

Evaluation of the 2014-15 Home  
Instruction for Parents of Preschool  
Youngsters (HIPPY) Program

Department of Evaluation and Assessment

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*Superintendent of Schools*



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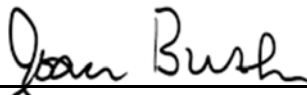
# Evaluation of the 2014-15 Home Instruction for Parents of Preschool Youngsters (HIPPY) Program

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## Approved Report of the Department of Evaluation and Assessment

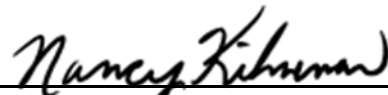
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**Dianne K. Palladino**



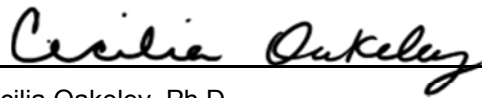
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# EVALUATION OF THE 2014-15 HOME INSTRUCTION FOR PARENTS OF PRESCHOOL YOUNGSTERS (HIPPY) PROGRAM

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**Project Evaluator: Dianne K. Palladino**

## ABSTRACT

In 2014-15, Home Instruction for Parents of Preschool Youngsters (HIPPY) Dallas ISD, a home visitation program to empower parents of three-, four-, and five-year-olds as their child's first teacher, served 943 children, and 764 completed the program (with 712 parents) as of June 2015. Participation in HIPPY Dallas ISD increased by 64 students, and 103 more children completed the program than in 2013-14.

### Coordinator, Home Instructor, and Parent Perceptions

- Coordinators, home instructors, and parents praised the program. Suggestions for improvement included earlier cutoff dates for hiring and enrollment, reduced paperwork, and ongoing training for staff members.

### School Readiness

- Paired-samples *t* tests and Cohen's *d* analyses using *Bracken School Readiness Assessment (BSRA-3)* showed statistically and practically improved raw scores for all HIPPY curriculum levels on all subtests and on the School Readiness Composite (SRC). Further, average *BSRA-3* standard scores for all curriculum years (English and Spanish) exceeded the school-ready threshold at post-test.
- Cross-tab analyses of the number of HIPPY and Non-HIPPY kindergarten students with scores in three cutoff ranges on the *BRIGANCE® Screens III (BRIGANCE)* showed that more HIPPY than Non-HIPPY children scored higher on all scales. These differences were statistically and practically significant in Total Performance. The percentage of school-ready HIPPY kindergarten students was both statistically and practically higher than for Non-HIPPY students on the Academic/Cognitive Development subscale.

### Parent Involvement

- Results indicated a marked increase in parent involvement over the program year. Average time parents spent daily reading to their children increased from 13.3 to 18.2 minutes. At post-test, at least 85% of parents reported engaging in four literacy-enriching activities with their children (two approached 100%). Parent involvement increased universally on 23 additional parent-child activities from pre- to post-test.

### Recommendations

- Based on evaluation results, recommendations included improving process efficiency, considering more stringent hiring and enrollment dates, implementing family participation and commitment incentives, improving data integrity, and improving the ability to link HIPPY and Dallas ISD data.

## PROGRAM DESCRIPTION<sup>1</sup>

Home Instruction for Parents of Preschool Youngsters (HIPPY) is a home visitation program for parents of three-, four-, and five-year-olds that involves parents as their child's first teacher. HIPPY partners with parents to prepare their children for success in school. As stated in the HIPPY Theory of Change (Appendix A), "The mission of HIPPY programs is to empower parents as primary educators of their children in the home and foster parent involvement in school and community life to maximize the chances of successful early school experiences." The goal of HIPPY in Dallas Independent School District (ISD) is to serve families within the district according to the HIPPY model, increase the self-efficacy of parents to teach children, and ultimately help children within the district to become better prepared for school.

Originating in Israel in 1969, HIPPY is now active in 14 countries, including 139 sites in 23 states in the United States. Twelve HIPPY sites serve families in Texas. The HIPPY program in Dallas is part of the Early Childhood and Community Partnerships department in Dallas ISD. HIPPY Dallas ISD served over 712 families in 2014-15 and expects to maintain that approximate level of enrollment in 2015-16.

Guided by the HIPPY model, paid paraprofessional home instructors visited parents weekly over the course of the 30 week program year to deliver curriculum packets and books. Home instructors used role-play to teach the curriculum to the parent in an effort to build the parent's confidence and teaching skills. The goal of home instructors was to equip the parent to deliver the curriculum to the child. Practicing this set and structured curriculum with the home instructor empowered parents to take the role of their child's first teacher. Parents were expected to work with their children five days a week for 15 minutes a day. When possible, home instructors were recruited from past HIPPY participants. Because these individuals were members of the community they served, this practice served to cultivate rapport among HIPPY home instructors and families.

### Definition of Terms

Throughout this report, HIPPY Year 1's refers to parents and children who used the HIPPY first year curriculum, meant for children approximately age three. These children were approximately three years old at the beginning of the program year, and may have turned four during the program year. Similarly, HIPPY Year 2's started the year at approximately age four and HIPPY Year 3's started the year at approximately age five. Participants in this report were grouped by curriculum year, rather than by age.

## PURPOSE AND SCOPE OF THE EVALUATION

The purpose of this evaluation was to summarize the HIPPY Dallas ISD program's implementation and outcomes for the program year 2014-15. Data sources included interviews with the HIPPY Dallas ISD program manager and program coordinators, focus groups with samples of HIPPY Dallas ISD home instructors and parents, review of the program's latest accreditation report, and analyses of demographic and assessment data from both the Texas HIPPY state office and Dallas ISD.

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<sup>1</sup> Portions of this report were adapted or extracted from McEnturff (2014).

## MAJOR EVALUATION QUESTIONS AND RESULTS

### What was the source and amount of funding for the HIPPY program?

#### Methodology

The program manager provided information about the program's budget and funding sources.

#### Results

The total budget for HIPPY Dallas ISD was \$2,610,439 for program year 2014-15. Of this, \$1,000,000 was a general operating budget from Dallas ISD, \$1,060,700 was Title I funding, and \$100,000 was from Title III funding. HIPPY Dallas ISD also had \$449,739 from external funding sources, including \$360,000 from United Way via the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program,<sup>2</sup> \$32,000 from Vickery Meadow Youth Development Foundation,<sup>3</sup> and \$57,739 from an AmeriCorps/University of North Texas (UNT)<sup>4</sup> grant.

### What were the characteristics of the HIPPY program?

#### Methodology

Information about the HIPPY program for the 2014-15 program year was gathered from the April 2014 accreditation report<sup>5</sup> and an interview in December 2014 with the HIPPY Dallas ISD program manager. The accreditation report contained information about implementation of the HIPPY model at the HIPPY Dallas ISD program site. The interview with the HIPPY Dallas ISD program manager covered topics including staff and participant recruiting, staff professional development, group meetings, and current program initiatives.

#### Results

##### Accreditation

HIPPY Dallas ISD most recently obtained site-wide accreditation from HIPPY USA in April 2014. Accreditation is the process by which HIPPY USA measures the fidelity of HIPPY model implementation in program sites nationwide. In 2014, HIPPY Dallas ISD was the first program with multiple coordinators to

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<sup>2</sup> United Way funding came from Texas Health and Human Services Commission as part of the federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) funding. HIPPY qualified for this funding because the HIPPY model is designated as evidence-based by the federal Health and Human Services department. The HIPPY model was one of seven original home visiting models meeting the rigorous criteria to be designated as evidence-based because of its strong research base. There are currently 17 home visiting models meeting this criteria. A list of evidence-based home visiting models is here: <http://mchb.hrsa.gov/programs/homevisiting/models.html>.

<sup>3</sup> <http://www.vmydf.com>

<sup>4</sup> HIPPY Dallas ISD's participation in AmeriCorps allows selected home instructors to earn education stipends for their service.

<sup>5</sup> The accreditation report contained information about program implementation fidelity as reviewed by HIPPY USA in April 2014. Through 2016, the HIPPY USA National Office will evaluate program sites for HIPPY model implementation every two years. Program sites meeting HIPPY USA model fidelity criteria receive the distinction of accreditation from the national office.

receive accreditation for the entire site, speaking to the fidelity of HIPPY model implementation at the Dallas site. HIPPY Dallas ISD will experience another accreditation in program year 2015-16, and then every three years afterward.

### **Startup Activities**

Prior to the beginning of the program year, the HIPPY Dallas ISD program manager and coordinators attended a three-day training sponsored by HIPPY Texas called the Coordinator's Retreat. Additionally, home instructors participated in a one-week orientation at the beginning of the program year. Training topics included HIPPY model introduction, recruitment, home visits, group meetings, assessment, data entry, role-play, and policies and procedures. HIPPY home instructors whose positions were funded by Americorps from both Dallas ISD and Irving ISD also jointly attended an overnight retreat in November.

### **Recruiting Participants**

All parents within the Dallas ISD boundaries were eligible to receive HIPPY services. The primary focus was on recruiting HIPPY Year 1's. HIPPY Year 2's and Year 3's were typically not recruited into the program unless they graduated from HIPPY Year 1 or were referred by a teacher. Participants often were recruited by word-of-mouth from past and current HIPPY participants and staff. HIPPY Dallas ISD staff also recruited at local events, such as the Mayor's Back to School Fair,<sup>6</sup> the Get Kidz Fit<sup>7</sup> obesity prevention event, job fairs, health fairs, and parent events. Home instructors recruited within their communities by passing out flyers at grocery stores, laundromats, health fairs, and by standing in front of schools. Schools with HIPPY programs referred families in need to the program. HIPPY Dallas ISD recruited from the prekindergarten waiting list after the school year started to provide an opportunity for these children to receive educational services. HIPPY Dallas ISD also used Facebook to expand recruiting efforts. If demand for HIPPY services exceeded the number of available home instructors, families were placed on a waiting list.

### **Program Staff**

HIPPY Dallas ISD staff members were headed by a program manager who handled personnel, budgeting, reporting, grant writing, and coordinator training. The program manager supervised eight HIPPY coordinators who administered program activities. Two administrative assistants also reported to the program manager.

Coordinators' primary responsibilities included preparing home instructors for weekly role-play with parents, hosting monthly group meetings for parents at their assigned school, coordinating parent-child field trips, recruiting home instructors at job fairs, and assisting with compliance reporting. Coordinators supervised from four to seven home instructors each.

Home instructor responsibilities included recruiting families, making home visits, documenting services provided to the families, assessing child learning, and participating in group meetings. As

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<sup>6</sup> <http://www.mayorsbacktoschoolfair.com>

<sup>7</sup> <http://www.getkidzfit.org>

described previously, home instructors often were recruited from former HIPPY participants. Americorps funded 31 home instructor positions. Individuals in Americorps-funded slots tended to rotate because they can only be occupied by an individual for a maximum of four years. As of June 2015, 40 home instructors were employed by HIPPY Dallas ISD. Home instructor caseloads ranged from 8 to 38 children, with an average of 19 children served.<sup>8</sup>

HIPPY home instructors enjoyed several benefits from their employment with the program. These benefits included work experience and professional development in the field of early childhood education. Other professional development for home instructors included opportunities to improve communication skills, interpersonal relations, leadership, and organization. According to the program manager, these skills can qualify them for career advancement within the HIPPY organization or for other full-time positions. Some former HIPPY home instructors became teaching assistants, community liaisons, teachers, speech pathologists, and counselors.

The HIPPY Dallas ISD program expanded in the 2014-15 program year in accordance with a district initiative to increase early childhood educational services. As shown in Table 1, compared to the previous year, 64 additional children were served by HIPPY Dallas ISD and 103 more children completed the program in 2014-15. According to the program manager, HIPPY Dallas ISD plans to maintain 2014-15 enrollment and staffing levels for the 2015-16 program year. This decision was made to mitigate coordination issues resulting from families and staff members starting late in the program year. It is hoped that, ultimately, this strategy will result in higher retention rates for both home instructors and families and a more stable year, overall.

Table 1: Number of Children Served by and Who Completed HIPPY Dallas ISD in 2013-14 and 2014-15

2013-14		2014-15		Difference	
Served	Completed	Served	Completed	Served	Completed
879	661	943	764	+64	+103

Note: 2013-14 child participant data as reported in McEnturff (2014). 2014-15 data as of June 9, 2015.

### Home Visits

Home instructors visited family homes weekly, generally from Monday through Wednesday. Thursdays were reserved for group meetings; Fridays were reserved for role-play training. The one-on-one relationship between the parent and home instructor was an important factor for HIPPY’s success. The main focus of the home visit was to role-play teaching the curriculum with the parent, but home instructors provided support to the family in other ways as well. For example, HIPPY home instructors were knowledgeable about community resources, enabling families to receive referrals as needed for services related to food, utility bills, clothing, domestic violence, or child assessments related to potential developmental delays.

<sup>8</sup> Child data were grouped by home instructor to create counts of active children assigned to each home instructor.

## Group Meetings

Coordinators hosted monthly two-hour group meetings<sup>9</sup> for each participating elementary school campus. While the coordinator was running the parent meeting, that coordinator’s home instructors provided child care through leading an instructional activity, a literacy activity, and a physical activity. The last 30 minutes of group meetings were dedicated to a parent-child joint activity, like a craft project. All activities were designed to work on a particular cognitive or physical development skill. Group meeting topics for parents were determined by an annual needs assessment to ensure topic interest and relevance and were related to school involvement, community involvement, child learning, and personal development. Table 2 lists the topics included in this program year’s group meetings. Attendance rates varied by location, and were sometimes negatively affected by poor weather because many families walked to meetings.

Table 2: HIPPY Dallas ISD 2014-15 Group Meeting Topics

Child Growth and Development	Childbirth and Child Care
Pre-natal and Post-natal Care	Prevention of Abuse/Violence
Family Structure, Function, and Management	Family Relationships
Parenting Skill Development	Language/Literacy Development
Health and Safety	Nutrition
Substance and Other Addiction	Discipline and Anger Management
Other Social and Family Fun Activities	

## End-of-Year Activities

HIPPY Dallas ISD hosted graduation ceremonies on June 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup>, 2015 for families that completed the program year. The program manager also conducted one-on-one meetings with most home instructors<sup>10</sup> as time permitted to obtain feedback about the concluding program year’s events. In the past, these meetings have provided valuable information to the program manager resulting in positive changes for employees of HIPPY Dallas ISD, such as allowing mileage reimbursement for home instructors and resolving personnel challenges.

## Major Initiatives

According to the program manager, HIPPY Dallas ISD had two major initiatives in program year 2014-15. First, the Fatherhood Initiative was a requirement of a grant from the Health and Human Services Commission (HHSC). Addressing the goal of increasing father involvement, three meetings per year were held in the evenings in addition to regularly scheduled home visits and group meetings. The meetings followed the *Strong Fathers – Strong Families*<sup>11</sup> curriculum, providing “Dad and Kid” reading, science, and

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<sup>9</sup> Group meetings were scheduled in addition to, not in place of, the home visit.

<sup>10</sup> Time did not allow the program manager to meet with all home instructors before the end of this program year. The program manager plans to meet with the remaining home instructors at the beginning of the coming program year.

<sup>11</sup> <http://strongfathers.com>



mathematics nights for HIPPY fathers and children. HIPPY Dallas ISD also encouraged fathers to be more involved by holding two “fathers and children only” field trips to the Perot Museum and the Arboretum, sponsoring a Daddy Derby Day, sending out monthly flyers focused on fathers, and awarding medals at year-end to fathers who were active in the program throughout the year.

The second major initiative for this program year was the *Food + Fit = Fun (FFF)*<sup>12</sup> program, a curriculum developed by the National Council of Jewish Women. This program provides nutrition information to children and parents with the goal of encouraging healthy eating habits and preventing childhood obesity.

