Evaluation of The Incredible Years

September 2007 – August 2008

OMNI

EXECUTIVE SUMMARY

Introduction and Background

The mission of Invest in Kids (IIK) is to partner with communities in Colorado to improve the health and well-being of young children, especially those from low-income families, through effective, research-based programs. To-date, IIK has adopted two such programs: the Nurse-Family Partnership and The Incredible Years (IY), the latter of which is the focus of this evaluation report.

IIK adopted The Incredible Years as its second major initiative because of the outstanding outcomes IY has produced in over 10 years of rigorous research. IIK works with communities to provide the support needed to implement the program with fidelity to the proven model, and to achieve these positive outcomes for children and families in Colorado.

The Incredible Years is divided into distinct training programs that are designed to enhance social competence and reduce aggression in young children aged three to eight years. The developmentally-appropriate and culturally-sensitive programs (e.g., Webster-Stratton, 2004) are the child social skills and teacher training program, known as the Dina Dinosaur Classroom Curriculum (referred to as the Dinosaur School program throughout this report), and the BASIC Parent Training Program (referred to as the Parent program). Together, the training programs provide a cost-effective, comprehensive approach that supports the healthy development of young children, engages parents in their children's education, and strengthens teachers' skills.

IIK contracted with OMNI Institute, a nonprofit, social science research and technical assistance firm based in Denver, to evaluate The Incredible Years program in Colorado. This is the second annual evaluation. The goals of the evaluation are to assess: (1) the overall effectiveness of The Incredible Years in early childhood care and education settings in Colorado, and (2) the critical implementation factors associated with program success in these settings.

Evaluation Design

The evaluation design included pre-test and post-test measurement, based on surveys completed by teachers and parents, to assess changes in child, parent, and teacher skills during the time they were involved in The Incredible Years programs. Fidelity of implementation was assessed throughout the lifespan of the program, based on data collected from surveys completed by teachers, parents and parent group leaders, in addition to observations of teachers and parent group leaders completed by IIK staff. Lastly, parent satisfaction and teacher satisfaction with the programs were assessed using parent and teacher surveys that were completed at the end of the program year, as well as parent weekly evaluation ratings.

Summary of Results

Parent Program

- Children of parents in The Incredible Years parent program showed improvement in social competence in all areas during the program.
- Parents' use of positive parenting practices increased during The Incredible Years parent program.
- Parents' use of harsh and inconsistent discipline decreased during The Incredible Years parent program.

- Parents rated each session of The Incredible Years parent program highly.
- Parents reported a high level of satisfaction with all aspects of The Incredible Years parent program at the end of the program.
- Nearly 97% of parents reported that they would recommend the program to a friend or relative.

Dinosaur School Program
- Children's social competence increased in all areas during The Incredible Years Dinosaur School program.
- Children who started off with the lowest social competence scores showed the greatest improvement during The Incredible Years Dinosaur School.
- Teachers reported greater confidence in managing classroom behavior and using positive teaching strategies.
- Children in classrooms that demonstrated a higher level of fidelity to The Incredible Years model program showed greater gains in social competence.
- The majority of teachers reported the Dinosaur School program was easy to integrate into the regular classroom curriculum and met their goals for child social and emotional development.

BASIC Parent Training Program Results
➢ **Children of parents in The Incredible Years parent program showed improvement in social competence in all areas during the program.**

The *Social Competence Scale/Parent* is composed of two sub-scales: (1) Prosocial/Communication Skills, or PCS (e.g., "my child works out problems with friends or brothers and sisters on his/her own"), and (2) Emotion Regulation Skills, or ERS (e.g., "my child can calm down by himself/herself when excited or all wound up"). Children are rated on a scale from 1 to 5, with 1 = "not at all," 3 = "moderately well," and 5 = "very well." This measure provides individual scores for each of the two sub-scales; that is, PCS and ERS, as well as an overall score. An increase in the mean score from pre-test to post-test indicates an overall increase in children's social competence.
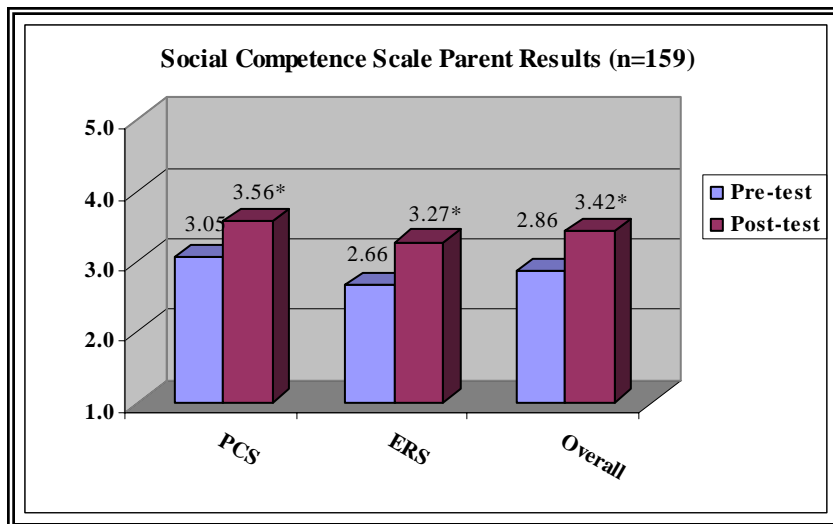

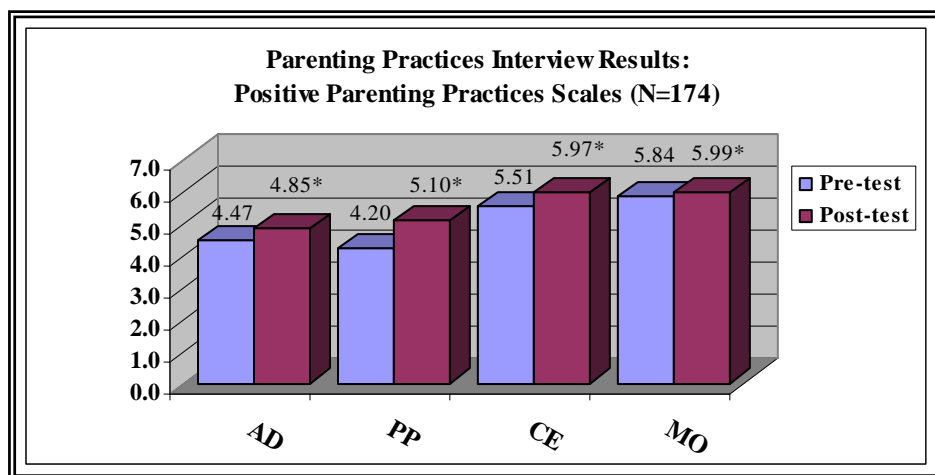**Social Competence Scale Parent Results (n=159)**

Figure 7
The increase in the mean from pre-test to post-test for both scales was significant as was the increase in the mean overall $(p<.05)$.

➤ **Parents' use of positive parenting practices increased during The Incredible Years parent program.**

The *Parenting Practices Interview* measure is composed of two scales: Positive Parenting and Negative Parenting. Each scale is further divided into a number of sub-scales. For Positive Parenting Practices, the four sub-scales are: (1) Appropriate Discipline, or AD (e.g., "when your child misbehaves, how often do you give your child a brief time out away from family?"), (2) Positive Parenting, or PP (e.g., "when your child behaves well, how often do you praise or complement your child?"), (3) Clear Expectations, or CE (e.g., "when your child goes to bed or gets up on time, how likely are you to praise or reward your child?"), and (4) Monitoring, or MO (e.g., "what percentage of your child's friends do you know well?"). All items are rated on a 7-point scale. For each sub-scale, an increase in the mean from pre-test to post-test indicates that parents are using more positive parenting techniques with their children.

Figure 8
As is illustrated in Figure 8, there was a significant mean increase (p<.05) from pre-test to post-test for all four of the positive parenting sub-scales.

**Parenting Practices Interview Results:
Positive Parenting Practices Scales (N=174)**

Sub-scale	Pre-test	Post-test
AD	4.47	4.85*
PP	4.20	5.10*
CE	5.51	5.97*
MO	5.84	5.99*

➤ **Parents' use of harsh and inconsistent discipline decreased during The Incredible Years parent program.**

For negative parenting practices, the three sub-scales are: (1) Harsh Discipline, or HD (e.g., "when your child misbehaves, how often do you give your child a spanking?"), (2) Harsh for Age, or HFA (e.g., "when your child misbehaves, how often do you send child to room for at least 60 minutes?"), and (3) Inconsistent Discipline, or ID (e.g., "if you ask your child to do something and she does not do it, how often do you give up trying to get him/her to do it?"). All items are rated on a 7-point scale, and a decrease in the mean from pre-test to post-test indicates that parents are using less negative parenting techniques with their children.

Figure 9
Results indicate that there was a decrease (p<.05) in harsh discipline and inconsistent discipline from pre-test to post-test. There was essentially no change from pre-test to post-test in the use of discipline that was harsh for age (see Figure 9).

**Parenting Practices Interview Results:
Negative Parenting Practices Scales (N=174)**

Sub-scale	Pre-test	Post-test
HD	2.52	2.04*
HFA	1.80	1.81
ID	3.09	2.47*
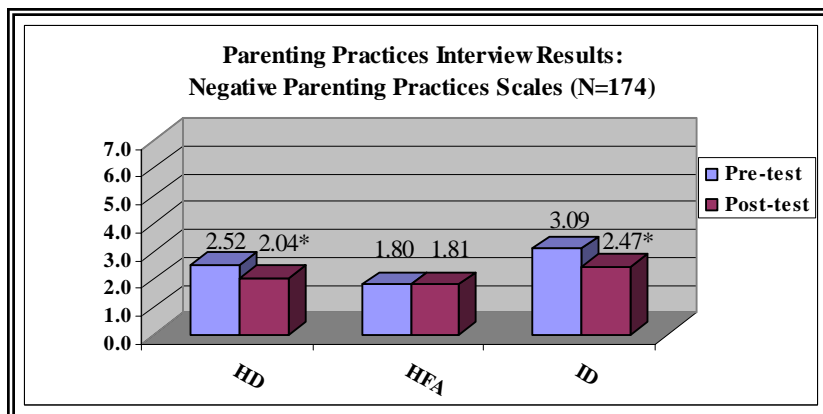
> ➢ **Overall, parent group leaders were rated between "well" to "very well" with regard to implementation quality.**

Observations were made during at least one and, in most cases two, sessions for 22 of the Parent Groups that participated in the Evaluation. The *Implementation/Quality of Parent Group Leader Process Measure* rated group leaders on eleven components of conducting the group. Mean scores, as well as a total mean score, are shown in Table 5. In general, group leaders were rated higher in the areas of skills and knowledge than on specific aspects related to conducting each group.

Table 5: Observer Ratings of Parent Group Leaders Implementation Quality

Parent Group Implementation Quality Scales	Scale	Group Mean
Review Parents' Home Activities (RP)	*1 = Not Well*	3.50
When Beginning the Topic for the Day (WB)	*2 = Moderately Well*	3.09
When Showing Vignettes (WS)	*3 = Well*	3.69
Practice and Role Play Rehearsal (PR)	*4 = Very Well*	3.40
Ending Group (EG)	*5 = Extremely Well*	3.09
Leader and Group Process Skills (LG)		3.80
Leader Leadership Skills (LL)		3.54
Leader Relationship Building Skills (LR)		3.89
Leader Knowledge (LK)		3.45
Parents' Responses (PR)		4.05
Overall Implementation (OI)		3.80
Total Mean Score for 1-5 Scales		**3.61**
Set-Up (SU)	*0 = Low Quality*	0.87
End Session on Time (ES)	*1 = High Quality*	0.94

> ➢ **Parent group leaders reported completing almost all of the session agenda items and a majority of the vignettes for each parent session.**

In addition to observer ratings, each set of parent group leaders completed a checklist at the end of each session. Twenty-three parent group leaders completed the *Leader Checklist*. The percentage of session agenda items covered was close to 90% for all sessions. The percentage of video vignettes completed was over 50% for all sessions, and over 60% for half of the sessions.

Parents' Satisfaction with The Incredible Years BASIC Parent Training Program
> ➢ **Parents rated each session of The Incredible Years parent program highly.**

All parents were asked to evaluate the IY program each week and then again at the completion of the program. The weekly evaluation asked parents to rank (1) the content of the session, (2) the videotaped examples, (3) the group leaders' teaching, and (4) the group discussion as either "not helpful," "neutral," "helpful," or "very helpful." Results (shown in Figure 12) show that parents rated each session highly, with the highest average rating occurring in week 11.

Figure 12
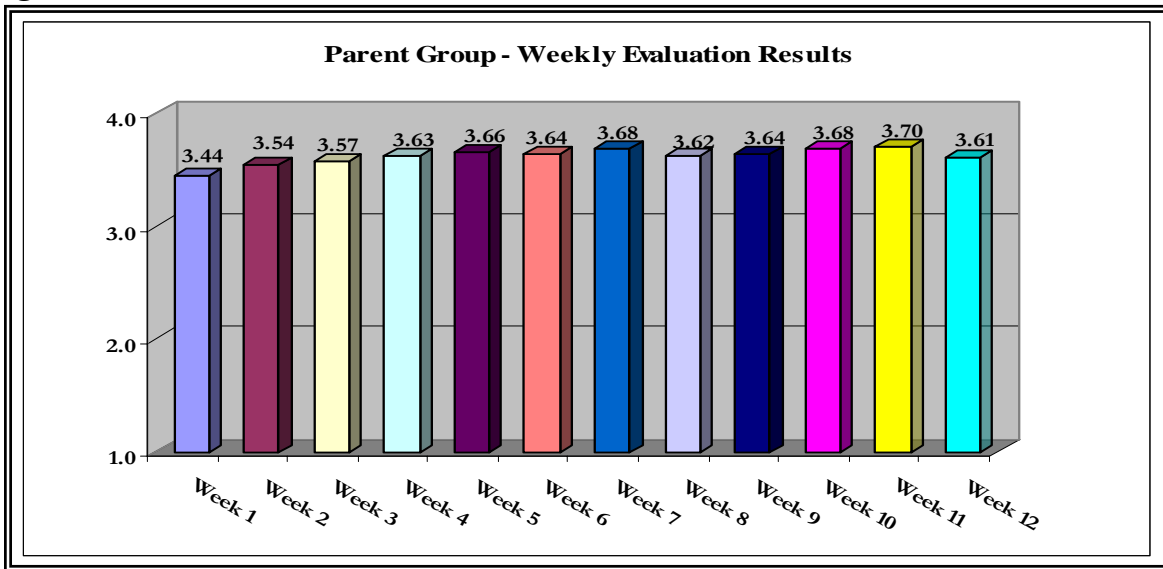
Parent Group - Weekly Evaluation Results

Week 1: 3.44, Week 2: 3.54, Week 3: 3.57, Week 4: 3.63, Week 5: 3.66, Week 6: 3.64, Week 7: 3.68, Week 8: 3.62, Week 9: 3.64, Week 10: 3.68, Week 11: 3.70, Week 12: 3.61

> ➤ **Parents reported a high level of satisfaction with all aspects of The Incredible Years parent program at the end of the program.**

In addition to the weekly evaluations, all parents were asked to complete a satisfaction questionnaire at the completion of the program. The *Parent Satisfaction Questionnaire* is divided into five sub-scales, which ask about parents' satisfaction with the: (1) overall program, (2) teaching format, (3) specific parenting techniques, (4) parent group leaders, and (5) other parent group members/their parent group itself.

For the Overall Program sub-scale, when asked if the problem(s) that originally prompted the parent to take this program had improved for their child, close to 90% responded "improved" or "greatly improved." Moreover, almost all (96.7%) responded that they would either "recommend" or "strongly recommend" the program to a friend or relative.

With regard to Teaching Format, the majority (93.6%) reported that the content of information was "useful" or "extremely useful."

Almost all parents (97.3%) responded that they found the overall group of specific parenting techniques to be "useful" or "extremely useful."

