### Evaluation of The Incredible Years

September 2008 – August 2009



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#### **EXECUTIVE SUMMARY**

#### Introduction and Background

The mission of Invest in Kids (IIK) is to improve the health and well-being of vulnerable young children and families throughout Colorado. Working in partnership with local communities, it identifies, introduces, implements and ensures the success of research-based, proven programs. Todate, IIK has adopted three such programs: the Nurse-Family Partnership, the Good Behavior Game 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 third 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 and parent skills during the time they were involved in The Incredible Years programs. Teacher information and TA needs were measured using a survey at three points in time throughout the course of the program. Fidelity of implementation was assessed throughout the lifespan of the program, based on data collected from surveys completed by teachers 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.
- 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.

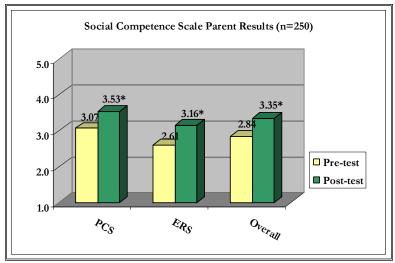
#### **BASIC Parent Training Program Results**

⇒ 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.

The increase in the mean from pretest to post-test for both scales (shown right) was significant as was the increase in the mean overall (p<.05).

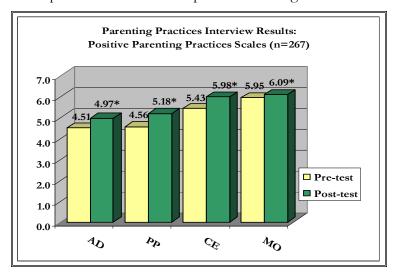


# ⇒ Parents' use of positive parenting practices increased during The Incredible Years parent program.

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 subscale, an increase in the mean from pre-test to post-test indicates that parents are using more

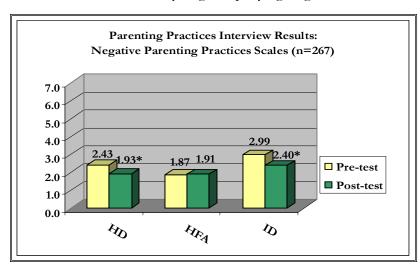
positive parenting techniques with their children.

There was a significant mean increase (p<.05) from pre-test to post-test (shown right) for all four of the positive parenting sub-scales.



# ⇒ 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.

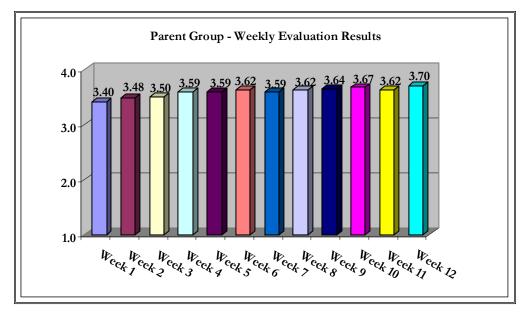
Results indicate that there was a decrease (p<.05) in harsh discipline and inconsistent discipline from pretest to post-test (shown left). There was essentially no change from pre-test to post-test in the use of discipline that was harsh for age.

# ⇒ 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. Thirty-three parent group leaders completed the Leader Checklist. The percentage of session agenda items covered was over 85% for all sessions. The percentage of video vignettes completed was close to 70% for all sessions, and over 80% for close to half of the sessions.

# ⇒ Parents rated each session of The Incredible Years parent program as "helpful" to "very helpful."

Parents were asked to evaluate the IY program each week. 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"=1, "neutral"=2, "helpful"=3 or "very helpful"=4. Results (shown below) show that parents rated each session highly, with the highest average rating in week 12.



# ⇒ 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 subscales, 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, 85.2% responded "improved" or "greatly improved." Moreover, almost all (96.1%) 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 (94%), practice of play skills at home with their child (86.1%), reading a chapter from the book (78.5%), and weekly handouts (80.8%). In contrast, only 42.6% found "buddy calls" to be useful or extremely useful.

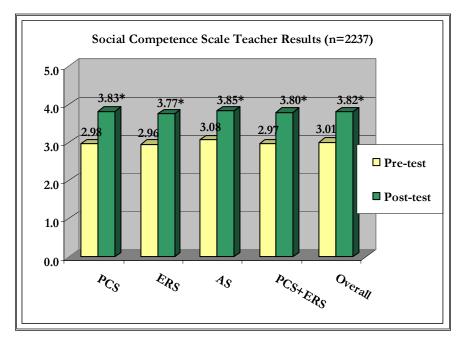
Nearly all parents (93.5%) responded that they found the overall group of specific parenting techniques to be "useful" or "extremely useful." Ninety-six percent reported that using praise was "useful" or "extremely useful," and that time out was rated as the least efficient technique, with 79.6% responding that it was "useful" or "extremely useful."

#### **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.

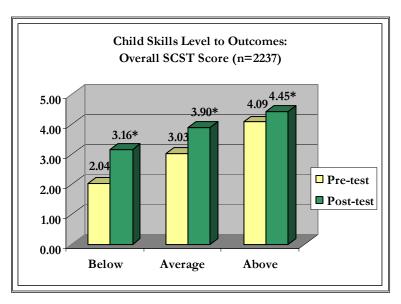
As is illustrated in the graph to the right, there was an overall statistically significant increase (p<0.05) in the mean rating of student skill from pre-test to post-test for each of the five scores reported for this measure.



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

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

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 (shown right). The greatest mean difference between pre- and post-test was found for those in the "below average" category (effect size was 1.52).



# ⇒ Overall, teachers were rated by observers as "well" with regard to implementation quality.

In addition to assessing fidelity to the curriculum, the *Teacher Process Rating Scale (TPRS)* also assessed how much TA teachers needed, based on observers' assessments. The same 9 scales measuring curriculum fidelity also assessed teachers' TA needs. The level to which the scale construct was completed/the level of TA needed was rated on a scale from 1 to 5, with 1 = "not well/I really need TA in this area," 2 = "moderately well/some TA would be helpful," 3 = "well/doing ok but could benefit from some TA," 4 = "very well/feeling pretty good," and 5 = "extremely well/I've got this!". As is shown below, observers reported teachers as doing "well" in each of the areas of program fidelity.

Continuous Scales (Observer-report)	Scale	Group Mean
Set Up (SU)	1 = Not Well; 2 = Moderately Well; 3 = Well; 4 = Very Well; 5 = Extremely Well	3.92
Starting Scale (SS)		3.82
Presenting Scale (PS)		3.74
Vignettes Scale (VS)		3.92
Small Group Scale (SG)		3.92
Promoting Scale (PS)		3.62
Review Scale (RS)		3.87
Responses Scale (RES)		3.83
Collaboration Scale (CS)		3.59
Total Mean Score 1-5 Item Scales		3.78

### ⇒ Teachers reported a high level of fidelity when administering key components of the IY curriculum.

On average, across all scales, teachers reported 94% compliance during administering essential curriculum items. Teachers reported out on the measure at three points during the school year. Scores for teachers averaged across all three rounds ranged from 80% compliance on the Review scale to 99% on the Responses scale. It should also be noted that teacher-reported compliance scores generally increased from Round 1 to Round 2 to Round 3, suggesting improvements in compliance as the program year progressed.

