

HIPPY Alabama - A Program Evaluation
FY 2008

Alexander T. Vazsonyi, Ph.D.

Professor of Human Development and Family Studies

Sara Browder M.S. and Pan Chen M.A.

Auburn University

TABLE OF CONTENTS

- I. Executive Summary..... 3
- II. Overview 4
 - 1. Research Question for Child Outcomes 5
- III. Site and Demographic Information 6
 - 1. Site Information 6
 - 2. Counties Included in Current Report 7
- IV. Results and Study Findings 8
 - 1. PPVT-III 8
 - 2. Kindergarten Readiness Three Year Old Test..... 12
 - 3. Kindergarten Readiness Four Year Old Test..... 15
 - 4. Parent Feedback 19
- V. Conclusions 28
- VI. Appendix 29

TABLES

- Table 1: Site Information 6
- Table 2: Counties included in the Current Report..... 7
- Table 3: PPVT Table 9
- Tables 4-7: Kindergarten Readiness Tests 13-17

FIGURES

Figures 1-4: PPVT Figures 10-11

Figures 5-6: Kindergarten Readiness Test 13-16

Figures 7-21: Parent Feedback Figures 20-27

I. EXECUTIVE SUMMARY

In FY 2008, Home Instruction for Parents of Preschool Youngsters (HIPPY) served children located in seventeen different counties in the State of Alabama. The current evaluation study, based on a simple pre/posttest design, compared baseline data collected by HIPPY and trained staff during the fall of 2007 and early 2008, with some follow-up data collected during late spring of 2008.

- Pretest/posttest data based on the Peabody Picture Vocabulary Test-III (PPVT) provide strong evidence that children made substantial gains in vocabulary and language skills over the course of the program.
- Pretest and posttest data were available for the HIPPY Three Year Old Kindergarten Readiness Test. Average scores indicated that all children made significant gains in color and relationship knowledge, math, fine motor, language, and directionality skills.
- Pretest and posttest data were available for the HIPPY Four Year Old Kindergarten Readiness Test. Findings indicated that all children made significant gains in their color and relationship knowledge, math, fine motor language, and directionality skill scores.
- Data from the parent feedback provided evidence that parents hold the HIPPY program in very high regard. Most parents were satisfied with the program and thought it was very helpful.

II. OVERVIEW

Children must master a number of skills prior to entering Kindergarten. Parents are perhaps the best teachers to develop these skills at an early age, certainly prior to school age. However, not every parent is equipped with the necessary skill set to prepare their child. Some parents have the best intentions, but may be missing the tools to prepare their child for school. HIPPY (Home Instruction for Parents of Preschool Youngsters) (<http://www.hippyalabama.com/>) is a program that aids parents in making their child ready for school. HIPPY has been serving parents and children ages three, four, and five since 1993 in the State of Alabama.

HIPPY helps parents prepare their children for school by teaching them knowledge of letters, shapes, colors, and motor skills. Each week, a parent educator visits the home and brings a packet of lessons, books, and enrichment materials. Parents do the teaching, and parent educators model important instructional behaviors to them. The HIPPY program consists of 30 weeks of lessons.

The current report is an evaluation of the HIPPY Alabama program as administered during the 2007/2008 school year. Pretest and posttest scores of children part of the program allow a determination of the impact by the HIPPY program on a number of competencies and whether it is working effectively. Key assessments include the Peabody Picture Vocabulary Test-III (PPVT) and a Kindergarten Readiness Test (Three Year Old and Four Year Old versions).

In addition, data were also collected from parents who gave feedback about HIPPY Alabama. Both pretest and posttest data were available for the PPVT and The Kindergarten Readiness Four Year Old Test. Only posttest data were available for the Kindergarten Readiness Three Year Old Test. Parent Feedback data were collected once, so no assessments of change over time were possible.

1. Research Questions for Child Outcomes

- A. Pretest/posttest Questions: Did children's language/vocabulary scores change over time based on the PPVT?
- B. Pretest/posttest Questions: Did children's test results based on the 3 year old HIPPY Kindergarten Readiness Test (color and relationship knowledge, math, language, and directionality) significantly increase over time between Time 1 and Time 2? Were children at benchmark by the end of the program?
- C. Pretest/posttest Questions: Did children's test results based on the 4 year old HIPPY Kindergarten Readiness Test (color and relationship knowledge, math, language, and directionality) significantly increase over time between Time 1 and Time 2? Were children at benchmark by the end of the program?
- D. Parent satisfaction: Were parents satisfied with the HIPPY Alabama program as well as with the parent educators assigned to work with them?

III. SITE AND DEMOGRAPHIC INFORMATION

1. Site Information

Twenty-eight counties in Alabama provide or will provide HIPPY Alabama Programs. The counties with established HIPPY sites include: Calhoun, Clarke, Clay, Conecuh, Dallas, DeKalb, Mobile, Monroe, Montgomery, Hale, Houston, Lowndes, Shelby, Talladega, Tuscaloosa, and Walker. The counties with newly established HIPPY sites include: Barbour, Cherokee, Colbert, Coosa, Escambia, Elmore, Jefferson, Madison, Perry, and Russell. Finally, the counties with emerging HIPPY programs include: Baldwin and Lauderdale. Table 1 summarizes this information.

Table 1: Site Information

Type	Counties
Established (16)	Calhoun, Clarke, Clay, Conecuh, Dallas, DeKalb, Mobile, Monroe, Montgomery, Hale, Houston, Lowndes, Shelby, Talladega, Tuscaloosa, Walker
New (10)	Barbour, Cherokee, Colbert, Coosa, Escambia, Elmore, Jefferson, Madison, Perry, Russell
Emerging (2)	Baldwin and Lauderdale

2. Counties Included in Current Report

Data were collected and submitted for analysis from fifteen Alabama counties. Table 2 provides an overview of what data were available to the assessment team from each county.

Table 2: Counties included in Current Report

County/City	Assessment
	FPVT
	Conecuh *
	Clarke *
Calhoun *	
Dallas *	
Houston	
	Lowndes *
Monroe *	
	Montgomery
Mobile	
Shelby	* *
Sylacauga(City)	*
Talladega	*
Talladega City	*
Tuscaloosa	
	Walker *

IV. RESULTS AND STUDY FINDINGS

1. PPVT- III

The PPVT-III is a widely used, norm-referenced measure for receptive vocabulary skills; it is also used as a screening test of verbal ability. It has been shown to be both reliable and valid. Repeated Measures General Linear Modeling (GLM) analysis procedures were employed to assess changes in standard scores, percentile rank scores, and stanine scores between pretest (fall) and posttest (spring). Results from GLM analyses indicated significant positive changes over time for all three scores for the total sample.

What follows is a brief summary of the main findings of the analyses (see Table 4). Figures 1-3 provide information on the differences between times 1 and 2. The first bullet (1) address whether there were significant changes over time (pretest to posttest) for the raw score; the second bullet (2) indicates whether there were statistically significant changes over time (pre- to posttest score) for the standard score; the third bullet (3) addresses whether there were significant changes over time (pre to posttest) for percentile rank; finally the fourth bullet (4) indicates whether there were statistically significant changes over time (pre- to posttest score) for the stanine score. Generally, the different scores will provide the same evidence; yet, it is useful to examine each in case that there are differences.

- (1) The analysis shows gains in raw scores from pretest to posttest. The mean increased from 53.88 at pretest to 72.23 at posttest. These gains were statistically significant ($F=287.68^{***}$).
- (2) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 91.26 at pretest to 97.60 at posttest. These gains were statistically significant ($F=73.74^{***}$).
- (3) Analyses also show gains in percentile rank scores from pretest to posttest. The mean increased from 36.85 to 44.70; again, this change was statistically significant ($F=39.45^{**}$).