Moreover, almost all parents (94.3%; average for two leaders) found their leaders' teaching to be "high" or "superior," and responded that their leader was either "helpful" or "extremely helpful" (98.6%; average for two leaders). When asked about their own parent group, almost all (96.7%) found their group to be "supportive" or "very supportive," and more than half (57.7%) reported that it was "likely" or "very likely" that they will continue to meet with one or more of the parents in the group.
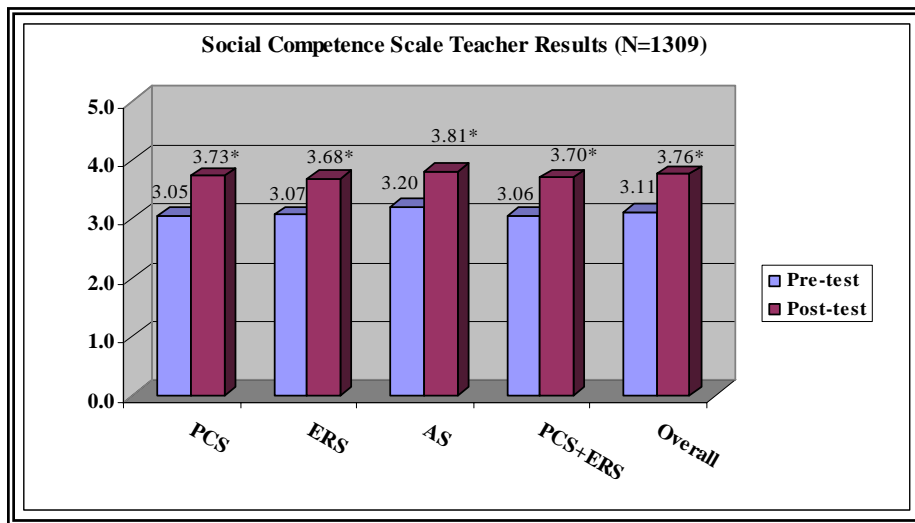
Dinosaur School Results

➢ **Children's social competence increased in all areas during The Incredible Years Dinosaur School program.**

The *Social Competence Scale/Teacher (SCST)* measure was completed by the primary teacher for each child at the beginning and end of the program year. The SCST is composed of three sub-scales: (1) Prosocial/Communication skills, or PCS (e.g., "resolves peer problems on his/her own"), (2) Emotion Regulation Skills, or ERS (e.g., "accepts legitimate imposed limits"), and (3) Academic Skills, or AS (e.g., "follows teacher's verbal directions"). Teachers rate each child on a scale from 1-5, with 1 = "not at all" and 5 = "very well." An increase in the mean score from pre-test to post-test indicates an increase in student social competence.

Figure 1

As is illustrated in Figure 1, there was an overall statistically significant increase ($p<0.05$; matched t-test) in the mean rating of student skill from pre-test to post-test for each of the five scores reported for this measure.

Social Competence Scale Teacher Results (N=1309)

➢ **Children who began the program with the lowest social competence scores showed the greatest improvement during The Incredible Years Dinosaur School.**

Children were divided into three groups based on their *Social Competence Scale/Teacher* pre-test scores; that is, "below average," "average," and "above average."

Figure 2

As shown in Figure 2, there was a statistically significant increase ($p<.05$ matched t-test) from pre-test to post-test in overall social competence for children in all three groups, but the greatest mean difference between pre- and post-test was found for those in the "below average" category (effect size was 1.52).

Child Skills Level to Outcomes: Overall SCST Score (n=1308)

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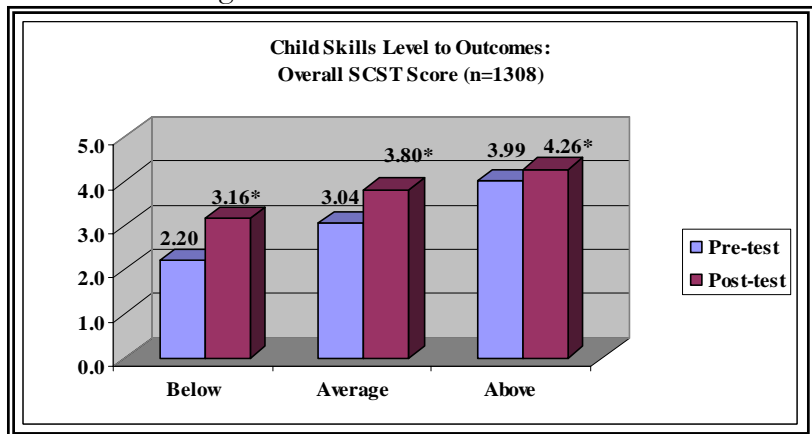
> **Teachers in The Incredible Years program reported greater confidence in managing classroom behavior and using positive teaching strategies.**

The *Teacher Strategies* measure is composed of five sub-scales. For each sub-scale, an increase in the mean from pre-test to post-test indicates an increase in appropriate and effective teaching strategies.

Teacher Strategies: Managing Classroom Behavior (n=82)

Figure 3
For the sub-scale Managing Classroom Behavior, or MCB (e.g., "how confident are you in managing current behavior problems in your classroom?"), response choices range "from 1 to 7, with 1 = "very unconfident," 4 = "neutral," and 7 = "very confident." Results indicate a statistically significant increase.
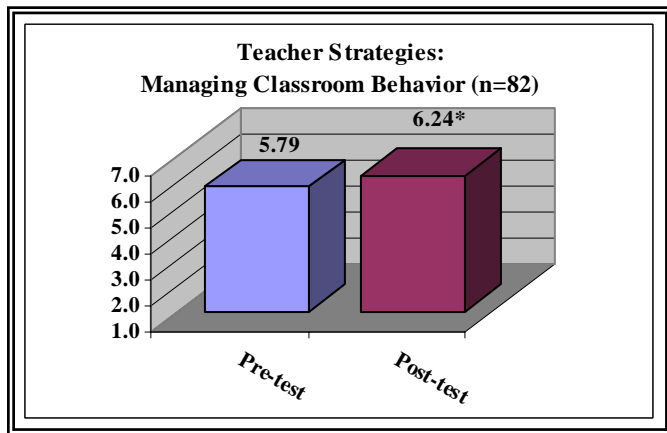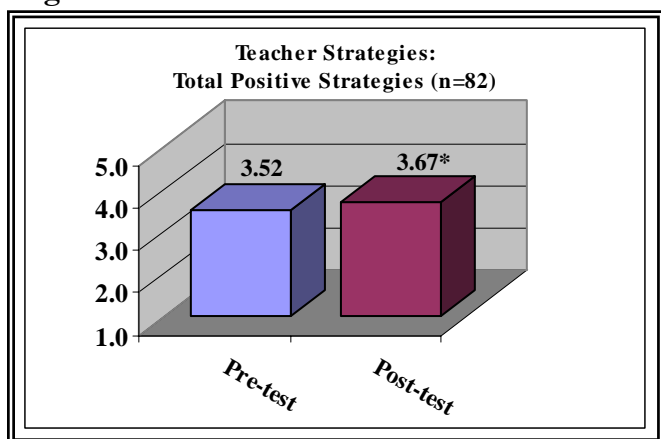
Figure 5a

Teacher Strategies: Total Positive Strategies (n=82)

For the sub-scale Total Positive Strategies, or TPS (e.g., "comment on good behavior"), each item is rated for both frequency of use and usefulness on a scale from 1 to 5, with 1 = "rarely/never," 3 = "half the time," and 5 = "very often." The score is the average of the combined ratings for frequency of use and usefulness. A statistically significant change was also found for this scale from pre- to post-test.

No statistically significant changes were found from pre-test to post-test in teachers' use of positive approaches with parents, working with parents, or using fewer inappropriate teaching strategies.

> **Overall, teachers were rated by observers as "well" to "very well" with regard to implementation quality.**

The *Observed Implementation/Quality of Teacher Child Group Process* scale rated teachers on: skill promotion; how well they conducted components of the curriculum, such as circle time, vignettes, small group activities; children's responses to teachers; home and parent involvement; and overall implementation. Teachers were rated on a scale from 1 to 5, with 1 = "not well," 3 = "well," and 5 = "extremely well." Mean scores for the seven scales, as well as a total mean score, are shown in Table 2.

Table 2: Observed Implementation/Quality of Teacher Child Group Process

Implementation/Quality Scales	*n*	Group Mean
Promoting Skills (PS)	74	3.50
Circle Time (CT)	74	3.48
Vignettes (V)	14	3.23
Small Group Activities (SGA)	55	3.45
Children's Responses (CR)	75	3.64
Home/Parent (HP)	59	3.24
Overall Implementation (OI)	75	3.46
Total Mean Score	74	3.44

➢ ***Teachers completed over two-thirds of the session agenda items for each Incredible Years session and covered a majority of lessons for units one through six.***

In addition to observer ratings, teachers completed *Unit Checklists* at the end of each program unit. Sixty-seven of the 97 teachers completed some portion of the unit checklist. Teachers were asked to circle the lessons that they covered in each of the seven units.

Figure 6
As illustrated in Figure 6, on average, teachers covered 61.9% of the unit lessons.
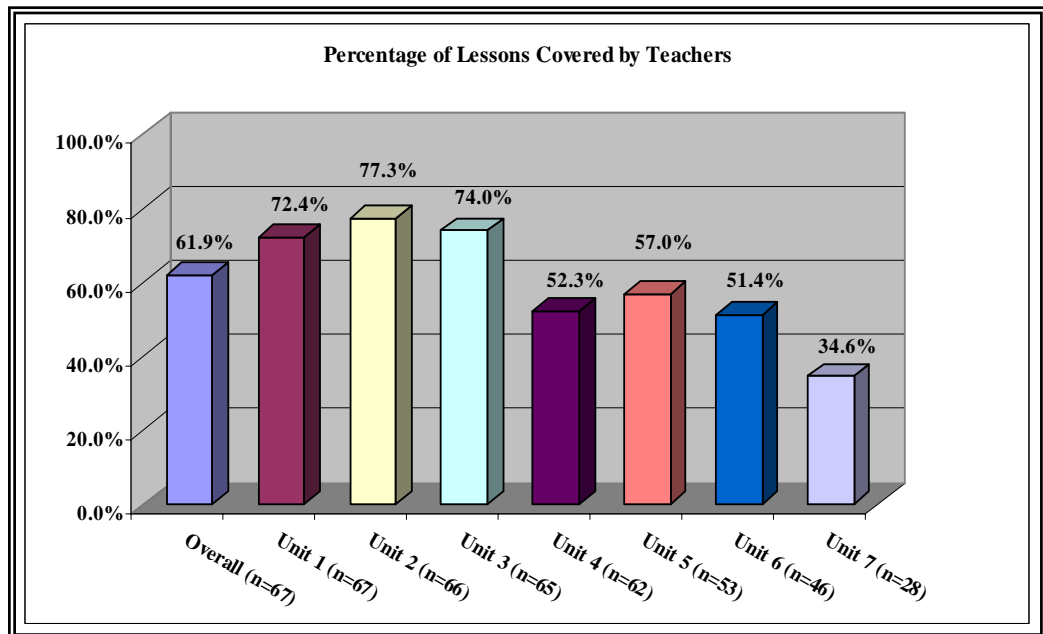
Percentage of Lessons Covered by Teachers

Overall (n=67): 61.9%
Unit 1 (n=67): 72.4%
Unit 2 (n=66): 77.3%
Unit 3 (n=65): 74.0%
Unit 4 (n=62): 52.3%
Unit 5 (n=53): 57.0%
Unit 6 (n=46): 51.4%
Unit 7 (n=28): 34.6%

Another key marker of fidelity of implementation includes the percentage of session agenda items covered. Teachers were asked to answer yes or no to a series of questions related to agenda items for each unit, such as "did I talk about Wally's relaxation secrets?" or "did I role-play problem-solving solutions with puppets?"

Figure 7
As seen in Figure 7, teachers completed, on average, nearly 80% of session agenda items, with the lowest completion rate being for unit 7, at 72%.
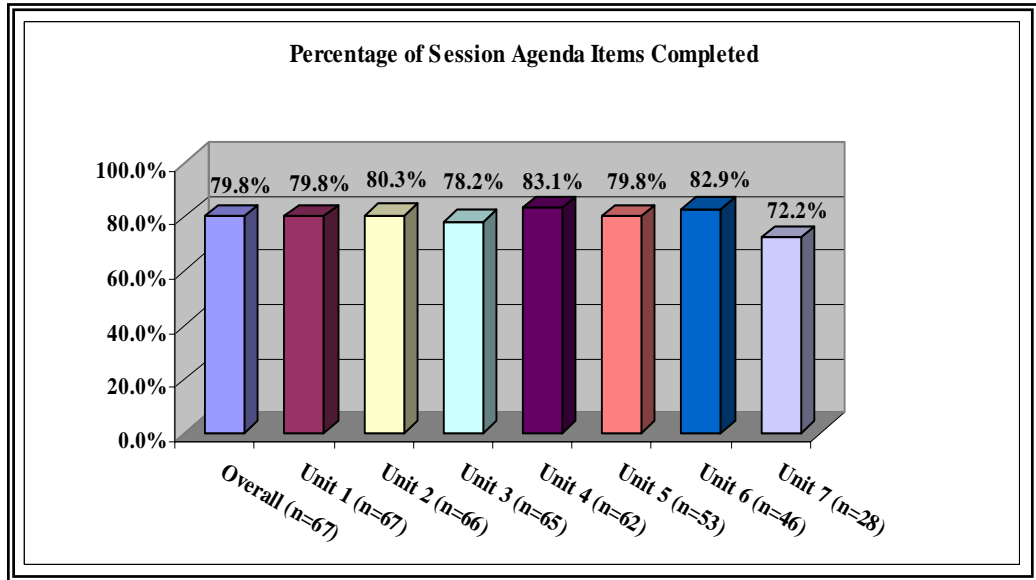
Percentage of Session Agenda Items Completed

Category	Percentage
Overall (n=67)	79.8%
Unit 1 (n=67)	79.8%
Unit 2 (n=66)	80.3%
Unit 3 (n=65)	78.2%
Unit 4 (n=62)	83.1%
Unit 5 (n=53)	79.8%
Unit 6 (n=46)	82.9%
Unit 7 (n=28)	72.2%

➢ ***Children in classrooms with a higher level of fidelity to The Incredible Years model program showed greater gains in social competence.***

Trained observers rate teachers in 7 categories of curriculum implementation. Items within all categories were ranked on a 5-point scale from 1 = "Not Well" to 5 = "Extremely Well," with higher scores indicating greater fidelity to the curriculum. Scores from items within each category were averaged together to create category mean scores, and then the 7 category mean scores were averaged together to create one overall Teacher Implementation Quality (TIQ) fidelity mean score per classroom.

Figure 8
As illustrated in Figure 8, children in classrooms where teachers maintained a higher level of observer-reported fidelity demonstrated greater gains in social competence over the program year.

Dinosaur School Fidelity and Gains in Children's Social Competence

Y-axis: Social Competence Gains (0.18, 0.43, 0.68, 0.93, 1.19)
X-axis: Dinosaur School Fidelity (1-5 Scale) (2.09, 2.74, 3.38, 4.02, 4.67)

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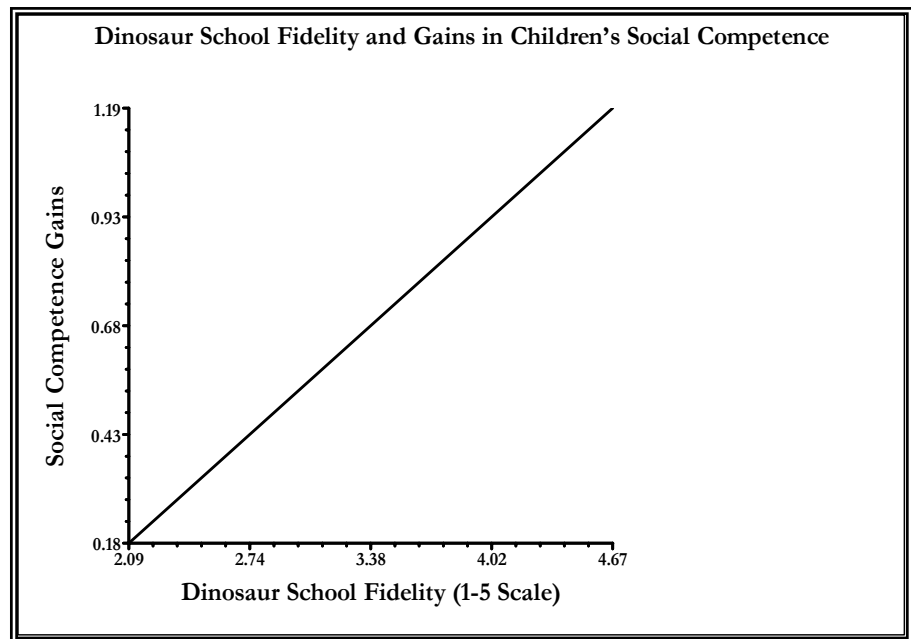
➢ **The majority of teachers reported the Dinosaur School program was easy to integrate into the regular classroom curriculum and met their goals for child social and emotional development.**

When asked, "How easy was it to integrate the Dina School Program into your regular classroom curriculum," 72% of teachers responded "easy" or "very easy." When asked about how well the program met their goals for child social and emotional development, 89% responded "well" or "very well." Approximately 75% of teachers responded "mostly" or "definitely" when asked if "the content and activities of the program were developmentally appropriate and individualized as needed." Moreover, 80% replied that they were "likely" or "very likely" to do small group activities next year.

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INTRODUCTION AND BACKGROUND

In 1998, Invest in Kids (IIK) was founded by a group of attorneys and other community leaders in response to the ever-increasing number of serious crimes being committed by young people. The founders realized that this trend was likely to continue if effective programs were not in place to keep children from "falling through the cracks." Therefore, they committed themselves to finding and supporting programs to help at-risk children get a better start in life.

The mission of IIK is to partner with communities in Colorado to improve the health and well-being of young children, especially those from low-income families, through effective, research-based programs. To-date, IIK has adopted two such programs; the first was the Nurse Family Partnership, and then later The Incredible Years (IY), the latter of which is the focus of this evaluation report.