### **Visit Tracker**

In 2014-15, Texas HIPPY, including HIPPY Dallas ISD, replaced its former information system Efforts to Outcomes (ETO) with a new system for tracking program information called Visit Tracker (VT). The new system promised to be more user friendly, resulting in improved data quality through enhanced ease of use. HIPPY Dallas ISD staff members documented program activities and program information with VT throughout the program year. These data included staff and participant demographics, home visit and group meeting documentation, and child assessment data, including the *Bracken School Readiness Assessment (BSRA-3)*, *Ages and Stages Questionnaire (ASQ-3)*, *Ages and Stages Questionnaire: Social Emotional (ASQ-SE)*, and parent assessment data including the *Protective Factors Survey*.

### **Compliance Data Collection**

Two funding sources of HIPPY Dallas ISD required specific compliance data collection and reporting. For Americorps, the HIPPY Dallas ISD office administered, scanned, and sent surveys, home instructor applications, and employee evaluations to the Texas HIPPY evaluation coordinator. Americorps also had access to VT for reporting of additional home instructor data. For MIECHV, compliance data in six benchmark areas<sup>13</sup> were entered into VT and made directly accessible to the funder.

## **What were the characteristics of HIPPY participants?**

### **Methodology**

HIPPY child and parent demographic data were obtained from the Texas HIPPY VT system. The evaluator obtained access to these data from the Texas HIPPY office, housed at UNT in Denton. Child records with an *active* status were isolated from the data and joined with the parent file to obtain the characteristics of their parents. The evaluator conducted frequency analyses to determine child and parent demographics.

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<sup>12</sup> [http://www.ncjw.org/content\\_5472.cfm](http://www.ncjw.org/content_5472.cfm)

<sup>13</sup> Benchmark areas included improved maternal and newborn health; prevention of child injuries, child abuse, neglect or maltreatment, and reduction of emergency department visits; improvement in school readiness and achievement; reduction in crime or domestic violence; improvements in family economic self-sufficiency; and improvements in the coordination and referrals for other community resources and supports.

## Results

### Child Characteristics

According to VT, of the 943 children served by HIPPY Dallas ISD this program year, 764 completed the program.<sup>14</sup> These 764 children formed the basis for the analyses in this evaluation. A demographic summary for HIPPY Dallas ISD child participants is shown in Figure 1. Detailed demographic information can be found in Appendix B. A higher percentage of children were enrolled in the HIPPY Year 1 curriculum ( $n = 446$ ; 58.4%) than in Year 2 ( $n = 230$ ; 30.1%) and Year 3 ( $n = 88$ ; 11.5%) because of a recruiting emphasis for Year 1. As shown in Table 3, the number of children completing each curriculum level of HIPPY Dallas ISD increased this program year compared to 2013-14 because of planned program expansion, with the greatest expansion for HIPPY Year 1's. Slightly over half of HIPPY participants were female ( $n = 402$ ; 52.6%), and a majority were Hispanic ( $n = 598$ ; 78.3%). Most children learned the Spanish language curriculum ( $n = 556$ ; 72.8%) and participated with a biological parent ( $n = 611$ ; 80.0%).

Figure 1: 2014-15 HIPPY Dallas ISD Child Demographic Summary (N = 764)

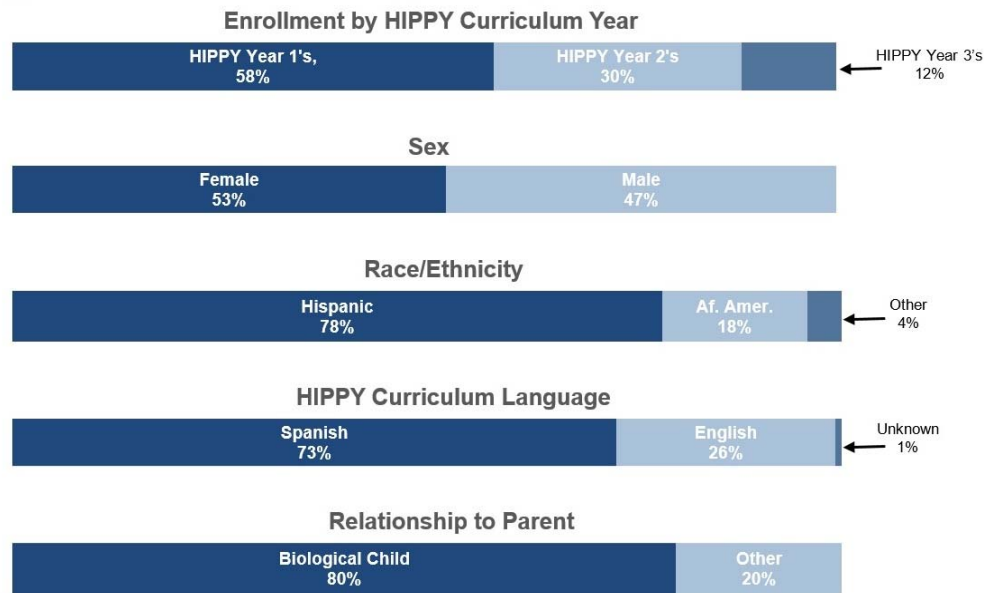


Table 3: Number of Children Completing HIPPY Dallas ISD by Curriculum Year 2013-14 and 2014-15

	HIPPY Year 1	HIPPY Year 2	HIPPY Year 3	Unknown	Total
2013-14	359	197	75	30	661
2014-15	446	230	88	-	764
Difference	+87	+33	+13	-30	+103

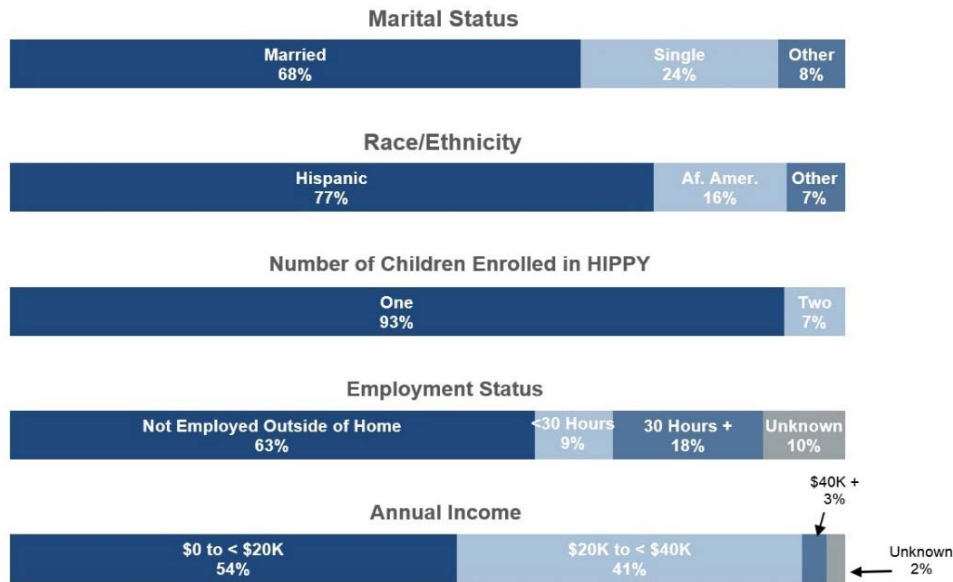
Note: Data for 2013-14 extracted from McEnturff (2014). 'Unknown' represents child records with incomplete demographic data.

<sup>14</sup> Children who completed at least one home visit were categorized as served by HIPPY this program year. Completing the program year was defined as maintaining an active status in VT as of June 9, 2015.

## Parent Characteristics

Of the 877 parents<sup>15</sup> served by HIPPY Dallas ISD this year, 712 were parents of children who completed the program. A demographic summary for these parents is shown in Figure 2, and detailed demographic information can be found in Appendix C. Most parent participants were married ( $n = 487$ ; 68.4%), Hispanic ( $n = 549$ ; 77.1%), and had one child enrolled in HIPPY ( $n = 660$ ; 92.7%). Most were not employed outside of the home ( $n = 447$ ; 62.8%) and had a household income of less than \$40,000 per year ( $n = 675$ ; 94.8%), with 53.5 percent ( $n = 381$ ) earning under \$20,000 and 41.3 percent ( $n = 294$ ) earning \$20,000 to \$40,000.

Figure 2: 2014-15 HIPPY Dallas ISD Parent Demographic Summary (N = 712)



## What were coordinator, home instructor, and parent perceptions of HIPPY?

### Methodology

The evaluator conducted interviews with program coordinators and held focus groups with home instructors and parents in April and May 2014. Individual interviews with program coordinators ( $n = 8$ ) were conducted via telephone. The program director invited home instructors ( $n = 8$ ) to participate in a focus group at the Nolan Estes Educational Plaza. Parent focus groups were conducted at three locations: Weiss Elementary ( $n = 6$ ; 46.2%), Dunbar Elementary ( $n = 3$ ; 23.1%), and Urban Park Elementary ( $n = 4$ ; 30.8%).<sup>16</sup> The program director chose the locations and coordinators selected the parents for these focus groups. The discussion topic for all groups was perceptions of program benefits and potential areas for program enhancement. The coordinator interview protocol and home instructor and parent focus group protocols can be found in Appendix D.

<sup>15</sup> From Visit Tracker enrollment report, June 9, 2015

<sup>16</sup> Percentages do not sum to 100% because of rounding.

The characteristics of program coordinators and participating home instructors were diverse. Program coordinators were employed by HIPPY for an average of two years (range one to three years), and supervised an average of 5.4 home instructors (range four to seven). Of the participating home instructors, three were full-time, five were part-time, and their average tenure at HIPPY Dallas ISD was 3.8 years (range seven months to seven years). Two home instructors were former HIPPY parents.

## Results

### Coordinator Perceptions

HIPPY Dallas ISD coordinators answered questions about the benefits of the program for its participants and about the factors that both support and challenge their success on the job. They most frequently indicated that benefits to children from HIPPY involvement included academic readiness, enhanced bonding with parents, and social skills. Coordinators agreed that the benefits of HIPPY involvement for parents included learning new things, learning how to be their children's first teachers, and communicating and bonding more effectively with their children.

When asked what helped them succeed in their positions, HIPPY coordinators most frequently cited the support received from supervisors and colleagues and the strong organization and structure of the program. Coordinators generally agreed that the greatest challenges on the job were related to the recruitment, training, and retention of home instructors. They expressed concern with the difficulties in training home instructors when they were hired after program start date. Retention rates for home instructors were identified as a problem primarily because of the logistic and case load challenges of reassigning families to a new instructor mid-year. Some also cited home instructor turnover as a factor in family retention. Once families were comfortable with a certain home instructor it sometimes posed a challenge to convince them to get to know a new instructor.

To overcome these barriers to success, coordinators suggested implementing more stringent cutoff dates for hiring home instructors, providing more training for home instructors, reducing caseloads, and reducing activities that distract them from working with their assigned families. Several coordinators also voiced support for slower program growth in the near future to allow for fine tuning processes and more training and support for the home instructors currently employed with HIPPY Dallas ISD.

Overwhelmingly, coordinators indicated they enjoyed their employment with HIPPY Dallas ISD and believed that the program made a strong positive impact on families. The consensus was that a few process changes and more support for the challenges and needs of the home instructors would enhance the effectiveness of the program significantly.

### Home Instructor Perceptions

HIPPY Dallas ISD home instructors also were asked to discuss the benefits of the program as well as the factors that support and challenge their success on the job. They most frequently indicated that children benefitted from HIPPY participation by attaining academic readiness and social skills. Home instructors generally agreed that the most important benefit to parents was learning to be their children's

first teachers, including the lesson that teaching does not occur only at school. Home instructors also mentioned one-on-one time to bond with the child as a benefit to both parents and children.

When asked what helped them succeed, home instructors agreed that a passion for the work and an openness to change were most beneficial. They indicated that the job can be difficult at times, but the ultimate reward was making a difference in the lives of the families they served. Home instructors who participated in the focus group were extremely positive about the program's benefits and seemed to love their jobs. When indicating challenges to job success, home instructors often provided well-considered suggestions for improving communication, training, and efficiency in the program. The participants expressed a general feeling that the program was experiencing growing pains, and those who had long tenures with HIPPY indicated, in general, that processes have consistently improved over the years.

Home instructors indicated several challenges they face in their jobs. First, home instructors were regularly challenged by varying family commitment to the program (e.g., not finishing the work before the next visit, not being home at the scheduled time, leaving the program because of employment). The logistics of rescheduling home visits were tricky for home instructors and often led to difficulty completing their caseloads in a timely manner. The frustration of disruption to tight schedules was sometimes exasperated when families joined the program late in the program year, thus requiring multiple role-plays per visit, territories with long distances between homes, and sessions running over the allotted time.<sup>17</sup> Home instructors also sometimes faced inadequate, unsanitary,<sup>18</sup> or unsafe home environments. They suggested greater efforts to encourage participant commitment to the program, such as developing a reward system for those families who met all commitments and stressing the importance in HIPPY communications of attending scheduled sessions.

Home instructors generally were pleased with the structure and content of group meetings, but some expressed concern about low attendance. They mainly attributed low attendance to lack of knowledge of presentation topics prior to the meetings and lack of transportation and/or prohibitive distances to meeting locations (particularly a problem in the event of inclement weather). Suggested changes included making a more concerted effort to inform parents about presentation topics well in advance and to consider rotating group meeting locations. They suggested partnering with the community to find donated space in more convenient locations.

Three themes arose from the focus group related to job environment issues: training, compensation, and paperwork. First, the home instructors felt that they could benefit from ongoing training during the program year and/or more resources (e.g., reference documents, instructional videos) to use for self-education. They indicated that some topics were not covered in the one-week training, and they were left to figure things out on their own, only to find out later that their work was incorrect. Focus group participants expressed concern that coordinators were inconsistent in their paperwork requirements, and this lack of standard procedures made it difficult for home instructors from different groups to help each

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<sup>17</sup> Home instructors were paid for 45-minute home visits. Visits often lasted more than this time allotment, making it difficult for them to reach their next appointments on time.

<sup>18</sup> Home instructors were required to sit on the floor with families during role-play with the parent.

other. To fix this problem, home instructors suggested standardizing paperwork instructions and data entry procedures for all groups and creating reference documents to aid in paperwork completion. They also suggested training and/or reference materials in Spanish as well as English to accommodate those home instructors who primarily speak Spanish.

A second job environment concern was the amount of paperwork required of home instructors.<sup>19</sup> They indicated that the required paperwork often took longer than their permissible hours. Although they felt that VT was far superior to their old system, ETO, they believed that the amount of required data entry was excessive. As with paperwork, they sometimes entered data incorrectly because of lack of training and reference materials. Home instructors suggested designating one to two people to enter data in an effort to improve efficiency and accuracy. This change would allow home instructors to dedicate more of their time to serving their families.

The last job environment concern raised by home instructors was related to compensation. Although the home instructors were accepting of the situation, an overarching discussion theme was working extra hours without pay. Home instructors were paid by the home visit, and they often ran over their 45-minute designated time for reasons mentioned previously. They were not paid for travel time, but some home instructors were required to travel long distances between homes, especially as a result of reassignments after a home instructor resignation. Although home instructors were allowed to claim mileage, a few focus group participants felt the required paperwork was prohibitively complicated and time consuming, and they rarely requested reimbursement. Although those participating in the focus group gave no indication that these issues were severe enough to consider resignation, they did believe that some turnover of home instructors was related to these issues. They suggested that a fair revision of the pay structure and/or streamlining of family assignments and the mileage reimbursement process may relieve some of these burdens on home instructors.

Although concerns emerged from the focus group with home instructors, the mood of the meeting was positive toward the program overall, and all issues raised were in the spirit of assisting the program to become more efficient and to prepare for future growth. Those who had been with the program for several years indicated processes at HIPPY Dallas ISD have continued to improve with time and they anticipate continued improvement.