- (4) Analyses also show gains in stanine score from pre- to posttest. The mean score increased from 3.98 to 4.74; this change was also statistically significant ($F=87.28^{***}$).

The pretest/posttest data from the PPVT provided strong evidence that children made substantial gains in vocabulary and language skills over the course of the program.

PPVT by County

The report includes additional information for each county. The analyses include data from 9 counties and 2 cites. These counties and cites include, Conecuh, Clarke, Calhoun, Dallas, Lowndes, Monroe, Montgomery, Mobile, Talladega, Sylacauga (City) and Talladega City. For the most part each county provided the standard score, percentile rank score, and the stanine score; however, some counties only provided raw and percentile rank scores. Children in most counties had gains in their raw or standard score, percentile rank score, and stanine score. Detailed information about each county is included in the appendix. It is worth noting that the analyses are affected by sample size. This means that a county with a small number of children cannot show or find significant differences from pre to posttest simply as a function of small sample size; in other words, there is insufficient statistical power to detect a significant effect. Nevertheless, scores still provide insights whether gains were made over time or not.

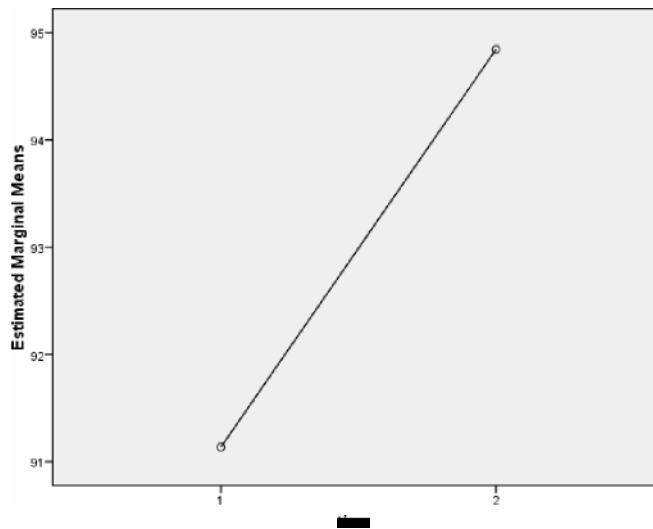
Table 3: PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Raw Score (N=297)	54.31	23.61	70.31	26.01	16.00	227.13***
Standard Score (N=370)	91.26	18.24	97.60	20.05	6.34	73.74***
Percentile (N=356)	36.80	28.90	44.70	29.98	7.90	40.55***
Stanine (N=371)	3.98	2.05	4.74	1.96	.74	88.94***

Figure 1: PPVT Raw Score Differences between Time 1 and Time 2



Figure 2: PPVT Standard Score Differences between Time 1 and Time 2



*** $p < .001$

Figure 3: PPVT Percentile Rank Differences Between Time 1 and Time 2

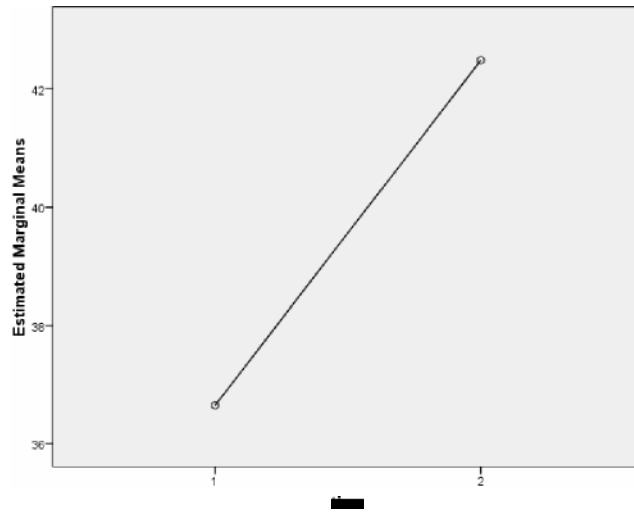


Figure 4: PPVT Stanine Score Differences Between Time 1 and Time 2



2. Kindergarten Readiness Three Year Old Test

The Kindergarten Readiness Three Year Old Test is composed of five categories with a total of 21 questions. Children who answered 17 questions correctly passed the test (reached a benchmark score). It tests children about their knowledge of colors, relationships, math, fine motor, and safety and language skills. Tests were administered by trained project staff.

The specific items in each category included (1) Color recognition (6 items) - red, blue, green, yellow, purple, and orange; (2) Knowledge of relationships (4 items) - up, down, top, and bottom; (3) Math (6 items) - circle, square, triangle, rectangle, star, and count to 10; (4) Fine motor skills (2 items) - crayons and pencil; and (5) Safety and language skills (3 items) - knows first name, knows mother's name, and can speak in a complete sentence when asked a question. However, there is not a break down of the scores for the different categories.

The Kindergarten Readiness Three Year Old Test was completed on 295 children from nine counties. The counties include, Calhoun, Clarke, Conecuh, Dallas, Houston, Lowndes, Monroe, Montgomery, and Walker. However, for the purpose of data analysis data from 230 children with both pretest and posttest were used. The average score for total correct for the pretest was $M = 13.26$ ($SD = 4.9$), and the posttest was $M = 17.33$, ($SD = 17.33$). To examine potential gains in the overall scale score from pretest to posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 230.01$ ***). The mean of the overall score increased from 13.26 to 17.33. This provided evidence that gains were made in color and relationship knowledge, math, and language skills and directionality. Table 4 and Figure 5 provide more detailed information. In addition, significant gains were made in each county. The means and standard deviations of pretest and posttest for each county (Conecuh, Clarke, Calhoun, Dallas, Houston, Lowndes and Monroe) are included in Table 5.

Table 4: Kindergarten Readiness 3 Year Old Test: Differences at Time 1 and Time 2 (n=295)

Variable	Time 1		Time 2		Diff.	F	
	Mean	SD	Mean	SD			
Total Correct	13.26	4.9	17.33	4.042	4.07	230.01***	

*** $p < .001$

Figure 5: Kindergarten Readiness 3 Year Old Test: Time 1 to Time 2



Table 5: Kindergarten Readiness Three Year Old Test: Pretest and Post Test (N=208)

County	Time 1		Time2		Diff.	F
	Mean	SD	Mean	SD		
Calhoun (n=6)	15.17	5.8	19.83	1.9	4.66	5.13
Clarke (n=22)	15.50	5.1	18.59	3.5	3.09	15.44***
Conecuh (n=15)	10.67	4.2	18.00	2.6	7.33	66.69***
Dallas (n=17)	15.76	3.9	17.29	4.2	1.53	10.93**
Houston (n=14)	15.36	5.9	17.93	4.3	2.57	8.05*
Lowndes (n=41)	14.41	4.1	18.39	2.4	3.98	56.97***
Monroe (n=40)	13.67	4.8	19.25	3.3	5.58	60.17***
Montgomery (n=53)	9.15	3.1	13.04	3.7	3.89	37.94***
Walker (n=22)	15.95	3.3	19.50	1.9	3.55	24.46***

*** $p < .001$, ** $p < .01$, * $p < .05$

3. Kindergarten Readiness: Four Year Old Test

The Kindergarten Readiness Four Year Old Test includes six categories with a total of 42 questions. The test includes questions about the knowledge of colors, relationships, math, and language skills, and directionality. Children who answered 35 or more questions correctly passed the test. The test was administered by trained project staff.