"Yes/No" Item Scales	Scale	R1 Group Mean	R2 Group Mean	R3 Group Mean	R 1,2,3 Group Mean
Set Up (SU)	$\theta = No$	0.97	0.98	1.00	0.98
Starting Scale (SS)	1 = Yes	0.95	0.96	0.98	0.96
Presenting Scale (PS)		0.96	0.97	0.99	0.97
Vignettes Scales (VS)		0.90	0.94	0.96	0.93
Small Group Scale (SG)		0.95	0.96	0.96	0.96
Promoting Scale (PS)		0.94	0.97	0.96	0.95
Review Scale (RS)		0.81	0.75	0.83	0.80
Responses Scale (RES)		0.99	1.00	1.00	0.99
Collaboration Scale (CS)		0.86	0.89	0.93	0.89
Total Mean Score for "Yes/No" Item Scales		0.92	0.93	0.96	0.94

# ⇒ 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.

Invest in Kids (IIK) was founded in 1998 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 Invest in Kids (IIK) is to improve the health and well-being of vulnerable young children and families throughout Colorado. Working in partnership with local communities, it identifies, introduces, implements and ensures the success of research-based, proven programs. To-date, IIK has adopted three such programs; the Nurse Family Partnership, The Incredible Years (IY), and, most recently, the Good Behavior Game. The Incredible Years program 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), respectively. 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 third 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 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 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 response 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, Dr. 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/Group Mean:** The mean (or arithmetic average) score of all the items (questions) in the scale. When the item responses are yes/no (yes=1; no=0), the overall mean reflects the percentage of respondents that indicated yes to the item.

**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.

**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 under .2. A small effect size is from .2 up to .5, while a medium effect size is between .5 and .8 and large effect sizes are .8 and above.

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.

#### **Program and Program Participants Overview**

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 2008-2009. This gives a snapshot of who the program is reaching across the state.

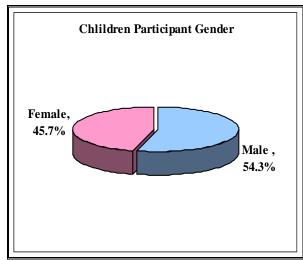
The child/teacher curriculum includes 60 different lessons, which are delivered two-to-three times weekly in each classroom. Two trained teachers co-lead the child curriculum using life-size puppets, engaging activities, cards and video vignettes, among other modalities. The lessons focus on helping 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.

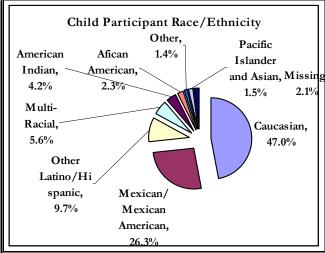
Dinosaur School trainers from Invest in Kids undergo an Incredible Years certification process involving approved training workshops, experience leading a group, peer review, and consultation with a certified mentor or trainer.

#### Description of Children

The total number of children reflected in this evaluation of the Dinosaur School program in 2008-2009 was 2,905. This is a 71% increase from 2007-2008. This number is based on the total number of completed child forms received by OMNI Institute. Of this total, 54.3 percent were boys and 45.7 percent were girls (see Chart 1 below). Teachers reported the race/ethnicity of the children in their classrooms as follows: 47% Caucasian, 26.3% Mexican/Mexican American, 9.7% Other Latino/Hispanic, 5.6% Multi-racial, 4.2% American Indian, 2.3% African American, 1.4% Other, and 1.5% Pacific Islander and Asian (see Chart 2 below). 2.1 percent of the race/ethnicity data were missing due to teachers not completing this item on the forms, in addition to other possible errors.

Chart 1 Chart 2





#### Description of Teachers

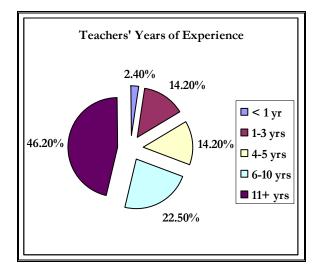
The total number of teachers reflected in this evaluation who received training and used the Dinosaur School curriculum for 2008-2009 was 338. Of these, 170 identified themselves as the Lead Teacher, 116 identified as Assistant Teacher/Para Professional and 47 identified themselves as Other (e.g. Counselor; Occupational Therapist; Mental Health Specialist). For the remainder of this report, Lead Teachers will be referred to as "Teachers" and Assistant Teachers/Paraprofessionals will be referred to as "Paraprofessionals" or "Paras." Descriptions of each are presented and shown below.

As shown in the table below, 46.2% of the teachers had eleven or more years of experience in early childhood or elementary education while just 14.7 % of paraprofessionals and 4.3% of those with an "Other" role had eleven or more years experience. Moreover, approximately 17.9% of the teachers reported having at least an Associate's degree, and 35.1% reported having earned at least a Bachelor's degree and nearly one-fourth (23.2%) reported having earned a Master's degree. Almost one-third (63.1%) of paraprofessionals reported completing some college and only 11.7% reported an Associate's degree or higher. Of those who reported "Other" as their role in the classroom, 91.5% reported having earned a Master's degree. Over two-thirds of the participating IY teachers were Caucasian (75%) with a mean age of 40 years. A little over half (54.9%) of participating paraprofessionals reported an ethnicity of Caucasian, while the next largest group was Mexican, Mexican American (14.2%). The mean age for paraprofessionals was 37 years. Of those whose role

was "other," 85.1% were Caucasian and the group had a mean age of 36. The standard length of training IIK provides for teachers and paraprofessionals is three days. Most teachers and paraprofessionals (76.1% and 74.8%, respectively) completed 3 days of Incredible Years training whereas 3.7% teachers and 9% of paraprofessionals reported receiving no training. The remaining group, with an "Other" role, received for the most part 3 days of training (93.6%) and a small percent received no training (6.4%).

Table 1 Series: Demographics for Teachers, Paraprofessionals and "Other" Participating in Dinosaur School (n=170 for teachers, n=116 for paraprofessionals and n=47 for other)

Years of experience in early childhood or elementary education	Less than 1 Year	1-3 Years	4-5 Years	6-10 Years	11+ Years
Teachers	2.4%	14.2%	14.2%	22.5%	46.2%
Paraprofessionals	8.6%	40.5%	15.5%	19.8%	14.7%
Other	0.0%	29.8%	27.7%	38.3%	4.3%



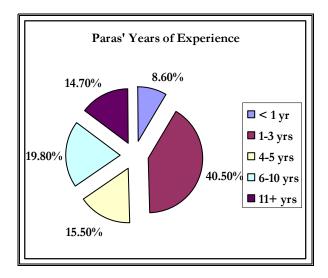
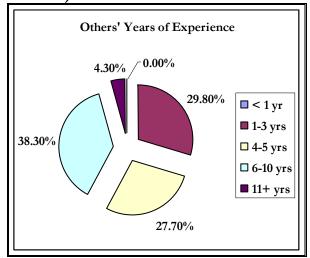


Table 1 Series cont.: Demographics for Teachers, Paraprofessionals and "Other" Participating in Dinosaur School (n=170 for teachers, n=116 for paraprofessionals and n=47 for other)



Ethnic Origin	Mexican/ Mexican- American	Other  Latino/ Hispanic	African American	Cauca sian	American Indian	Asian	Pacific Islander	Multi- Racial	Other
Teachers	7.1%	13.1%	0.0%	75.0%	3.0%	1.2%	0.0%	0.0%	.6%
Para- profession als	14.2%	11.5%	6.2%	54.9%	4.4%	3.5%	1.1%	4.4%	.9%
Other	0.0%	8.5%	0.0%	85.1%	0.0%	0.0%	0.0%	4.3%	2.1%

#### **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 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 implementation at the beginning, middle and end of the year.