### **Parent Perceptions**

HIPPY Dallas ISD parents were asked to discuss their initial introduction and enrollment in the program, the benefits of the program for their children and for themselves, and their perceptions of the group meetings and of the program as a whole. Parents reported that they first heard about HIPPY from family members and friends, through contacts at other programs, from their home schools, and from door-to-door HIPPY representatives soliciting in their neighborhoods. They most commonly reported enhancing their child's academic skills as their primary reason for enrolling in the program. The parents considered

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<sup>19</sup> For example, some paperwork requirements recently increased from one sheet per month to one sheet per week

academic readiness, success in school, and learning to enjoy educational activities to be the strongest benefits to their children. They also acknowledged that parents reaped benefits from their involvement as their children's first teachers. For example, many parents reported that they learned new and interesting things, communicated and bonded more effectively with their children, and interacted more patiently with their children.

All parents reported they liked learning about important social topics and services and socially engaging with other parents at group meetings. Although most parents did not suggest anything to change about group meetings, most agreed that they would like them to be longer and held more frequently, a testament to group meetings' perceived value.

Overall, parents were complimentary of the HIPPY program. When asked what they would change about the program, the most frequent suggestion was to extend the program's availability to older children. Inconsistent support from school administrators emerged as an area of concern for several parents whose children had been marked truant when missing school for HIPPY field trips. It seemed that some parents had full support from their schools for participating in the HIPPY extracurricular activities, whereas others did not. Parents felt that attendance policies should be consistent among home schools.

## Were HIPPY participants ready for school?

### Methodology

The evaluator analyzed school readiness<sup>20</sup> at all levels of HIPPY using the *Bracken School Readiness Assessment (BSRA-3)*; Bracken, 2002). *BSRA-3* is a nationally-normed screening instrument that assesses knowledge in five areas that are essential to kindergarten preparation: colors, letters, numbers, sizes/comparisons, and shapes. This instrument was used to assess growth of HIPPY children from the beginning to the end of the HIPPY program year. In most cases, HIPPY participants completed the *BSRA-3* within the first two weeks (pre-test) of beginning the program year and within the last two weeks (post-test) of the program year.

The evaluator used two types of outcomes to analyze *BSRA-3* scores. First, raw score means were calculated for each sub-test and for the composite of all sub-tests at pre-test and post-test. Second, the evaluator reviewed standard scores<sup>21</sup> at pre-test and post-test to ascertain school readiness relative to national norms of students of similar age. Both raw score and standard score comparisons were conducted using paired-sample *t* tests (statistical significance) and effect sizes were determined by calculating Cohen's *d*<sup>22</sup> for each comparison (practical significance). As appropriate, results were grouped by

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<sup>20</sup> School readiness indicates that a child possesses a set of prerequisite knowledge, attitudes, and behaviors that will facilitate the student benefitting at the kindergarten level (and higher) (*BRIGANCE Screens III Technical Manual*, 2013).

<sup>21</sup> The *BSRA-3* normative sample included 750 English test-takers. There is no normative sample of Spanish version test-takers. An important limitation of this evaluation is that Spanish version test-takers' standard scores show their performance relative to the English version test-takers in the normative sample. Ideally, Spanish version test-takers would be compared to a Spanish-speaking normative sample. In this case, comparing to the English sample is the best way currently available to assess the relative performance of Spanish version test-takers in HIPPY Dallas ISD.

<sup>22</sup> Cohen's *d* values of 0.2, 0.5, and 0.8 are considered small, medium, and large effect sizes, respectively (Cohen, 1988).

curriculum year, curriculum language, and/or race/ethnicity. *BSRA-3* and demographic information for these analyses were downloaded from VT.

## Results

Analyses included 650 complete pre-post pairs from the 764 children who were active at the end of the current program year.<sup>23</sup> A summary of the number of pre-post pairs by curriculum year and language is shown in Table 4.

Table 4: 2014-15 HIPPY Dallas ISD *BSRA-3* Number of Complete Pre-Test and Post-Test Pairs

	HIPPY Year 1's	HIPPY Year 2's	HIPPY Year 3's	Total
English	89	53	15	157
Spanish	272	158	63	493
Total	361	211	78	650

## Raw Score Results

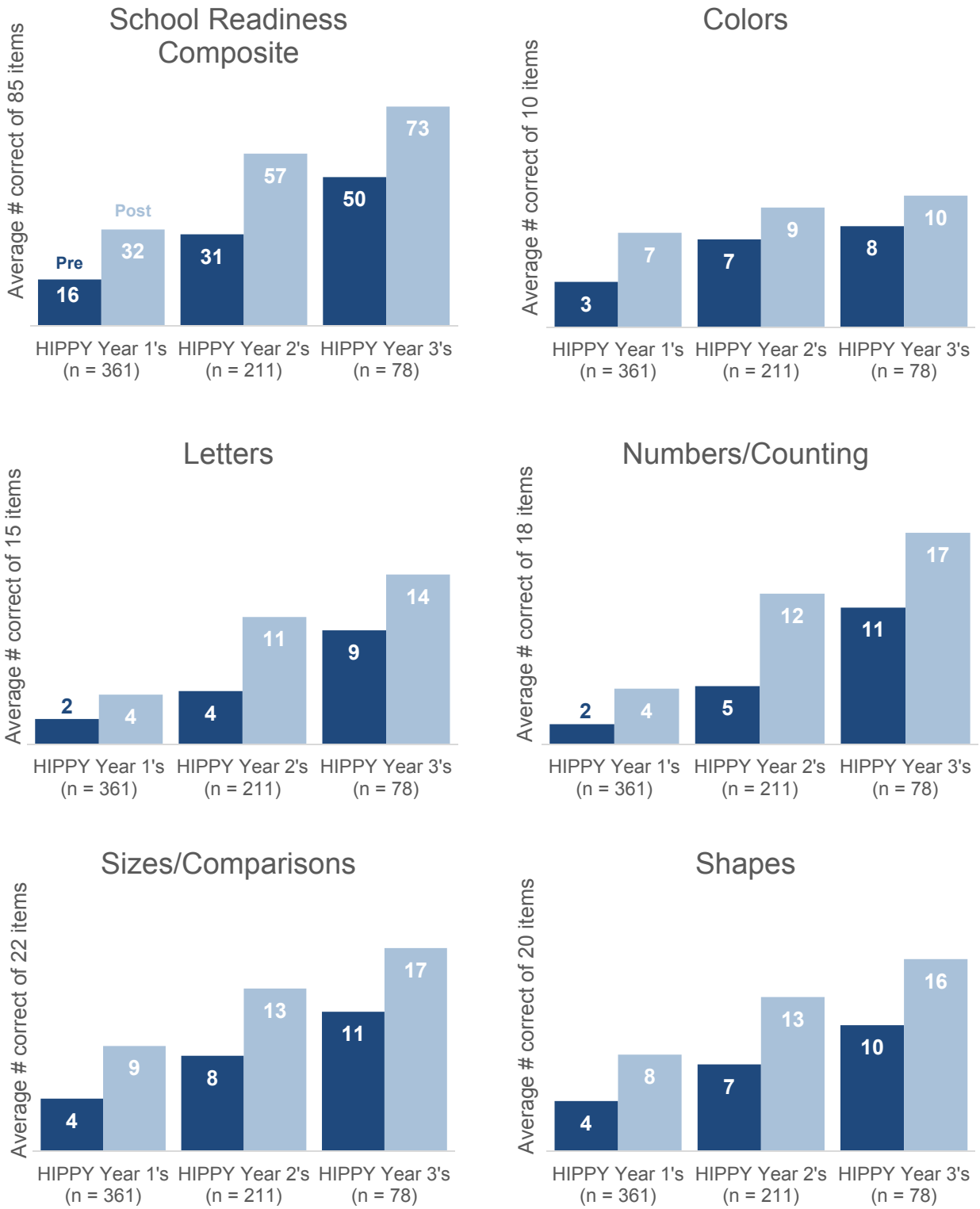
Across all HIPPY curriculum years, participant scores increased from pre- to post-test. The sum of items correct across all subtests is called the School Readiness Composite (SRC), while subtest raw scores designate the number of items correct for each individual subtest (colors, letters, numbers/counting, sizes/comparisons, and shapes). Average SRC and subtest raw scores for each curriculum level are shown in Figure 3. Paired-samples *t* tests and Cohen's *d* analyses indicated statistically and practically significant improvements at all curriculum levels for all subtests and overall on the SRC ( $p < .001$ ). Effect sizes were at least medium in magnitude; all but four of the 18 pre/post group differences [HIPPY Year 1 Letters ( $d = 0.56$ ), HIPPY Year 1 Numbers ( $d = 0.67$ ), HIPPY Year 2 Colors ( $d = 0.70$ ), and HIPPY Year 3 Colors ( $d = 0.79$ )] crossed the threshold value (0.80) of a large effect size.

Raw score analysis results grouped by language and race/ethnicity for HIPPY Year 1's, Year 2's, and Year 3's are shown in Appendices E, F, and G, respectively. In general, HIPPY Year 1 raw scores on the Spanish version of the *BSRA-3* were lower than for the English version. The gap between these two groups narrowed for HIPPY Year 2's and 3's however, especially on the post-test. Raw scores for the small group of White HIPPY Year 1 participants ( $n = 17$ ) were lower, on average, than African American ( $n = 50$ ) and Hispanic ( $n = 288$ ) scores in this curriculum year. Sample sizes for White HIPPY Year 2's and Year 3's were too low ( $n = 2$  and  $n = 1$ , respectively) to include in further analyses.

<sup>23</sup> VT *BSRA-3* data downloads did not include pre-test/post-test designations. To determine a pre-test/post-test pair, *BSRA-3* score records were joined to the child and parent demographic data for those who were active in the first week of June of the program year. The children in the resulting record set with two records were counted as having taken a pre-test and post-test, with the record with the earlier assessment date designated as the pre-test, and the record with the later assessment date designated as the post-test.



Figure 3: 2014-15 HIPPY Dallas ISD Average Number of Pre-Test and Post-Test Items Correct on *BSRA-3* School Readiness Composite and Subscales

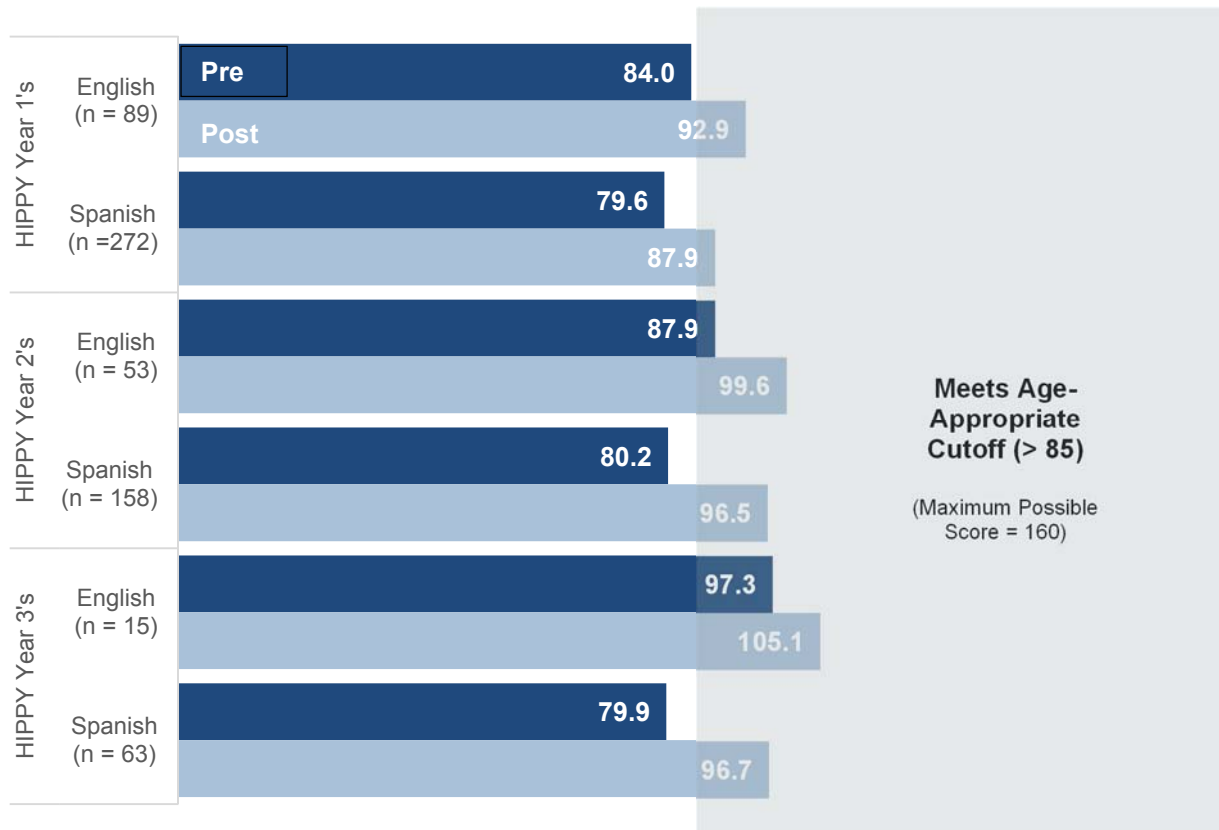


Note: All pre-test/post-test improvements were both statistically and practically significant.

### Standard Score Results

Participants were assigned standard scores<sup>24</sup> based on their performance compared to same-aged test takers in the publisher’s normative database (Bracken, 2002). Standard score averages and standard deviations for both pre-test and post-test assessments by curriculum year, curriculum language, and race/ethnicity are shown in Appendix H. Both English and Spanish average standard scores for all curriculum years improved from pre-test to post-test. The threshold for school readiness<sup>25</sup> is indicated by the gray box in Figure 4. Although the average score at pre-test was below this threshold for Spanish test-takers at all levels and for English test-takers in Year 1, all groups achieved a school-ready average score by the time of the post-test.

Figure 4: 2014-15 HIPPY Dallas ISD Average BSRA-3 Standard Scores at Pre-Test and Post-Test with School Readiness Classification



**Note:** Standard score categorizations are established by the publisher (Bracken, 2002) as follows: Very Delayed ( $\leq 70$ ), Delayed (71 to 85), Average (86 to 114), Advanced (115 to 125), and Very Advanced ( $\geq 130$ ). The maximum standard score possible is 160. All pre/post improvements were statistically significant ( $p < .001$ ) and practically significant, except for English Year 3's.