IIK adopted The Incredible Years as its second major initiative because of the outstanding outcomes IY has produced in over 15 years of rigorous research. IIK works with communities to provide the support needed (including, technical assistance and up to $5000 in matching funds during the initial stages of implementation in new communities) to implement the program with fidelity to the proven model, and to achieve these positive outcomes for children and families in Colorado.

The Incredible Years is divided into distinct training programs that are designed to enhance social competence and reduce aggression in young children aged three to eight years. The developmentally-appropriate and culturally-sensitive programs (e.g., Webster-Stratton, 2004) are the child social skills and teacher training program, known as the Dina Dinosaur Classroom Curriculum (referred to as the Dinosaur School program throughout this report), and the BASIC Parent Training Program (referred to as the Parent program). Research has shown that these training programs are effective in promoting positive parent and teacher interactions with children, strengthening children's social and emotional competence and self-regulation, and reducing behavior problems (e.g., Hutchings, Bywater, Daley, & Lane, 2007; Reid, Webster-Stratton & Hammond [in press]; Taylor, Schmidt, Pepler, & Hodgins, 1998; Webster-Stratton & Reid, 2002; Webster-Stratton, Reid, & Hammond, 2001; Webster-Stratton & Taylor, 1998). Each uses real-life video vignettes of children interacting with other children, teachers and parents to promote group discussion and problem-solving, and to serve as a stimulus for role-play activities. Together, the training programs provide a cost-effective, comprehensive approach (Olchowski, Foster, and Webster-Stratton, 2006;

Webster-Stratton, 2000) that supports the healthy development of young children, engages parents in their children's educations, and strengthens teachers' skills.

IIK contracted with OMNI Institute, a nonprofit, social science research and technical assistance firm based in Denver, to evaluate The Incredible Years program in Colorado. This is the second annual evaluation conducted by OMNI. The goals of the evaluation are to assess: (1) the overall effectiveness of The Incredible Years in early childhood care and education settings in Colorado, and (2) the critical implementation factors associated with program success in these settings.

This report is organized in two major sections, which cover the two major components of The Incredible Years program in Colorado: 1) Dinosaur School program and 2) Parent program. Within each section are descriptions of the program and program participants, results of the program, and participants' satisfaction with the program.

Evaluation Design

The evaluation design included pre-test and post-test measurement, based on surveys completed by teachers and parents, to assess changes in child, parent, and teacher skills during the time they were involved in The Incredible Years programs. Fidelity of implementation (how well teachers and parent leaders conducted the program as intended) was assessed throughout the lifespan of the program, based on data collected from surveys completed by teachers, parents and parent group leaders, in addition to observations of teachers and parent group leaders completed by IIK staff. Lastly, parent satisfaction and teacher satisfaction with the programs were assessed using parent and teacher surveys, which were completed at the end of the program year, as well as parent weekly evaluation ratings.

Reliable and valid survey instruments were selected based on recommendations from the developers of The Incredible Years program, in addition to survey instruments used by other research-based programs and selected by OMNI researchers. Descriptions of each measure are provided in the results section of this report.

Methods of Analysis

For this evaluation, change over the course of the program is assessed by statistically comparing participants' responses to survey questions prior to program participation, known as a "baseline" or "pre-test," and following completion of the program, referred to as a "post-test." This

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comparison is made through a test of statistical significance, called a "paired samples t-test," which assesses the likelihood that an observed change between pre-test and post-test is statistically meaningful.

When using a paired samples t-test, each individual's response on the pre-test must be matched to his/her post-test responses in order to statistically compare participants' pre-post data. Unique identifying information (e.g., an identification number) is used to make this match. Data that cannot be matched, due to someone only taking the pre-test or only the post-test, for example, are excluded from the paired samples t-test. The data included in the analysis are referred to as "matched cases."

Statistical tests, like the t-test, are tests of statistical significance. Statistical significance is a way of representing the probability (p-value) that shifts in pre-post data are not simply due to chance. Tests of statistical significance can be used to judge the level of confidence with which one can generalize observed changes. It is standard practice in the social sciences to consider p-values of less than (<) 0.05 as statistically significant (indicating less than a 5% likelihood that the observed change is due to chance). In some cases, p-values between .05 and .10 are worth noting because they approach the benchmark. In these cases, the term "approaching significance" is used.

In addition to paired samples t-tests, to examine the link between teachers' and parent group leaders' fidelity to the program model and outcomes for children and parents, it was necessary to use an advanced statistical method called Hierarchical Linear Modeling (HLM). HLM is a technique designed to take into account multiple levels of data when predicting outcomes. Most basic statistical techniques can only analyze data one level at a time, either examining differences in individual-level or group-level factors. HLM, however, allows researchers to examine both levels of data at the same time. HLM was used in the present analyses to account for individual-level and group-level effects on change in both children's social competence and parents' parenting practices over the course of the program year.

Statistical Considerations for Interpretation of Results

An important limitation of interpreting the p-value and statistical significance is with regard to statistical power. Most small programs lack an adequate sample size (that is, the number of participants completing the pre- and post-test) to evoke confidence in the p-value and test of statistical significance. A more unrestricted analysis is to determine the effect size to answer the question: how much of an effect did the program have? Effect size analyses provide an indication

of the amount of change regardless of sample size. Effect size can be interpreted similarly to a "percent difference" on a metric between .00 and .99. Effect sizes can be negative or positive, and a score of 0 represents no change. Generally speaking, effect sizes in social research are likely to be small (under .20).

Effect sizes and p-values can be used together to provide a more comprehensive picture of true program outcomes, particularly with a larger sample size. In the case of a sample size of 15 or fewer, p-values should not be interpreted. In those instances, effect sizes can provide a "benchmark" for comparison against other small sample results.

Useful Terms

The following terms may be useful when reviewing this report:

Carolyn Webster-Stratton, M.S.N., M.P.H., Ph.D.: Developer of The Incredible Years programs, Webster-Stratton is a Professor and Director of the Parenting Clinic at the University of Washington.

Sample size (n): The respondents, or number of participants, included in the data set.

Pre: Participants' responses to survey questions at the beginning of a program.

Post: Participants' responses to the same survey questions at the end of the program.

Measure: An entire set of items (questions) compiled into a single document that is administered to program participants. Sometimes an overall measure is called an "instrument," "survey," or "assessment."

Scale and Sub-Scale:

1) The format of the responses to a survey question. For example, "this question was on a 1-4 scale, where 1 = Strongly Disagree and 4 = Strongly Agree.

2) Sometimes the word scale, or sub-scale, refers to a smaller collection of related questions within a measure that assesses a more specific construct (e.g., within the measure "Social Competence," one of the scales or sub-scales, combines only those questions that assess "Prosocial Activities" and another sub-scale assesses "Emotion Regulation").

Overall Mean: The mean (or average) score of all the items (questions) in the scale.

Item mean: The mean score of one item (question) in a scale for all the participants surveyed. Where applicable, it may be more meaningful to report the overall mean because it takes into account all of the items (questions) that measure the main construct.

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Matched cases: Pre/post data that can be matched by participant. In order to analyze pre/post changes, only matched cases (i.e., cases in which the post-test is matched with the pre-test for the same participant) are used.

Paired Samples T-test: A paired samples t-test analysis examines the difference between the pre- and post-test means to determine whether an observed difference is due to more than chance. This probability (p-value) must fall below the commonly used threshold in the social sciences of .05, or 5%, to be reported as having statistical significance.

Effect Size: Effect size analyses provide an indication of the amount of change regardless of sample size. Effect sizes can be negative or positive, and a score of 0 represents no change. Generally speaking, effect sizes in social research are likely to be small (under .2).

Statistical significance: Standard practice in the social sciences is to consider p-values less than ($<$) 0.05 statistically significant. This basically says that social scientists will only conclude that a difference between two means is meaningful when there is less than a 5% probability that the difference is due to chance alone. In some cases, especially when sample sizes are small, p-values between .05 and .10 are worth noting because they approach the .05 benchmark. In these cases, the term "approaching significance" will be used.

P-value: The probability that a difference between two means is due to chance alone.

Description of Program and Program Participants

This section provides a description of the Dina Dinosaur Classroom Curriculum and Teacher Training program (Dinosaur School) as they are being implemented in Colorado, as well as descriptions of the children and teachers who participated in 2007-2008, in order to give an overall picture of who the program is reaching.

The child/teacher curriculum includes 60 different lessons, which are delivered two-to-three times weekly in each classroom. Two trained teachers co-lead the child curriculum using life-size puppets, engaging activities, cards and video vignettes, among other modalities. The lessons focus on helping children identify their feelings, control their anger, problem-solve, succeed in school and make friends. The children learn concrete strategies for calming down and generating different solutions for any given problem. The teachers learn positive teaching strategies (i.e., focusing on what children are doing right instead of what they are doing wrong), how to connect with children who exhibit challenging behaviors and help them control those behaviors, among many other skills and strategies.

Dinosaur School trainers from Invest in Kids undergo an Incredible Years certification process involving approved training workshops, experience leading a group, peer review, and consultation with a certified mentor or trainer.

Description of Children

The total number of children reflected in this evaluation of the Dinosaur School program in 2007-2008 was 1,694. This number is based on the total number of completed child forms received by OMNI Institute. Of this total, 50.1 percent were boys and 49.9 percent were girls (see Chart 1 below). Teachers reported the race/ethnicity of the children in their classrooms as follows: 34.2% Caucasian, 20.2% Mexican/Mexican American, 7.4% other Latino/Hispanic, 5.1% Multi-racial, 5% American Indian, 1.2% African American, 1.6 percent Other, and less than one percent Pacific Islander and Asian. A quarter (24%) of the race/ethnicity data were missing due to teachers not completing this item on the forms, in addition to other possible errors (see Chart 2 below).
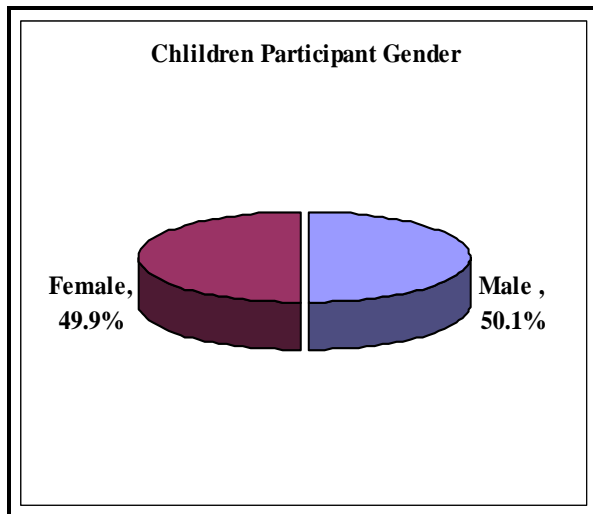
Chart 1

Chart 2

Chlildren Participant Gender

Female, 49.9%

Male , 50.1%

Children Participant Ethnicity

Pacific Islander and Asian, 1.0%

Missing, 24.0%

Other, 1.6%

Afican American, 1.2%

American Indian, 5.0%

Multi-Racial, 5.1%

Other Latino/Hispanic, 7.4%

Caucasian, 34.2%

Mexican/Mexican American, 20.2%
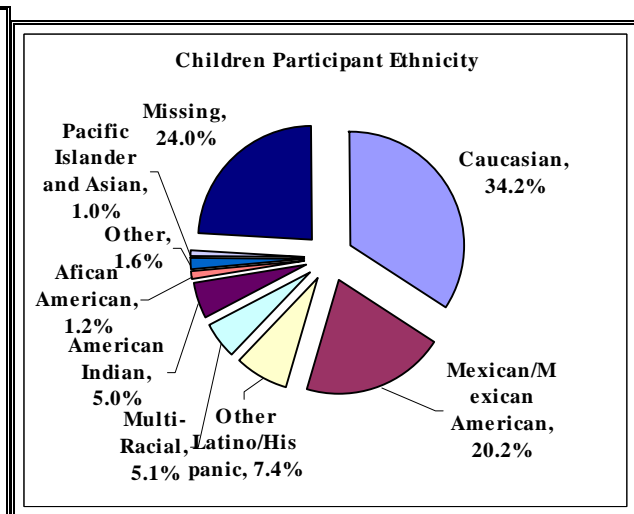
Description of Teachers

The total number of teachers reflected in this evaluation who received training and used the Dinosaur School curriculum for 2007-2008 was 159. Of these, 97 identified themselves as teachers and 62 were assistant teachers/teacher aides (referred to as "paraprofessionals" in this report). Teachers were asked to identify themselves as either "teacher" or "paraprofessional," and descriptions of each are presented and shown below.

As shown in the table below, 45.8% of the teachers had ten or more years of experience in early childhood or elementary education while just 13.1% of paraprofessionals had ten or more years experience. Moreover, approximately 79% of the teachers reported having at least an Associate's degree, and nearly half of teachers (49%) reported having earned at least a Bachelor's degree. Over half (55.7%) of paraprofessionals reported completing some college and only 21.2% reported an Associate's degree or higher. Over half of the participating IY teachers were Caucasian (54.2%) with a mean age of 38 years. Almost half (45.2%) of participating paraprofessionals reported an ethnicity of Caucasian, while the next largest group was Other Latino/Hispanic (25.5%). The mean age for paraprofessionals was very similar to that of teachers (37.5 years). The standard length of training IIK provides for teachers and paraprofessionals is three days. Most teachers and paraprofessionals (87.1% and 75%, respectively) completed 3+ days of Incredible Years training whereas 2.2% teachers and 12.5% of paraprofessionals reported receiving no training.

Table 1 Series: Demographics for Teachers and Paraprofessionals Participating in Dinosaur School (n=97 for teachers, n=62 for paraprofessionals)

Years of experience in early childhood or elementary education	0–1 Years	1-3 Years	3-5 Years	5-10 Years	10+ Years
Teachers	2.1%	7.3%	19.8%	25%	45.8%
Paraprofessionals	13.1%	21.3%	29.5%	23%	13.1%

Teachers' Highest Education Completed

GED/High School Diploma, 7.3%
Master's Degree, 12.5%
Some College, 13.5%
Bachelor's Degree, 36.5%
Associate's Degree, 30.2%

Teachers' Days of IY Training

None, 2.2%
1 Day, 4.3%
2 Days, 6.5%
3+ Days, 87.1%
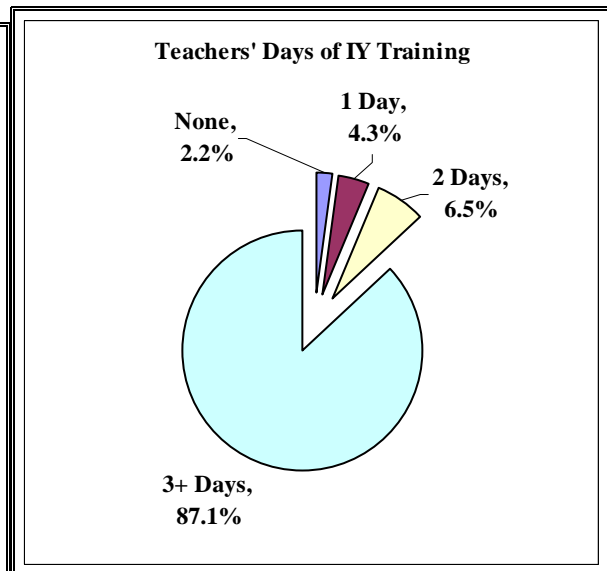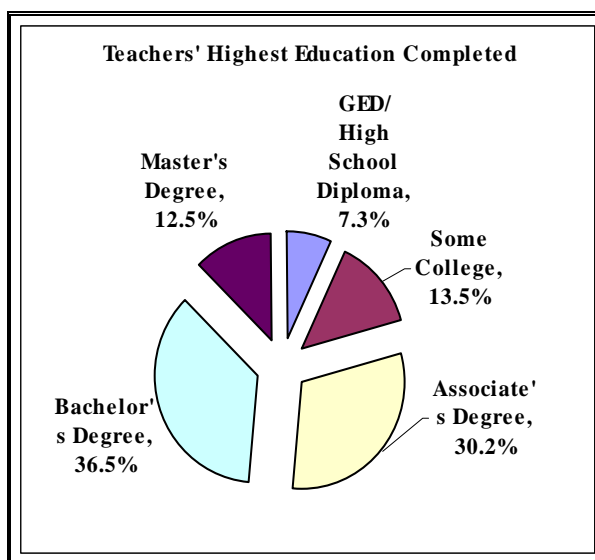
Ethnic Origin	Mexican/ Mexican- American	Other Latino/ Hispanic	African American	Cauca sian	American Indian	Asian	Pacific Islander	Multi- Racial	Other
Teachers	16.7%	17.7%	1.0%	54.2%	6.3%	2.1%	0.0%	1.0%	1.0%
Para- profession als	19.4%	25.8%	4.8%	45.2%	3.2%	0.0%	0.0%	1.6%	0.0%

Dinosaur School Evaluation Results

Results relating to child and teacher outcomes, fidelity of implementation, and teacher satisfaction with the program are discussed in this report, addressing, in turn, key evaluation questions relating to the Dinosaur School program. It is important to note that the overall number

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of participants for each of the survey measures differs slightly depending on the pattern of missing data for a particular measure. The total number of respondents for each measure is reported as the "n" and listed in each graph. Impacts of the program on children are measured through teachers' ratings of children's social competence at the beginning of the year and again at the end of the school year. Teachers also self-reported about their teaching strategies at the beginning and end of the year to assess the impact of the IY training and curriculum on teachers. How well teachers implemented the program was measured through observer ratings, as well as checklists that were completed after each unit.