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).

An experimental measure was implemented during this evaluation year in an attempt to assess fidelity in addition to gauging TA needs. With this experimental measure, fidelity was analyzed in relationship to changes in children's social competence to test whether increases in teachers' fidelity to the program resulted in greater improvements in children's social competence.

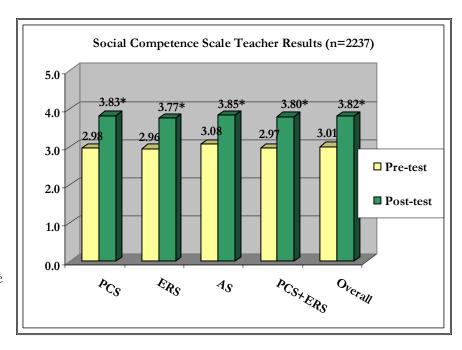
#### Child Outcomes

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.

#### Graph 1

As illustrated in Graph 1, overall there was a statistically significant increase (p<0.05) 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 0.87 to 0.96. This is noteworthy since effect sizes in social science research are 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.

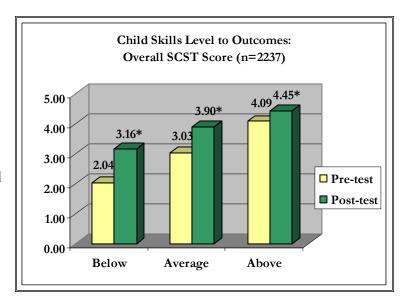
In addition to the overall change in children's social competence, the program also had a greater impact for children who began the year with lower scores, showing that the program may be most beneficial for children at highest risk for school failure. For analysis purposes, children were divided into 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 93.9%, 87.1%, and 73.2%, 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.

#### Graph 2

As shown in Graph 2, there was a statistically significant increase (p<.05) 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 1.74). 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.

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 the process rating scale that teachers completed at three time points during the year. These measures were based off of the recommended measures 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 in the third year and, in the fourth year and beyond, there will be no formal visits. One hundred twenty classrooms were observed at least once during the school year by trained staff from Invest in Kids. The *Teacher Process Rating Scale (TPRS)* rated teachers on whether they completed an action that is critical to implementing the IY program with fidelity and how well/how much TA they needed for that action. Actions were grouped into the following areas: (1) set up (such as, having children sit in a semi-circle, conveying enthusiasm about the lesson), (2) starting the circle time discussions (such as, beginning the lesson with an issue related to the day's topic), (3) presenting the new learning for the day (such as, using a style that is playful,

engaging, fun, and paced at children's level of attention, using puppets as active participants of the entire session), (4) showing the vignettes (such as, paraphrasing and highlighting the points made by children, making sure that children are attending when vignette is shown), (5) small group activities (such as using labeled praise for prosocial behaviors, use "dialog reading" or interactive reading style), (6) promoting skills (such as ignoring misbehavior, using team incentive approach), (7) review home activities and wrap up (such as, reviewing Detective Home Activities with the children, have puppets say goodbye, involve parents by sending home parent letters with homework), (8) children's responses (such as, children were enjoying themselves during small group activities), and (9) teacher collaboration/parent teacher involvement (such as, do teachers call parents to share something positive about their child). Teachers were first rated by observers on whether they completed the activity or not with 0 = "no" and 1 = "yes." Results are show in the Table 2 series below and full results of the *TPRS* are found in Appendix A.

Table 2 Series: Teacher Process Rating Scale results (IIK TA provider Observations n=120)

"Yes/No" Item Scales	Scale	Group Mean
Set Up (SU)	$\theta = No$	0.95
Starting Scale (SS)	1 = Yes	0.96
Presenting Scale (PS)		0.97
Vignettes Scales (VS)		0.81
Small Group Scale (SG)		0.90
Promoting Scale (PS)		0.96
Review Scale (RS)		0.88
Responses Scale (RES)		1.00
Collaboration Scale (CS)		0.94
Total Mean Score "Yes/No" Item Scales		0.94

<sup>\*\*</sup> Note: When a classroom had multiple forms and responses varied, an average was taken to get the score for the class.

In addition to observer ratings, teachers also completed the *TPRS* at three points in time during the school year: at the beginning of the year, the beginning of second semester and the end of the year. One hundred eighty-seven teachers completed some portion of the *TPRS*. This was the same form that was completed by IIK TA providers and results of the forms were shared on an ongoing basis with IIK in order to better provide TA across the state. Teachers rated themselves on the same "Yes/No" items as observers. Their results were as follows for each round separately (i.e., each of the three administration periods), and for the average of the three rounds combined:

Table 2 Series: Teacher Process Rating Scale results (Teachers n=187)

"Yes/No" Item Scales	Scale	R1 Group Mean	R2 Group Mean	R3 Group Mean	R 1,2,3 Group Mean
Set Up (SU)	0 = No 1 = Yes	0.97	0.98	1.00	0.98
Starting Scale (SS)	I – Yes	0.95	0.96	0.98	0.96
Presenting Scale (PS)		0.96	0.97	0.99	0.97
Vignettes Scales (VS)		0.90	0.94	0.96	0.93
Small Group Scale (SG)		0.95	0.96	0.96	0.96
Promoting Scale (PS)		0.94	0.97	0.96	0.95
Review Scale (RS)		0.81	0.75	0.83	0.80
Responses Scale (RES)		0.99	1.00	1.00	0.99
Collaboration Scale (CS)		0.86	0.89	0.93	0.89
Total Mean Score for "Yes/No" Item Scales		0.92	0.93	0.96	0.94

<sup>\*\*</sup> Note: When a classroom had multiple forms and responses varied, an average was taken to get the score for the class.

Looking at both the observer- and teacher- *TPRS* ratings, it is clear that teachers demonstrated very high levels of fidelity to the Invest in Kids curriculum. On average, across all scales, both observers and teachers reported 94% compliance for administering essential curriculum items. Scores for observers ranged from 81% compliance on the Vignettes scale to 100% compliance on the Responses scale. Scores for teachers averaged across all three rounds ranged from 80% compliance on the Review scale to 99% on the Responses scale. It should also be noted that teacher-reported compliance scores generally increased from Round 1 to Round 2 to Round 3, suggesting improvements in compliance as the program year progressed.