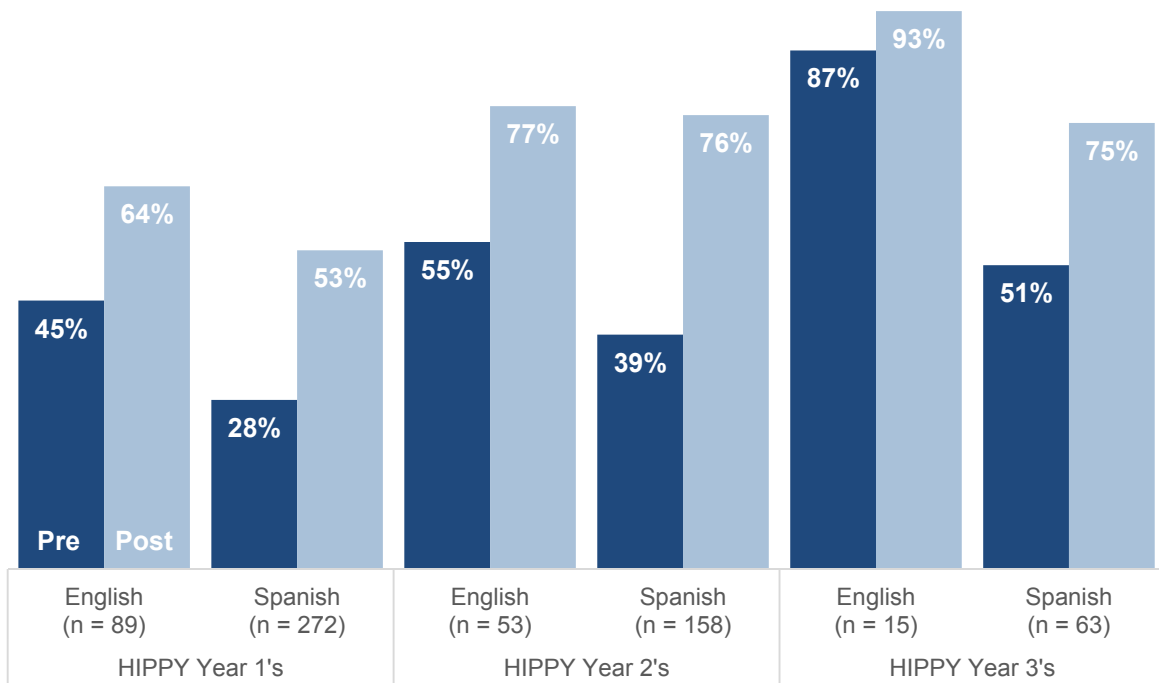
<sup>24</sup> Use of standard scores accounts for improvement in raw scores that is expected based on aging alone. For example, if a child is age three at the pre-test with an SRC of 23, his/her standard score would be 100, an average score for that age group. At the post-test six months later, the same child must earn an SRC of 33 to get a standard score of 100, because an average score for an older child requires more correct items than for a younger child. Demonstrating gains in standard scores requires participants to improve their scores beyond the degree that is naturally expected to occur because of aging. Therefore, improvements in standard scores described in this section can be interpreted as improvements beyond what should have occurred naturally.

<sup>25</sup> Children with standard scores greater than 85 are categorized as Average, Advanced, or Very Advanced and are considered ready for school relative to their same-aged peers.

**Percentage of Participants Ready for School**

Figure 5 shows the percentage of HIPPY school-ready participants at the time of the pre-test and post-test by curriculum language. The percentage of both English and Spanish test-takers in all curriculum years who were ready for school improved across the board. A greater percentage of English test-takers were school-ready at pre-test and post-test in all groups, but these differences were less pronounced at the time of post-test, particularly for HIPPY Year 2's, whose scores differed only by one percentage point (English: 77%; Spanish: 76%).

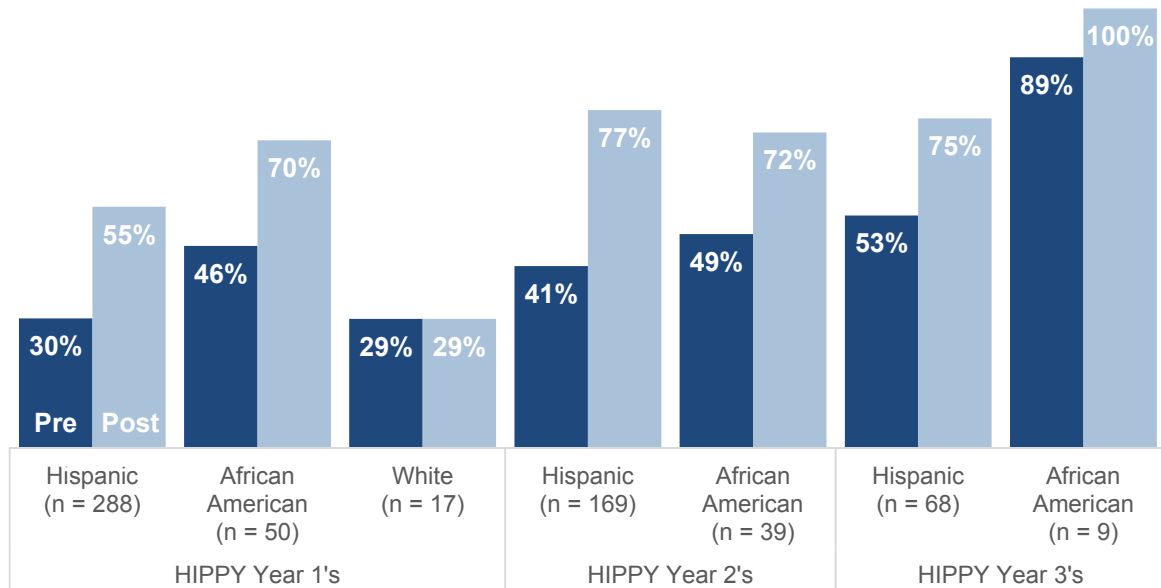
Figure 5: Percentage of 2014-15 HIPPY Dallas ISD Children Ready for School at BSRA-3 Pre-Test and Post-Test Administration by Curriculum Year and Curriculum Language



Note: Ready for school was defined as a standard score of greater than 85.

As shown in Figure 6, a higher percentage of African American than Hispanic participants were ready for school at the start of the program year for every curriculum year, with White participants lagging behind both African American and Hispanic students in Year 1. Year 1 was the only year with enough White participants to include in analyses. At post-test, Year 1 and Year 3 rates of school-readiness for African American participants also exceeded those for Hispanic participants, but Year 2 African American scores lagged behind those of Hispanic students.

Figure 6: Percentage of 2014-15 HIPPY Dallas ISD Children Ready for School at BSRA-3 Pre-Test and Post-Test Administration by Curriculum Year and Race/Ethnicity



**Note:** Ready for school was defined as a standard score of greater than 85. Percentage ready for school was not reported when there were fewer than five children in a race/ethnicity category.

## How did school readiness of kindergarten students who were HIPPY participants compare to those who were not HIPPY participants?

### Methodology<sup>26</sup>

The *BRIGANCE*<sup>®</sup> Screens III (*BRIGANCE*) is a norm- and criterion-referenced screening instrument of age-appropriate early development skills from infancy through first grade. Results from the *BRIGANCE* can be used to identify students who are advanced/gifted or who have developmental delays/disabilities, to determine school readiness, or to monitor progress over time. Children over the age of two are assessed in three core domains: physical development, language development, and academic skills/cognitive development. Additional assessments in the adaptive behavior domain (e.g., self-help skills, social and emotional development)<sup>27</sup> are available in *BRIGANCE* to further identify areas of needed support for students with weaknesses in any of the core areas. These two scales are not included in core assessments for older children.

Results in each of the core domains are reported in both raw form and categorized into three categories (below average, average, above average) using cutoff scores. By combining scores from the core domain assessments, a total score (maximum of 100) is computed. A child's total score can be

<sup>26</sup> Description of the *BRIGANCE* screening instrument was adapted from Kim (2015).

<sup>27</sup> The self-help scale provides a standardized measure of self-help skills in eating, dressing, and toileting. The social and emotional development scale measures development skills such as relationships with adults and peers, playing, motivation and self-confidence, and prosocial skills and behaviors.

compared to cutoff scores<sup>28</sup> to identify children who may be developmentally advanced or gifted as well as those who may have developmental delays/disabilities. This process allows categorization of a child's total performance into one of three groups: above gifted cutoff, within normal limits, or below delays cutoff.

In the 2014-15 school year, Dallas ISD administered *BRIGANCE* to all kindergarten students in the district during their first two weeks in school. Data from the *BRIGANCE* online management system<sup>29</sup> and PEIMS demographic files were merged to prepare for analyses. Using *BRIGANCE* data, the evaluator compared kindergarteners who participated in HIPPY Dallas ISD (HIPPY) to a control group of matched kindergarteners in the district who did not participate in HIPPY (Non-HIPPY). The matched control group was created using propensity score matching (see Appendix I for detailed methodology). Matched control students included kindergarten students who did not participate in HIPPY, but had the same probability of HIPPY enrollment. This methodology allows for group comparisons with reduced concern about systematic differences that may confound the effects of the treatment (i.e., HIPPY participation).

It was not possible to conduct group comparisons of mean raw scores because of incomplete data for students in the lowest cutoff bracket. Therefore, outcome analyses were limited to using cutoff categories. Kindergarten readiness was determined by examining the percentage of students scoring at or above the age-appropriate range. That is, students who were categorized as average or above average in the core domains and within normal limits or above gifted cutoff for total performance were considered kindergarten ready. The evaluator conducted frequencies and crosstab analyses to examine kindergarten readiness in terms of the percentage of students at or above the age-appropriate range, grouped by whether or not the student participated in HIPPY. *Chi-square* and *Fisher's exact* statistics were used to test for group independence, and *phi* and *Cramer's V* statistics were used to determine practical significance.

## Results

A total of 282 kindergarten students (141 HIPPY, 141 Non-HIPPY matched controls) were included in the analysis. Of these, 151 (68 HIPPY, 83 Non-HIPPY) also completed the additional adaptive behavior domain assessments (self-help skills and social and emotional development).

As shown in Figure 7, more kindergarten students in the HIPPY than the Non-HIPPY group exceeded the above average cutoff on all subscales (differences ranged from four to ten students) and scored above the gifted cutoff on the total performance scale (HIPPY:  $n = 17$ ; Non-HIPPY:  $n = 5$ ). More HIPPY than Non-HIPPY students achieved average scores in the academic/cognitive core domain (HIPPY:  $n = 51$ ; Non-HIPPY:  $n = 38$ ) and scores within normal limits for total performance (HIPPY:  $n = 60$ ; Non-HIPPY:  $n = 58$ ). Differences by HIPPY participation were not statistically significant for the core domains, but small yet statistically significant effects<sup>30</sup> of HIPPY participation emerged on the total performance scale.

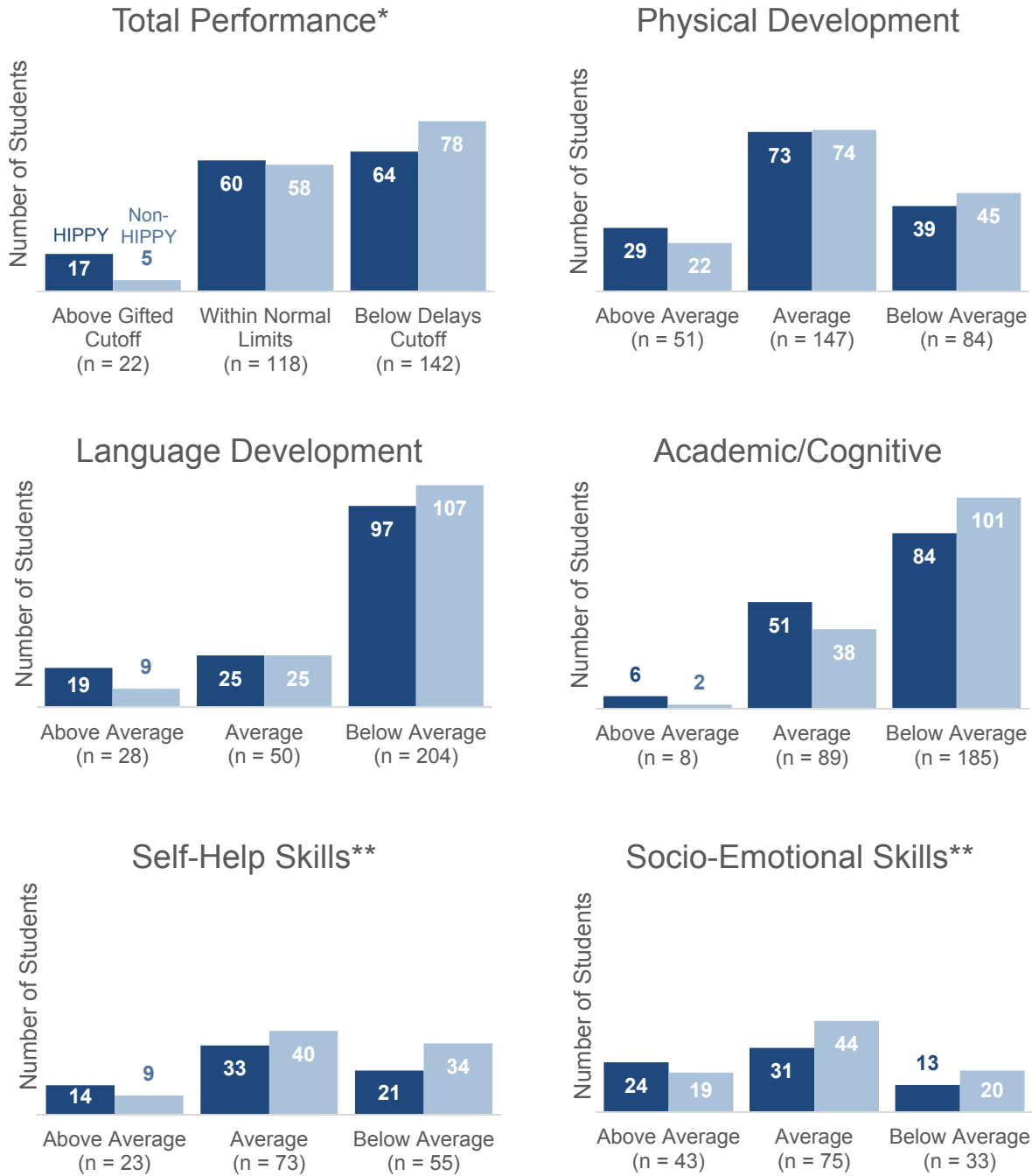
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<sup>28</sup> The *BRIGANCE* cutoff scores have been validated on a nationally representative sample of 1,929 children who were stratified on the basis of race/ethnicity, geographic location, and socioeconomic status across the United States (*BRIGANCE* Screens III Technical Manual, 2013).

<sup>29</sup> Data were downloaded on December 16, 2014.

<sup>30</sup> *Chi-square* (2x2) and *Fisher's exact* statistics (2x3) were used to test for group independence. *Phi* (2x2)/*Cramer's V* (2x3) statistics were used to test practical significance (effect size cutoffs: small = 0.10, medium = 0.30, large = 0.50).

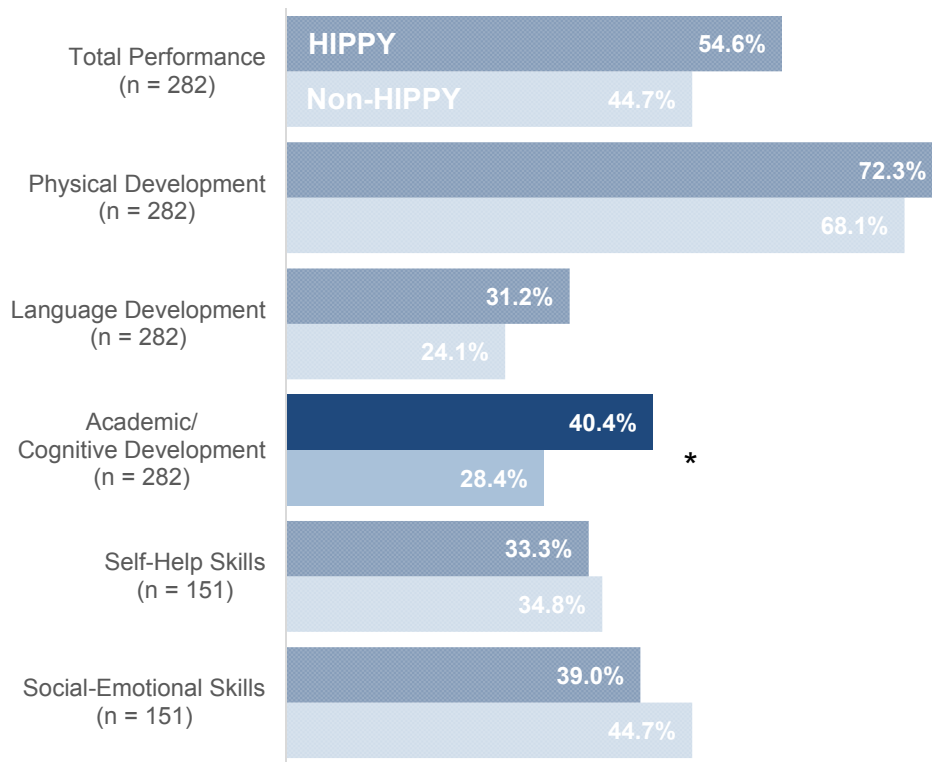
Figure 7: Number of 2014-15 HIPPY Dallas ISD and Non-HIPPY Matched Control Kindergarten Students in BRIGANCE Cutoff Levels



**Note:** \*Numbers in score cutoffs for Total Performance significantly differed by HIPPY participation,  $\chi^2(2, N = 282) = 7.96, p = 0.02, V = 0.17$ ; \*\*Only 151 of the 282 students took the adaptive behavior domain assessments. The number of HIPPY participants ( $n = 68$ ) is unequal to the number of Non-HIPPY matched controls ( $n = 83$ ). Therefore, for these two assessments, comparisons between the groups is inappropriate. Data are shown for completeness only.