The categories of the test include (1) Color recognition (9 items) - red, blue, green, brown, black, orange, white, yellow, and purple; (2) Knowledge of relationships (15 items) - up, down, same, different, top, bottom, over, under, in front of, behind, inside, outside, big, small, and between; (3) Math (6 items) - circle, square, triangle, rectangle, star, and count of 20; (4) Fine motor (4 items) -crayons, pencil, scissors, and glue; (5) Language skills (4 items) -knows first name, can write first name, recognizes first name, and can say first name; and (6) Directionality (2 items) - left to right progression, and top to bottom.

Pretest and posttest data were available for a total of 323 children from nine counties, but only 225 participants with complete data (pretest and posttest) were available for the analyses. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 282.12^{***}$). The mean of the overall score increased from 32.60 to 38.69. This indicated that gains in the scores from pretest to posttest scores. Table 6 and Figure 6 provide more detailed information. In addition there were gains made in each county. The means and standard deviations of pretest and posttest for each county (Conecuh, Clarke, Calhoun, Dallas, Houston, Lowndes, Monroe, Montgomery, and Walker) are included in Table 6.

There were only posttest data for Shelby County ($n = 35$), thus no comparison between pretest and posttest scores could be completed. However, the mean average scores at posttest ($M = 37.0$, $SD = 6.11$) indicated that the average score was above benchmark.

Table 6: Kindergarten Readiness 4 Year Old Test: Differences at Time 1 and 2 (N=225)

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Total Correct	32.60	7.3	38.69	4.4	6.1	282.12***

*** $p < .001$

Figure 6: Kindergarten Readiness 4 Year Old Test: Time 1 to Time2

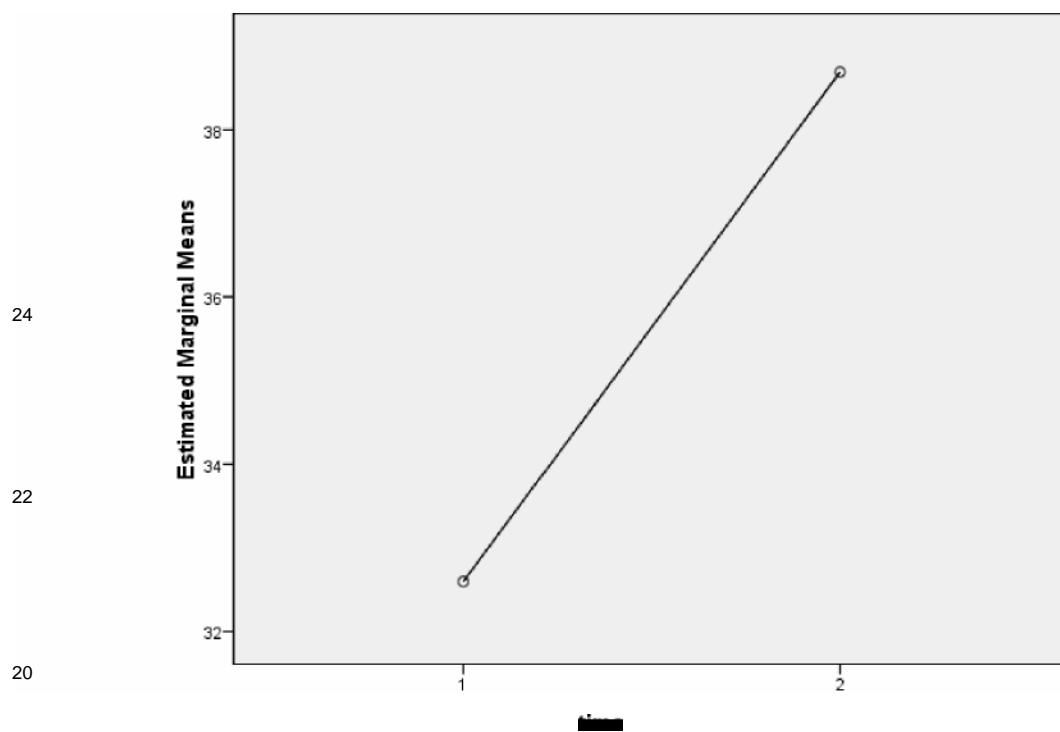


Table 7: Kindergarten Readiness Four Year Old Test: Pretest and Post Test (N=225)

County	Time 1		Time2		Diff.	F
	Mean	SD	Mean	SD		
Calhoun (n=6)	38.33	3.9	41.83	.4	3.50	5.78
Clarke (n=29)	36.24	5.1	39.70	2.3	3.09	17.70***
Conecuh (n=15)	30.00	6.1	38.26	5.7	8.70	58.11***
Dallas (n=19)	36.37	6.1	38.68	4.9	2.31	20.82***
Houston (n=14)	32.19	8.0	38.63	5.3	6.44	29.78***
Lowndes (n=48)	32.80	6.1	38.83	2.5	6.03	82.52***
Monroe (n=25)	34.48	7.6	40.16	4.5	5.68	20.30***
Montgomery (n=54)	28.10	7.9	36.90	5.7	8.80	104.60***
Walker (n=11)	34.63	4.3	40.18	1.6	5.60	18.17**

*** $p < .001$ ** $p < .01$,

In conclusion, findings from both the Kindergarten Readiness Tests provide evidence that the children made significant gains over time, and that for most children, these improvements resulted in scores at or above a benchmark for passing it.

4. Parent Feedback

Parent feedback was measured by a 15-item instrument. Seven of the fifteen items measured parents' evaluation of parent educators (e.g., did your parent educators explain the lessons well). One item measured whether the lessons were fun to do with the children. Three items measured whether parents attended activities provided by HIPPY Alabama (e.g., did you attend group meetings). Finally, four items assessed parents' evaluation of the HIPPY programs and the parent educator (e.g., please give the HIPPY program a grade). Overall, 146 parents provided feedback. However, not all parents provided feedback on each question, so some missing data existed. In addition there appeared to be a different version of the parent survey administered in one county (22 parent surveys and 17 parent alumni surveys). Most of these surveys indicated that parents had a very positive experience with the HIPPY program. Detailed information can be found at the end of this section.

A. Evaluation of Parent Educators

Figures 7 through 13 include parent evaluations of the parent educators. Overall, parent educators received very high scores on their evaluations. All educators came to children's homes once a week and most of them role-played with the parents. Data also show that they arrived at the homes on time. If parent educators needed to cancel, they called parents to notify them. All parents thought the parent educators explained the lessons well and many of the parents gave the educators an A.

B. Enjoyment of Lessons

Figure 14 illustrates whether the parents thought the lessons were fun to do with their children. It shows that most parents thought the lessons were fun to do with their children.

C. HIPPY Activity Attendance by Parents

Figures 15 through 17 shows to what extent parents attended HIPPY Alabama activities. The results show that parents were interested in participating in the activities; more than half of the parents attended group meetings. In addition, many of the parents attended the Christmas party and/or picnic when these activities were offered.

D. Evaluation of the HIPPY Alabama Program

Figures 18 through 21 illustrate parent evaluations of the HIPPY program. Overall, parents evaluated the HIPPY program very favorably. Most of them thought the program was very useful and gave it an A. Most of the parents would recommend the program to other parents based on their experiences. In addition, many parents felt that this program help to make them a better parent.

Figure 7: How often did your parent educator visit?