Finally, teachers were asked three additional questions about implementation of the program that observers were not asked. The first question ("Dina School Lessons") asked teachers "Have you completed the Dinosaur School lessons in sequence? If no, why not?" The second question ("Skipped Lessons") asked teachers "Have you skipped any lesson? If so, which ones and why?" Results from responses to these questions were as follows:

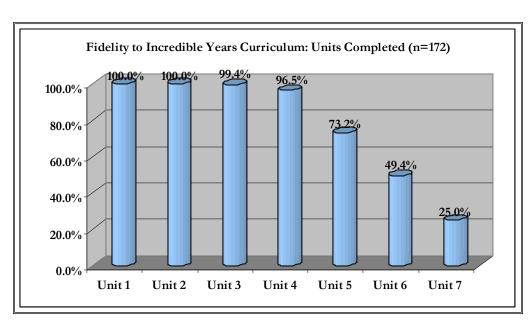
Table 2 Series: Teacher Process Rating Scale results (Teachers n=187)

Dinosaur School Implementation Quality Scales	Scale	R1 Group Mean	R2 Group Mean	R3 Group Mean	R 1,2,3 Group Mean
Dina School Lessons	0 = No 1 = Yes	0.88	0.89	0.88	0.88
Skipped Lessons		0.20	0.15	0.33	0.30

Lastly, teachers circled the specific lessons that they completed within each unit. On average, teachers reported completing approximately 40 of the 64 (62.5%) lessons, ranging from 0 to 64 lessons completed. Sixty-eight percent of teachers reported completing between 25 and 55 lessons. Because several teachers reported fewer than 10 lessons completed, it was possible that the mean would appear to be artificially low. As such, we also looked at the median (i.e., the middle number of the entire range of responses) and the mode (i.e., the most commonly endorsed number of lessons completed). Both the median and mode were also 40, suggesting that this number accurately reflects the average number of lessons completed during the program year. It should be noted, however, that the typical classroom progressed past the 40<sup>th</sup> lesson during the program year, as 30% of classrooms, on average, skipped at least one lesson over time.

#### Graph 3

As shown in Graph 3, the average teacher completed the IY program through Unit 5 (note: unit 5 consists of lessons 30 through 40). Nearly half (49.4%) of teachers reported



teaching through Unit 6 and one-fourth reported completing lessons within Unit 7.

#### Teacher TA Needs

In addition to assessing fidelity to the curriculum, the *TPRS* also assessed how much TA teachers needed, based both on teachers' and observers' assessments. The same 9 scales measuring curriculum fidelity also assessed teachers' TA needs. The level to which the action item was completed/the level of TA needed was rated on a scale from 1 to 5, with 1 = "not well/I really need TA in this area," 2 = "moderately well/some TA would be helpful," 3 = "well/doing ok but could benefit from some TA," 4 = "very well/feeling pretty good," and 5 = "extremely well/I've got

this!". Items were then averaged for each scale construct. Results from observer- and teacher-reports were as follows:

Table 2 Series: Teacher Process Rating Scale results (IIK TA provider Observations n=120)

Continuous Scales (Observer-report)	Scale	Group Mean
Set Up (SU)	1 = Not Well;	3.92
Starting Scale (SS)	2 = Moderately Well; 3 = Well; 4 = Very Well; 5 = Extremely Well	3.82
Presenting Scale (PS)		3.74
Vignettes Scale (VS)		3.92
Small Group Scale (SG)		3.92
Promoting Scale (PS)		3.62
Review Scale (RS)		3.87
Responses Scale (RES)		3.83
Collaboration Scale (CS)		3.59
Total Mean Score 1-5 Item Scales		3.78

<sup>\*\*</sup> Note: When a classroom had multiple forms and responses varied, an average was taken to get the score for the class.

Table 2 Series: Teacher Process Rating Scale results (Teachers n=187)

Continuous Scales (Teacher-report)	Scale	R1 Group Mean	R2 Group Mean	R3 Group Mean	R 1,2,3 Group Mean
Set Up (SU)	1=Not Well;	4.03	4.24	4.46	4.24
Starting Scale (SS)	2=Moderately Well; 3=Well; 4=Very Well; 5=Extremely Well	3.87	4.11	4.27	4.09
Presenting Scale (PS)		3.91	4.16	4.32	4.12
Vignettes Scale (VS)		3.64	4.04	4.24	3.97
Small Group Scale (SG)		3.89	4.11	4.27	4.10
Promoting Scale (PS)		3.92	4.27	4.41	4.19
Review Scale (RS)		3.80	3.89	4.11	3.95
Responses Scale (RS)		3.93	4.21	4.37	4.17
Collaboration Scale (CS)		3.87	4.02	4.23	4.03
Total Mean Score for Continuous Scales		3.85	4.12	4.30	4.08

<sup>\*\*</sup> Note: When a classroom had multiple forms and responses varied, an average was taken to get the score for the class.

The *TPRS* also gauges teachers' confidence in managing classroom behavior. These two questions are on a scale of 1 to 7, ranging from 1 = "very unconfident" to 7 = "very confident."

Mean scores for the seven scales, as well as a total mean score, were as follows for observer- and teacher-reports:

Table 2 Series: Teacher Process Rating Scale results (IIK TA provider Observations n=120)

Observer-report	Scale	Group Mean
Managing Classroom Behavior Scale (MS)	1= Very Unconfident; 2= Unconfident 3= Somewhat Unconfident 4= Neutral 5=Somewhat Confident 6=Confident 7=Very Confident	5.27

<sup>\*\*</sup> Note: When a classroom had multiple forms and responses varied, an average was taken to get the score for the class.

Table 2 Series: Teacher Process Rating Scale results (Teachers n=187)

Teacher-report	Scale	R1 Group Mean	R2 Group Mean	R3 Group Mean	R 1,2,3 Group Mean
Managing Classroom Behavior Scale (MS)	1= Very Unconfident; 2= Unconfident 3= Somewhat Unconfident 4= Neutral 5=Somewhat Confident 6=Confident 7=Very Confident	5.89	6.16	6.25	6.07

<sup>\*\*</sup> Note: When a classroom had multiple forms and responses varied, an average was taken to get the score for the class.

On the whole, these scores suggest that teachers feel quite confident in their ability to carry out the multiple components of the Dina Dinosaur classroom curriculum. Observers rated all "1-5" scales between well and very well. Teachers tended to report even higher scores than observers, suggesting that their self-perceptions of their abilities were somewhat higher than perceptions of the observers. By Round 3, teachers rated all "1-5" scales between very well and extremely well. With regard to teachers' confidence in managing classroom behavior, observers rated teachers between "somewhat confident" and "confident" on average. Again, teachers rated their own skills as even higher than observers, in the "confident" to "very confident" range. It should also be noted that teachers' self-ratings on all 10 scales tended to increase over the course of the program year, suggesting improvements in confidence and sense of mastery over implementing the curriculum over time.

Fidelity to the IY Model and its Relationship to Child Outcomes

As described earlier, program fidelity is a key goal for Invest in Kids to ensure its impact on program participants. 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.

During the 2007-2008 fiscal year, fidelity was measured by the *Teacher Implementation/Quality* of *Teacher Child Group Process* (TIQ) rating forms. Scores from multiple categories of curriculum implementation were averaged together to create an overall Teacher Implementation Quality fidelity mean score per classroom. HLM analyses revealed that higher levels of fidelity to the Dinosaur School curriculum predicted greater positive changes in children's social competence over the program year. Though this measure appeared to work well as a measure of fidelity, for the 2008-2009 fiscal year the content and administration of the questionnaire was substantially altered to measure both fidelity and to provide more detailed information about TA needs on an ongoing basis.