One goal of the Invest In Kids evaluation was to assess the critical factors associated with greater program success in classrooms. Variations in many characteristics of schools, teachers, and children can account for differences in outcomes. Among these diverse factors, The Incredible Years team emphasizes that maintaining high fidelity to its evidence-based models is *crucial* to ensuring optimum outcomes. According to The Incredible Years website:

> In order to obtain similar results to those published by the developer of a program, attention must be given to supervising the quality of the implementation of that program. It is important to assure that the program is delivered with the highest degree of fidelity possible. Fidelity means that the program is delivered in its entirety, using all the components and therapeutic processes recommended by the developer (http://www.incredibleyears.com/ResearchEval/using.asp).

The fidelity measures used in this evaluation were analyzed in relationship to changes in children's social competence to test whether teachers who deliver the program with greater fidelity also show greater changes in children's social competence.

Child Outcomes

As was noted in the Introduction and Background section, the Dinosaur School curriculum and training is designed to enhance social competence and reduce aggression in young children. Social competence in preschool and early elementary school has been shown to have a direct link to school success in the early grades (Ladd, 2003; Raver, 2002). Change in children's social competence throughout the year was measured through pre- and post-testing using the *Social Competence Scale (Teacher Version)* developed by the Conduct Problems Prevention Research Group, or CPPRG (1995). The *Social Competence Scale/Teacher* is composed of three sub-scales: (1) Prosocial/Communication skills or PCS (e.g., "resolves peer problems on his/her own"), (2) Emotion Regulation Skills or (ERS) (e.g., "accepts legitimate imposed limits") and (3) Academic

Skills or AS (e.g., "follows teacher's verbal directions"). Students are rated on a scale from 1 to 5 with 1 = "not at all," 3 = "moderately well," and 5 = "very well." This measure provides individual scores for each of the three sub-scales; that is, PCS, ERS and AS, as well as a PCS/ERS combined score and a PCS/ERS/AS overall score. An increase in the mean score from pre-test to post-test indicates an increase in student social competence.

Figure 1

As illustrated in Figure 1, overall there was a significant increase ($p<0.05$; matched t-test) in the mean rating of student skill from pre-test to post-test for each of the five scores reported for this measure. Moreover, effect sizes were large, ranging from 0.70 to 0.81. This is noteworthy since effect sizes in social science research are

Social Competence Scale Teacher Results (N=1309)
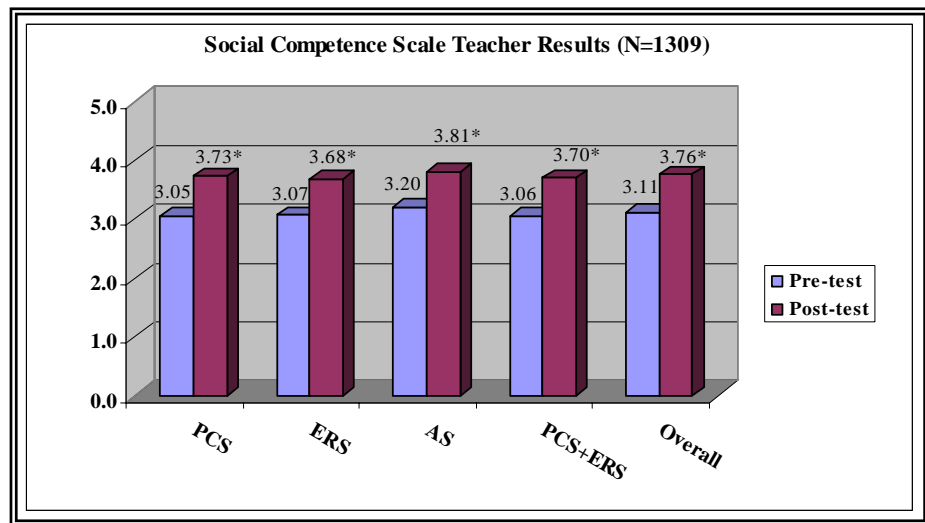
typically small (under .20). These large effect sizes suggest that participation in the Dinosaur School is related to the kind of positive change in social competence the program is intended to affect.

In addition to the overall change in children's social competence, the program also had a greater impact for children who began the year with lower scores, showing that the program may be most beneficial for children at highest risk for school failure. Children were divided into three groups based on their pre-test scores on the *Social Competence Scale/Teacher*: "below average," "average," and "above average." The percentage of children who improved in their overall social competence from pre-test to post-test was 91.8%, 87.5%, and 71.7%, respectively, for the "below average," "average," and "above average" groups.

Children's social competence increased in all areas during The Incredible Years Dinosaur School program.

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Figure 2

As shown in Figure 2, there was a statistically significant increase (p<.05; matched t-test) from pre-test to post-test in overall social competence for children in all three groups, but the greatest mean difference between pre- and post-test

Child Skills Level to Outcomes:
Overall SCST Score (n=1308)
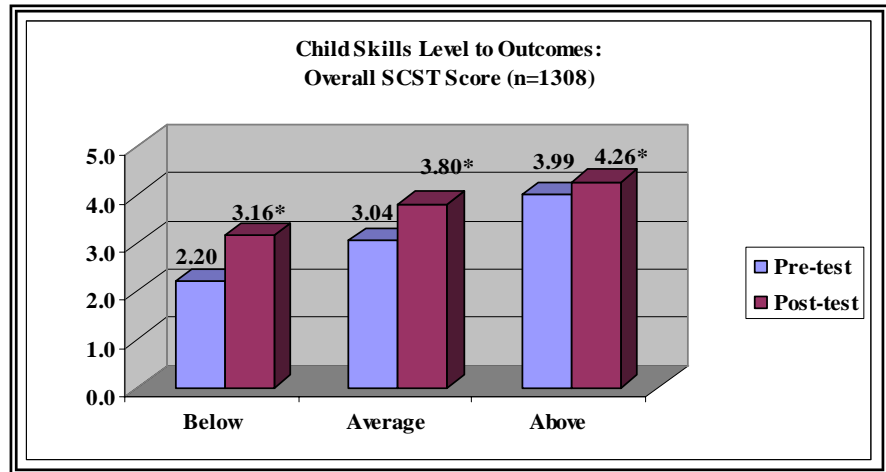
was found for those in the "below average" category (effect size was 1.52). This is important because these results demonstrate that those children who were most in need of services (i.e., reflected by low pre-test scores) showed the most improvement after participating in the program. These results echo the results found by the developers of the program, providing evidence that the program model is being effectively replicated in Colorado (Webster-Stratton & Reid, 2001).

Children who began with the lowest social competence scores showed the greatest improvement during The Incredible Years Dinosaur School.

Teacher Outcomes

The Incredible Years program is also designed to impact how teachers approach their work with children. Teachers and teaching assistants learn positive teaching strategies (i.e., focusing on what children are doing right instead of what they are doing wrong), how to connect with children who exhibit challenging behaviors and help them control those behaviors, among many other skills and strategies.

Changes in how teachers work with children was assessed through a self-report questionnaire at the beginning of the year and again at the end of the program. The *Teacher Strategies* measure is recommended by the IY program developers and is composed of five sub-scales. For each sub-scale, an increase in the mean from pre-test to post-test indicates an increase in appropriate and effective teaching strategies.

Results indicate an increase in managing classroom behavior and using positive teaching strategies, and no changes in positive approaches with parents or using fewer inappropriate teaching strategies. Results are reported below in figures 3 - 5.

For the sub-scale Managing Classroom Behavior or MCB (e.g., "how confident are you in managing current behavior problems in your classroom?"), response choices range from 1 to 7, with 1 = "very unconfident," 4 = "neutral," and 7 = "very confident."

Figure 3

Results (matched t-test) indicate that the increase in mean teacher response from pre-test to post-test was statistically significant at the p<.05 level (see Figure 3) with a moderate effect size (0.46).
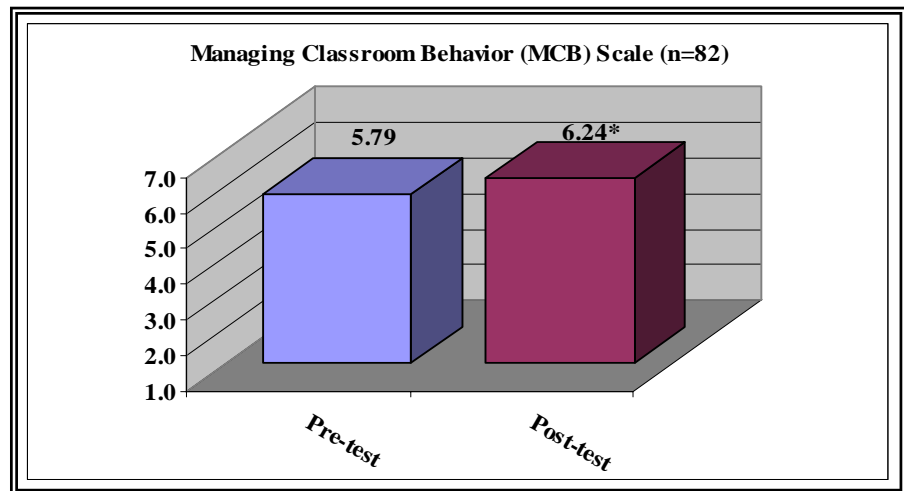
Managing Classroom Behavior (MCB) Scale (n=82)

5.79 — Pre-test

6.24* — Post-test

(y-axis: 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0)

Teachers reported greater confidence in managing classroom behavior and using positive teaching strategies.

Another sub-scale is Working with Parents or WWP (e.g., "collaborate with parents on a home-school behavior program"). Response choices range from 1 to 6, with 1 = "never," 3 = "2 to 3 times a year," and 6 = "daily."

Figure 4

Results indicate that the decrease in mean teacher response from pre-test to post-test was not significant, and the effect size was small (-0.01).

Working With Parents (WWP) Scale (n=82)

4.22 — Pre-test

4.21 — Post-test

(y-axis: 1.0, 2.0, 3.0, 4.0, 5.0, 6.0)

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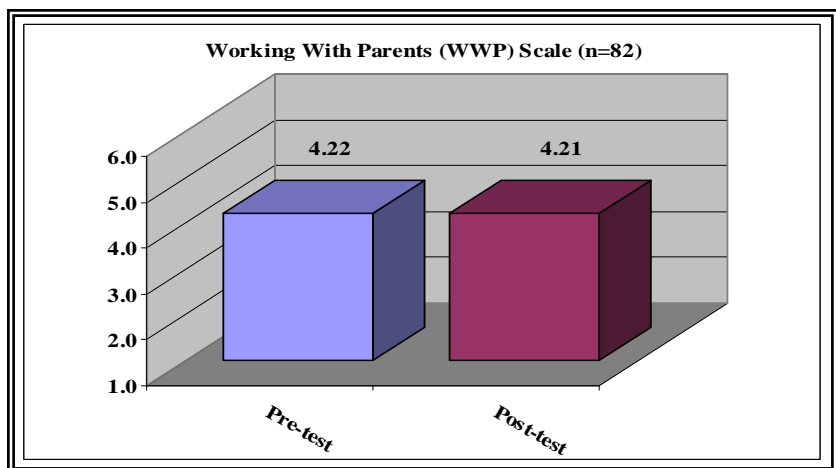
The three other sub-scales are: (1) Total Positive Strategies or TPS (e.g., "comment on good behavior"), (2) Inappropriate Strategies or IS (e.g., "single out a child or a group of children for misbehavior") and (3) Positive Approaches with Parents or PAP (e.g., "call parents to report good behavior"). Each item in these sub-scales is rated for both frequency of use and usefulness on a scale from 1 to 5, with 1 = "rarely/never," 3 = "half the time," and 5 = "very often." The score for each item is the average of the combined ratings for frequency of use and usefulness.

For Total Positive Strategies, results indicate that the increase in mean teacher response from pre-test to post-test was statistically significant. However, neither the decrease in mean teacher response from pre-test to post-test for Inappropriate Strategies nor Positive Approaches with Parents was significant (see Figure 5). The effect size for the Total Positive Strategies Scale was moderate at .34. The effect sizes for the other two scales were low at -.16 for Inappropriate Strategies and -.01 for Positive Approaches with Parents.

Figure 5

Teacher Strategies: Other Scales
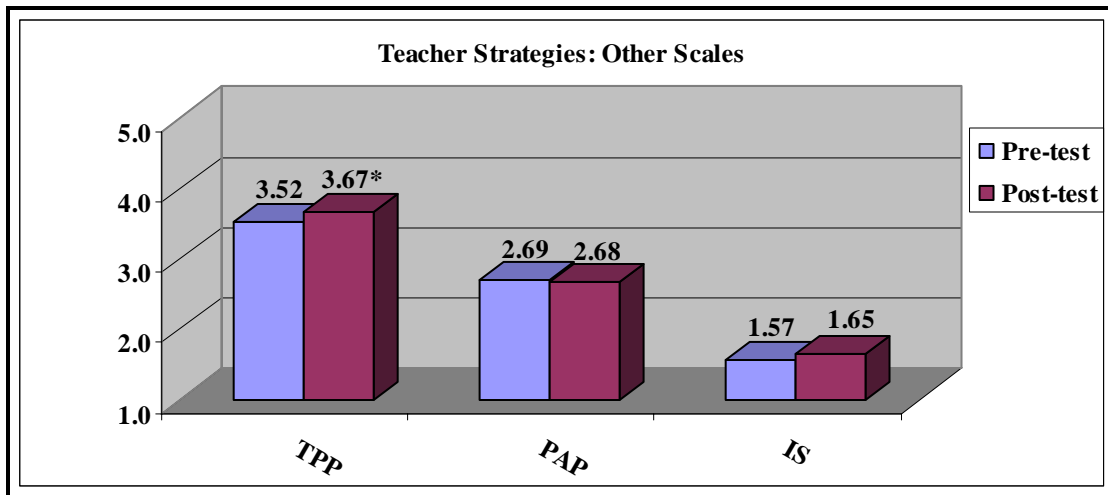
Difference is statistically significant at (p<.05)

In addition to assessing change in mean response from pre-test to post-test on the five sub-scales of the *Teacher Strategies* form, teachers' responses to the individual questions comprising each sub-scale were evaluated, as well. For each question, the percentage of teachers who selected response choices that indicated a high frequency of use, for example, "often" or "very often," was also calculated. For questions relating to Managing Classroom Behavior, the corresponding choices

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were "confident" or "very confident." Teachers' responses to highlighted questions are reported below. Responses to all of the questions on the *Teacher Strategies* form can be found in Appendix A.

Results for paraprofessionals were similar to those of teachers with one exception. Paraprofessionals reported using more inappropriate strategies at the completion of the program year. This change was statistically significant with an effect size of .44.

Eighty percent of the teachers reported being "confident" to "very confident" in managing current behavior problems in the classroom. Slightly fewer (77%), responded being "confident" to "very confident" in their ability to manage future behavior problems in the classroom.

With regard to Total Positive Strategies, 93% of teachers reported that they praised good behavior "often" or "very often," and 93% of teachers responded that they gave clear positive directions "often" or "very often."

For Inappropriate Strategies, when asked how often they singled out a child or a group of children for misbehavior, 4% said "often" or "very often." None of the teachers reported using physical restraint "often" or "very often."

With regard to Working with Parents, 47% of teachers reported engaging parents about special activities they can do with their children at home "1x/week" to "daily," and 41% reported that they ask parents to volunteer in the classroom "1x/week" to "daily."

For Positive Approaches with Parents, 30% sent notes home about positive behavior "often" to "very often," and 28% made home visits "often" to "very often."

Fidelity to The Incredible Years Model

How well the Dinosaur School program in Colorado adhered to the model program was assessed through observer ratings and checklists that teachers completed at the end of each unit. These measures are recommended by IY program developers.

The observation structure for teachers consisted of monthly visits in the first year, quarterly visits in the second year, bi-annual visits the third year and, in the fourth year and beyond, there will be no formal visits. Seventy-four of the ninety-seven participating teachers were observed at least once during the school year by trained staff from Invest in Kids. The *Observed Implementation/Quality of Teacher Child Group Process* rated teachers on: (1) how well they engaged in promoting skills or PS (such as, acting playful with children and preparing for transitions effectively), (2) how well they conducted "Circle Time" or CT (such as, reviewing learning from a prior session, actively involving children, and attending to group process), (3) how well they conducted "Vignettes" or V (such as,

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allowing for discussion following each vignette,) (4) how well they conducted "Small Group Activities" or SGA (such as, making adaptations and using descriptive commenting and coaching), (5) children's responses to teachers or CR, (6) Home/Parent involvement or HP, and (7) overall implementation or OI, which included preparation, knowledge of the curriculum content and key concepts, and fidelity to presentation methods. Teachers were rated on a scale from 1 to 5, with 1 = "not well," 3 = "well," and 5 = "extremely well." Mean scores for the seven scales, as well as a total mean score, are shown in Table 4. Overall, teachers were rated as "well" to "very well" with regard to implementation quality.