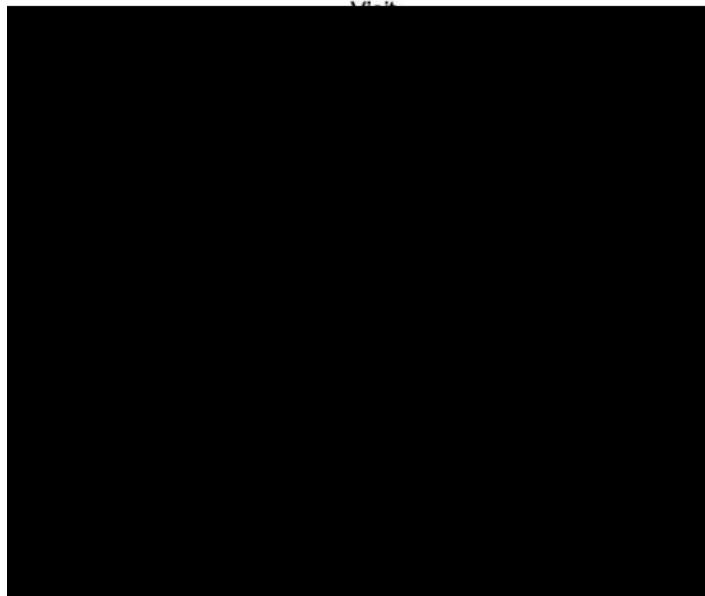


Figure 8: Did your parent educator role-play with you?

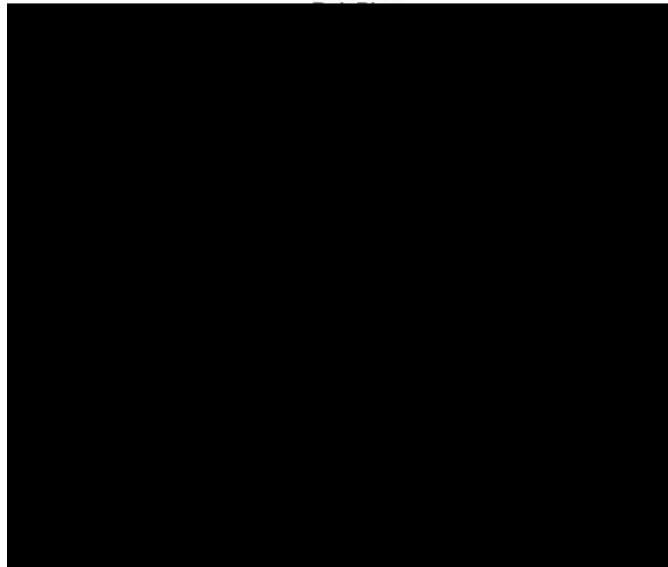


Figure 9: Did your parent educator do enrichment activities?

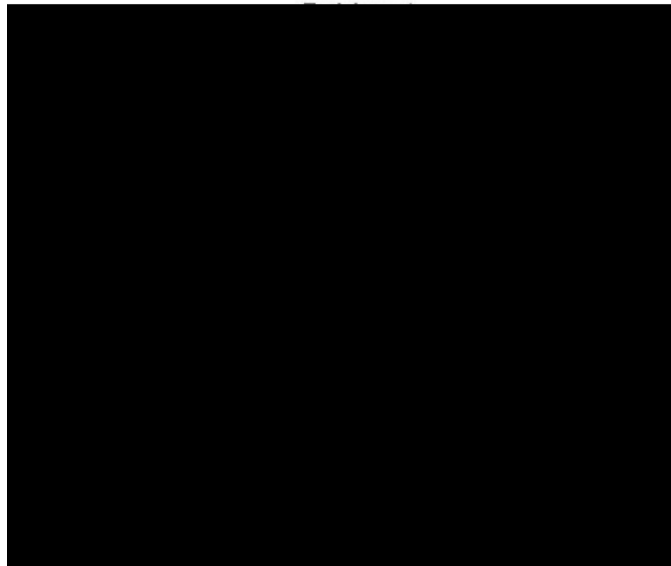


Figure 10: Did your parent educator explain the lessons well?

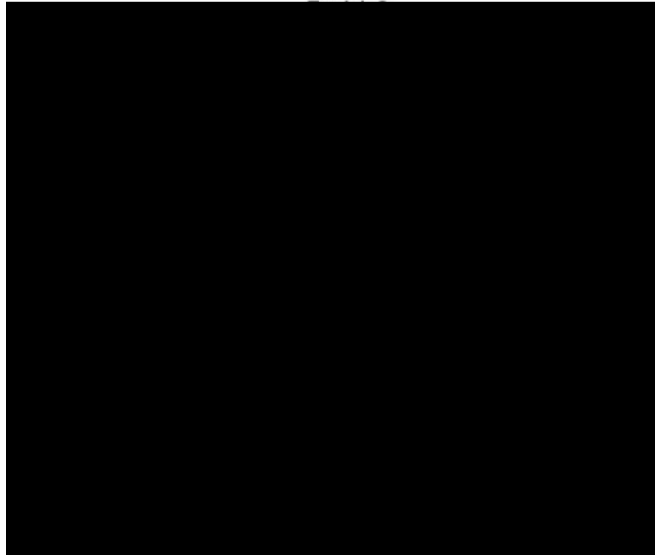


Figure 11: Did your parent educator come when she was supposed to come?

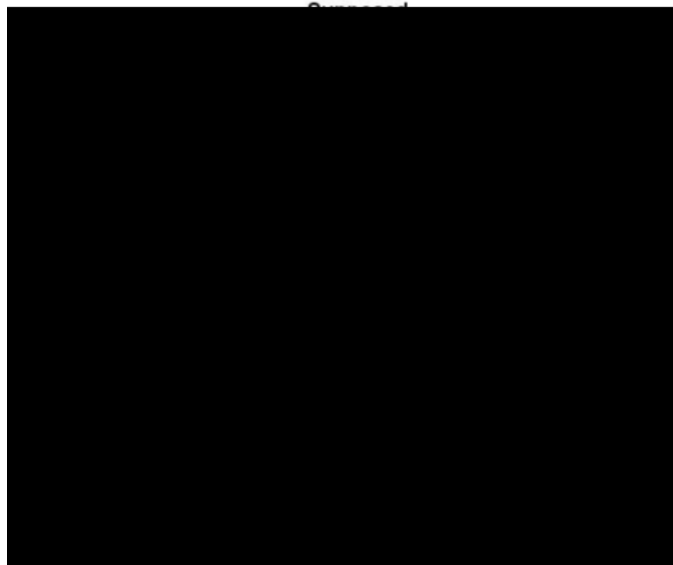


Figure 12: Did your parent educator call when she could not come?

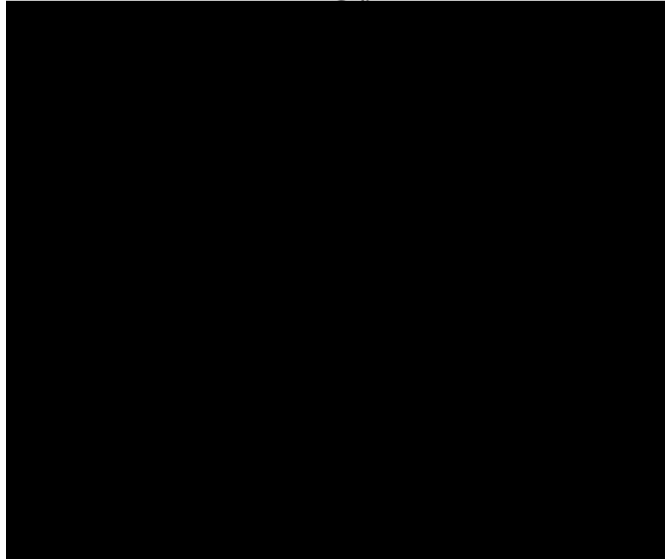


Figure 13: If you had to give your parent educator a grade, what grade would you give?