For the 2008-2009 fiscal year, fidelity was measured by the *Teacher Process Rating Scale (TPRS)*, which, as described earlier, was completed separately by teachers and by independent observers multiple times throughout the program year. For both the observer- and teacher-rated forms, scores from 9 categories of curriculum implementation were averaged together across all observations to create two overall Teacher Implementation Quality (TIQ) fidelity mean scores per classroom (one for the teacher-rated form and one for the observer-rated form). These 9 subscales included: Set Up, Starting, Presenting, Vignettes, Small Group, Promoting, Review, Responses, and Collaboration. The "b" items were used from these scales, which asked respondents to rate how well teachers implemented program components in these areas on a scale from 1 (not well / really needs TA in this area) to 5 (extremely well / I've got this!). The Managing subscale was not included as part of the TIQ as it was rated on a different 7-point scale. The teacher-rated *TPRS* also included a final count at the end of the program year of the number of lessons of the curriculum that were completed, which was used as another predictor variable for the fidelity analyses. Finally, similar to the 2007-2008 fiscal year, the child outcome variable for the fidelity analyses was change on the overall scale of the Social Competence Scale Teacher (SCST) measure from pre-test to post-test.

HLM analyses were conducted to assess whether increases in fidelity to the Incredible Years Dina Dinosaur Classroom Curriculum led to greater increases in children's social competence during the school year. Results did not provide statistically significant evidence for this hypothesized relationship. For the observer-rated TPRS, differences in fidelity did not significantly predict changes in children's social competence, *t-ratio* (97) = 1.636, p = n.s. Similarly, for the teacher-rated TPRS, differences in fidelity did not significantly predict change in children's social competence, for either number of lessons completed, *t-ratio* (151) = 1.284, p = n.s., or overall ratings on the 1-5 scales, *t-ratio* (151) = 0.119, p = n.s.

Although the fidelity-to-outcome analyses did not reveal statistically significant findings during the 2008-2009 fiscal year, caution is warranted in interpreting these null results. First, non-significant findings in general do not prove that a hypothesized relationship is false, only that there is not enough evidence (or possibly not enough statistical power) to support it with the current sample. Second, as mentioned earlier, the fidelity measure administered during the 2008-2009 was experimental in nature, in that it had not been used before, and that much of its design was intended to gauge TA needs on an ongoing basis during the program year. For upcoming fiscal years, it will be important to continue to consider ways to adjust how fidelity is measured to best capture the ways in which fidelity to the curriculum predicts children's outcomes. It is possible that there was not enough variation in teacher fidelity as assessed by the *TPRS* to show associations with improvements 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?". One hundred and fifty-one teachers, ninety-four assistant teachers/paraprofessional, and twenty-two "other" teacher roles (i.e. Counselor; Occupational Therapist; Mental Health Specialist) 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," 82% of respondents reported "easy" or "very easy". When asked about how well the program met their goals for child social and emotional development, 96% responded "well" or "very

well." Fifty-seven percent responded "well" or "very well" when asked how well the program met their goals for enhancing emergent literacy, reading, and writing. Approximately 91% of teachers, paras and others responded "mostly" or "definitely" when asked if "the content and activities of the program were developmentally appropriate and individualized as needed." In addition, 93% replied that they were "likely" or "very likely" to conduct small group activities during the next year.

With regard to training, 91% 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 (44.9%) responded that they would "definitely" or "most definitely" like ongoing training. Finally, 72% of the respondents reported that the workload involved in implementing the curriculum was "realistic" or "very realistic."

With regard to parent involvement and homework activities, more than half (58.8%) of teachers, paras and others responded that students' parents were "involved" or "very involved" in the Dina School program. At the same time, 60% indicated that homework activities were "important" or "definitely important" for the students.

Starting this year, teachers were asked what contents from The Incredible Years program they will use next year. Responses indicate that more than half of the teachers, paras and others (59%) would like to continue using the same contents from this year, whereas thirty-one percent would like to use the same units as this year but with some modifications. The remaining ten percent included comments regarding using only one specific unit from the curriculum this year. The following comments, taken from the Teacher Satisfaction Questionnaire, illustrate what some respondents had to say about the content of The Incredible Years program they will use next year:

- ❖ I plan on using all of the lessons next year and maybe combine a few lessons or spend more time on some than others depending on the children.
- \* Feelings, problem solving, anger management.
- ❖ We will definitely use the units on feelings and learning to calm down!
- ❖ All up to lesson 40.
- ❖ All. If support for implementation is given at new sites.

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.

#### 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 2008-2009, 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

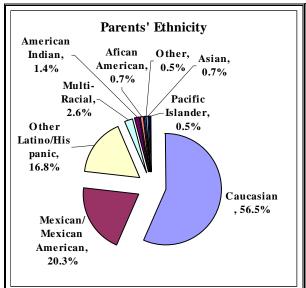
Responses from a total of 431 parents were obtained for the evaluation of the BASIC Parent Training Program in 2008-2009, which is a 139% increase from the number served during last year's programming. Of these, over 74% were mothers. A little over half (56.5%) were Caucasian, with the next largest race/ethnic category being Mexican/Mexican American (20.3%). As presented in Table Series 3, nineteen percent of parents had at least a college degree, with an additional 27.1% having had at least some college. English was the primary language spoken in the majority of homes (75.3%), followed by Spanish (23.3%). Between 3% and 20% of parents reported that their child has a disability, as is shown below.

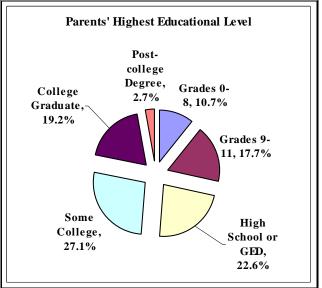
Table Series 3: Parent and Child Demographics (n = 431)

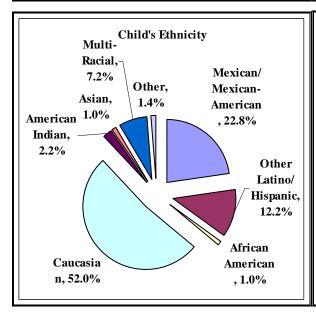
	Mom	Dad	Other
Person			
completing the	74.2%	18.2%	7.7%
form			

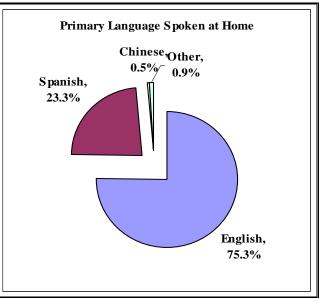
	Males	Females
Child's	58.1%	41.6%
Gender	30.170	41.070

Table Series 3 continued: Parent and Child Demographics (n = 431)









	Language Delay	Cognitive Delay	Physical Handicap	Attention Deficit Disorder	Vision or Hearing Problems	Learning Problems	Emotional/ Behavioral Problem
Does your child have?	12.3%	2.1%	9.0%	5.8%	4.9%	3.5%	20.9%

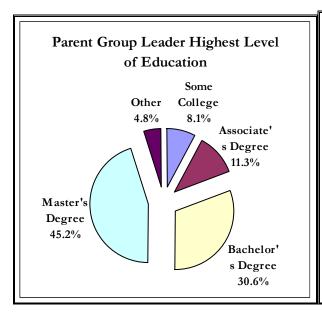
Percentages reflect those who answered "yes"

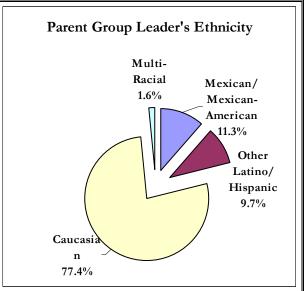
#### Description of Parent Group Leaders

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, 16% of the group leaders had 11 or more years of experience in early childhood or elementary education while 27.4% had less than one year of experience. Three-fourths had earned at least a Bachelor's degree, and within that almost half (45.2%) possessed Master's degrees. Seventy-seven percent of parent group leaders were Caucasian with mean ages of 38 years.