Table 2: Observed Implementation/Quality of Teacher Child Group Process

Implementation/Quality Scales	n	Group Mean
Promoting Skills (PS)	74	3.50
Circle Time (CT)	74	3.48
Vignettes (V)	14	3.23
Small Group Activities (SGA)	55	3.45
Children's Responses (CR)	75	3.64
Home/Parent (HP)	59	3.24
Overall Implementation (OI)	75	3.46
Total Mean Score	74	3.44

In addition to observer ratings, teachers completed *Unit Checklists* at the end of each program unit. Sixty-seven of the 97 teachers completed some portion of the unit checklist. Of particular interest was adherence to implementation markers (such as, "dosage") or the percent of lessons and session agenda items completed for each unit. Teachers were asked to circle the lessons that they covered in each of the seven units.

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Figure 6

As illustrated in Figure 6, on average, teachers covered 61.9% of the unit lessons, with unit two showing the highest percentage at 77.3% and unit 7 showing the lowest percentage at 34.6%.
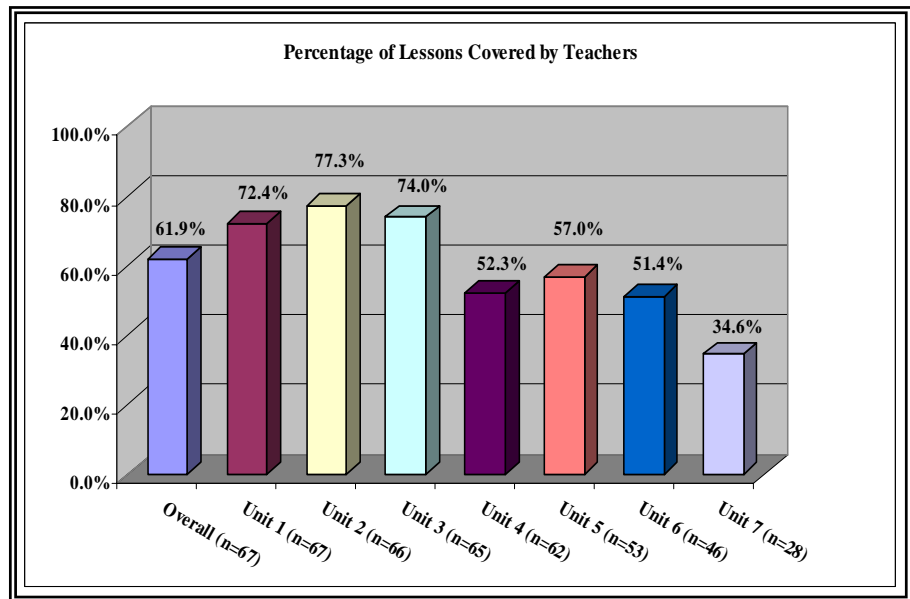
Percentage of Lessons Covered by Teachers

Category	Percentage
Overall (n=67)	61.9%
Unit 1 (n=67)	72.4%
Unit 2 (n=66)	77.3%
Unit 3 (n=65)	74.0%
Unit 4 (n=62)	52.3%
Unit 5 (n=53)	57.0%
Unit 6 (n=46)	51.4%
Unit 7 (n=28)	34.6%

Another key marker of fidelity of implementation includes the percentage of session agenda items covered. Teachers were asked to answer yes or no to a series of questions related to agenda items for each unit, such as "did I talk about Wally's relaxation secrets?" or "did I roll play problem solving solutions with puppets?"

Figure 7

As seen in Figure 7, on average teachers completed nearly 80% of session agenda items, with the lowest completion rate being for unit 7 (72%).

Percentage of Session Agenda Items Completed

Category	Percentage
Overall (n=67)	79.8%
Unit 1 (n=67)	79.8%
Unit 2 (n=66)	80.3%
Unit 3 (n=65)	78.2%
Unit 4 (n=62)	83.1%
Unit 5 (n=53)	79.8%
Unit 6 (n=46)	82.9%
Unit 7 (n=28)	72.2%
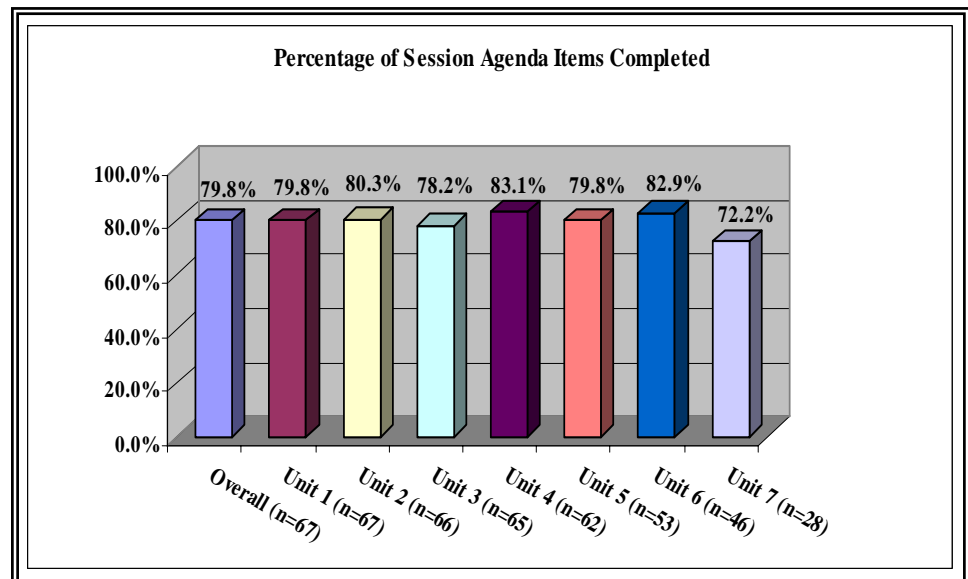
Another important marker of fidelity included percent of teachers attending the standard training in The Incredible Years program. Almost all teachers (87%) reported receiving 3+ days of training.

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Fidelity to the IY Model and its Relationship to Child Outcomes

As described earlier, program fidelity is a key goal for Invest in Kids. An important evaluation question related to program fidelity is: Do children in classrooms with a higher level of fidelity to The Incredible Years Dina Dinosaur Classroom Curriculum show greater gains in social competence during the program year? The relationship between specific program components and child outcomes has not been clearly established in the research literature through real-world studies of implementation on a broad scale. Therefore, it is difficult to know what key program factors predict changes in child outcomes.

To relate program fidelity to child outcomes, the *Teacher Implementation/Quality of Teacher Child Group Process* (TIQ) rating forms were used. As described earlier, trained observers rate teachers in 7 categories of curriculum implementation. These 7 categories include: (1) Promoting Skills, (2) Circle Time, (3) Vignettes, (4) Small Group Activities, (5) Children's Responses, (6) Home/Parent, and (7) Overall Implementation. Items within all categories were ranked on a 5-point scale from 1 = "Not Well" to 5 = "Extremely Well," with higher scores indicating greater fidelity to the curriculum. Scores from items within each category were averaged together to create category mean scores, and then the 7 category mean scores were averaged together to create one overall Teacher Implementation Quality (TIQ) fidelity mean score per classroom.

Using HLM analyses (described earlier in this report), strong support was found for the hypothesis that higher levels of fidelity to the Dinosaur School curriculum would predict greater positive changes in children's social competence over the program year. The impact of fidelity on social competence can be expressed statistically as *t-ratio* = 3.729 (*df* = 51), *p* < .01.

Figure 8

As illustrated in Figure 8, children in classrooms where teachers maintained a higher level of observer-reported fidelity demonstrated greater gains in social competence over the program year.

Dinosaur School Fidelity and Gains in Children's Social Competence

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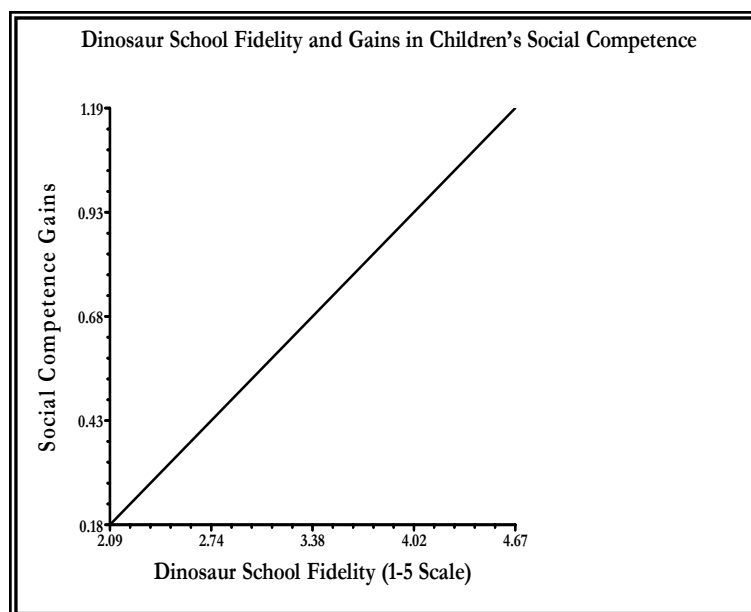
Children in classrooms with a higher level of fidelity to the The Incredible Years model showed greater gains in social competence.

Teachers' Satisfaction with the Dinosaur School Program

Participating teachers and paraprofessionals were asked to rate the program on a five-point scale across a variety of components. Questions asked included, "Did you think the content and activities of the program were developmentally appropriate and individualized as needed?" and "How easy was it to integrate the Dina School Program into your regular curriculum?" Ninety-two teachers and seventy-one paraprofessionals completed the *Teacher Satisfaction Survey*. Their responses to each question are reported in Appendix B. When asked, "How easy was it to integrate the Dina School Program into your regular classroom curriculum," 72% of teachers responded "easy" or "very easy." When asked about how well the program met their goals for child social and emotional development, 89% responded "well" or "very well." Forty-three percent responded "well" or "very well" when asked how well the program met their goals for enhancing emergent literacy, reading, and writing. Approximately 75% of teachers responded "mostly" or "definitely" when asked if "the content and activities of the program were developmentally appropriate and individualized as needed." Moreover, 80% replied that they were "likely" or "very likely" to conduct small group activities during the next year.

With regard to training, close to 85% responded that they were "prepared" or "very well prepared" to implement the program on their own in the next year, and slightly less than half (46.6%) responded that they would "definitely" or "most definitely" like ongoing training. Finally, 50% of the teachers responded that the workload involved in implementing the curriculum was "realistic" or "very realistic."

With regard to parent involvement and homework activities, only 35% of teachers responded that students' parents were "involved" or "very involved" in the Dina School program. At the same time, only 27.8% of teachers indicated that homework activities were "important" or "definitely important" for the students.

The majority of teachers reported the Dinosaur School program was easy to integrate into the regular classroom curriculum and met their goals for social and emotional development.

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Description of Program and Program Participants

This section provides a description of the BASIC Parent Training Program as it is being implemented in Colorado, as well as descriptions of the parents and parent group leaders who participated in 2007-2008, in order to give an overall picture of who the program is reaching.

The parenting curriculum is delivered through a series of 12 weekly parent group meetings (with dinner and childcare provided). Two trained co-leaders guide the group of 10-14 parents as they learn strategies for playing with and praising their children, effective limit setting, handling aggressive and non-compliant behaviors partnering with teachers in their children's education, among other strategies and skills. Each site implementing The Incredible Years Dinosaur School program has the option to also implement the parent group training. The site, in turn, produces its own two leaders for each group, who are then trained by IIK to implement the program.

Description of Participants

Responses from a total of 180 parents are reflected in the evaluation of the BASIC Parent Training Program in 2007-2008. Of these, over 70% were mothers. Almost half (46.9%) were Caucasian, with the next largest race/ethnic category being Mexican/Mexican American (19.6%). As presented in Table Series 3, one-quarter of parents had at least a college degree, with an additional 32.6% having had at least some college. English was the primary language spoken in the majority of homes (85.6%), followed by Spanish (14.4%). During the weekly parent program sessions, childcare and a meal were provided for families.

Table Series 3: Parent and Child Demographics (n = 180)

	Mom	Dad	Other
Person completing the form	**74.4%**	**18.0%**	**7.6%**

	Males	Females
Child's Gender	**45.5%**	**54.5%**

Table Series 3 continued: Parent and Child Demographics (n = 180)

Parents' Ethnicity

- American Indian, 2.7%
- Afican American, 2.1%
- Multi-Racial, 1.7%
- Other, 1.0%
- Asian, 2.1%
- Pacific Islander, 0.3%
- Other Latino/Hispanic, 13.4%
- Caucasian, 52.6%
- Mexican/Mexican American, 24.1%

Parents' Highest Educational Level

- Post-college Degree, 5.8%
- College Graduate, 17.5%
- Grades 0-8, 10.2%
- Grades 9-11, 16.4%
- Some College, 23.7%
- High School or GED, 26.3%

Child's Ethnicity

- Multi-Racial, 7.0%
- Asian, 1.7%
- Other, 1.7%
- American Indian, 2.8%
- Mexican/Mexican-American, 27.2%
- Other Latino/Hispanic, 9.4%
- African American, 2.4%
- Caucasian, 47.7%

Primary Language Spoken at Home

- Chinese, 4.1%
- Other, 1.0%
- Spanish, 25.3%
- English, 69.6%

	Language Delay	Cognitive Delay	Physical Handicap	Attention Deficit Disorder	Vision or Hearing Problems	Learning Problems	Emotional/ Behavioral Problem
Does your child have?	13.0%	1.7%	0.7%	3.1%	5.5%	3.8%	14.7%

Percentages reflect those who answered "yes"

BASIC PARENT TRAINING PROGRAM

Description of Parent Group Leaders

Each parent group is led by two parent group leaders who are selected by the program site and receive training from Invest in Kids staff. As presented in Table Series 4, slightly more than 20% of the group leaders had 10 or more years of experience in early childhood or elementary education while 17.4% had less than one year of experience. Almost 83% had earned at least a Bachelor's degree, and almost half possessed Master's degrees. Seventy percent of parent group leaders were Caucasian with mean ages of 40 years.

Table Series 4: Parent Group Leader Demographics (n = 47)

	0-1 yrs	1-3 yrs	3-5 yrs	5-10 yrs	10+yrs
Years of experience in early childhood or elementary education	**17.4%**	**13.0%**	**23.9%**	**23.9%**	**21.7%**
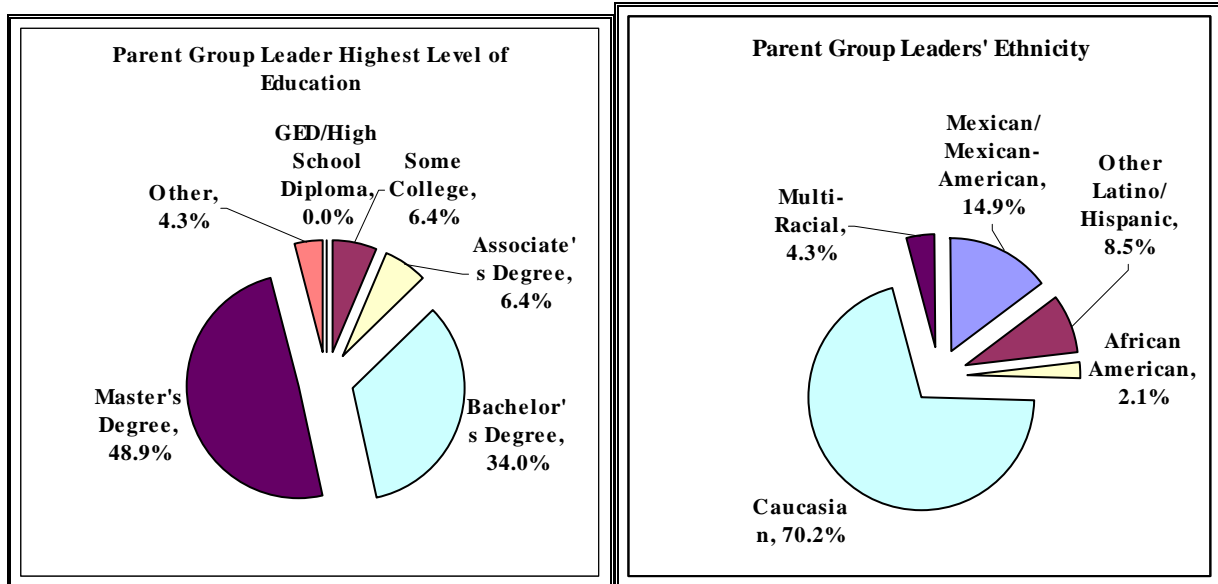
BASIC Parent Training Program Evaluation Results

Results relating to child and parent outcomes, fidelity of implementation, and parent satisfaction with the program are discussed, addressing, in turn, key evaluation questions relating to the BASIC Parent Training Program. It is important to note that the overall number of participants for each of the survey measures differs slightly depending on the pattern of missing data for a

particular measure. The total number of respondents for each measure is reported as the "n" and listed in each graph. Impacts of the program on children are measured through parents' ratings of children's social competence at the beginning of the program and again at the end of the program. Parents are also asked to self-report on their parenting practices at the beginning and end of the program to assess the impact of the IY program on parenting. How well parent group leaders implemented the program (according to its original design and intent) was also measured through observer ratings as well as checklists that were completed after each unit.