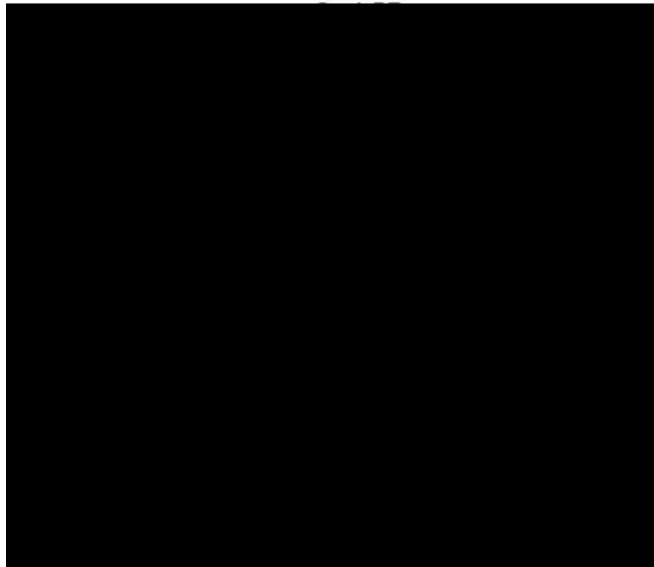


Figure 14: Were the lessons fun to do with your HIPPY child?



Figure 15: Did you attend group meetings?

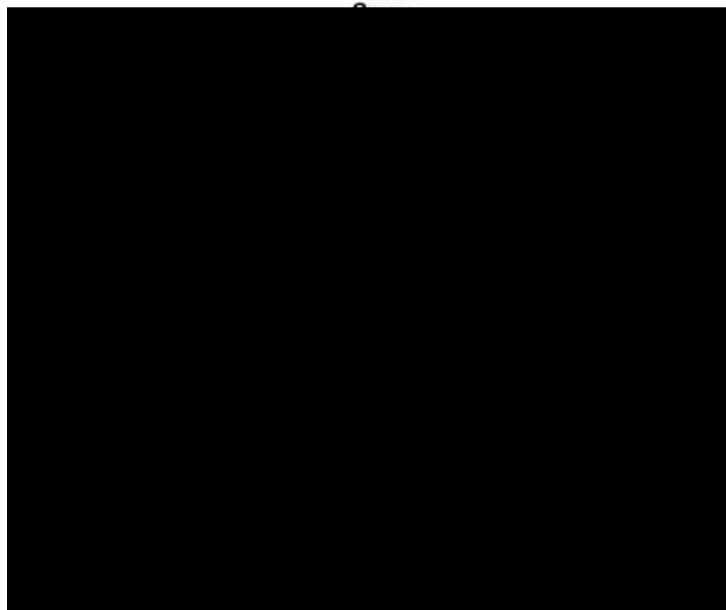


Figure 16: Did you attend the Christmas Party?

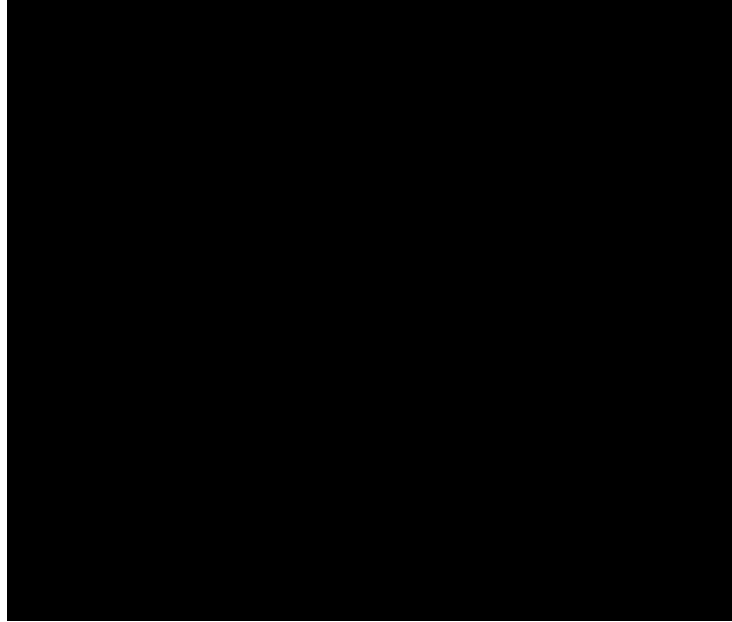


Figure 17: Did you attend the picnic?

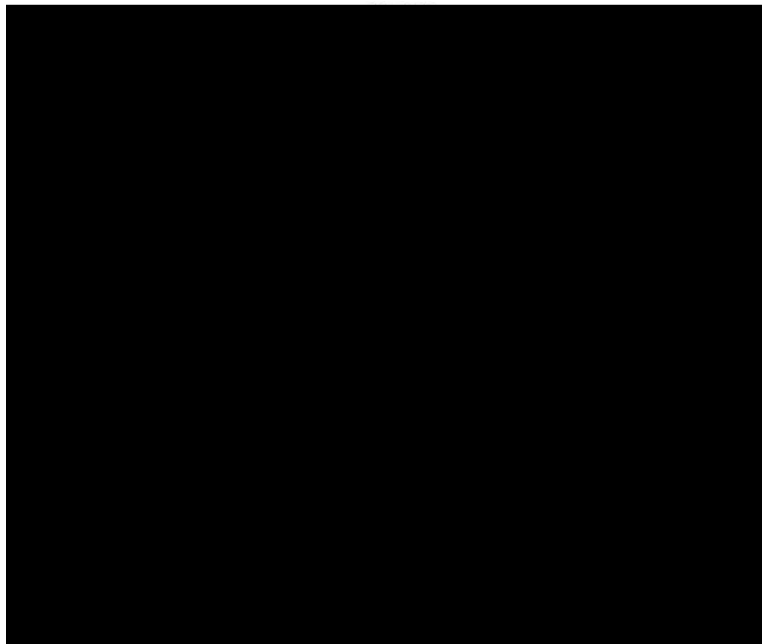


Figure 18: HIPPY was useful to me?

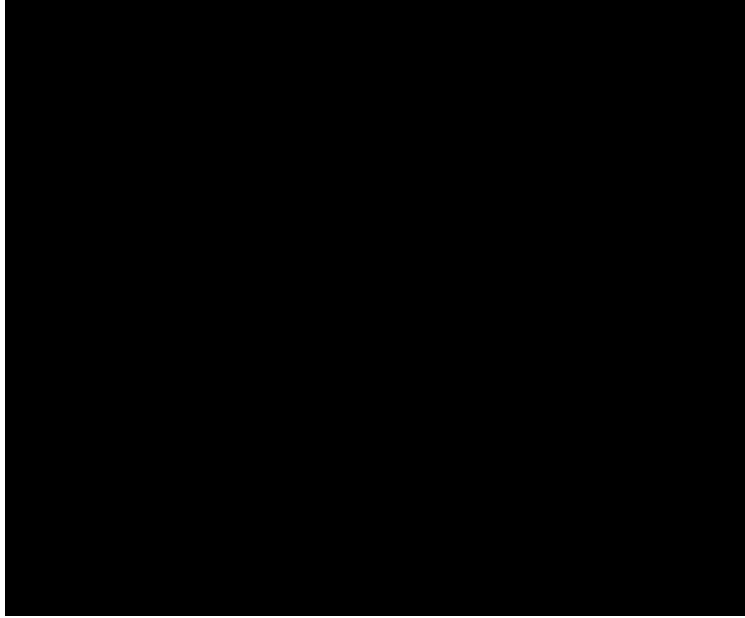


Figure 19: Would you recommend HIPPY to others?