Table Series 4: Parent Group Leader Demographics (n = 62)

< 1 yr	1-2 yrs	3-5 yrs	6-10 yrs	11+yrs
27.4%	27.4%	16.1%	12.9%	16.1%
	,	, , , , , , , , , , , , , , , , , , ,		





#### **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 for the parents in their groups.

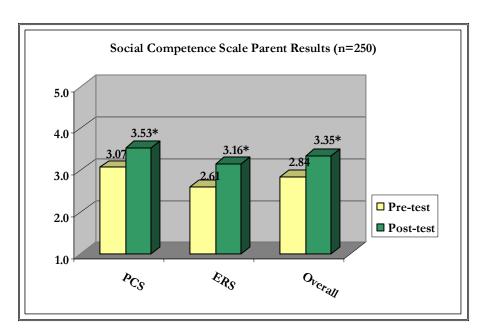
#### Child Outcomes

The stated goal of the BASIC Parent Training Program is to focus on strengthening parenting competencies (i.e., monitoring, positive discipline, and 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.

#### Graph 5

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 subscales, effect sizes were large; that is, 0.63 and 0.83,



respectively. The increase in the mean overall was significant (p<.05) with a large effect size (.80) 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.

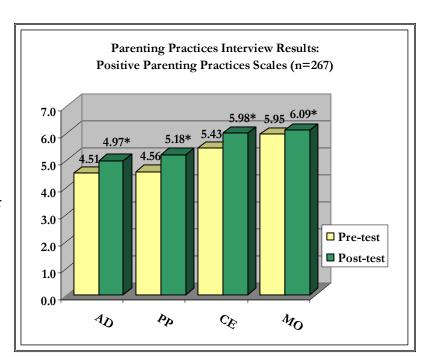
For positive parenting practices, the four sub-scales are: (1) Appropriate Discipline or AD (e.g., "when your child misbehaves, how often do you give your child a brief time out away from family?"), (2) Positive Parenting or PP (e.g., "when your child behaves well, how often do you praise or complement 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?").

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.

#### Graph 6

As is illustrated in Graph 6, 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 were small at .19 for Monitoring (MO), moderate at 0.53 for Appropriate Discipline (AD) and 0.51 for Clear Expectations (CE), and large at 0.84 for Positive Parenting (PP).



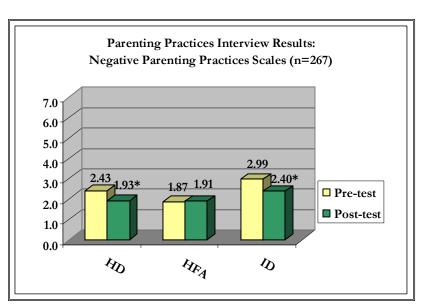
Parents' use of positive parenting practices increased significantly during
The Incredible Years parent program.

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

#### Graph 7

Results indicate that there was a significant decrease (p<.05) in harsh discipline from pre-test to post-test (large effect size, 0.74). The decrease in inconsistent discipline from pre-test to post-test was also significant (p<.05), and the effect size was large (.71). There was essentially no



change from pre-test to post-test in the use of discipline that was harsh for age (see Graph 7).

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 35 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 eleven scales, as well as a total mean score, are shown in Table Series 5. 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 Series 5: Observer Ratings of Parent Group Leaders Implementation Quality

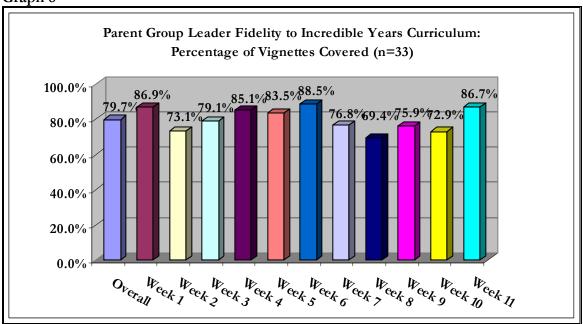
Parent Group Implementation Quality Scales	Scale	Group Mean
Review Parents' Home Activities (RP)	$\theta = No$ $1 = Yes$	0.78
When Beginning the Topic for the Day (WB)	1 - Yes	0.68
When Showing Vignettes (WS)		0.89
Practice and Role Play Rehearsal (PR)		0.64
Ending Group (EG)		0.80
Leader and Group Process Skills (LG)		0.97
Leader Leadership Skills (LL)		0.90
Leader Relationship Building Skills (LR)		0.97
Leader Knowledge (LK)	]	0.88
Leader Methods (LM)		0.86
Parents' Responses (PR)		1.00
Overall Implementation (OI)		0.98
Set Up Scale (SU)		0.85
Total Mean Score for Yes/No Items		0.85

Table Series 5: Observer Ratings of Parent Group Leaders Implementation Quality cont.

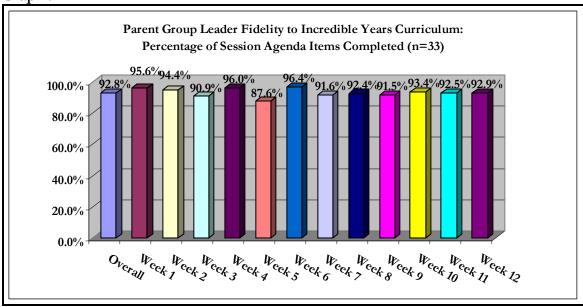
Parent Group Implementation Quality Scales	Scale	Group Mean
Review Parents' Home Activities (RP)	1 = Not Well;	3.34
When Beginning the Topic for the Day (WB)	2 = Moderately Well; 3 = Well;	3.16
When Showing Vignettes (WS)	4 = Very Well;	3.21
Practice and Role Play Rehearsal (PR)	5 = Extremely Well	3.13
Ending Group (EG)		3.08
Leader and Group Process Skills (LG)		3.43
Leader Leadership Skills (LL)		3.00
Leader Relationship Building Skills (LR)		3.38
Leader Knowledge (LK)		3.01
Leader Knowledge (LM)		2.95
Parents' Responses (PR)		3.32
Overall Implementation (OI)		3.08
Total Mean Score for 1-5 Scales		3.18

In addition to observer ratings, each set of parent group leaders completed a checklist at the end of each session. Thirty-three parent group leaders completed the Leader Checklists. Results show that, overall, group leaders completed an average of 79.7% of the vignettes (see Graph 8) and 92.8% of the session agenda items (see Graph 9) 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 between 69% and 89% for all sessions, and was approximately 80% on average across sessions. As such, the program met, and at times exceeded, the intended goal for the year.

Graph 8



Graph 9



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, as measured by the *Implementation/Quality of Parent Group Leader Process Measure*, had an effect on changes in individual-level differences in parenting practices.