Figure 8 shows the percentage of HIPPY and Non-HIPPY kindergarten students scoring at or above the age-appropriate range (i.e., were kindergarten-ready) on Total Performance and on the five *BRIGANCE* domains. Although the percentage of HIPPY students who were kindergarten-ready was higher than Non-HIPPY students on all domains but two (Self-Help Skills and Social-Emotional Skills), the only category that showed a statistically significant difference was the Academic/Cognitive Development subscale (HIPPY: 40.4%; Non-HIPPY: 28.4%), albeit a small effect size. Appendix J shows the number and percentage of HIPPY and Non-HIPPY kindergarten-ready students in each domain of the *BRIGANCE* by student group.

Figure 8: Percentage of 2014-15 HIPPY Dallas ISD and Non-HIPPY Matched Control Kindergarten Students at or above the Age-Appropriate Range on *BRIGANCE*



Note: \*Percentage of students at or above age-appropriate range on the Academic/Cognitive Development domain significantly and practically differed by HIPPY participation,  $p = 0.045$ ,  $\phi = .13$

### What was the level of involvement from HIPPY parents?

#### Methodology

All districts in Texas HIPPY use the Parent Involvement Interview (PII) derived from the National Household Education Survey (NHES). The PII was administered by the home instructors and included questions about the number of minutes parents read to the child and the frequency of engagement in literacy enrichment activities. First-year HIPPY Dallas ISD parents completed the pre-test during the first two weeks and the post-test during the last two weeks of the program year. Texas HIPPY provided the PII

data for this evaluation. A total of 273 parent participants took both the pre-test and the post-test, and only these data were used for the parent involvement analyses. The evaluator conducted within-groups analyses to determine changes in these parent involvement activities from pre-test to post-test.

## Results

Parents indicated how many minutes they or a family member spent reading with their child each day. As shown in Figure 9, the average time families reported reading with their children increased from 13.3 minutes (pre-test) to 18.2 minutes (post-test) for an average increase of nearly five minutes. Over time, these additional minutes accumulate and may be associated with important literacy benefits for children.<sup>31</sup>

Figure 9: 2014-15 HIPPY Dallas ISD Pre-Test and Post-Test Average Minutes Per Day Reading with Child



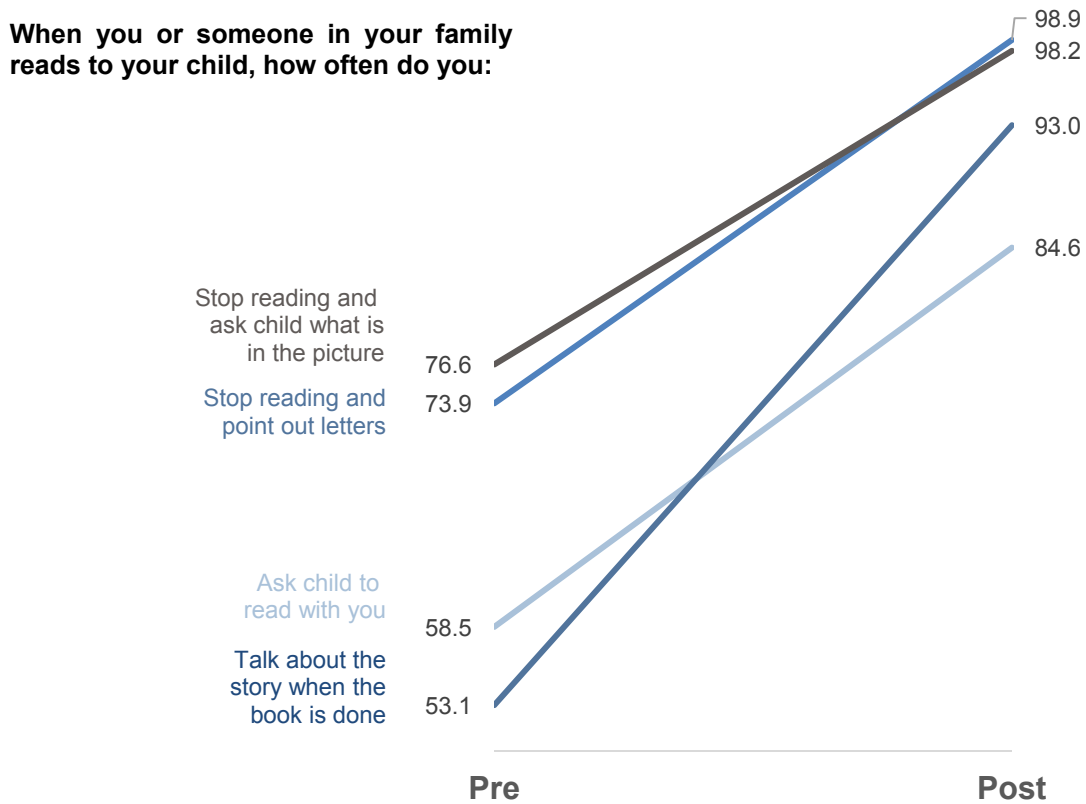
The frequency with which participants reported performing literacy enrichment activities also increased across the board.<sup>32</sup> Percentages of parents who reported that they *sometimes* or *usually* performed these activities on both the pre- and post-test are illustrated in Figure 10. All four activities showed increases in parent involvement at post-test, with nearly all parents reporting they stopped to ask what was in the picture (98.9%) and stopped reading to point out letters (98.2%) when they read with their children. The percentage of parents who asked their children to read with them also jumped from pre-test (58.5%) to post-test (84.6%). Finally, the literacy activity with the largest improvement was the percentage of parents who talked about the story when the book was done, rising from 53.1 percent at pre-test to 93.0 percent at year end.

<sup>31</sup> When a parent reads with his/her child, vocabulary development and future motivation to read are enhanced (Hood, Conlon, & Andrews, 2008).

<sup>32</sup> Participants indicated whether they *usually*, *sometimes*, or *never* engaged in four main literacy activities, including 1) stop reading and ask what is in a picture, 2) stop reading and point out letters, 3) ask to read with child, and 4) talk about the story when the book was finished.

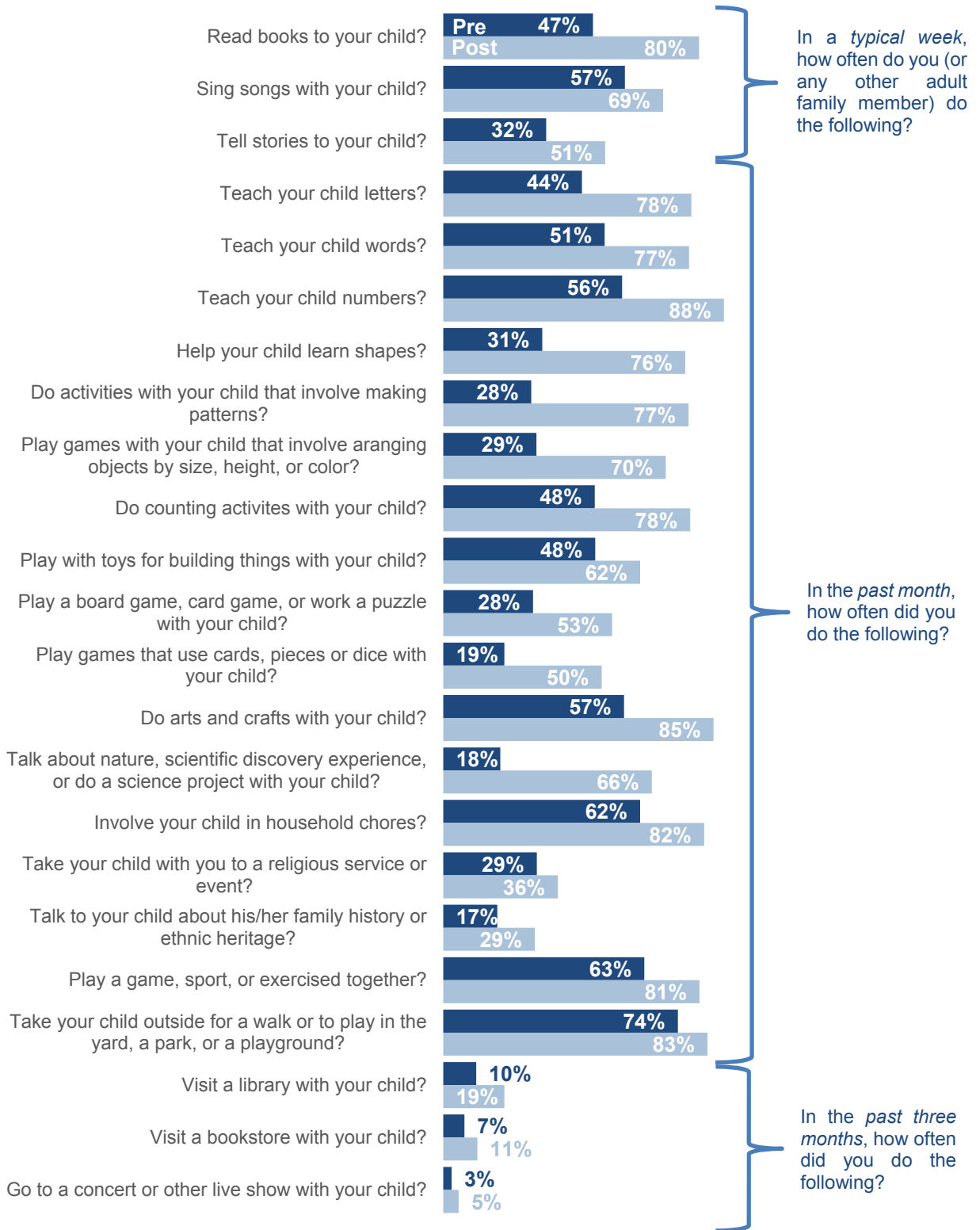


Figure 10: Percentage of 2014-15 HIPPPY Dallas ISD Year 1 Parents at Pre-Test and Post-Test Who Marked “Sometimes” or “Usually” Performing Literacy Enrichment Activities When Reading to Child



Participants also reported how often they participated in other parent-child activities during a typical week, in the past month, and in the past three months. As with the four literacy enrichment activities mentioned previously, parent involvement increased from pre- to post-test in all of these activities (see Figure 11). Detailed response information for items included on the PII are displayed in Appendices K and L. The percentage of parents who engaged every day with their children increased for most activities. In addition, the percentage of parents who never engaged decreased for all activities. Together, these results provide evidence of a marked increase in parent involvement since commencing the HIPPPY Dallas ISD program year.

Figure 11: 2014-15 HIPPIY Dallas ISD Parent Involvement Interview: Percentage of Parents Engaging in Activities At Least Three Days Per Week at Pre-Test and Post-Test



## SUMMARY AND RECOMMENDATIONS

### Summary

Overall, the results of this evaluation supported benefits in school readiness and parent involvement from HIPPY Dallas ISD participation. In addition, HIPPY Dallas ISD staff members were strongly satisfied and believed in the program. They were dedicated to continuous process improvement and program success.

Of the 943 children served by HIPPY Dallas ISD this year, 764 completed the program (with 712 parents) as of June 2015. Enrollment was highest in HIPPY Year 1 (58.4%), followed by HIPPY Year 2 (30.1%) and HIPPY Year 3 (11.5%). Most children and parents who completed the program were Hispanic (78.3% and 77.1% respectively) and primarily spoke Spanish at home (72.8%). Most children participated with a biological parent (80.0%). Most parents were married (68.4%) and did not work outside of the home (62.8%).

Participation in HIPPY Dallas ISD expanded this year in accordance with a Dallas ISD initiative to increase early childhood services. Compared to 2013-14, the number of children served by HIPPY Dallas ISD increased by 64, and 103 additional students completed the 2014-15 program year. Current enrollment and staffing levels are not planned to change in program year 2015-16.

### Coordinator, Home Instructor, and Parent Perceptions

Interviews with coordinators ( $n = 8$ ) and focus groups with home instructors ( $n = 8$ ) and parents ( $n = 13$ ) revealed positive perceptions of the program and constructive suggestions for improvement. All agreed that both child and parent participants benefitted from the program. The following additional group-specific themes emerged:

- Coordinators praised the supportive work environment and the strong organization and structure of the program. They expressed concern about recruitment, training, and retention of home instructors, particularly when hired after the program start date. They suggested more stringent hiring cutoff dates, ongoing training, reduced caseloads, and reduced paperwork for home instructors.
- Home instructors were positive and passionate, and they expressed tremendous satisfaction with respect to their role in HIPPY Dallas ISD. They offered a wealth of constructive feedback, particularly regarding training, paperwork requirements, and compensation. They suggested ongoing training and resources on processes and systems, reduced paperwork and data entry, and a pay structure review to help improve home instructor efficiency and retention.
- Parents voiced great satisfaction with the program and believed that both they and their children benefitted from their involvement. Parents agreed that they would like HIPPY services to expand to include additional meetings and older children. They suggested improving consistency among school administrators regarding HIPPY field trip attendance policies.

## School Readiness

**BSRA-3.** Raw scores on composite and all sub-tests statistically and practically increased from pre- to post-test for all curriculum years. HIPPY Year 1 raw scores were generally lower on the Spanish version than on the English version, but these gaps contracted for HIPPY Year 2's and Year 3's. Both English and Spanish average standard scores for all curriculum years improved from pre-test to post-test, and both English and Spanish average scores for all curriculum years exceeded the school-ready threshold by the end of the program year. A majority of HIPPY Year 1's (64% English; 53% Spanish), Year 2's (77% English; 76% Spanish), and Year 3's (93% English; 75% Spanish) were classified as ready for school.

**BRIGANCE.** More HIPPY Dallas ISD kindergarten students exceeded the above average cutoff score on all subscales (differences ranged from four to ten students) and exceeded the gifted cutoff on the total performance scale (HIPPY:  $n = 17$ ; Non-HIPPY:  $n = 5$ ). Although no statistically significant differences were found on the subscales, HIPPY participation was statistically and practically related to higher scores in total performance. A statistically and practically higher percentage of HIPPY than Non-HIPPY kindergarten students met the age-appropriate range (and thus indicating school-readiness) on the academic/cognitive development subscale.

## Parent Involvement

HIPPY Dallas ISD participants achieved noted gains in parent involvement during their first year in the program. Parent involvement as reported on the Parent Involvement Interview increased from pre-test to post-test in all activities for first-year HIPPY Dallas ISD participants. First, parents reported spending an average of almost five extra minutes per day reading to their children at post-test (18.2 minutes) than they did at pre-test (13.3 minutes). In addition, at least 85% of parents reported at post-test that they engaged in four literacy enrichment activities when they read to their children, with two of the activities approaching 100% participation. From pre- to post-test, these percentages increased from a range of 53.1 percent to 76.6 percent engagement in the same activities at pre-test. Finally, parent involvement increased across the board on 23 additional parent-child activities from pre-test to post-test.