One goal of the Invest In Kids evaluation was to assess the critical factors associated with greater program success in parent groups. Variations in many characteristics of parents and children can account for differences in outcomes. Among these diverse factors, The Incredible Years team emphasizes that maintaining high fidelity to its evidence-based models is *crucial* to ensuring optimum outcomes. The fidelity measures used in this evaluation were analyzed in relationship to changes in parenting practices to test whether parent group leaders who deliver the program with greater fidelity also show greater changes in parenting skills.

Child Outcomes

The stated goal of the BASIC Parent Training Program is to focus on strengthening parenting competencies (i.e., monitoring, positive discipline, confidence), fostering parents' involvement in their children's school experiences in order to promote children's academic, social and emotional competencies, and reduce conduct problems. Change in children's social competence was measured through pre- and post-testing using the *Social Competence Scale (Parent Version)* developed by the Conduct Problems Prevention Research Group or CPPRG (1995).

The *Social Competence Scale/Parent* is composed of two sub-scales: (1) Prosocial/Communication Skills or PCS (e.g., "my child works out problems with friends or brothers and sisters on his/her own"), and (2) Emotion Regulation Skills or ERS (e.g., "my child can calm down by himself/herself when excited or all wound up"). Children are rated on a scale from 1 to 5 with 1 = "not at all," 3 = "moderately well," and 5 = "very well." This measure provides individual scores for each of the two sub-scales; that is, PCS and ERS, as well as an overall score. An increase in the mean score from pre-test to post-test indicates an overall increase in children's social competence.

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Figure 7

The increase in the mean from pre-test to post-test for Prosocial/Communication Skills was significant (p<.05), as was the increase in the mean from pre-test to post-test for Emotion Regulation Skills (p<.05). For both sub-scales, effect size was large;

Social Competence Scale Parent Results (n=159)

that is, 0.67 and 0.87, respectively. The increase in the mean overall was significant (p<.05) with a large effect size (.82) for the overall scale.
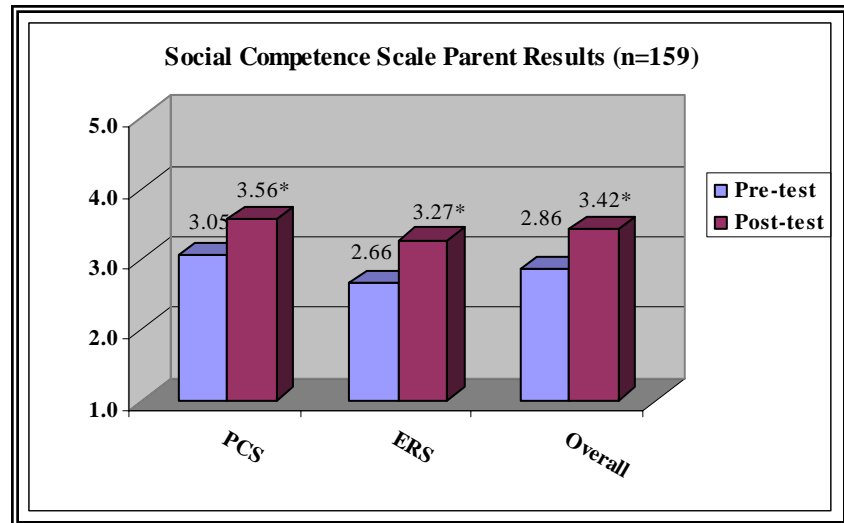
> **Children of parents in The Incredible Years parent program showed improvement (as reported by parents) in social competence in all areas during the program.**

Parent Outcomes

To measure the effects of the parent program on parenting competencies, a parenting practices survey was administered at the beginning of the program and again at the end. This questionnaire is recommended by the program developers, who adapted it from the Oregon Social Learning Center's (OSLC) discipline questionnaire and revised it for use with parents of young children. The *Parenting Practices Interview* measure is composed of two scales: positive parenting and negative parenting. Each scale is further divided into a number of sub-scales, including four for positive parenting and three for negative parenting.

For positive parenting practices, the four sub-scales are: (1) Appropriate Discipline or AD (e.g., "when your child misbehaves, how often do you give your child a brief time out away from family?"), (2) Positive Parenting or PP (e.g., "when your child behaves well, how often do you praise or complement your child?"), (3) Clear Expectations or CE (e.g., "when your child goes to bed or gets up on time, how likely are you to praise or reward your child?"), and (4) Monitoring or MO (e.g., "what percentage of your child's friends do you know well?").

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All items are rated on a 7-point scale, but the scale varies depending on the item, not the sub-scale. For one 7-point scale, items are rated from 1 to 7, with 1 = "never," 4 = "about half the time," and 7 = "always." For another, items are rated from 1 to 7, with 1 = "not at all likely," 4 = "moderately likely," and 7 = "extremely likely." Some questions are multiple choice. For each item, however, the higher the number, the more positive the response. Therefore, for each sub-scale, an increase in the mean from pre-test to post-test indicates that parents are using more positive parenting techniques with their children.

Figure 8

As is illustrated in Figure 8, there was a significant mean increase (p<.05) from pre-test to post-test for all four of the positive parenting sub-scales. Effect sizes

Parenting Practices Interview Results:
Positive Parenting Practices Scales (N=174)
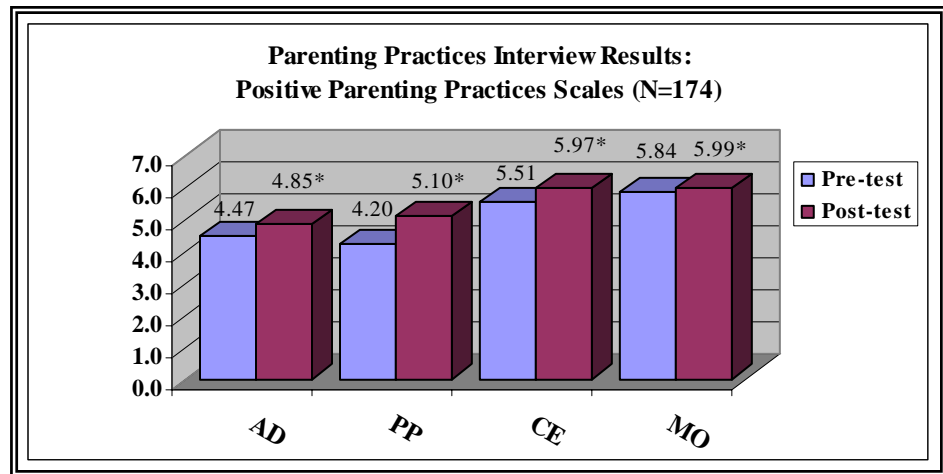
were small at .20 for Monitoring (MO), moderate at 0.42 for Appropriate Discipline (AD) and 0.45 for Clear Expectations (CE), and large at 0.72 for Positive Parenting (PP).

Parents' use of positive parenting practices increased significantly during The Incredible Years parent program.

For negative parenting practices, the three sub-scales are: (1) Harsh Discipline or HD (e.g., "when your child misbehaves, how often do you give your child a spanking?"), (2) Harsh for Age or HFA (e.g., "when your child misbehaves, how often do you send child to room for at least 60 minutes?"), and Inconsistent Discipline or ID (e.g., "if you ask your child to do something and she does not do it, how often do you give up trying to get him/her to do it?").

All items are rated on a 7-point scale, with 1 = "never," 4 = "about half the time," and 7 = "always." With regard to each negative parenting practices sub-scale, a decrease in the mean from

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pre-test to post-test indicates that parents are using less negative parenting techniques with their children.

Figure 9

Results indicate that there was a significant decrease (p<.05) in harsh discipline from pre-test to post-test (large effect size, 0.68). The decrease in inconsistent discipline from pre-test to post-test was also significant (p<.05), and

Parenting Practices Interview Results:
Negative Parenting Practices Scales (N=174)

	Pre-test	Post-test
HD	2.52	2.04*
HFA	1.80	1.81
ID	3.09	2.47*
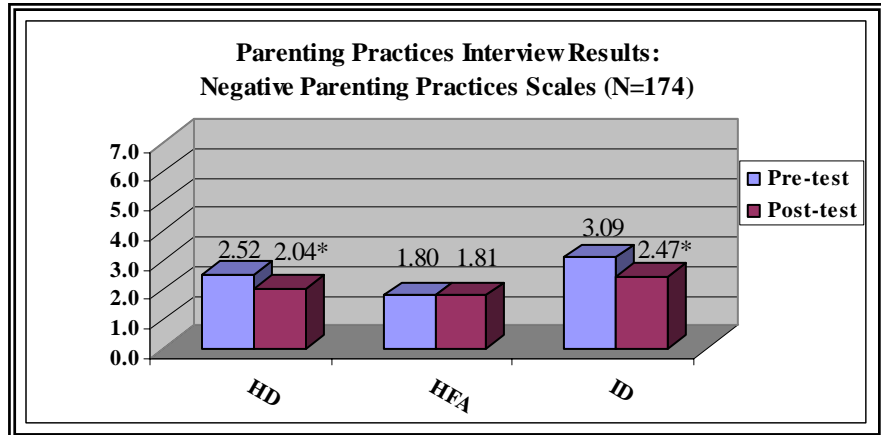
the effect size was large (.73). There was essentially no change from pre-test to post-test in the use of discipline that was harsh for age (see Figure 9).

> **Parents' use of negative parenting practices decreased significantly during The Incredible Years parent program.**

Fidelity to The Incredible Years Model

How well the BASIC Parent Training Program in Colorado adhered to the model program was assessed through observer ratings and checklists that parent group leaders completed at the end of each unit. These measures are recommended by IY program developers.

Direct observations by IIK Parent Program Staff were made during each 12 week series. Depending on the implementation experience of the group leaders, a minimum of one and in most cases two to three observations were made for each of the 22 of the Parent Groups participating in the evaluation. The *Implementation/Quality of Parent Group Leader Process Measure* rated group leaders on specific components of conducting the group: (1) how well the leader reviewed parent's home activities, such as helping parents integrate prior learning or exploring how to adapt the homework activities, (2) how well leaders begin the topic for the day, using open-ended questions and paraphrasing, (3) how well leaders show the vignettes, such as allowing for discussion and focusing parents, (4) how well leaders direct the practice and role-play rehearsal components, and (5) how

well leaders end the group, such as summarizing and reviewing the home activity sheet. In addition, Observers rated the two group leaders on their skills and knowledge of: (6) leader and group process skills, such as encouraging everyone to participate and reinforcing ideas, (7) leadership skills, such as helping group focus on the positive, (8) leader relationship-building skills, such as validating and supporting parents' feelings, (9) leader knowledge, such as explaining rationale for principles covered and demonstrating accurate knowledge of child development, (10) parents' responses, and (11) overall implementation, which included knowledge of the curriculum content and key concepts and fidelity to presentation methods.

Group leaders were rated on a scale from 1 to 5, with 1 = "not well," 3 = "well," and 5 = "extremely well." Mean scores for the seven scales, as well as a total mean score, are shown in Table 7. Overall, parent group leaders were rated "well" to "very well" with regard to implementation quality. In general, group leaders were rated higher in the areas of skills and knowledge than on specific aspects related to conducting each group.

Table 5: Observer Ratings of Parent Group Leaders Implementation Quality

Parent Group Implementation Quality Scales	Scale	Group Mean
Review Parents' Home Activities (RP)	*1 = Not Well;* *2 = Moderately Well;* *3 = Well;* *4 = Very Well;* *5 = Extremely Well*	3.50
When Beginning the Topic for the Day (WB)		3.09
When Showing Vignettes (WS)		3.69
Practice and Role Play Rehearsal (PR)		3.40
Ending Group (EG)		3.09
Leader and Group Process Skills (LG)		3.80
Leader Leadership Skills (LL)		3.54
Leader Relationship Building Skills (LR)		3.89
Leader Knowledge (LK)		3.45
Parents' Responses (PR)		4.05
Overall Implementation (OI)		3.80
Total Mean Score for 1-5 Scales		3.61
Set-Up (SU)	*0 = Low Quality;* *1 = High Quality*	0.87
End Session on Time (ES)		0.94

In addition to observer ratings, each set of parent group leaders completed a checklist at the end of each session. Twenty-three parent group leaders completed the *Leader Checklists*. Results show

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that, overall, group leaders completed an average of 60.9% of the vignettes (see Figure 10) and 92.9% of the session agenda items (see Figure 11) per session. The higher the percentages of program components completed, the higher the level of fidelity of implementation of the Parent Group Training. The intended goal for this program is 80%. The percentage of session agenda items covered was close to 90% for all sessions. The percentage of video vignettes completed was over 50% for all sessions, and over 60% for half of the sessions.

Figure 10

Parent Group Leader Fidelity to Incredible Years Curriculum:
Percentage of Vignettes Covered (n=23)

Figure 11

Parent Group Leader Fidelity to Incredible Years Curriculum:
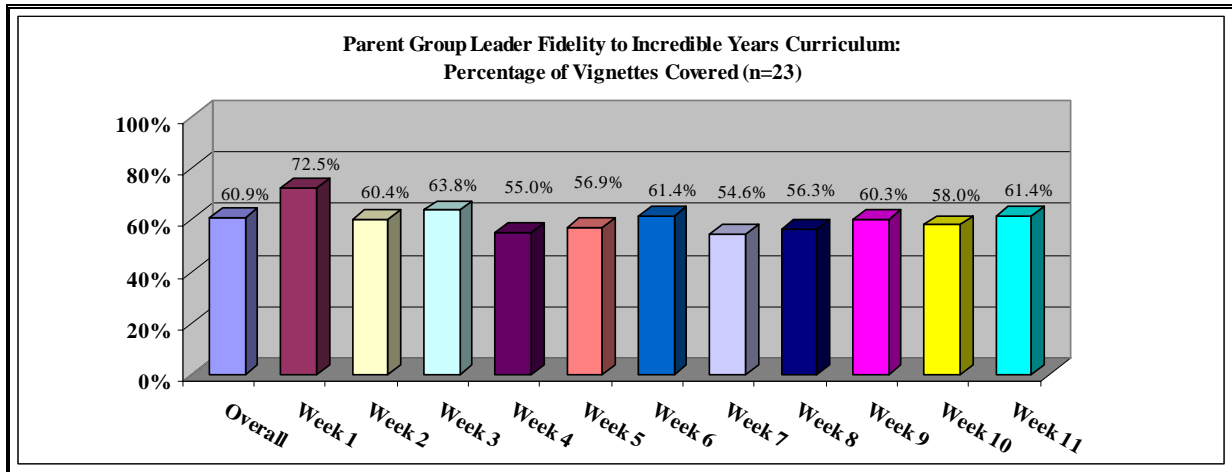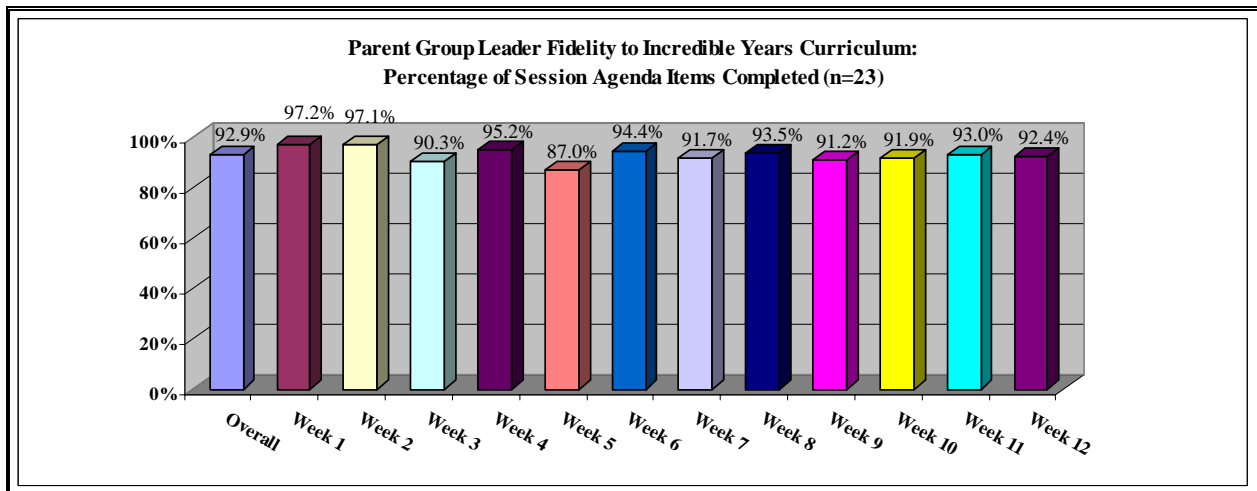Percentage of Session Agenda Items Completed (n=23)

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Fidelity to the IY Model and its Relationship to Parenting Outcomes

A key evaluation question related to program fidelity is: Do parents in groups with a higher level of fidelity to The Incredible Years Parent Training Program curriculum show greater gains in parenting practices during the program year?

