

# Colorado Parent & Child Foundation

## Colorado HIPPY Evaluation Summary

2005 through 2009

### 2009 Kindergarten Reading Study

**Author(s):** Joanna Zorn Heilbrunn and Gretchen Mann, The Partnership for Families and Children

**Research design, population and focus:** A quasi-experimental study that examined through a series of recorded observations the quality of reading skill and interaction between HIPPY parents and their kindergarten children who had been in HIPPY for three years compared to the quality of reading skill and interaction between non-HIPPY parents and their kindergarten children who had not participated in HIPPY. Each of the 40 study participants were recorded on four separate occasions, reading and interacting with their child with four different children's books. In addition, each of the 40 study participants completed a reading log for evaluators to track the amount of time spent reading outside of the study.

#### **Preliminary Findings:**

- HIPPY parents received higher scores than control group parents on the parent reading scale. Child engagement scores were also higher for the HIPPY children as compared to the control group children.
- HIPPY families read more in minutes per day than the control group. For both groups however, the dual reader combination was rare and it was much more common for the adult to do all or most of the reading as opposed to the child. (The children are kindergartners. Typically, children are not expected to be independent readers at this age, so this finding is not alarming.)
- Overall differences between the English and Spanish-speaking participants were negligible in all three areas (parent reading scores, child engagement scores, and logged reading time). However, when comparing HIPPY and control group scores of the English-speakers only, the gap between HIPPY vs. control group reading scores widen substantially. Also, Spanish-speaking HIPPY parents read more minutes per day with their children than English-speaking HIPPY parents.

### 2008 Study 1: Progression of Learning (Skills Taught at Specific Intervals in the HIPPY Curriculum)

**Author(s):** Dr. Marty Tombari, The Partnership for Families and Children

**Research design, population and focus:** An experimental study (multiple baseline) that examined the progression of the learning of four children for four skills taught at specific intervals in the HIPPY Curriculum (concepts, vocabulary, math readiness and auditory discrimination). Children were assessed every two weeks for thirty weeks to determine if skill growth correlated to the teaching in HIPPY, versus maturation or other uncontrolled variable.

#### **Findings:**

- The overall pattern of the data (thrice replicated) provides strong experimental evidence that increases in learning are the direct result of HIPPY teaching and not factors such as maturation or other interventions.
- Twelve of those 16 occasions where teaching of a skill was introduced after baseline showed a noticeable improvement in the percentage of correctly answered questions. Further, following the teaching of a skill and for the remainder of the program, there was a steady increase in scores in the majority of cases.

### 2008 Study 2: Progression of Learning (Skills Taught Continuously throughout HIPPY Curriculum)

**Author(s):** Dr. Marty Tombari, The Partnership for Families and Children

**Research design, population and focus:** This study followed the progression of learning for 12 children who were assessed 5 times over the course of the year on 4 skills (gross motor, fine motor, sensory discrimination, language) taught continuously throughout the HIPPY Curriculum. Language assessments including recorded observations which were transcribed and analyzed to determine whether the child's utterances became increasingly complex over the course of the 30 weeks. Both English and Spanish speaking children were included in this study.

#### **Findings:**

- Findings of Study 1 were replicated when examining these additional skills. In all cases, the scores improved steadily as a result of the learning that took place through the program. For gross motor, baseline averages were 38% and grew to 80% - more than doubling gross motor performance over 30 weeks. Fine motor scores rose from 67% to 90% (baselines were quite high). Sensory discrimination scores rose from 35% to 75%.

- Language scores were particularly impressive. Mean length of utterance at baseline averaged 2.9 syllables, and averaged 6.6 after 30 weeks. For some children, the mean length of utterance was nearly three times as high by the end of the program year than at baseline.

### **2008 Study 3: Parent Knowledge**

**Author(s):** Dr. Marty Tombari, The Partnership for Families and Children

**Research design, population and focus:** A quasi-experimental study of 12 HIPPY and 12 non-HIPPY parents, using a pre-post test interview design (with an inter-observer reliability quotient of 90% or higher), compared home teaching activities to determine if parents of four year old HIPPY children were able to identify more specific strategies for getting their children ready for kindergarten at the end their involvement with HIPPY. The study also examined whether these same parents were able to identify more specific strategies than a comparable group of non-HIPPY parents.