## Recommendations

The following recommendations are based upon the results of this evaluation.

- **Take advantage of stable enrollment goals in the coming year to improve process efficiency and training.** As HIPPY Dallas ISD enrollment has increased in the past few years, processes have had to scale in turn. Reports of inconsistent processes and inadequate training and resources were a main concern of staff members during interviews and focus groups. Paperwork and data entry processes should be reviewed for consistency and documented in a central location to provide resources for staff member self-education, when needed. Ongoing process training (e.g., in person, instructional videos) for home instructors throughout the program year also should be considered.

- **Consider more stringent cutoff dates for hiring home instructors and enrolling families.** Coordinators mentioned adequate training of home instructors hired after program start date as a major challenge. Home instructors who are hired later in the year also may be assigned more scattered caseloads that can provide additional efficiency challenges. Families who enroll in the program late must perform some quantity of double-role plays, resulting in information fatigue and stress for parents and children and challenging time constraints for home instructors. Home instructors suggested October as the latest month that families should be enrolled to encourage successful, efficient, and less stressful program implementation for both families and home instructors.
- **Implement incentives for increased family participation and commitment.** All HIPPY Dallas ISD staff members noted that family retention was a challenge, and that resulting unstable family caseloads may contribute to home instructor attrition. Implementing strategies to encourage and positively reinforce family commitment to the program should be considered. Possibilities include ensuring communication of topics prior to group meetings and frequent public acknowledgement of parents and children who have met certain attendance/packet completion goals.
- **Continue working to improve data integrity.** The change in information systems from Efforts to Outcomes to Visit Tracker in 2014-15 provided a more usable data entry interface and an opportunity for improved data integrity. However, home instructors were burdened with an overwhelming amount of data entry and remained unsure of proper data entry procedures late in the program year. Data entry resources and reference materials should be implemented to improve data accuracy and consistency. As recommended by the 2014 HIPPY USA accreditation report and the 2013-14 HIPPY Dallas ISD program evaluation, data integrity could also be improved by considering allocation of specific staff members for data entry and/or file maintenance.
- **Improve the ability to link HIPPY and Dallas ISD data.** HIPPY Dallas ISD staff members currently flag students in the Dallas ISD databases who have completed each program year. This flag provides little useful information about the participant, and many children may not be flagged because their names and/or birthdates are slightly different in each database. The Visit Tracker system houses a wealth of information on each participant, but a key is needed to accurately join the two record sets so that useful and accurate data files can be created to track former HIPPY students at Dallas ISD. A meeting should be conducted to discuss the processes and key data that should be used to improve the available data for short and long term future analyses involving HIPPY Dallas ISD participants.

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# APPENDICES

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## Appendix A



**HIPPYUSA®**  
Home Instruction for Parents of Preschool Youngsters

# Home Instruction for Parents of Preschool Youngsters Theory of Change Logic Model Description<sup>33</sup>

## **Introduction**

### **Background and Mission of HIPPY**

Home Instruction for Parents of Preschool Youngsters (HIPPY) is a home visitation program that focuses on parent involvement and school readiness. HIPPY is unique in that the services are offered directly to parents, who then work with their own three, four, and five year old children. HIPPY's mission is to help parents prepare their children for success in school and beyond, and to empower parents as their children's first teacher by giving them the tools, skills and confidence they need to work with their children in the home.

In the United States HIPPY operates as a network of local programs and state offices, coordinated and certified through HIPPY USA, the national head office. There are currently 146 HIPPY sites in 20 states and Washington D.C.

The mission of HIPPY programs is to empower parents as primary educators of their children in the home and foster parent involvement in school and community life to maximize the chances of successful early school experiences.

### **Theoretical Basis of the HIPPY Model**

Given the growing awareness of a connection between early educational experiences and adult success in the social and economic spheres, the importance of early childhood education for children in families with fewer resources and advantages became a focal point of research and policy in the latter half of the twentieth century. Considerable research over the past several decades has established a strong link between home environment and school performance (Bertrand, McCain, Mustard, & Willms, 1999; Chao and Willms, 2000; Lillie 1975; Mantzicopoulos, 1997), and several studies have suggested the existence of preconditions that are favorable to school success, such as specific aspects of the home environment (Vernon-Feagans, Hammer, Miccio & Manlove, 2001; Wasik, Dobbins & Herrmann, 2001); the value of education in the home and expectations of parents (Fan & Chen, 1999); and verbal interaction

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<sup>33</sup> The HIPPY Theory of Change was downloaded from the HIPPY USA website:  
<http://www.hippyusa.org/memanager/pdf/Theory%20of%20Change%20&%20Logic%20Model%20Narrative%202012.pdf>



patterns between parents and children (Hart and Risley 1995). Indeed, research on parent involvement has suggested that the involvement of parents in their children's educational activities in the home is an important predictor of school success (Bennett, Weigel, & Martin, 2002; Fehrmann, Keith, & Reimers, 1987; Ho and Willms, 1996; Parker, Boak, & Griffin, 1999; Snow, Burns, & Griffin, 1998). Despite recognition of the importance of the home as an educational setting, most programs that have been developed to address inequities in educational access and attainment have concentrated their efforts within the school system. HIPPY, however, is designed to target intervention within the family. HIPPY's focus on the parent also follows the growing research base on the importance of the primary caregiver during early childhood in stimulating early development of young children (Wagner, Spiker, Linn, Gerlach-Downie, & Hernandez, 2003).

Recognizing that barriers to early intervention within the homes of vulnerable families may include not only limited access and resources for educational materials but also limited parental awareness of the home as an educational setting and lack of self-efficacy among parents (Lombard, 1994), the HIPPY approach has two points of focus: 1) the strengthening of the parents' self-efficacy through the activities he or she does as "an educator in the family setting", and 2) the educational enrichment of the child through the provision of curriculum activities, books, and other educational materials (Lombard 1994). HIPPY addresses these areas through a structured home visitation model that includes the delivery of instructional materials with a cognitively based curriculum, role-play as a teaching method for the parent, and a staffing plan that encourages community participation and growth.

HIPPY's approach to curricular design is based on programmed instruction principles. Early research in instructional technique has indicated that young children from disadvantaged families can achieve success with highly structured materials (Lombard, 1994). The HIPPY activities, therefore, are structured to "progress in simple, planned stages with the objective of providing children with a series of tasks that they can master easily as they advance to levels of increasing difficulty" (Lombard 1994). The content of the HIPPY curriculum responds to early childhood learning goals in seven domains: literacy, language development, physical and motor development, social/emotional development, mathematics, science, and creativity. Recognizing the range of functioning experienced by young children, learning activities emphasize the development of a series of concepts over a three year period; the curriculum is structured to progress by adding and expanding upon a child's emerging skills (Lombard, 1994; Greene, 2003). Lessons are scripted to facilitate use by novice "teachers," eliminating the need for the parent to make independent decisions about instruction technique or progress. Parents become more sensitive to their role as instructor over time as their children's mastery of the concepts grows.

The use of role-play in the parent training element of the HIPPY program is grounded in experiential learning theory, which emphasizes interaction, doing, and reflection (Fenwick, 2003; Shields, Aaron, & Wall, 2001). According to experiential learning theory, the concrete experience afforded by role-play provides the parent and home visitor the foundation and opportunity for discussion and reflection about the activity and learning process, through which abstract concepts and generalizations about learning and teaching are

developed (Lombard 1994; Sala, 1986; Shields, Aaron, & Wall, 2001). In role-play, learning occurs through modeling and through the dialogic reflection between the parent and home visitor. Role-play promotes self-efficacy and confidence in a way unique among instructional techniques by requiring parents to take an active part in the instructional process, either as the teacher or the learner. Additionally, role-play is a desirable method of instruction because it can be easily mastered by individuals with limited formal education and literacy skills (Willis and Gueldenpfenning, 1981).

### **HIPPY's Target Population**

HIPPY is intended for any parent who wants educational enrichment for his or her preschool aged child. HIPPY, however, was developed to support and foster the active involvement of parents who may lack the confidence and/or skills to “educate” their children due to their own negative educational experiences. These parents are often also low income, but socio-economic level is not always an indicator of the need for HIPPY. The HIPPY model was specifically designed to remove barriers to participation in early childhood programs caused by poverty, lack of education, or social isolation. Additionally, the model's approach to recruitment of home visitors and parents is designed to engage parents with children who are at greater risk of school failure because of poverty, parents' lower levels of education, and other risk factors.

### **HIPPY's Guiding Principles**

HIPPY is built upon these guiding principles:

- 1) All parents want what is best for their children;
- 2) All young children can learn, though each child is unique in his/her rate of growth and development;
- 3) All children mature in the same developmental areas;
- 4) Early learning and development are multidimensional and the developmental domains are highly interrelated;
- 5) Parents are the primary and most important educators of their young children; and
- 6) Knowledge and understanding of child growth and development and age-appropriate materials and techniques are essential to maximize educational experiences for children and to support parents in their roles as their children's teachers.

### **The HIPPY Method**

HIPPY programs are staffed by home visitors drawn from the target population or community, who are supervised by a professional coordinator who has a background in an area such as early childhood or social work. The curriculum is delivered (and role-play occurs) during home visits. In the HIPPY teaching model, the home visitor meets with the parent to role-play a lesson and the parent then completes the activity packets in the lesson with his or her child during daily 15-20 minute sessions. This method both fosters parent-child interaction and provides parents the experience of teaching their child themselves.

The HIPPY model includes the use of a unique and developmentally appropriate curriculum, with role-play as the method of teaching the parent the skills needed to implement the curriculum with their child. The Age 3 and Age 4 curricula each contain 30 weekly activity packets and nine storybooks. The Age 5

curriculum includes 15 activity and Let's Read, Talk, and Play packets along with eight storybooks. All three curricula include a set of 20 manipulative shapes. The HIPPY curriculum focuses on exposing children to skills, concepts, and experience with books that together constitute school readiness for young children. Skills and concepts are developed and built on sequentially through completion of the weekly activities. In addition to the core HIPPY materials, HIPPY USA has developed enrichment materials to enhance the curriculum and provide additional learning opportunities for children.

Group meetings, interspersed with home visits, are an integral part of the HIPPY model. During group meetings, parents come together to learn as a community with a focus on topics relating to school involvement, community involvement, child learning, and personal development. Group meetings are considered an important element because they are a means for breaking the social isolation frequently experienced by low income and low education populations and an opportunity for parents to develop social networks.

Each HIPPY program is supervised by a professional coordinator whose primary responsibilities are to recruit parents, hire and train home visitors, organize parent group meetings, track family progress, link families to other services, and ensure program sustainability. The coordinator and the home visitors meet weekly to role-play the materials, to discuss the previous week's activities, and to share experiences and problems. Supervision of home visitors by coordinators occurs largely through these weekly meetings.

HIPPY home visitors are members of the participating communities and are also current or former parents in the program. The home visitors' knowledge of their unique communities facilitates the development of rapport and trusting relationships with families, and, by having used the HIPPY materials with their own children, home visitors identify with the challenges parents face. Because home visitors and parents speak the same language both literally and figuratively, they interact as peers.

### **The HIPPY Logic Model**

The HIPPY Logic Model diagram presents a series of activities and outcomes that are expected to occur for parents and children who are enrolled in the program for at least the Age 3 and Age 4 curricula, but preferably including Age 5, also. The model progresses linearly, and presents a chain of events that may be read as a logical progression using "if... then" statements. However, as with most complex systems involving behavior change and skill development, the events and stages in the logic model are iterative and will experience feedback and possibly reversion before moving forward. Below is a narrative description of the stages in the HIPPY Logic Model describing the chain of events that links the activities of the HIPPY program to the final outcomes for children and parents who participate in the program.

#### **HIPPY Activities**

Home visits are employed as the primary means of contact with participating families, and are conducted weekly. Home visits last at 45-60 minutes with the bulk of the time devoted to role-play. The parent is the focus of the home visit, and home visitors are required to individualize the home visit to the family's language needs, including parent literacy level. During home visits, parent educators set the stage for parent instruction by helping parents set goals for themselves and their child. Home visitors also model

teaching behavior for the parent and provide support and encouragement to the parent throughout the HIPPY year. Home visitors are trained in strategies for building rapport and begin each visit with a short period of conversation meant to build connection and engage parents.

The structured home visit activities include:

- Review the previous week's completed activity packet with the parent;
- Discuss the educational objectives of the current activities or review the Parent Skill Boxes (new home visitors);
- Share child development activities and concepts;
- Share activity related information discussed during the previous staff meeting;
- Role-play the current activity packet with the parent;
- Provide the parent with other educational materials, extension activities or resources, if appropriate; and
- Inform the parent of program, school or community events.

In addition to home visits, programs are expected to hold a minimum of six group meetings on during the program year. Group meetings must be held at a time and place convenient to parents, and parents select topics for group meetings.

During group meetings the following activities occur:

- Parents are presented with additional parenting information
- Parents receive additional educational materials, information, and resources
- Parents learn about school culture and organization
- Parents are exposed to a variety of topics that support their personal growth

The role-play and instruction parents receive during home visits and group meetings are designed to encourage and support parents to complete the weekly activity packets with their children. Role-play models appropriate instructional and interactive behaviors and also assists parents with creating a learning environment conducive to positive interactive exchanges including establishing a work setting in the home and a routine and schedule for completing the activities. After role-playing activity packets during home visits, parents work with their children to complete the assigned activity packets. Parents are expected to spend approximately 15-20 minutes per day, five days per week working on the activity packets with their child. Parents may also complete the supplemental extension activities with their child if they choose to do so. Activity packets include explicit directions for parents to use in instructing their child. Through these activities, parents provide their children with developmentally appropriate pre-academic instruction.

### **Stage 1 Outcomes**

Stage 1 outcomes are the changes in children and parents that are expected to occur during the time the family is enrolled in HIPPY.

In the course of reviewing and role-playing the weekly activity packets with home visitors, parents:

- Increase their knowledge in child development as well as a better understanding of age appropriate expectations for their child's development
- Learn HIPPY teaching principles and techniques (repetition of words, positive correction, appropriate encouragement)
- Use skills for initiating, monitoring and directing educational activities with their child.
- Find new ways to become involved in their child's pre-academic learning
- Apply skill building techniques learned in HIPPY to daily interactions with their HIPPY child and other children

Through participation in HIPPY it is also expected that parents will progressively improve their time management skills, become more responsive and responsible (as they are coached in the use and care of HIPPY materials) and thereby establish habits, routines and schedules for interacting with their child around educational activities.

At the same time that parents are increasing the time they spend on educational activities with their child, the HIPPY activity packets are increasing in complexity and length, thus providing further learning opportunities for HIPPY children. These educational opportunities and learning activities will foster children's development across domains and the acquisition of pre-academic skills.

HIPPY is designed so that parents develop more empathy for their child and gain a better appreciation of their child's skill level and progress. As parent and child complete the weekly packets, they will naturally spend more time in quality interactions, thereby increasing the bond, on-going communication, and the confidence levels and feelings of achievement for both parent and child.

Parents are instructed using developmental concepts and terminology. Therefore, they acquire knowledge of the professional language used by educators that allows parents to be more effective communicators and advocates for their children with teachers, physicians and other professionals. Through HIPPY parents develop increased understanding of their responsibility in guiding their child's preschool instruction and their academic support role once the child is in school, leading to involvement in school activities.

A goal for parents attending group meetings with other parents from their community is an increased level of comfort participating in social interactions and group learning. As a result, parents often form new social networks and interact in a cooperative manner with other parents (e.g. joint outings, trading child care services etc.). Group meeting topics inform parents about parenting skills; community resources and events; and school events, personnel, policies, and procedures thus reinforcing information distributed by staff during home visits. This exposure translates over time into an increased connection between the parent and the child's school (once the child begins formal education) and between the parent and the community. This provides the foundation for parents to become active members of the home-school-

community partnership, often volunteering within and advocating for, the schools and related activities (e.g. parent-teacher organization, classroom volunteer, holiday parties, little league etc.).

