t	he followi	ng things wi	th (CHILD))?:					
				Pre			Post					
(n = 321)		Not at All	Once or Twice	3 to 6 Times	Everyday	Don't know	Not at All	Once or Twice	3 to 6 Times	Everyday	Don't know	
Read books to your child?	n	33	120	95	71	2	3	73	142	101	2	
	%	10.3	37.4	29.6	22.1	.6	.9	22.7	44.2	31.5	.6	
Sing songs with your child?	n	34	101	77	108	1	12	89	112	106	2	
	%	10.6	31.5	24.0	33.6	.3	3.7	27.7	34.9	33.0	.6	
Tell stories to your child?	n	65	141	65	44	6	19	133	99	64	5	
	%	20.2	43.9	20.2	13.7	1.9	5.9	41.4	30.8	19.9	1.6	

Appendix F (cont'd)

In the past month:, has an	iyone i	n your i	anny done		ing things it						
				Pre		Post					
(n = 321)		Not at All	Once or Twice	3 to 6 Times	Everyday	Don't know	Not at All	Once or Twice	3 to 6 Times	Everyday	Don't know
Teach your child letters?	n	30	116	91	81	3	7	74	142	98	0
	%	9.3	36.1	28.3	25.2	.9	2.2	23.1	44.2	30.5	0.0
Teach your child words?	n	46	114	80	77	4	9	92	129	89	1
	%	14.3	35.5	24.9	24.0	1.2	2.8	28.7	40.2	27.7	.3
Teach your child num- bers?	n	23	101	105	91	1	1	54	136	129	0
	%	7.2	31.5	32.7	28.3	.3	.3	16.8	42.4	40.2	0.0
Do activities to help your child learn shapes?	n	97	96	75	48	5	14	71	157	76	3
	%	30.2	29.9	23.4	15.0	1.6	4.4	22.1	48.9	23.7	.9
Do activities with your child that involve mak- ing patterns?	n	114	126	50	26	5	23	125	122	49	2
	%	35.5	39.3	15.6	8.1	1.5	7.2	38.9	38.0	15.3	.6
Play games with your child that involves ar- ranging objects by size, height, or color?	n	87	137	69	22	6	12	136	129	43	1
	%	27.1	42.7	21.5	6.9	1.9	3.7	42.4	40.2	13.4	.3
Do counting activities with your child??	n	44	123	90	55	9	13	77	148	82	1
	%	13.7	38.3	28.0	17.1	2.8	4.0	24.0	46.1	25.5	.3

Table Fc: Parent Involvement Pre- and Post Survey Results, 2019

Table Fd: Parent Involvement Pre- and Post Survey Results, 2019

				, i									
In the past 3 month: has anyone in your family done the following things with (CHILD)?:													
(n = 321)		Not at All	Once or Twice	3 to 6 Times	Everyday	Don't know	Not at All	Once or Twice	3 to 6 Times	Everyday	Don't know		
Visited a library?	n	199	72	40	3	7	156	102	57	3	3		
	%	62.0	22.4	12.5	.9	2.2	48.6	31.8	17.8	.9	.9		
Visited a bookstore?	n	211	79	22	0	9	160	117	39	2	3		
	%	65.7	24.6	6.9	0.0	2.8	49.8	36.4	12.1	.6	.9		
Gone to a play, concert, or other live show?	n	223	79	12	1	6	177	110	29	1	4		
	%	69.5	24.6	3.7	.3	1.9	55.1	34.3	9.0	.3	1.2		