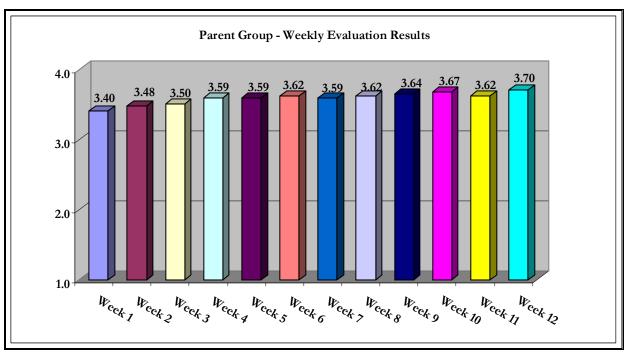
Parents reported on their own parenting practices at pre-test and post-test using the *Parenting Practices Interview (PPI)* questionnaire. The *PPI* contains 14 groups of questions assessing parents' discipline and parenting practices. Responses to questions were on different, but comparable, 1-7 point 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, t-ratio (262) = -.225, p = n.s. There are a number of possible reasons explaining this lack of association. First, the sample size was rather small. With only 35 parent groups and an average of about 8 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, as indicated by average ratings between "well" and "very well" on fidelity items. As such, there may have been relatively 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, the data indicated that efforts to explain better or worse changes in parenting practices would be 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"=1, "neutral"=2, "helpful"=3 or "very helpful"=4. Results (shown in Graph 10) show that parents rated each session highly, with the highest average rating in week 12. Average responses for each question and session are presented in Appendix C.





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.

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 have a high level of satisfaction with the program.

The following description highlights responses to selected questions from each of the subscales. 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, 85.2% responded "improved" or "greatly improved." Moreover, almost all (96.1%) 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." The majority also responded "useful" or "extremely useful" when asked about group discussions of parenting skills (94%), practice of play skills at home with their child (86.1%), reading a chapter from the book (78.5%), and weekly handouts (80.8%). In contrast, only 42.6% found "buddy calls" to be useful or extremely useful.

Nearly all parents (93.5%) responded that they found the overall group of specific parenting techniques to be "useful" or "extremely useful." Ninety-six percent reported that using praise was "useful" or "extremely useful," and that ignoring was rated as the least efficient technique, with 78.3% responding that it was "useful" or "extremely useful."

In addition, almost all parents (94%; average for two leaders) found their leaders' teaching to be "high" or "superior," and responded that their leader was either "helpful" or "extremely helpful" (96%; average for two leaders). When asked about their parent group, almost all (94.2%) reported their group was "supportive" or "very supportive," and more than half (62.5%) 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 (50% of comments were related to this aspect). Sharing and discussion with other parents was also helpful for many of them (22% of comments reported this aspect). Parents appreciated how helpful the parent group leaders were throughout the program (14% of comments), and many parents simply stated everything about the program was helpful (8% of comments). The remaining 6% included comments regarding how helpful the materials (such as the sticker charts and vignettes) were.

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:

- ❖ I learned how to use positive praise with my child and eliminate the negative.
- ❖ For me, everything in general was very useful because my life with my daughter has totally changed and now I have better communication with her. I play, I complement her, and I reward her. Both her and I have changed in a good way in all aspects. I know I can get better with time and with the help of our instructors. Thank you!
- The information they presented us with was very useful, I had never seen so much information so easily. I liked how as we advance the different stages start to link together, that was very interesting because at the end everything took us to the same place of being better as a family and as parents.
- ❖ The content of the program. The leaders were knowledgeable. Warm. Patient and non-judgmental. They were very encouraging.
- ❖ How to be able to control my character to be able to guide my children and have them be good people in the future.
- The most helpful thing about the program to me was that it helped me understand my child's side of view learn to be on his level and help him instead of expecting too much from him. There was a lot of helpful or I should say all the topics were very helpful I now focus on his good behavior instead of criticizing. I noticed a big difference at home, not only with him, but in my marriage. I really love this program it is very worth it.

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

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 showed the highest gains in social competence, supporting the program's effectiveness for children with the greatest need.

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 and that they were highly likely to do small group activities next year.

#### **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 in the desired direction was the Harsh for Age scale of the *Parenting Practices Interview*, however, there was essentially no change from pre- to post-test.

On average, group leaders covered 79.7% of the vignettes and 92.8% of the weekly session agenda items. 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 85% 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.

#### REFERENCES

- Hutchings, J., Bywater, T., Daley, D. & Lane, E. (2007). A pilot study of Webster-Stratton Incredible Years Therapeutic Dinosaur School programme. *Clinical Psychology Forum 170*: 21-24.
- Ladd, G. W. (2003). Probing the adaptive significance of children's behavior and relationships in the school context: A child by environment perspective. In R. V. Kail (Ed.), *Advances in child development and behavior* (Vol. 31, pp. 43–104). San Diego, CA: Academic Press.
- Olchowski, A., Foster, M. E., Webster-Stratton, C. (2006). Cost-effectiveness of The Incredible Years Program.
- Patterson, J., Barlow, J., Mockford, C., Klimes, I., Pyper, C., Stewart-Brown, S. (2002). Improving mental health through parenting programmes: Block randomized controlled trial. *Archives of Disease in Childhood*.
- Raver, C. C. (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. *Social Policy Report, 16, 3*–18.
- Reid, M.J., Webster-Stratton, C., & Hammond, M. (2007). Enhancing a classroom social competence and problem-solving curriculum by offering parent training to families of moderate to high-risk elementary school children. *Journal of Clinical Child and Adolescent Psychology*.
- Taylor, T. K., Schmidt, F., Pepler, D., & Hodgins, H. (1998). A comparison of eclectic treatment with Webster-Stratton's Parents and Children Series in a Children's Mental Health Center: A randomized controlled trial. *Behavior Therapy 29*: 221-240. Association for Advancement of Behavior Therapy.
- Webster-Stratton, C. & Taylor, E.T. (1998). Adopting and implementing empirically supported interventions: a recipe for success. In A. Buchanan & B. L. Hudson (Eds.). Aldershoot, England: Ashgate Pub.
- Webster-Stratton, C. (2000). Goals for The Incredible Years Programs.

- Webster-Stratton, C., Reid, J. M. & Hammond, M. (2001). Preventing conduct problems, promoting social competence: A parent and teacher training partnership in head start. *Journal of Clinical Child Psychology*.
- Webster-Stratton, C., Reid, J. M. (2002). Classroom Social Skills Dinosaur Program Strengthening Social and Emotional Competence in Young Children The Foundation for Early School Readiness and Success: Incredible Years Classroom Social Skills and Problem Solving Curriculum. *Infants and Young Children. Vol. 17.2.* 196-213.
- Webster-Stratton, C. (2004). Cross-cultural collaboration to deliver The Incredible Years Parent Programs.

### Appendix A

### 2008-2009 Invest in Kids Final Report Appendix A Teacher Process Rating Scale Results (completed by teachers) N=187

Dinosaur School Implementation Quality Scales	Scale	Group Mean
Dina School Lessons Round 1 (DS1)	0 = No 1 = Yes	0.88
Dina School Lessons Round 2 (DS2)		0.89
Dina School Lessons Round 3 (DS3)		0.88
Total Mean Score for Dina School Lessons		0.88

<sup>\*\*</sup> Note: When a classroom had multiple forms from multiple teachers and responses varied, an average was taken to get the score for the class.