Hierarchical Linear Modeling, or HLM (a method of analysis described earlier in this report), was also used to answer this question. In this case, analyses examined whether group-level differences in group leader fidelity to The Incredible Years parent training curriculum had an effect on changes in individual-level differences in parent practices.

Parents reported on their own parenting practices at pre-test and post-test using the *Parenting Practices Interview* (PPI) questionnaire. The PPI contains 14 groups of questions assessing parents' discipline and parenting practices. Responses to each group of questions are on differing scales. Question groups are broadly categorized into positive parenting scales and negative parenting scales. The positive parenting scales include Appropriate Discipline, Positive Parenting, Clear Expectations, and Monitoring. The negative parenting scales include Harsh Discipline, Harsh for Age, and Inconsistent Discipline. At both pre-test and post-test, we calculated a total PPI score for each parent based on the average of 6 of 7 of these scales. The Harsh for Age scale was excluded from these analyses as virtually no change was found in simple pre-test to post-test comparisons of the data. For this total PPI score, the two remaining negative parenting scales (Harsh Discipline and Inconsistent Discipline) were reverse-scored so that higher values on the total score reflected better parenting practices. An overall PPI change score was created for each parent by subtracting the pre-test total score from the post-test total score.

Using HLM analyses, no evidence was found linking fidelity to the Parent Training curriculum to positive changes in parenting practices over the program year. For the LUC, this lack of association between fidelity and parenting practices can be expressed statistically as *t-ratio* = -.253 (*df* = 16), *p* = *n.s.* For the LIQ, the lack of association can be expressed statistically as *t-ratio* = -.322 (*df* = 16), *p* = *n.s.* There are a number of possible reasons explaining this lack of association. First, the sample size was rather small. With only 23 parent groups and an average of about 7 participants per group, it would be difficult to find statistically significant results. Second, most parent group leaders showed high fidelity to The Incredible Years model, therefore, there were few differences between groups to be able to predict differences in parenting practices outcomes. Finally, a preliminary statistical examination of the data prior to using HLM revealed that, in general, very little

of the explanation for individual differences in parenting practices changes during the program year would be attributable to group-level differences, with most explanatory power coming from individual parent-level differences. In other words, efforts to explain better or worse changes in parenting practices were more strongly associated with differences among parents themselves rather than differences between groups and group leaders.

Parents' Satisfaction with The Incredible Years BASIC Parent Training Program

Parents were asked to evaluate the IY program each week and then again at the completion of the program. The weekly evaluation asked parents to rank (1) the content of the session, (2) the videotaped examples, (3) the group leaders' teaching, and (4) the group discussion as either "not helpful, "neutral," "helpful," or "very helpful." Results (shown in Figure 12) show that parents rated each session highly, with the highest average rating in week 11. Average responses for each question and session are presented in Appendix C.

Figure 12
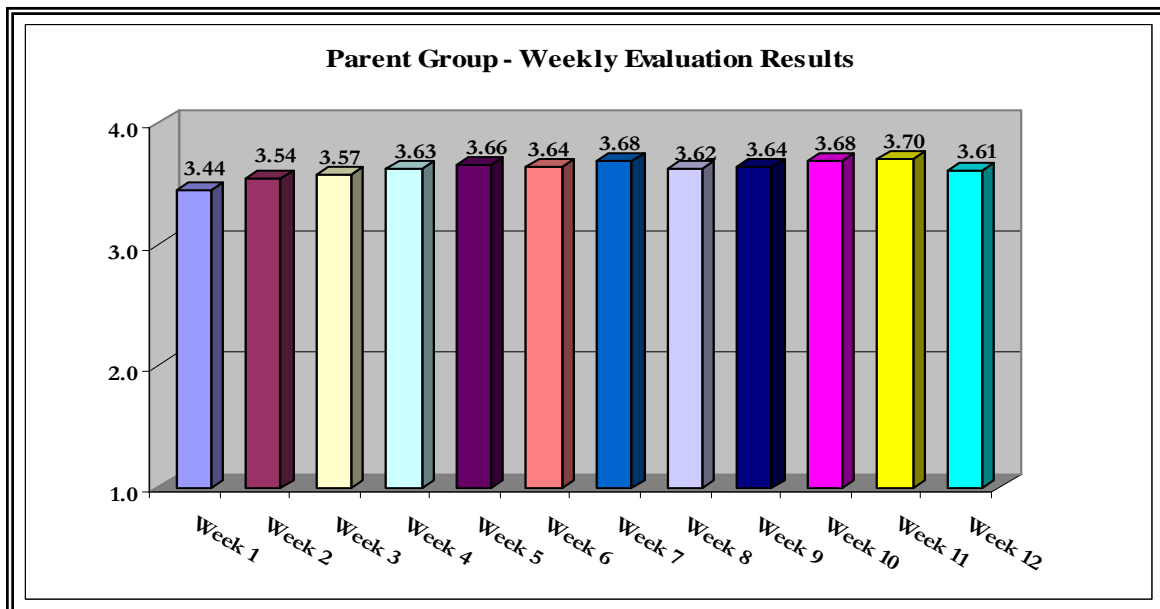
In addition to the weekly evaluations, parents were asked to complete a satisfaction questionnaire at the completion of the program. The *Parent Satisfaction Questionnaire* is divided into five sub-scales, which ask about parents' satisfaction with the: (1) overall program, (2) teaching format, (3) specific parenting techniques, (4) parent group leaders, and (5) other parent group members/their parent group itself. Responses to some of the questions are reported below, and responses to all questions can be found in Appendix C.

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All items are rated on a 7-point scale; for each item, the higher the number, the more positive the response. Therefore, for each sub-scale, an increase in the mean from pre-test to post-test indicates that parents are using more positive parenting techniques with their children.

The following description highlights responses to selected questions from each of the sub-scales. Please refer to Appendix D for responses to all of the questions. For the Overall Program sub-scale, when asked if the problem(s) that originally prompted the parent to take this program had improved for their child, close to 90% responded "improved" or "greatly improved." Moreover, almost all (96.7%) responded that they would "recommend" or "strongly recommend" the program to a friend or relative.

With regard to Teaching Format, the majority (93.6%) reported that the content of information was "useful" or "extremely useful." Almost all also responded "useful" or "extremely useful" when asked about group discussions of parenting skills (97.8%), practice of play skills at home with their child (93%), reading a chapter from the book (86.1%), and weekly handouts (88.5%). In contrast, only 45.9% found "buddy calls" to be useful or extremely useful.

Almost all parents (97.3%) responded that they found the overall group of specific parenting techniques to be "useful" or "extremely useful." Ninety-nine percent reported that using praise was "useful" or "extremely useful," and that time out was rated as the least effective technique, with 78.1% responding that it was "useful" or "extremely useful."

Moreover, almost all parents (94.3%; average for two leaders) found their leaders' teaching to be "high" or "superior," and responded that their leader was either "helpful" or "extremely helpful" (98.6%; average for two leaders). When asked about their parent group, almost all (96.7%) found their group to be "supportive" or "very supportive," and more than half (57.7%) reported that it was "likely" or "very likely" they will continue to meet with one or more of the parents in the group. Clearly, as responses to the survey indicate, parents were very satisfied with the Parenting Program they attended, overall.

Parents were also asked, "What was most helpful about The Incredible Years Program?" Parents' responses indicate that learning parenting strategies, such as praising and play, helped them the most (44% of comments were related to this aspect). Sharing and discussion with other parents was also helpful for many of them (17% of comments reported this aspect). Parents appreciated knowing that they are "not alone" in their parenting challenges (12% of comments), and many parents simply stated everything about the program was helpful (12% of comments). The remaining

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15% included comments regarding learning more about themselves (5%), instructors being helpful (7%), understanding their children better (2%), and books and videos being helpful (2%).

The following comments, taken from the *Parent Satisfaction Questionnaire*, illustrate what some parents had to say about the program as well as what they learned:

❖ "It gave me very useful techniques for dealing w/ behavior problems, but most importantly I learned ways of interacting with my children that prevented the bad behaviors from even occurring. It also helped me understand the way that children think, and understand their behaviors a little better. I feel like I have better tools to be a better parent."

❖ "I'm not sure if my son's behavior has changed drastically although he is getting better. However my reaction to his bad behavior has improved greatly."

❖ "For me the most helpful part was just simply learning that if I make more of an effort to praise and play with my children, more positive rewarded behavior results. It seems so simple, but you really don't get it until you get it :)"

❖ "Having the support system in group to go along with the book. Being able to feel normal about not being perfect, other families have the same problems."

❖ "This class taught me how to control my anger."

❖ "Interacting with other parents and finding out that we weren't alone! Learning techniques which led to me being a more aware parent."

Ninety-seven percent of parents reported that they would recommend the program to a friend or relative.

DISCUSSION

The Incredible Years is designed to enhance social competence and reduce aggression in young children aged three to eight years. The goals of this evaluation were to assess: (1) the overall effectiveness of The Incredible Years in early childhood care and education settings in Colorado and (2) the critical implementation factors associated with program success in these settings. Results of the evaluation will be discussed for the Dinosaur School Program first, and then the BASIC Parent Training Program.

Dinosaur School Program

Results indicate a significant increase from pre-test to post-test in the social competence of young children who are taking part in the Dinosaur School Program. Overall, significant positive change was reported for all three aspects of social competence that were measured: prosocial/ communication skills, emotion regulation skills, and academic skills. Moreover, children who were rated as "below average" or "average" in social competence at the beginning of the Dinosaur School Program showed significant gains over the course of the school year.

There was a corresponding change in teachers' confidence with managing classroom behavior and using positive strategies with the children in their classroom. However, there was no change in levels reported for working with parents, positive approaches being used with parents, or using fewer inappropriate strategies. These areas may not be targeted by The Incredible Years program to the extent other areas are and may, therefore, be less likely to show results.

The majority of teachers reported a high level of satisfaction with the Dinosaur School program. Most indicated that it was easy to integrate the program into their regular curriculum, that the program met their goals for child social and emotional development, and that they were likely to conduct small group activities during the next year. Most teachers also reported that they were prepared to deliver the program on their own in the future.

Despite their positive response to the program, only about half of the teachers responded that the workload involved in implementing the curriculum was "realistic." In addition, teachers reported completing an average of 62% of the lessons. Nevertheless, ratings of teachers observed in the classroom were favorable, indicating that there was a high quality of classroom implementation.

Teachers also reported covering an average of 80% of the session agenda items. Overall, teachers were rated "well" and "very well" with regard to implementation quality.

The link between implementation and child outcomes was strong: Children in classrooms with a higher level of observed fidelity to The Incredible Years model program showed greater gains in social competence, as expected.

BASIC Parent Training Program

Parents participating in the BASIC Parent Training Program reported a significant increase in child social competence for both prosocial/communication skills and emotion regulation skills. This mirrors the positive change reported by teachers for children in their classes. Parents also reported positive changes in their parenting practices from pre-test to post-test as measured by an increase in their use of appropriate discipline, monitoring, positive parenting and clear expectations, and a decrease in harsh discipline and inconsistent discipline. The only parenting practice that did not show any change was the Harsh for Age scale of the *Parenting Practices Interview*. The ethnic diversity of parent participants is noteworthy; 37.5% of parents were of Mexican/Hispanic/Latino origin and over 25% of participants spoke Spanish as their first language.

On average, group leaders covered only 62% of the vignettes but completed 92% of the weekly session agenda items, and IIK staff ratings of parent leaders observed in their groups were favorable. Overall, group leaders were rated "well" and "very well" with regard to implementation quality. The link between implementation and parenting outcomes could not be made with the data from this year's evaluation. However, this may be due to the relatively small sample size, as well as lack of variability in the observed implementation quality scores.

Parent satisfaction with all aspects of the program was high. Indeed, over 90% of parents reported that the problem(s) that originally prompted them to take the program had "improved" or "greatly improved." Moreover, nearly 100% of parents reported that they would recommend the program to a friend or relative.

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Appendix A

2007-2008 Invest in Kids Final Report Appendix A
Teacher Strategies and Behaviors Results

As noted in the report, teachers completed self-report descriptions of their own teaching strategies and behaviors. Across the seven categories of teaching strategies and behaviors, the teachers' self-reports indicate overall positive teaching strategies and behaviors, which are reflected in the following results.

Managing Classroom Behavior

- 80% reported being "confident" to "very confident" in managing current behavior problems in the classroom

- 77% reported being "confident" to "very confident" in their ability to manage future behavior problems in the classroom

Praise and Incentives

- 94% commented on good behavior "often" to "very often"

- 43% rewarded good behavior with incentives "often" to "very often"

- 93% praised good behavior "often" to "very often"

- 35% used group incentives "often" to "very often"

- 36% used special privileges "often" to "very often"

- 24% set up individual incentive programs "often" to "very often"

Proactive Strategies

- 88% used problem-solving strategies "often" to "very often"

- 81% used anger management strategies "often" to "very often"

- 92% prepared children for transitions "often" to "very often"

- 93% gave clear positive directions "often" to "very often"

- 85% used a clear classroom discipline plan "often" to "very often"

- 78% labeled (described) children's feelings "often" to "very often"

- 5% used green-yellow-red light as a warning system "often" to "very often"

Useful Limit-Setting Strategies

- 22% used Time Out (Time Away) for destructive behavior "often" to "very often"

- 53% ignored misbehavior that was non-disruptive to the class "often" to "very often"

- 86% used verbal redirection for child who was disengaged "often" to "very often"

- 57% warned of consequences for misbehavior "often" to "very often"

- 60% used nonverbal signals to redirect child who was disengaged "often" to "very often"

Inappropriate Strategies

- 12% described or commented on bad behavior "often" to "very often"

- 4% singled out a child or a group of children for misbehavior "often" to "very often"

- 0% used physical restraint "often" to "very often"

- 9% used comments in a loud voice "often" to "very often"

- 0% used in-house suspensions "often" to "very often"

- 1% threatened to send child out of classroom if s/he didn't behave "often" to "very often"

- 1% sent child home for misbehavior

- 1% called parents to report bad behavior "often" to "very often"

- 6% sent home notes to report problem behavior to parent "often" to "very often"

Positive Approaches With Parents

- 28% made home visits "often" to "very often"

- 23% held parent support groups "often" to "very often"

- 64% sent newsletters home "often" to "very often"

- 30% sent notes home about positive behavior "often" to "very often"

- 2% called child after a bad day "often" to "very often"

- 11% took a student interest survey "often" to "very often"

- 15% called parents to report good behavior "often" to "very often"

Working With Parents

- 43% promoted parent involvement "1x/week" to "daily"

- 19% taught parenting skills "1x/week" to "daily"

APPENDIX A

- 26% collaborated with parents on home-school behavior programs "1x/week" to "daily"

- 6% held extra parent conferences for particular problems "1x/week" to "daily"

- 47% involved parents in special activities to do with child at home "1x/week" to "daily"

- 55% developed parent partnerships "1x/week" to "daily"

- 41% asked parents to volunteer in classroom "1x/week" to "daily"

- 92% talked to parents "1x/week" to "daily"

APPENDIX A

Appendix B

	Not at All (1)	Somewhat (2)	Neutral (3)	Easy (4)	Very Easy (5)	Mean Score
Q1. How easy was it to integrate the Dina School Program into your regular classroom curriculum?	0.0%	19.6%	8.7%	44.6%	27.2%	3.79

	Not at All (1)	Somewhat (2)	Neutral (3)	Well (4)	Very Well (5)	Mean Score
Q2. How well did the Dina School Program meet your goals for social and emotional development?	0.0%	5.4%	5.4%	47.8%	41.3%	4.25

	Not at All (1)	Somewhat (2)	Neutral (3)	Well (4)	Very Well (5)	Mean Score
Q3. How well did the Dina School Program meet your goals for enhancing emergent literacy, reading and writing skills?	4.4%	23.1%	29.7%	37.4%	5.5%	3.16

	Not at All (1)	Somewhat (2)	Neutral (3)	Prepared (4)	Very well prepared (5)	Mean Score
Q4. Do you feel prepared to implement the Dina School Program on your own next year?	0.0%	5.4%	9.8%	46.7%	38.0%	4.17

	Not at All (1)	Somewhat (2)	Neutral (3)	Involved (4)	Very Involved (5)	Mean Score
Q5. How involved were your students' parents in the Dina School Program?	13.0%	33.7%	18.5%	31.5%	3.3%	2.78

	Not at All (1)	Somewhat (2)	Neutral (3)	Mostly (4)	Definitely (5)	Mean Score
Q6. Did you think the content and activities of the program were developmentally appropriate and individualized as needed?	1.1%	12.1%	12.1%	54.9%	19.8%	3.80

	Not at All (1)	Somewhat (2)	Neutral (3)	Important (4)	Definitely Important (5)	Mean Score
Q7. How important were the homework activities for the students?	16.7%	24.4%	31.1%	20.0%	7.8%	2.78

	Not at All (1)	Somewhat (2)	Neutral (3)	Likely (4)	Very Likely (5)	Mean Score
Q8. How likely are you to do the small group activities next year?	1.1%	10.9%	7.6%	42.4%	38.0%	4.05

	Unrealistic (1)	Somewhat Unrealistic (2)	Neutral (3)	Realistic (4)	Very Realistic (5)	Mean Score
Q10. What did you think about the workload involved in implementing this curriculum?	5.7%	13.6%	30.7%	43.2%	6.8%	3.32