### **Stage 2 Outcomes**

Stage 2 outcomes are the changes in children and parents that are expected to have occurred by the time the family has completed the HIPPY Age 3 and Age 4 curricula or the HIPPY Age 3, Age 4 and Age 5 curricula.

After completing a minimum of two years of HIPPY with their children, parents will have acquired skills and habits necessary to teach academic skills to their children and to guide their educational experiences in the home and the community. Through the addition of the HIPPY materials and the new knowledge and skills learned by both parents and children, the general home literacy environment will also have improved, and the level of parent-child interaction will have increased. Through completing HIPPY activities with their parents, children will have acquired the pre-academic skills and knowledge in HIPPY's seven key learning domains that enable them to be successful in kindergarten. This should be reflected in successful performance on standardized tests of school readiness and academic progress.

Through the skills and information conveyed during the home visits and group meeting activities parents will have become comfortable as their children's teachers and will have the language, knowledge, experience and confidence to assume an active role as their child enters a formal academic environment. They establish a routine and conducive environment for homework and use their skills to effectively monitor and assist their child with homework. They advocate for their child and communicate regularly and successfully with their children's teachers. They attend school events, participate in school-based parent activities, and volunteer in their children's classrooms.

### **Stage 3 Outcomes**

Stage 3 outcomes are the changes in the child and parent that are expected to occur after the family has completed HIPPY.

In the long term it is expected that the training and experiences parents receive through HIPPY and the resulting early educational experiences their children receive will result in sustained parent involvement in the school system and in assisting their children with homework, providing learning activities for their children at home and in the community, increased family involvement in local communities, stronger parent-child relationships, and long-term academic success for children.

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## Appendix B

Appendix B: 2014-15 Detailed Demographic Characteristics for HIPPY Dallas ISD Child Participants (N = 764)

Characteristic	HIPPY Year 1		HIPPY Year 2		HIPPY Year 3		Total	
	N	%	N	%	N	%	N	%
<b>Total Enrollment</b>								
Total Enrollment	446	58.4	230	30.1	88	11.5	764	100
<b>Sex</b>								
Male	213	47.8	113	49.1	36	40.9	362	47.4
Female	233	52.2	117	50.9	52	59.1	402	52.6
<b>Race/Ethnicity</b>								
Hispanic	342	76.7	179	77.8	77	87.5	598	78.3
African American	76	17.0	48	20.9	10	11.4	134	17.5
White	20	4.5	2	0.9	1	1.1	23	3.0
Multi-Racial	3	0.7	1	0.4	-	-	4	0.5
Asian	4	0.9	-	-	-	-	4	0.5
Amer. Indian/Alaskan Native	1	0.2	-	-	-	-	1	0.1
<b>Primary Language Spoken at Home</b>								
Spanish	322	72.2	164	71.3	70	79.5	556	72.8
English	122	27.4	64	27.8	16	18.2	202	26.4
Unknown	2	< 0.1	2	< 0.1	2	2.3	6	0.8
<b>Relationship to Parent</b>								
Biological Child	394	88.3	154	67.0	63	71.6	611	80.0
Grandchild	10	2.2	7	3.0	1	1.1	18	2.4
Foster Child	-	-	1	0.4	2	2.3	3	< 0.1
Other Relative	1	0.2	2	0.9	-	-	3	< 0.1
Stepchild	1	0.2	-	-	-	-	1	< 0.1
Other	1	0.2	-	-	-	-	1	< 0.1
Unknown	39	8.7	66	28.7	22	25.0	127	16.6

Note: Percentages may not equal 100% because of rounding.



## Appendix C

Appendix C: 2014-15 Detailed Demographic Characteristics for HIPPY Dallas ISD Parent Participants (N = 712)

Characteristic	N	%
<b>Race/Ethnicity</b>		
Hispanic	549	77.1
African American	113	15.9
White	39	5.5
Multi-Racial	3	0.4
American Indian	3	0.4
Asian	4	0.6
Unknown	1	0.1
<b>Marital Status</b>		
Married	487	68.4
Never Married	168	23.6
Separated	20	2.8
Divorced	9	1.3
Widowed	5	0.7
Unknown	23	3.2
<b>Number of Children Enrolled in HIPPY</b>		
One	660	92.7
Two	52	7.3
<b>Employment Status</b>		
Not employed outside of home	447	62.8
Up to 30 hours per week	67	9.4
30 plus hours per week	128	18.0
Unknown	70	9.8
<b>Annual Household Income</b>		
\$0 to < \$20,000	381	53.5
\$20,000 to < \$40,000	294	41.3
\$40,000 and greater	21	2.9
Unknown	16	2.2

Note: Percentages may not equal 100% because of rounding.

## Appendix D

### 2014-15 Interview and Focus Group Protocols

#### Coordinator Interviews

1. How long have you been a coordinator with HIPPY?
2. How many home instructors do you coordinate?
3. Why did you decide to become a HIPPY coordinator?
4. How do children benefit from HIPPY?
5. How do parents benefit from HIPPY?
6. What works well? What helps you to succeed on the job as a coordinator?
7. What are some of your challenges on the job?
8. Are there any barriers that keep you from doing your best work? What could be done to remove or reduce those barriers?
9. Is there anything else you would like to share with me about HIPPY?

#### Home Instructor Focus Groups

1. How long have you been working for HIPPY as a home instructor?
2. Are you full-time or part-time?
3. Were you originally a HIPPY parent?
4. Why did you decide to become a HIPPY home instructor?
5. How do children benefit from HIPPY?
6. How do parents benefit from HIPPY?
7. What works well? What helps you to succeed on the job as a home instructor?
8. What are some of your challenges on the job?
9. Are there any barriers that keep you from doing your best work? What could be done to remove or reduce those barriers?
10. Is there anything else you would like to share with me about HIPPY?

#### Parent Focus Groups

1. How many kids do you have (have you had) in the HIPPY program?
2. How many total years have you been enrolled in the HIPPY program?
3. How did you find out about HIPPY?
4. Why did you decide to enroll in HIPPY?
5. How have your children benefitted from being involved with the HIPPY program?
6. How have you benefitted from being involved with the HIPPY program?
7. What do you like about the group meetings? How are they beneficial?
8. Is there anything you would change about the group meetings?
9. Is there anything you would like to change about the HIPPY program?
10. Is there anything else you would like to share with me about the HIPPY program?

## Appendix E

Appendix E: 2014-15 HIPPO Dallas ISD Year 1 Means and Standard Deviations for Number of *BSRA-3* Items Correct by Testing Language and Race/Ethnicity

Subgroup	Colors (10 Items) Mean (SD)		Letters (15 Items) Mean (SD)		Numbers (18 Items) Mean (SD)		Sizes/ Comparisons (22 Items) Mean (SD)		Shapes (20 Items) Mean (SD)		SRC (85 Items) Mean (SD)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
All HIPPO Year 1 (n = 361)	3.4 (3.7)	7.1 (3.6)	2.1 (2.9)	4.1 (4.1)	1.6 (2.9)	4.4 (5.2)	4.3 (3.5)	8.6 (4.9)	4.1 (3.4)	7.9 (4.4)	15.5 (12.1)	32.1 (17.1)
<b>Testing Language</b>												
English (n = 89)	4.5 (3.8)	7.5 (3.5)	2.8 (3.8)	5.2 (4.9)	2.1 (3.0)	6.2 (5.7)	4.5 (3.6)	8.3 (4.4)	4.8 (3.8)	9.4 (4.9)	18.7 (13.9)	36.6 (18.9)
Spanish (n = 272)	3.1 (3.6)	7.0 (3.6)	1.9 (2.6)	3.7 (3.8)	1.4 (2.8)	3.8 (4.9)	4.3 (3.4)	8.8 (5.0)	3.8 (3.2)	7.4 (4.2)	14.4 (11.3)	30.7 (16.2)
<b>Race/Ethnicity</b>												
Hispanic (n = 288)	3.2 (3.6)	7.1 (3.6)	1.9 (2.6)	3.7 (3.8)	1.4 (2.8)	4.1 (5.0)	4.3 (3.5)	8.8 (4.9)	3.9 (3.3)	7.7 (4.2)	14.7 (11.7)	31.3 (16.1)
Af. Amer. (n = 50)	4.4 (3.8)	7.8 (3.3)	3.1 (4.0)	6.2 (5.2)	2.1 (3.1)	6.6 (5.6)	4.2 (2.9)	8.4 (4.6)	5.1 (3.7)	9.6 (5.3)	19.0 (13.7)	38.7 (20.4)
White (n = 17)	2.7 (3.5)	5.5 (3.8)	2.5 (3.4)	3.3 (3.8)	2.1 (4.0)	2.7 (4.8)	4.4 (3.3)	6.7 (4.7)	4.2 (2.9)	5.7 (3.6)	15.9 (11.6)	24.7 (15.1)
Asian (n = 4)	-	-	-	-	-	-	-	-	-	-	-	-
Multiracial (n = 2)	-	-	-	-	-	-	-	-	-	-	-	-

Note: Percentages may not equal 100% because of rounding. Data for groups with fewer than five participants are not shown.

## Appendix F

Appendix F: 2014-15 HIPPY Dallas ISD Year 2 Means and Standard Deviations for Number of BSRA-3 Items Correct by Testing Language and Race/Ethnicity

Subgroup	Colors (10 Items) Mean (SD)		Letters (15 Items) Mean (SD)		Numbers (18 Items) Mean (SD)		Sizes/ Comparisons (22 Items) Mean (SD)		Shapes (20 Items) Mean (SD)		SRC (85 Items) Mean (SD)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
All HIPPY Year 2 (n = 211)	6.6 (4.2)	9.0 (2.4)	4.4 (4.6)	10.5 (5.0)	4.6 (5.4)	11.9 (5.9)	7.8 (4.4)	13.3 (5.0)	7.1 (5.1)	12.6 (4.1)	30.5 (20.7)	57.3 (19.0)
<b>Testing Language</b>												
English (n = 53)	7.8 (3.5)	9.4 (1.8)	5.8 (5.1)	10.9 (5.0)	6.2 (6.4)	12.6 (5.7)	8.6 (5.5)	13.1 (4.2)	8.6 (5.4)	13.8 (3.8)	37.0 (22.5)	59.7 (17.4)
Spanish (n = 158)	6.2 (4.3)	8.9 (2.6)	4.0 (4.3)	10.4 (5.1)	4.0 (4.9)	11.7 (6.0)	7.5 (5.4)	13.3 (5.3)	6.6 (4.9)	12.3 (4.1)	28.3 (19.6)	56.5 (19.4)
<b>Race/Ethnicity</b>												
Hispanic (n = 169)	6.3 (4.3)	9.0 (2.5)	4.2 (4.5)	10.5 (5.0)	4.3 (5.1)	11.8 (5.9)	7.7 (5.5)	13.4 (5.2)	6.8 (5.1)	12.4 (4.1)	29.3 (20.2)	57.0 (19.2)
Af. Amer. (n = 39)	7.6 (3.5)	9.2 (2.1)	5.2 (4.8)	10.4 (5.3)	5.6 (6.3)	12.0 (6.1)	8.4 (5.4)	12.7 (4.3)	8.4 (4.9)	13.6 (4.0)	35.2 (21.7)	57.9 (18.7)
White (n = 2)	-	-	-	-	-	-	-	-	-	-	-	-
Multiracial (n = 1)	-	-	-	-	-	-	-	-	-	-	-	-

Note: Percentages may not equal 100% because of rounding. Data for groups with fewer than five participants are not shown.

## Appendix G

Appendix G: 2014-15 HIPPY Dallas ISD Year 3 Means and Standard Deviations for Number of *BSRA-3* Items Correct by Testing Language and Race/Ethnicity

Subgroup	Colors (10 Items) Mean (SD)		Letters (15 Items) Mean (SD)		Numbers (18 Items) Mean (SD)		Sizes/ Comparisons (22 Items) Mean (SD)		Shapes (20 Items) Mean (SD)		SRC (85 Items) Mean (SD)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
All HIPPY Year 3 (n = 78)	7.6 (4.1)	9.9 (0.5)	9.4 (6.2)	14.0 (2.4)	10.8 (6.8)	16.7 (2.9)	11.4 (7.3)	16.6 (3.8)	10.3 (6.3)	15.7 (3.1)	49.5 (28.4)	72.9 (9.4)
<b>Testing Language</b>												
English (n = 15)	8.9 (2.8)	9.7 (0.9)	11.3 (5.2)	13.0 (3.1)	13.3 (5.6)	16.2 (3.8)	13.0 (6.6)	17.1 (3.6)	14.1 (5.2)	17.3 (2.7)	60.5 (23.4)	73.3 (11.7)
Spanish (n = 63)	7.3 (4.4)	10.0 (0.3)	9.0 (6.3)	14.3 (2.2)	10.2 (6.9)	16.8 (2.7)	11.0 (7.4)	16.4 (3.8)	9.4 (6.3)	15.4 (3.1)	46.9 (29.0)	72.8 (8.8)
<b>Race/Ethnicity</b>												
Hispanic (n = 68)	7.5 (4.2)	10.0 (0.3)	9.0 (6.2)	14.1 (2.3)	10.3 (6.7)	16.7 (2.8)	11.1 (7.3)	16.3 (3.8)	9.8 (6.3)	15.4 (3.0)	47.7 (28.3)	72.5 (8.7)
Af. Amer. (n = 9)	8.3 (3.5)	9.4 (1.1)	11.7 (5.6)	13.2 (3.3)	13.7 (6.8)	16.4 (3.9)	13.0 (7.1)	18.1 (3.6)	13.6 (6.6)	18.1 (2.8)	60.2 (28.7)	75.3 (14.8)
White (n = 1)	-	-	-	-	-	-	-	-	-	-	-	-
Multiracial (n = 0)	-	-	-	-	-	-	-	-	-	-	-	-

Note: Percentages may not equal 100% because of rounding. Data for groups with fewer than five participants are not shown.

## Appendix H

Appendix H: 2014-15 HIPPY Dallas ISD BSRA-3 Standard Scores by Curriculum Year, Curriculum Language, and Race/Ethnicity

Subgroup	HIPPY Year 1's			HIPPY Year 2's			HIPPY Year 3's			Total Mean		
	<i>N</i>	Mean (SD)	Post	<i>N</i>	Mean (SD)	Post	<i>N</i>	Mean (SD)	Post	<i>N</i>	Mean (SD)	Post
All	361 <sup>a</sup>	80.7 (13.2)	89.1 (14.7)	211 <sup>b</sup>	82.1 (19.3)	97.3 (17.2)	78 <sup>b</sup>	83.2 (25.1)	98.3 (14.7)	650 <sup>a</sup>	81.5 (17.1)	92.9 (16.0)
<b>Curriculum Language</b>												
English	89 <sup>a</sup>	84.0 (13.7)	92.9 (16.2)	53 <sup>a</sup>	87.9 (19.6)	99.6 (14.9)	15	97.3 (19.7)	105.1 (12.8)	157 <sup>a</sup>	86.6 (16.9)	96.3 (16.0)
Spanish	272 <sup>a</sup>	79.6 (12.8)	87.9 (13.9)	158 <sup>b</sup>	80.2 (18.8)	96.5 (17.8)	63 <sup>b</sup>	79.9 (25.2)	96.7 (14.7)	493 <sup>b</sup>	79.8 (11.8)	91.8 (15.9)
<b>Race/Ethnicity</b>												
Hispanic	288 <sup>a</sup>	79.7 (13.0)	88.5 (13.8)	169 <sup>b</sup>	80.8 (19.0)	96.7 (17.3)	68 <sup>a</sup>	81.0 (24.7)	96.4 (14.3)	525 <sup>a</sup>	80.2 (16.9)	92.2 (15.6)
Af. Amer.	50 <sup>a</sup>	84.8 (13.5)	94.5 (18.0)	39 <sup>a</sup>	87.4 (19.1)	99.2 (16.6)	9	97.8 (24.2)	111.2 (11.3)	98 <sup>a</sup>	87.0 (17.2)	97.9 (17.4)
White	17	83.1 (14.2)	83.2 (12.9)	2	-	-	1	-	-	20	83.7 (16.4)	86.6 (15.1)
Asian	4	-	-	-	-	-	-	-	-	4	-	-
Multiracial	2	-	-	1	-	-	-	-	-	3	-	-

**Note.** Standard scores reflect the relative performance of participants compared with the publisher's English-speaking normative database. Data for groups with fewer than five participants are not shown. Af. Amer = African American. Percentages may not equal 100% because of rounding. <sup>a</sup>Statistically significant ( $p < 0.05$ ) with a medium effect size. <sup>b</sup>Statistically significant ( $p < 0.05$ ) with a large effect size. Cohen's  $d$  statistics were calculated to determine effect sizes.