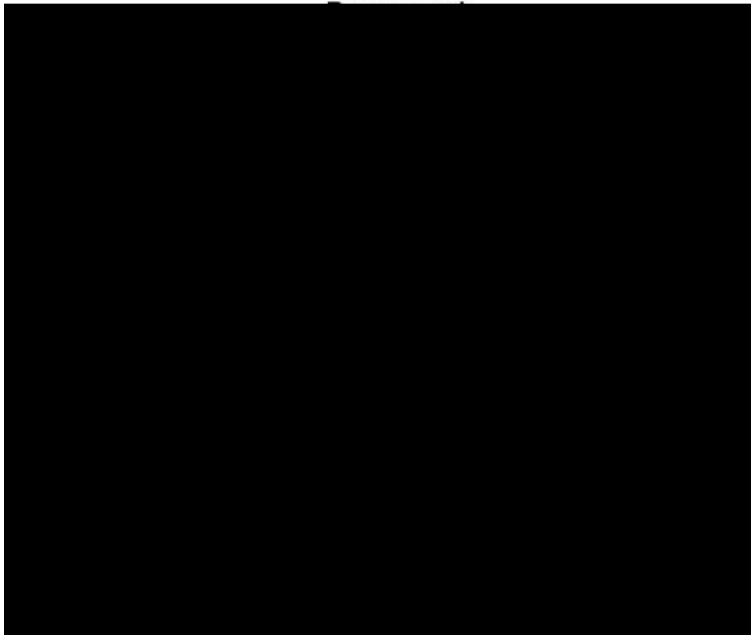
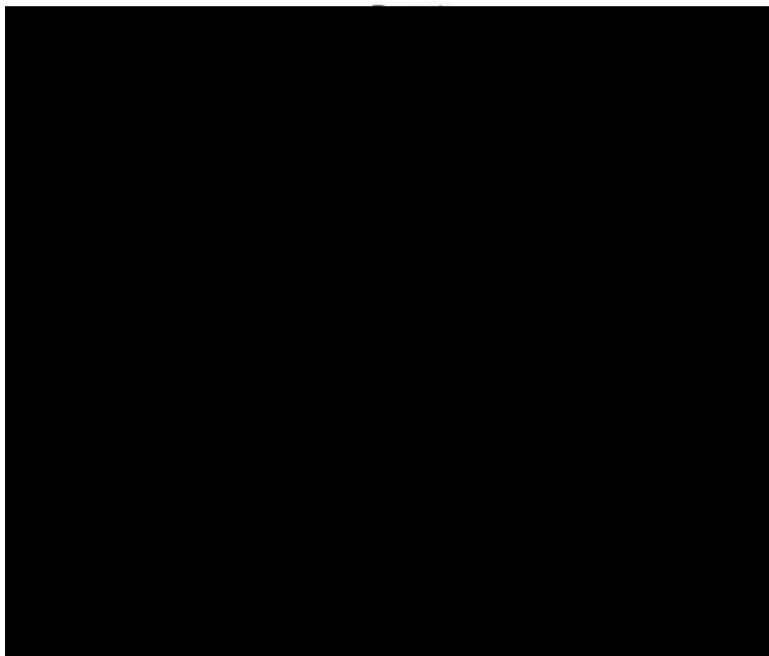


Figure 20: Please give HIPPY program a grade.



Figure 21: Do you feel the HIPPY program has made you a better parent?



Additional Parent Feedback

Parent Survey

In addition to the parent survey that most counties completed, one county used a different version of the survey. Parent feedback was measured by a 10-item instrument. There were 22 parents that filled out this survey. The results indicate that all of the parents were very satisfied with the parent educator; many were very satisfied in how the HIPPY lessons helped their children. In addition, many parents felt that the program would help their child succeed in school, and most were satisfied with the changes in their child. Parents were also very satisfied or satisfied with the HIPPY staff members in all respects. In general, all parents were satisfied with the overall program and only had very positive comments about HIPPY.

HIPPY Parent Alumni Survey

A parent alumni survey was also completed by some parents of former HIPPY children. Seventeen parents, mostly the mother, completed this survey. Ages of the children ranged from 5-13, and most children were females. Fourteen of the 17 children were involved in the HIPPY program for 2 years, 1 child for 1 year, and 2 children for 3 years. Most of the questions in the survey pertained to how the children were performing at school and how the parent helps with school related items. None of the children had been suspended at school; only one child of the 17 had to repeat a grade, and only one child had problems at school. In addition, each child enjoyed attending school. Most parents attended parent-teacher conferences and helped their children with their homework. Based on this small sample, it appears that both children and parents benefitted and continue to benefit from the effects by HIPPY.

V. CONCLUSIONS

Findings provide consistent evidence of positive gains in children between pretest and posttest assessments. Gains were found in vocabulary, language skills, knowledge of colors, relationships, fine motor skills, math skills, and directionality. Based on these findings, the evidence suggests that HIPPY Alabama contributes to better preparing Alabama's children for kindergarten and school. It is important to note that no causal drawn (attributing all changes in children to the intervention alone) because of the absence of a "no treatment" comparison group or some other specific study design feature (regression discontinuity design) that would allow the complete elimination of threats to the validity of the findings, and thus a conclusion that the changes observed are exclusively related to programmatic effects.

The following conclusions can be reached based on the available data from the 2007-2008 Year:

- Findings from pretest/posttest PPVT scores provided strong evidence that children made substantial gains in vocabulary and language skills over the course of the program. In addition, significant gains were made in almost every county studied.
- Based on both pretest and posttest data from the Three Year Old Kindergarten Readiness Test, findings provide evidence of positive gains in color and relationship knowledge, math skills, fine motor skills, language skills, and directionality over time. In addition, significant gains were also made in each of the counties.
- Based on both pretest and posttest data from the Four Year Old Kindergarten Readiness Test, findings provide evidence of positive gains in color and relationship knowledge, math skills, fine motor skills, language skills, and directionality over time. These significant gains were also found in each county.
- Parent Feedback provided evidence that parents were very pleased with the HIPPY program; their evaluation was very favorable and positive. Most parents believed that the program was very helpful, and that they would recommend it to other parents. In addition, the information from the parent Alumni survey provided further long-term evidence that children who were previously in the HIPPY program were successful at school and had very few behavioral problems.

VI. APPENDIX

Calhoun County

Kindergarten Readiness results

Finding from the HIPPY Three year old Kindergarten Readiness Test indicate there was data available for a total of 24 children, but only 6 participants with complete data (pretest and posttest) are included in the analysis. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate no significant gains from pretest to posttest ($F = 5.13$). This could be due to the low number of participants with complete data. However, the mean of the overall score increased from 15.17 to 19.83. For the HIPPY Four year old Kindergarten Readiness Test, there were complete data on 6 children. The results indicate no significant gains from pretest to posttest ($F = 5.78$). This could be due to the low number of participants with complete data. However, the mean of the overall score increased from 38.33 to 41.38.

PPVT results

- (1) The analysis shows gains in raw scores from pretest to posttest. The mean increased from 71.00 at pretest to 94.31 at posttest. These gains were statistically significant ($F = 6.54^*$).
- (2) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 105.19 at pretest to 113.37 at posttest. These gains were not statistically significant ($F = 1.41$).
- (3) Analyses also show gains in stanine score from pre- to posttest. The mean score increased from 5.25 to 6.50; this change was not statistically significant ($F = 3.09$).

* Detailed information about the PPVT results can be found in the Table 1 on the following page.

Table 1: Calhoun County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Raw Score (n=16)	71.00	33.70	94.31	27.5	23.31	6.54*
Standard Score (n=16)	105.19	25.86	113.37	18.4	8.18	1.41
Stanine (n=16)	5.25	2.90	6.50	1.9	1.25	3.09

*p<.05

Clarke County

Kindergarten Readiness results

For the HIPPY 3 Year Old Kindergarten Readiness Test there was data available for a total of 25 children, but only 22 participants with complete data (pretest and posttest) are included in the analysis. The mean of the overall score increased from 15.50 to 18.59. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 15.44^{***}$). Findings from the HIPPY Four Year Old Kindergarten Readiness Test indicate there was complete data from 29 of the 30 children. The mean of the overall score increased from 36.24 to 39.70. The results indicate significant gains from pretest to posttest ($F = 17.70^{***}$).