	Not at All (1)	Possibly (2)	Neutral (3)	Definitely (4)	Most Definitely (5)	Mean Score
Q11. Would you like ongoing training?	12.8%	20.9%	19.8%	32.6%	14.0%	3.14

	None (1)	Twice a year (2)	Quarterly (3)	Monthly (4)	Weekly (5)	Mean Score
Q12. How much technical assistance/coaching did you receive?	5.1%	30.4%	38.0%	25.3%	1.3%	2.87

	Not Helpful (1)	Neither Helpful nor Unhelpful (2)	Somewhat Helpful (3)	Helpful (4)	Very Helpful (5)	Mean Score
Q13. How helpful were the classroom visits and technical assistance/coaching?	1.2%	10.7%	21.4%	45.2%	21.4%	3.75

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	Not at All (1)	Somewhat (2)	Neutral (3)	Easy (4)	Very Easy (5)	Mean Score
Q1. How easy was it to integrate the Dina School Program into your regular classroom curriculum?	0.0%	14.3%	20.0%	51.4%	14.3%	3.66

	Not at All (1)	Somewhat (2)	Neutral (3)	Well (4)	Very Well (5)	Mean Score
Q2. How well did the Dina School Program meet your goals for social and emotional development?	0.0%	2.9%	14.3%	57.1%	25.7%	4.06

	Not at All (1)	Somewhat (2)	Neutral (3)	Well (4)	Very Well (5)	Mean Score
Q3. How well did the Dina School Program meet your goals for enhancing emergent literacy, reading and writing skills?	4.3%	17.1%	34.3%	40.0%	4.3%	3.23

	Not at All (1)	Somewhat (2)	Neutral (3)	Prepared (4)	Very well prepared (5)	Mean Score
Q4. Do you feel prepared to implement the Dina School Program on your own next year?	0.0%	18.6%	21.4%	45.7%	14.3%	3.56

	Not at All (1)	Somewhat (2)	Neutral (3)	Involved (4)	Very Involved (5)	Mean Score
Q5. How involved were your students' parents in the Dina School Program?	15.9%	26.1%	17.4%	36.2%	4.3%	2.87

	Not at All (1)	Somewhat (2)	Neutral (3)	Mostly (4)	Definitely (5)	Mean Score
Q6. Did you think the content and activities of the program were developmentally appropriate and individualized as needed?	1.4%	8.6%	21.4%	54.3%	14.3%	3.71

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	Not at All (1)	Somewhat (2)	Neutral (3)	Important (4)	Definitely Important (5)	Mean Score
Q7. How important were the homework activities for the students?	17.4%	18.8%	29.0%	24.6%	10.1%	2.91

	Not at All (1)	Somewhat (2)	Neutral (3)	Likely (4)	Very Likely (5)	Mean Score
Q8. How likely are you to do the small group activities next year?	4.3%	8.6%	15.7%	45.7%	25.7%	3.80

	Unrealistic (1)	Somewhat Unrealistic (2)	Neutral (3)	Realistic (4)	Very Realistic (5)	Mean Score
Q10. What did you think about the workload involved in implementing this curriculum?	0.0%	16.7%	41.7%	38.3%	3.3%	3.28

	Not at All (1)	Possibly (2)	Neutral (3)	Definitely (4)	Most Definitely (5)	Mean Score
Q11. Would you like ongoing training?	8.3%	20.0%	30.0%	35.0%	6.7%	3.12

	None (1)	Twice a year (2)	Quarterly (3)	Monthly (4)	Weekly (5)	Mean Score
Q12. How much technical assistance/coaching did you receive?	9.1%	25.5%	38.2%	14.5%	12.7%	2.96

	Not Helpful (1)	Neither Helpful nor Unhelpful (2)	Somewhat Helpful (3)	Helpful (4)	Very Helpful (5)	Mean Score
Q13. How helpful were the classroom visits and technical assistance/coaching?	6.8%	18.6%	22.0%	35.6%	16.9%	3.37

APPENDIX B

Appendix C

Session 1 (*n* range = 187-240)	
I found the content of the session…	3.45
I feel the videotape examples were…	3.20
I feel the group leader's teaching was…	3.60
I found the group discussion to be…	3.47

Session 2 (*n* range = 224-226)	
I found the content of the session…	3.53
I feel the videotape examples were…	3.39
I feel the group leader's teaching was…	3.67
I found the group discussion to be…	3.58

Session 3 (*n* range = 214-215)	
I found the content of the session…	3.55
I feel the videotape examples were…	3.35
I feel the group leader's teaching was…	3.74
I found the group discussion to be…	3.66

Session 4 (*n* range = 183-190)	
I found the content of the session…	3.63
I feel the videotape examples were…	3.42
I feel the group leader's teaching was…	3.74
I found the group discussion to be…	3.73

Session 5 (*n* range = 172-174)	
I found the content of the session…	3.66
I feel the videotape examples were…	3.45
I feel the group leader's teaching was…	3.75
I found the group discussion to be…	3.77

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Session 6 (*n* range = 156-162)	
I found the content of the session…	**3.64**
I feel the videotape examples were…	**3.46**
I feel the group leader's teaching was…	**3.74**
I found the group discussion to be…	**3.71**

Session 7 (*n* range = 176-177)	
I found the content of the session…	**3.71**
I feel the videotape examples were…	**3.49**
I feel the group leader's teaching was…	**3.75**
I found the group discussion to be…	**3.76**

Session 8 (*n* range = 170-172)	
I found the content of the session…	**3.59**
I feel the videotape examples were…	**3.47**
I feel the group leader's teaching was…	**3.73**
I found the group discussion to be…	**3.70**

Session 9 (*n* range = 155-156)	
I found the content of the session…	**3.65**
I feel the videotape examples were…	**3.46**
I feel the group leader's teaching was…	**3.76**
I found the group discussion to be…	**3.66**

Session 10 (*n* = 137)	
I found the content of the session…	**3.68**
I feel the videotape examples were…	**3.51**
I feel the group leader's teaching was…	**3.77**
I found the group discussion to be…	**3.74**

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Session 11 (*n* range = 125-126)	
I found the content of the session…	3.69
I feel the videotape examples were…	3.56
I feel the group leader's teaching was…	3.78
I found the group discussion to be…	3.79

Session 12 (*n* range = 87-116)	
I found the content of the session…	3.59
I feel the videotape examples were…	3.43
I feel the group leader's teaching was…	3.68
I found the group discussion to be…	3.70

APPENDIX C

Appendix D

A: "The Overall Program" Scale

	Considerably Worse (1)	Worse (2)	Slightly Worse (3)	The Same (4)	Slightly Improved (5)	Improved (6)	Greatly Improved (7)	Mean Score
A1: The problem(s) that originally prompted me to take this program for my child is (are):	0.6%	0.0%	0.6%	2.2%	7.9%	47.2%	41.6%	6.25
A2: My child's problems which I/we have tried to change using the methods presented in this program are:	0.0%	0.0%	0.0%	2.8%	8.3%	45.9%	43.1%	6.29

	Very Dis-satisfied (1)	Dis-satisfied (2)	Slightly Dissatisfied (3)	Neutral (4)	Slightly Satisfied (5)	Satisfied (6)	Greatly Satisfied (7)	Mean Score
A3: My feelings about my child's progress are that I am:	1.1%	1.1%	0.0%	2.2%	2.8%	45.0%	47.8%	6.31

	Hindered much more than helped (1)	Hindered (2)	Hindered Slightly (3)	Neither helped nor Hindered (4)	Helped Slightly (5)	Helped (6)	Helped Very Much (7)	Mean Score
A4: To what degree has the program helped with personal /family problems not directly related to your child?	0.6%	0.0%	0.6%	5.0%	11.0%	42.0%	40.9%	6.15

	Very Pessimistic (1)	Pessimistic (2)	Slightly Pessimistic (3)	Neutral (4)	Slightly Optimistic (5)	Optimistic (6)	Very Optimistic (7)	Mean Score
A5: My expectation for good results from The Incredible Years Program is:	0.6%	0.6%	1.1%	4.4%	2.2%	38.1%	53.0%	6.34

	Very Inappropriate (1)	Inappropriate (2)	Slightly Inappropriate (3)	Neutral (4)	Slightly Appropriate (5)	Appropriate (6)	Very Appropriate (7)	Mean Score
A6: I feel that the approach used to change my child's problems in this program is:	0.0%	0.5%	0.5%	1.1%	1.1%	40.7%	56.0%	6.49

	Strongly Not Recommended (1)	Not Recommended (2)	Slightly Not Recommended (3)	Neutral (4)	Slightly Recommended (5)	Recommended (6)	Strongly Recommended (7)	Mean Score
A7: Would you recommend the program to a friend or relative?	0.5%	0.5%	0.0%	0.5%	1.6%	24.3%	72.4%	6.65

	Very Unconfident (1)	Unconfident (2)	Slightly Unconfident (3)	Neutral (4)	Slightly Confident (5)	Confident (6)	Very Confident (7)	Mean Score
A8: How Confident are you in managing current behavior problems at home?	0.0%	0.5%	0.5%	0.5%	4.9%	47.8%	45.6%	6.36
A9: How confident are you in managing future behavior problems at home using what you learned from this program?	0.0%	0.0%	0.0%	1.6%	4.3%	47.8%	46.2%	6.39

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	Very Negative (1)	Negative (2)	Slightly Negative (3)	Neutral (4)	Slightly Positive (5)	Positive (6)	Very Positive (7)	Mean Score
A10: My overall feeling about achieving my goal in this program for my child/family is:	0.5%	0.0%	0.5%	1.6%	2.7%	34.9%	59.7%	6.49

	Mean Score
Scale A: "The Overall Program"	6.37

B: "Teaching Format" Scale

	Extremely Useless (1)	Useless (2)	Slightly Useless (3)	Neutral (4)	Somewhat Useful (5)	Useful (6)	Extremely Useful (7)	Mean Score
B1: Content of information presented was:	1.1%	0.0%	0.0%	1.1%	4.3%	32.3%	61.3%	6.49
B2: Demonstration of parenting skills through use of videotape vignettes was:	1.1%	1.1%	2.2%	4.9%	13.0%	40.0%	37.8%	5.99
B3: Group discussion of parenting skills was:	0.5%	0.0%	0.0%	0.5%	1.1%	24.7%	73.1%	6.68
B4: Practice of play skills at home with your child was:	0.5%	0.0%	0.0%	1.1%	5.4%	34.8%	58.2%	6.48
B5: Other home activities were:	0.5%	0.0%	0.5%	1.1%	1.6%	27.9%	68.3%	6.60
B6: Reading chapters from the book was:	0.6%	0.6%	0.0%	6.1%	6.7%	45.3%	40.8%	6.17
B7: If you used the CD/audiotape of the chapter, did you find them:	22.0%	0.0%	0.0%	25.8%	3.2%	32.3%	36.6%	5.71
B8: Weekly handouts were:	0.5%	0.0%	0.0%	1.1%	9.8%	46.4%	42.1%	6.27

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	Extremely Useless (1)	Useless (2)	Slightly Useless (3)	Neutral (4)	Somewhat Useful (5)	Useful (6)	Extremely Useful (7)	Mean Score
B9: I found the "buddy calls" to be:	2.5%	6.3%	1.9%	32.1%	11.3%	26.4%	19.5%	5.01
B10: Use of practice or role plays during group sessions were:	2.8%	1.7%	2.8%	10.6%	20.7%	31.8%	29.6%	5.59
B11: Phone calls from group leaders were:	0.7%	2.0%	0.0%	24.0%	10.0%	36.0%	27.3%	5.58

	Mean Score
Scale B: "Teaching Format"	6.09

C: "Specific Parenting Techniques" Scale

	Extremely Useless (1)	Useless (2)	Slightly Useless (3)	Neutral (4)	Somewhat Useful (5)	Useful (6)	Extremely Useful (7)	Mean Score
C1: Child-Directed Play	0.0%	0.0%	0.0%	2.8%	4.4%	41.4%	51.4%	6.41
C2: Descriptive Commenting	0.0%	0.0%	0.6%	1.7%	6.6%	41.4%	49.7%	6.38
C3: Praise	0.0%	0.0%	0.0%	0.5%	0.0%	20.3%	79.1%	6.78
C4: Rewards	0.5%	0.0%	0.0%	7.6%	7.6%	35.3%	48.9%	6.23
C5: Ignoring	0.5%	0.0%	0.5%	3.8%	12.6%	32.2%	50.3%	6.26
C6: Positive Commands	0.0%	0.0%	0.0%	0.5%	2.7%	43.5%	53.3%	6.49
C7: Time Out	0.5%	0.5%	0.5%	5.5%	14.8%	38.8%	39.3%	6.07
C8: Loss of Privileges, Logical Consequences	0.0%	0.0%	0.0%	5.5%	10.9%	37.2%	46.4%	6.25
C9: Problem solving with children	0.0%	0.0%	0.0%	1.7%	4.4%	51.7%	42.2%	6.34
C10: Problem solving with adults & teachers	0.0%	0.0%	0.0%	5.0%	5.6%	52.8%	36.7%	6.21
C11: Helping child control his/her anger	0.0%	0.0%	0.0%	4.9%	13.7%	42.9%	38.5%	6.15
C12: This Overall Group of Techniques	0.0%	0.0%	0.0%	1.6%	1.1%	38.6%	58.7%	6.54

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	Mean Score
Scale C: "Specific Parenting Techniques"	**6.35**

D. *"Evaluation of Parent Group Leaders" Scale*

Group Leader #1

	Very Poor (1)	Poor (2)	Slightly Below Ave. (3)	Average (4)	Slightly Above Ave. (5)	High (6)	Superior (7)	Mean Score
D1: I feel that the leader's teaching was:	0.0%	0.5%	0.0%	2.2%	2.2%	31.3%	63.7%	6.55
D2: The leader's preparation was:	0.0%	0.6%	0.6%	0.6%	2.8%	29.8%	65.7%	6.58

	Extremely Dissatisfied (1)	Dissatisfied (2)	Slightly Dissatisfied (3)	Neutral (4)	Slightly Satisfied (5)	Satisfied (6)	Extremely Satisfied (7)	Mean Score
D3: Concerning the leader's interest and concern in me and my child, I was:	0.6%	0.0%	0.0%	1.1%	0.0%	27.1%	71.3%	6.66

	Extremely Unhelpful (1)	Unhelpful (2)	Slightly Unhelpful (3)	Neutral (4)	Slightly Helpful (5)	Helpful (6)	Extremely Helpful (7)	Mean Score
D4: I feel the leader in the program was:	0.6%	0.0%	0.6%	0.0%	0.0%	25.4%	73.5%	6.70

Group Leader #2

	Very Poor (1)	Poor (2)	Slightly Below Ave. (3)	Average (4)	Slightly Above Ave. (5)	High (6)	Superior (7)	Mean Score
D1: I feel that the leader's teaching was:	0.0%	0.0%	0.0%	1.2%	4.7%	33.7%	59.9%	6.50
D2: The leader's preparation was:	0.6%	0.0%	0.0%	1.8%	2.9%	34.5%	60.2%	6.51

	Extremely Dissatisfied (1)	Dissatisfied (2)	Slightly Dissatisfied (3)	Neutral (4)	Slightly Satisfied (5)	Satisfied (6)	Extremely Satisfied (7)	Mean Score
D3: Concerning the leader's interest and concern in me and my child, I was:	0.6%	0.0%	0.0%	1.2%	2.3%	29.7%	66.3%	6.59

	Extremely Unhelpful (1)	Unhelpful (2)	Slightly Unhelpful (3)	Neutral (4)	Slightly Helpful (5)	Helpful (6)	Extremely Helpful (7)	Mean Score
D4: I feel the leader in the program was:	0.6%	0.0%	0.0%	0.6%	0.6%	29.7%	68.6%	6.64

	Mean Score
Scale D: "Evaluation of Parent Group Leaders" Combined Score	6.59

E. "Parent Group" Scale

	Very Unsupportive (1)	Unsupportive (2)	Somewhat Unsupportive (3)	Neutral (4)	Somewhat Supportive (5)	Supportive (6)	Very Supportive (7)	Mean Score
E1: I feel the group was:	0.5%	0.0%	0.0%	0.5%	2.2%	35.7%	61.0%	6.55

	Very Uninterested (1)	Uninterested (2)	Somewhat Uninterested (3)	Neutral (4)	Somewhat Interested (5)	Interested (6)	Very Interested (7)	Mean Score
E2: Concerning other group members' interest in me and my child, I felt they were:	0.0%	0.0%	0.0%	2.2%	6.5%	42.9%	48.4%	6.38

	Yes	No
E3: I would like to keep meeting as a group:	81.3%	18.7%

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	Highly Unlikely (1)	Unlikely (2)	Somewhat Unlikely (3)	Neutral (4)	Somewhat Likely (5)	Likely (6)	Very Likely (7)	Mean Score
E4: How likely is it that you will continue meeting with 1 or more of the parents in your group?	**3.8%**	**7.1%**	**4.9%**	**12.6%**	**13.7%**	**30.2%**	**27.5%**	**5.26**

	Mean Score
Scale E: "Parent Group" Scale (E1, E2, E3)	**6.07**

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