## Appendix I<sup>34</sup>

### Propensity Score Matching Detailed Methods

True experimental designs with randomly assigned treatment and control groups are the “gold standard” for research and program evaluation. Random assignment means that each member of a population has an equal chance of receiving the treatment. When everyone has an equal chance of receiving the treatment, it is assumed there are no systematic differences between the treatment and control groups. Any post-treatment differences between the groups are then assumed to result from the treatment, not from pre-existing differences between the groups. An experimental design with random assignment was not possible in this evaluation. In this case, parents enrolled their families in HIPPY (“the treatment”) based upon a number of factors unrelated to HIPPY, not random assignment. Propensity score matching (PSM) is one alternative when random assignment is not possible (Stuart, 2010; Thoemmes, 2012).

A propensity score is a measure of likelihood to receive treatment based on individual characteristics (Stuart, 2010). The characteristics used to determine an individual’s propensity for treatment are called “covariates.” PSM resulted in individual propensity scores for kindergarten students who participated in HIPPY and who did not participate in HIPPY. For example, imagine a Hispanic male whose primary language at home is Spanish, does not have a disability, and was a HIPPY participant. In PSM, he will receive a propensity score that indicates the probability that someone with his characteristics would have been a HIPPY participant. This male will be matched with a member of the control group (kindergarten students in Dallas ISD who did not participate in HIPPY) with a similar propensity score. Following this process, each HIPPY participant is matched with a control group member who has the most similar propensity score, thus forming a treatment and control group of equal sample sizes. This process is known as 1:1 nearest neighbor matching because a single treatment group member is matched with a single control group member (Thoemmes, 2012). The result is not a control group that matches the exact demographics of the treatment group. For example, the Hispanic male may not be matched with another Hispanic male; rather, he will be matched with a control group member with the same probability of receiving the treatment. This mimics the effect of random assignment.

To conduct PSM with HIPPY Dallas ISD, the treatment group included HIPPY participants and the control group included all other district kindergarteners who did not participate in HIPPY. The following covariates from the Dallas ISD demographic files formed the basis for matching:

Sex	Age in Days
Bilingual Program Participation	English Language Learner
Special Education Status	Primary Language Spoken
Economically Disadvantaged	Primary Language Spoken at Home
Primary Disability	Birth Country
At Risk	Race/Ethnicity

<sup>34</sup> Adapted from Appendix H in McEnturff, 2014 and the Appendix in Palladino, 2015

It is advisable to select as many covariates as possible. Furthermore, covariates should include more than demographic variables whenever possible, and covariates should not directly affect the outcome (Stuart, 2010). For example, some studies of academic achievement have used personality measures as covariates. This type of data was not available for matching in the district data sources, thus for this analysis PSM covariates were limited to demographic variables.

After selecting the covariates, a dichotomous treatment/control variable was created to separate students who participated in HIPPY from the control group. Then, the covariates were used in a logistic regression with enrollment in HIPPY as the treatment indicator. The logistic regression resulted in a “propensity score” for each treatment and control participant, which was used as the basis for matching.<sup>35</sup>

After matching, the balance of covariates was assessed using univariate and multivariate balance measures. The aim of PSM is to improve balance, which refers to the similarity of covariate distributions between the treatment and control groups. When covariates exhibited large univariate imbalance, the propensity score model was respecified to remove these covariates. Typically, large univariate imbalance was a result of having covariates with zero variance (i.e., few Asian students enrolled in HIPPY). Removing covariates with zero variance resulted in better balance in all models where balance was an issue. The multivariate imbalance measures represent balance for the group of covariates as a whole, both before and after matching. These are shown in Appendix I Table. For “relative multivariate imbalance,” there is no set criterion for acceptable balance, so these are evaluated by comparing imbalance values before and after PSM. PSM successfully improved the balance of covariates when the “after” value was less than the “before” value. This was the case in the current analysis’ PSM sample, indicating improved balancing of the covariate distributions. A successful “overall balance test” occurs when  $p > .05$ , indicating no significant imbalance among the covariates. The PSM samples in the current analyses met this criterion.

Appendix I Table: Sample Size and Balance Statistics from Propensity Score Matching

	Original Sample Size		Relative Multivariate Imbalance		Overall Balance Test		
	Treatment	Control*	Before	After	Chi-squared	df	p
<b>BRIGANCE Screens III</b>							
KN	141	8485	.679	.227	4.452	11	0.96

Note. \*After matching, the control group (non-HIPPY children) had the same sample size as the treatment group (HIPPY children).

<sup>35</sup> In situations where the pool of control group members is smaller compared to the treatment group, there may not be exact propensity score matches for all treatment group members. In that situation, a caliper width can be imposed to ensure that matches are at least close enough (Theommes, 2012). This was not necessary for these data because the potential pool of control group members was so large that exact propensity score matches were possible for all treatment members.



## Appendix J

Appendix J: 2014-15 HIPPY Dallas ISD Number and Percentage of HIPPY and Non-HIPPY Matched Control Kindergarten Students Scoring at or above the Age-Appropriate Range on BRIGANCE by Student Group

	Physical Development		Language Development		Academic/Cognitive Development		Self-Help Skills		Social-Emotional Development		Total Performance	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<b>HIPPY (<i>n</i> = 141)</b>												
All	102	72.3	44	31.2	57	40.4	47	33.3	55	39.0	77	54.6
Hispanic	91	71.7	33	26.0	48	37.8	42	33.1	49	38.6	64	50.4
Af Amer	10	83.3	10	83.3	8	66.7	5	41.7	6	50.0	12	100.0
White	-	-	-	-	-	-	-	-	-	-	-	-
Male	50	71.4	17	24.3	28	40.0	15	21.4	21	30.0	36	51.4
Female	52	73.2	27	38.0	29	40.8	32	45.1	34	47.9	41	57.7
<b>Non-HIPPY (<i>n</i> = 141)</b>												
All	96	68.1	34	24.1	40	28.4	49	34.8	63	44.7	63	44.7
Hispanic	86	68.8	27	21.6	34	27.2	45	36.0	58	46.4	54	43.2
Af Amer	10	71.4	6	42.9	6	42.9	3	21.4	4	28.6	9	64.3
White	-	-	-	-	-	-	-	-	-	-	-	-
Male	43	66.2	12	18.5	14	21.5	22	33.8	26	40.0	23	35.4
Female	53	69.7	22	28.9	26	34.2	27	35.5	37	48.7	40	52.6

Note: Percentages may not equal 100% because of rounding. Data for groups with fewer than five participants are not shown.

## Appendix K

Appendix K: 2014-15 HIPPY Dallas ISD Parent Involvement Interview Pre- and Post-Test Response Detail by Question – Part 1

		<i>N</i>	Never <i>n (%)</i>	Sometimes <i>n (%)</i>	Usually <i>n (%)</i>	Don't Know <i>n (%)</i>
<b>When you or someone in your family reads to your child, how often do you:</b>						
Stop reading and ask your child to tell what is in a picture?	Pre	272	62 (22.8)	95 (34.9)	106 (39.0)	9 (3.3)
	Post	273	3 (1.1)	129 (47.3)	141 (51.8)	0 (0.0)
Stop reading and point out letters?	Pre	270	103 (38.1)	93 (34.4)	65 (24.1)	9 (3.3)
	Post	273	42 (15.4)	116 (42.5)	115 (42.1)	0 (0.0)
Ask your child to read with you?	Pre	271	119 (43.9)	79 (29.2)	65 (24.0)	8 (3.0)
	Post	273	19 (7.0)	111 (40.7)	143 (52.4)	0 (0.0)
Talk about the story when the book is done?	Pre	269	56 (20.8)	88 (32.7)	118 (43.9)	7 (2.6)
	Post	272	5 (1.8)	66 (24.3)	201 (73.9)	0 (0.0)

Note: Percentages may not add to 100% because of rounding.

## Appendix L

Appendix L: 2014-15 HIPPY Dallas ISD Parent Involvement Interview Pre- and Post-Test Response Detail by Question – Part 2

		<i>N</i>	Not At All <i>n (%)</i>	Once or Twice <i>n (%)</i>	3 to 6 Times <i>n (%)</i>	Every Day <i>n (%)</i>	Don't Know <i>n (%)</i>
<b>In a typical week, how often do you (or any other adult family member) do the following:</b>							
Read books to your child?	Pre	272	37 (13.6)	101 (37.1)	71 (26.1)	57 (21.0)	6 (2.2)
	Post	271	0 (0.0)	52 (19.2)	135 (49.8)	83 (30.6)	1 (0.4)
Sing songs with your child?	Pre	273	43 (15.8)	69 (25.3)	61 (22.3)	95 (34.8)	5 (1.8)
	Post	272	11 (4.0)	73 (26.8)	87 (32.0)	101 (37.1)	0 (0.0)
Tell stories to your child?	Pre	272	73 (26.8)	100 (36.7)	41 (15.1)	47 (17.3)	11 (4.0)
	Post	271	30 (11.1)	101 (37.3)	78 (28.8)	60 (22.1)	2 (0.7)
<b>In the past month, how often did you do the following:</b>							
Teach your child letters?	Pre	273	65 (23.8)	86 (31.5)	67 (24.5)	52 (19.0)	3 (1.1)
	Post	273	8 (2.9)	52 (19.0)	112 (41.0)	101 (37.0)	0 (0.0)
Teach your child words?	Pre	272	59 (21.7)	72 (26.5)	73 (26.8)	65 (23.9)	3 (1.1)
	Post	273	8 (2.9)	53 (19.4)	105 (38.5)	106 (38.8)	1 (0.4)
Teach your child numbers?	Pre	272	35 (12.9)	81 (29.8)	83 (30.5)	70 (25.7)	3 (1.1)
	Post	273	2 (0.7)	30 (11.0)	114 (41.8)	127 (46.5)	0 (0.0)
Help your child learn shapes?	Pre	273	115 (42.1)	69 (25.3)	54 (19.8)	31 (11.4)	4 (1.5)
	Post	272	10 (3.7)	53 (19.5)	133 (48.9)	74 (27.2)	2 (0.7)
Do activities with your child that involve making patterns?	Pre	271	134 (49.4)	58 (21.4)	51 (18.8)	24 (8.9)	4 (1.5)
	Post	271	10 (3.7)	52 (19.2)	162 (59.8)	47 (17.3)	0 (0.0)
Play games with your child that involve arranging objects by size, height, or color?	Pre	273	103 (37.7)	85 (31.1)	56 (20.5)	24 (8.8)	5 (1.8)
	Post	273	13 (4.8)	65 (23.8)	152 (55.7)	39 (14.3)	4 (1.5)
Do counting activities with your child?	Pre	273	61 (22.3)	82 (30.0)	85 (31.1)	45 (16.5)	0 (0.0)
	Post	273	6 (2.2)	55 (20.1)	131 (48.0)	81 (29.7)	0 (0.0)
Play with toys for building things with your child?	Pre	272	79 (29.0)	61 (22.4)	77 (28.3)	53 (19.5)	2 (0.7)
	Post	273	33 (12.1)	70 (25.6)	86 (31.5)	83 (30.4)	1 (0.4)
Play a board game, card game, or work a puzzle with your child?	Pre	273	99 (36.3)	93 (34.1)	46 (16.8)	31 (11.4)	4 (1.5)
	Post	273	40 (14.7)	86 (31.5)	111 (40.7)	34 (12.5)	2 (0.7)
Play games that use cards, pieces or dice with your child?	Pre	271	145 (53.5)	70 (25.8)	32 (11.8)	20 (7.4)	4 (1.5)
	Post	273	51 (18.7)	83 (30.4)	107 (39.2)	29 (10.6)	3 (1.1)
Do arts and crafts with your child?	Pre	271	32 (11.8)	82 (30.3)	99 (36.5)	55 (20.3)	3 (1.1)
	Post	273	4 (1.5)	37 (13.6)	118 (43.2)	114 (41.8)	0 (0.0)
Talk about nature, scientific discovery experience, or do a science project with your child?	Pre	273	155 (56.8)	63 (23.1)	30 (11.0)	19 (7.0)	6 (2.2)
	Post	273	12 (4.4)	80 (29.3)	138 (50.5)	41 (15.0)	2 (0.7)

Appendix L: 2014-15 HIPPY Dallas ISD Parent Involvement Interview Pre- and Post-Test Response Detail by Question – Part 2

		<i>N</i>	Not At All <i>n (%)</i>	Once or Twice <i>n (%)</i>	3 to 6 Times <i>n (%)</i>	Every Day <i>n (%)</i>	Don't Know <i>n (%)</i>
Involve your child in household chores?	Pre	273	39 (14.3)	64 (23.4)	57 (20.9)	112 (41.0)	1 (0.4)
	Post	273	11 (4.0)	37 (13.6)	76 (27.8)	148 (54.2)	1 (0.4)
Take your child with you to a religious service or event?	Pre	272	109 (40.1)	76 (27.9)	71 (26.1)	9 (3.3)	7 (2.6)
	Post	272	86 (31.6)	85 (31.3)	80 (29.4)	18 (6.6)	3 (1.1)
Talk to your child about his/her family history or ethnic heritage?	Pre	271	158 (58.3)	61 (22.5)	30 (11.1)	16 (5.9)	6 (2.2)
	Post	271	89 (32.8)	101 (37.3)	50 (18.5)	28 (10.3)	3 (1.1)
Played a game, sport, or exercised together?	Pre	272	32 (11.8)	67 (24.6)	84 (30.9)	88 (32.4)	1 (0.4)
	Post	273	7 (2.6)	45 (16.5)	124 (45.4)	96 (35.2)	1 (0.4)
Take your child outside for a walk or to play in the yard, a park, or a playground?	Pre	271	17 (6.3)	54 (19.9)	93 (34.3)	107 (39.4)	0 (0.0)
	Post	272	3 (1.1)	42 (15.4)	112 (41.2)	114 (41.9)	1 (0.4)
<b>In the past three months, how often did you do the following:</b>							
Visit a library with your child?	Pre	270	193 (71.5)	48 (17.8)	26 (9.6)	2 (0.7)	1 (0.4)
	Post	271	147 (54.2)	71 (26.2)	47 (17.3)	5 (1.8)	1 (0.4)
Visit a bookstore with your child?	Pre	270	212 (78.5)	38 (14.1)	17 (6.3)	1 (0.4)	2 (0.7)
	Post	271	181 (66.8)	59 (21.8)	28 (10.3)	1 (0.4)	2 (0.7)
Go to a concert or other live show with your child?	Pre	269	229 (85.1)	30 (11.2)	6 (2.2)	1 (0.4)	3 (1.1)
	Post	270	186 (68.9)	68 (25.2)	12 (4.4)	1 (0.4)	3 (1.1)

Note: Percentages may not add to 100% because of rounding.