PPVT Results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 83.63 at pretest to 94.10 at posttest. These gains were statistically significant ($F = 20.37^{***}$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 23.80 at pretest to 38.70 at posttest. These gains were statistically significant ($F = 17.04^{***}$).
- (3) Analyses also show gains in stanine score from pre- to posttest. The mean score increased from 3.20 to 4.23; this change was statistically significant ($F = 14.75^{***}$).

* Detailed information about the PPVT results can be found in Table 1 on the following page.

Table 1: Clarke County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (n=30)	83.63	17.8	94.10	12.4	10.47	20.37***
Percentile (n=30)	23.80	25.9	38.70	24.6	14.9	17.04***
Stanine (n=30)	3.20	1.9	4.23	1.6	1.03	14.75***

*** $p < .001$

Conecuh County

Kindergarten Readiness Results

For the HIPPY Three Year Old Kindergarten Readiness Test indicate there was data available for a total of 24 children, but only 15 participants with complete data (pretest and posttest) are included in the analysis. The mean of the overall score increased from 10.67 to 18.00. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 66.69^{***}$). Findings from the HIPPY Four year old Kindergarten Readiness Test indicate that there were complete data from 15 of the 20 children. The mean of the overall score increased from 30.00 to 38.26. The results indicate significant gains from pretest to posttest ($F = 58.11^{***}$).

PPVT Results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 89.80 at pretest to 100.42 at posttest. These gains were statistically significant ($F = 16.60^{***}$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 40.90 at pretest to 55.14 at posttest. These gains were statistically significant ($F = 12.58^{***}$).
- (3) Analyses also show gains in stanine score from pre- to posttest. The mean score increased from 4.42 to 5.40; this change was statistically significant ($F = 15.80^{***}$).

Detailed information about the PPVT results can be found in the Table 1 on the following page. Conecuh County indicated which children were enrolled in only the HIPPY program and were not involved in any other type of preschool program. Most of these children had gains in both their Kindergarten Readiness Test and the PPVT test. Table 2 provides more information.

Table 1: Conecuh County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (n=33)	89.80	23.38	100.42	19.50	10.62	16.60***
Percentile (n=33)	40.90	28.14	55.14	30.60	14.24	12.58***
Stanine (n=33)	4.42	1.90	5.40	2.10	2.32	15.80***

***p<.001

Table 2: Children in no programs other than HIPPY

County/City	Assessments			
	Age	PPVT	3 year old test	4 year old test
Child 1	3	*	*	
Child 2	3	*	*	
Child 3	3	*	*	
Child 4	3	*	*	
Child 5	3	*	*	
Child 6	3	*	*	
Child 7	3	*	*	
Child 8	3		*	
Child 9	3	*	*	
Child 10	3	No Change	*	
Child 11	3		*	
Child 12	4	*		*
Child 13	4	*		*
Child 14	4			*
Child 15	4	*		*
Child 16	4	*		*

* Indicates a gain in score (Includes only children with both pretest and posttest)

Dallas County

Kindergarten Readiness Results

For the HIPPY Three Year Old Kindergarten Readiness Test indicates there was complete data (pretest and posttest) available for the 17 participants. The mean of the overall score increased from 15.76 to 17.29. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 10.93^{**}$). Findings from the HIPPY Four Year Old Kindergarten Readiness Test indicate there were complete data (pretest and posttest) available for 48 participants. The mean of the overall score increased from 36.37 to 38.68. The results indicate significant gains from pretest to posttest ($F = 20.78^{***}$).

PPVT results

- (1) The analysis shows gains in raw scores from pretest to posttest. The mean increased from 49.41 at pretest to 51.47 at posttest. These gains were statistically significant ($F = 13.46^{**}$).
- (2) The analysis shows significant differences in standard scores from pretest to posttest. The mean decreased from 97.44 at pretest to 95.58 at posttest. These decreases were statistically significant ($F = 11.14^{**}$).
- (3) The analysis shows significant differences ($F = 10.97^{**}$) in percentile rank scores from pretest to posttest. The mean decreased from 45.79 at pretest to 41.52 at posttest.
- (4) Analyses also show significant differences in stanine score from pre- to posttest. The mean score decreased from 4.71 to 4.00; this change was statistically significant ($F = 15.80^{***}$).

The decreases in the scores could be due to the fact that pretest and posttest were given within four months of each other.

* Detailed information about the PPVT results can be found in Table 1 on the following page.

Table 1: Dallas County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Raw Score (n=34)	49.41	20.01	51.47	19.74	2.06	13.46**
Standard Score (n=34)	97.44	23.38	95.58	19.5	-1.86	11.14**
Percentile (n=34)	45.79	29.25	41.52	27.17	-4.27	10.97**
Stanine (n=34)	4.71	1.89	4.00	1.42	-.71	7.43**

*** $p < .001$

Houston County

Kindergarten Readiness Results

For the HIPPY Three Year Old Kindergarten Readiness Test indicates there was data available for a total of 15 children, but only 14 participants with complete data (pretest and posttest) are included in the analysis. The mean of the overall score increased from 15.36 to 17.93. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 8.05^*$). Findings from the HIPPY Four Year Old Kindergarten Readiness Test indicate there were complete data from 15 of the 20 children. The mean of the overall score increased from 32.19 to 38.63. The results indicate significant gains from pretest to posttest ($F = 29.78^{***}$; see Table 1).

Table 1: Houston County Kindergarten Readiness 3 and 4 Year Old Test: Differences at Time 1 and 2

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
3 year old test (n=14)	15.36	5.9	17.93	4.3	2.57	8.05*
4 year old test (n=15)	32.19	8.0	38.63	5.3	6.44	29.78***

*** $p < .001$, * $p < .05$

Lowndes County

Kindergarten Readiness Results

For the HIPPY Three Year Old Kindergarten Readiness Test indicate there was complete data (pretest and posttest) available for the 41 participants. The mean of the overall score increased from 14.41 to 18.39. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 56.97^{***}$). Findings from the HIPPY Four Year Old Kindergarten Readiness Test indicate there were complete data from 48 of the 52 children. The mean of the overall score increased from 32.80 to 38.83. The results indicate significant gains from pretest to posttest ($F = 82.52^{***}$).

PPVT Results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 84.60 at pretest to 91.93 at posttest. These gains were statistically significant ($F = 27.01^{***}$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 29.60 at pretest to 34.03 at posttest. These gains were not statistically significant ($F = 2.94$).
- (3) Analyses also show gains in stanine scores from pre- to posttest. The mean score increased from 4.42 to 5.40; this change was statistically significant ($F = 72.25^{***}$).

* Detailed information about the PPVT results can be found in Table 1 on the following page

Table 1: Lowndes County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (n=87)	84.60	16.70	91.93	14.5	7.33	27.01***
Percentile (n=87)	29.60	28.60	34.03	27.17	4.43	2.94
Stanine (n=87)	3.00	1.70	4.05	1.91	1.05	72.25***

*** $p < .001$

Mobile County

PPVT Results

Only the raw score were available for Mobile County. The analysis shows gains in raw scores from pretest to posttest. The mean increased from 58.71 at pretest to 76.97 at posttest. These gains were statistically significant ($F=192.20^{***}$; see Table).