**Findings:**

- HIPPY parents had higher post-test scores on the post-interview than non-HIPPY parents. The gains for beginning reading strategies, beginning math strategies, science activities, vocabulary building, and activities for understanding stories were statistically significant. None of the readiness activities reported by non-HIPPY parents showed any significant gains from September to May.

### **2008 Study 4: Kindergarten Readiness and Parent Involvement**

**Author(s):** Dr. Marty Tombari, The Partnership for Families and Children

**Research design, population and focus:** A qualitative study asked 19 kindergarten teachers across 6 HIPPY communities to compare readiness for learning of HIPPY children with the readiness for learning of non-HIPPY children in their own classrooms as well as the extent of parent involvement for both groups (HIPPY vs. non-HIPPY). Data were coded and analyzed for themes.

**Findings:**

- A large majority of the teachers believe that HIPPY children are better prepared for kindergarten literacy instruction in comparison to non-HIPPY children.
- Teachers state that HIPPY children are generally average to above average in school performance.
- Compared to their non-HIPPY classmates, HIPPY children are described as better behaved, more used to school routines, more engaged, and overall, better prepared for kindergarten.
- Almost all of the teachers strongly recommended that parents enroll their children in HIPPY.
- Parents of HIPPY children in comparison to the parents of non-HIPPY children are more involved in classroom activities and more involved in their children's education.

### **Woodcock-Johnson Tests of Achievement Results Summary (2005-2007)**

**Analyst(s):** Dr. Marty Tombari, The Partnership for Families and Children, with preliminary data from 2005-2006 submitted by Dr. Roger Eldridge, University of Northern Colorado

**Research design, population and focus:** A pre/post achievement test was administered to 216 children before and after participating in HIPPY, beginning at the start of HIPPY 3, with post-tests at the end of HIPPY 3 and HIPPY 4.

**Findings:**

- The children's average score increased on all measures tested (letter-word recognition, story recall, understanding directions, picture vocabulary, oral comprehension, and sound awareness). Twenty-seven out of thirty gains were statistically significant.

### **Early Childhood Home Observation for the Measurement of the Environment Results Summary (2005-2007)**

**Analyst(s):** Tracey O'Brien, Center for Educational Policy Analysis at the University of Colorado at Denver

**Research design, population and focus:** Using a pre/post test design with 452 families in the 2005-2006 program year and 687 families in the 2006-2007 program year, this evaluation examined improvements made in parenting practices as they relate to the child's home environment using the Early Childhood Home Observation for the Measurement of the Environment. The HOME inventory contains 55 items clustered into 8 subscales: 1) learning materials; 2) language stimulation; 3) physical environment; 4) parental responsiveness; 5) learning stimulation; 6) modeling of social maturity; 7) variety in experience; and 8) acceptance. The inventory is done through both observation and an interview with the HIPPY parent.

**Findings:**

- In both years, parenting behaviors on all subscales were higher on the post test. Gains were most pronounced in the areas of Learning Materials and Variety in Experience.

### **Five-year Longitudinal Study of the Impact of HIPPY in Alamosa, Colorado (1997 through 2002)**

**Author(s):** Tracy O'Brien (Principal Investigator and Author), Donna Garnett (Co-Principal Investigator) and Kaylene Proctor (Evaluator), Center for Human Investment Policy at the University of Colorado at Denver

**Research design, population and focus:** A longitudinal, impact study compared the school grades, teacher ratings, test scores, attendance records and parental involvement data for 318 children (159 in both HIPPY and comparison groups) in kindergarten and 272 of those children (136 in each group) again in fifth grade.

#### **Findings:**

- In kindergarten, the HIPPY children performed better than the comparison children in the developmental areas of reading, receptive language, expressive language, social, emotional, gross motor, and fine motor. HIPPY kindergartners also had a statistically significant higher rate of school attendance than comparison children.
- Both of the fourth grade CSAP areas (reading and writing) showed higher mean performance levels for HIPPY children compared to non-HIPPY children.
- In fifth grade, the HIPPY children continued to show higher mean scores in all areas (reading, spelling, English, math, social studies and science). The differences were statistically significant in reading, math and social studies.
- Teachers rated HIPPY parents higher in areas of parent involvement at both the kindergarten and fifth grade levels. These results were statistically significant.