Table 1: Mobile County PPVT Raw Score Change over Time

Variable	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Raw Score (n=154)	58.71	22.47	76.97	24.25	18.26	192.20 ^{***}

^{***} $p < .001$

Monroe County

Kindergarten Readiness Results

For the HIPPY Three Year Old Kindergarten Readiness Test indicate there was data available for a total of 45 children, but only 40 participants with complete data (pretest and posttest) are included in the analysis. The mean of the overall score increased from 13.67 to 19.25. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 60.17^{***}$). There were complete data on 25 of the 37 children for the Hippy Four Year Old Kindergarten Readiness Test. The mean of the overall score increased from 28.10 to 36.90. The results indicate significant gains from pretest to posttest ($F = 20.20^{***}$).

PPVT Results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 92.15 at pretest to 96.70 at posttest. These gains were statistically significant ($F = 4.35^*$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 34.51 at pretest to 43.51 at posttest. These gains were statistically significant ($F = 4.96^*$).
- (3) Analyses also show gains in stanine scores from pre- to posttest. The mean score increased from 3.90 to 4.53; this change was statistically significant ($F = 5.51^*$).

Table 1: Monroe County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (n=41)	92.15	14.76	96.70	13.67	4.55	4.35*
Percentile (n=41)	34.51	28.44	43.51	28.52	9.00	4.96*
Stanine (n=41)	3.90	2.04	4.53	1.83	.63	5.51*

*p<.05

* Detailed information about the PPVT results can be found in Table 1 on the following page.

Montgomery County

Kindergarten Readiness results

For the HIPPY Three Year Old Kindergarten Readiness Test indicate there was data available for a total of 78 children, but only 53 participants with complete data (pretest and posttest) are included in the analysis. The mean of the overall score increased from 9.15 to 13.04. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 37.94^{***}$). There were complete data from 54 of the 72 children for the Hippy Four Year Old Kindergarten Readiness Test. The mean of the overall score increased from 34.63 to 40.18. The results indicate significant gains from pretest to posttest ($F = 18.17^{**}$).

PPVT results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 81.08 at pretest to 87.75 at posttest. These gains were not statistically significant ($F = 2.55$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 21.65 at pretest to 30.26 at posttest. These gains were not statistically significant ($F = 2.06$).
- (3) Analyses also show gains in stanine score from pre- to posttest. The mean score increased from 3.10 to 3.54; this change was not statistically significant ($F = 1.05$).

Table 1: Montgomery County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (N=24)	81.08	18.75	87.75	18.21	6.7	25.5
Percentile (N=24)	21.65	22.94	30.56	30.26	8.8	2.06
Stanine (N=24)	3.10	1.93	3.54	2.12	.46	1.05

* Detailed information about the PPVT results can be found in Table 1 on the following page.

Talladega County

PPVT results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 100.58 at pretest to 104.00 at posttest. These gains were not statistically significant ($F = 3.88$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 53.72 at pretest to 57.97 at posttest. These gains were not statistically significant ($F = 1.93$).
- (3) Analyses also show gains in stanine score from pre- to posttest. The mean score increased from 5.17 to 5.52; this change was not statistically significant ($F = 2.92$; see Table 1).

Table 1: Talladega County PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (N=36)	100.58	15.55	104.0	12.17	3.42	3.88
Percentile (N=36)	53.72	30.04	57.97	25.72	4.25	1.93
Stanine (N=36)	5.17	2.05	5.52	1.62	.35	2.92

Shelby County

Only posttest data were available for Shelby County (n=35); thus no comparisons between pretest and posttest scores could be completed. However, the mean average scores of the posttest (M =37.0, SD =6.11) did indicate that the average score was above benchmark for passing.

Sylacauga City

PPVT results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 99.60 at pretest to 103 at posttest. These gains were not statistically significant ($F = 2.50$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 49.85 at pretest to 56.95 at posttest. These gains were not statistically significant ($F = 2.21$).
- (3) Analyses also show gains in stanine scores from pre- to posttest. The mean score increased from 5.00 to 5.40; this change was not statistically significant ($F = 2.11$; see Table 1).

Table 1: Sylacauga City PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (N=20)	99.60	12.17	103	9.9	3.4	2.50
Percentile (N=20)	49.85	24.8	56.95	22.61	7.1	2.21
Stanine (N=20)	5.00	1.60	5.40	1.35	.4	2.11

Talladega City

PPVT results

- (1) The analysis shows gains in standard scores from pretest to posttest. The mean increased from 97.85 at pretest to 96.70 at posttest. These gains were statistically significant ($F = 20.82^{***}$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 46.55 at pretest to 66.50 at posttest. These gains were statistically significant ($F = 20.48^{***}$).
- (3) Analyses also show gains in stanine score from pre- to posttest. The mean score increased from 4.80 to 6.20; this change was statistically significant ($F = 21.40^{***}$; see Table 1).

Table 1: Talladega City PPVT Standard Score, Percentile Rank, and Stanine Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Standard Score (N=20)	97.85	12.32	107.95	15.49	10.10	20.82 ^{***}
Percentile (N=20)	46.55	25.60	66.50	30.19	19.95	20.48 ^{***}
Stanine (N=20)	4.80	1.67	6.20	1.96	1.40	21.40 ^{***}

^{***}p<.001

Tuscaloosa County

Tuscaloosa County also gave the PPVT test to the children in their county; however, they used a slightly different version that used two parts, both Language and Concepts.

Language

- (1) The analysis shows gains in raw scores from pretest to posttest. The mean increased from 7.90 at pretest to 17.33 at posttest. These gains were statistically significant ($F = 130.94^{***}$).
- (2) The analysis shows gains in percentile rank scores from pretest to posttest. The mean increased from 16.44 at pretest to 75.38 at posttest. These gains were statistically significant ($F = 210.41^{***}$).

Concepts

- (1) Analyses also show gains in raw score from pretest to posttest. The mean score increased from 8.50 to 22.61; this change was statistically significant ($F = 391.15^{***}$).
- (2) Analyses also show gains in percentile rank score from pretest to posttest. The mean score increased from 20.50 to 83.83; this change was statistically significant ($F = 206.30^{***}$).

* Detailed information about the PPVT results can be found in Table 1 on the following page.

Table 1: Tuscaloosa County PPVT Concepts and Language Raw Scores, and Percentile Rank Changes Over Time

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
Raw Language Score (n=18)	7.90	4.01	17.33	3.37	9.43	130.94***
Percentile Rank Language Score (n=18)	16.44	17.43	75.38	14.60	58.94	210.41***
Raw Concepts Score (n=18)	8.50	3.83	22.61	2.63	14.11	391.15***
Percentile Rank Concepts (n=18)	20.50	20.91	83.83	9.81	63.33	206.30***

Walker County

Kindergarten Readiness results

Findings from the HIPPY Three Year Old Kindergarten Readiness Test indicate there were data available for 27 children, but only 22 participants with complete data (pretest and posttest) are included in the analysis. The mean of the overall score increased from 15.95 to 19.50. To examine significant gains in the overall scale score at pretest and posttest, GLM analyses were used. The results indicate significant gains from pretest to posttest ($F = 24.46^{***}$). Findings from the HIPPY Four Year Old Kindergarten Readiness Test indicate there were complete data from 11 of the 12 children. The mean of the overall score increased from 34.63 to 40.18. The results indicate significant gains from pretest to posttest ($F = 18.17^{**}$; see Table 1).

Table 1: Walker County Kindergarten Readiness 3 and 4 Year Old Test: Differences at Time 1 and 2

Variables	Time 1		Time 2		Diff.	F
	Mean	SD	Mean	SD		
3 year old test (N=22)	15.95	3.30	19.50	1.92	3.55	24.46 ^{***}
4 year old test (N=11)	34.63	4.30	40.18	1.60	5.60	18.17 ^{**}

^{**} $p < .01$