This is why not all scores are exactly 0 or 1.

Dinosaur School Implementation Quality Scales	Scale	Group Mean
Skipped Lessons Round 1 (SLR1)	0 = No 1 = Yes	0.20
Skipped Lessons Round 2 (SLR2)		0.15
Skipped Lessons Round 3 (SLR3)		0.33
Total Mean Score for Skipped Lessons		0.30

Round 1 "Yes/No" Item Scales	Scale	Group Mean
Set Up (SU)	$\theta = No$ $1 = Yes$	0.97
Starting Scale (SS)	I = Yes	0.95
Presenting Scale (PS)		0.96
Vignettes Scales (VS)		0.90
Small Group Scale (SG)		0.95
Promoting Scale (PS)		0.94
Review Scale (RS)		0.81
Responses Scale (RES)		0.99
Collaboration Scale (CS)		0.86
Total Mean Score for Round 1 "Yes/No" Item Scales		0.92

Round 1 Continuous Scales	Scale	Group Mean
Set Up (SU)	1 = Not Well;	4.03
Starting Scale (SS)	2 = Moderately Well; 3 = Well;	3.87
Presenting Scale (PS)	4 = Very Well; 5 = Extremely Well	3.91
Vignettes Scale (VS)		3.64
Small Group Scale (SG)		3.89
Promoting Scale (PS)		3.92
Review Scale (RS)		3.80
Responses Scale (RES)		3.93
Collaboration Scale (CS)		3.87
Total Mean Score for Continuous Scales (Round 1)		3.85

Round 2 "Yes/No" Item Scales	Scale	Group Mean
Set Up (SU)	$\theta = No$	0.98
Starting Scale (SS)	1 = Yes	0.96
Presenting Scale (PS)		0.97
Vignettes Scales (VS)		0.94
Small Group Scale (SG)		0.96
Promoting Scale (PS)		0.97
Review Scale (RS)		0.75
Responses Scale (RES)		1.00
Collaboration Scale (CS)		0.89
Total Mean Score for Round 2 "Yes/No" Item Scales		0.93

Round 2 Continuous Item Scales	Scale	Group Mean
Set Up (SU)	1 = Not Well;	4.24
Starting Scale (SS)	2 = Moderately Well; 3 = Well;	4.11
Presenting Scale (PS)	4 = Very Well; 5 = Extremely Well	4.16
Vignettes Scale (VS)		4.04
Small Group Scale (SG)		4.11
Promoting Scale (PS)		4.27
Review Scale (RS)		3.89
Responses Scale (RS)		4.21
Collaboration Scale (CS)		4.02
Total Mean Score for Continuous Scales (Round 2)		4.12

Round 3 "Yes/No" Item Scales	Scale	Group Mean
Set Up (SU)	$\theta = No$ $1 = Yes$	1.00
Starting Scale (SS)	I = Yes	0.98
Presenting Scale (PS)		0.99
Vignettes Scales (VS)		0.96
Small Group Scale (SG)		0.96
Promoting Scale (PS)		0.96
Review Scale (RS)		0.83
Responses Scale (RES)		1.00
Collaboration Scale (CS)		0.93
Total Mean Score for Round 3 "Yes/No" Item Scales		0.96

Round 3 Continuous Scales	Scale	Group Mean
Set Up (SU)	1 = Not Well; 2 = Moderately Well;	4.46
Starting Scale (SS)	3 = Well;	4.27
Presenting Scale (PS)	4 = Very Well; 5 = Extremely Well	4.32
Vignettes Scale (VS)		4.24
Small Group Scale (SG)		4.27
Promoting Scale (PS)		4.41
Review Scale (RS)		4.11
Responses Scale (RS)		4.37
Collaboration Scale (CS)		4.23
Total Mean Score for Continuous Scales (Round 3)		4.30

Round 1,2,3 "Yes/No" Item Scales	Scale	Group Mean
Set Up (SU)	0 = No 1 = Yes	0.98
Starting Scale (SS)	I – Yes	0.96
Presenting Scale (PS)		0.97
Vignettes Scales (VS)		0.93
Small Group Scale (SG)		0.96
Promoting Scale (PS)		0.95
Review Scale (RS)		0.80

Responses Scale (RES)	0.99
Collaboration Scale (CS)	0.89
Total Mean Score for Round 1,2,3 "Yes/No" Item Scales	 0.94

Round 1,2,3 Continuous Scales	Scale	Group Mean
Set Up (SU)	1 = Not Well;	4.24
Starting Scale (SS)	2 = Moderately Well; 3 = Well;	4.09
Presenting Scale (PS)	4 = Very Well; 5 = Extremely Well	4.12
Vignettes Scale (VS)		3.97
Small Group Scale (SG)		4.10
Promoting Scale (PS)		4.19
Review Scale (RS)		3.95
Responses Scale (RS)		4.17
Collaboration Scale (CS)		4.03
Total Mean Score for Continuous Scales (Round 1,2,3)		4.08

Managing Classroom Behavior (Round 1)	Scale	Group Mean
Managing Classroom Behavior Scale (MS)	1= Very Unconfident; 2= Unconfident 3= Somewhat Unconfident 4= Neutral 5=Somewhat Confident 6=Confident 7=Very Confident	5.89

Managing Classroom Behavior (Round 2)	Scale	Group Mean
Managing Classroom Behavior Scale (MS)	1= Very Unconfident; 2= Unconfident 3= Somewhat Unconfident 4= Neutral 5=Somewhat Confident 6=Confident 7=Very Confident	6.16

Managing Classroom Behavior (Round 3)	Scale	Group Mean
Managing Classroom Behavior Scale (MS)	1= Very Unconfident; 2= Unconfident 3= Somewhat Unconfident 4= Neutral 5=Somewhat Confident 6=Confident 7=Very Confident	6.25

Managing Classroom Behavior (Round 1,2,3)	Scale	Group Mean
Managing Classroom Behavior Scale (MS)	1= Very Unconfident; 2= Unconfident 3= Somewhat Unconfident 4= Neutral 5=Somewhat Confident 6=Confident 7=Very Confident	6.07

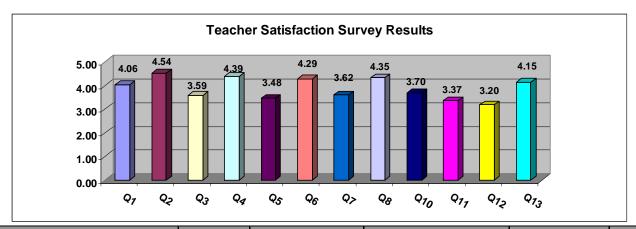
### Appendix B

### 2008-2009 Invest in Kids Final Report Appendix B Teacher Satisfaction Results

Number of Participants: 283

	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%	8.8%	8.8%	49.8%	32.5%	4.06
		ī	Г			
	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%	1.4%	2.8%	36.4%	59.4%	4.54
	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?	1.4%	8.2%	33.7%	43.6%	13.1%	3.59
	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?	0.7%	3.9%	4.2%	38.5%	52.7%	4.39
			•	<u> </u>	<u>.                                    </u>	
	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?	5.3%	14.9%	20.9%	44.3%	14.5%	3.48
						•
	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?	0.0%	2.5%	6.7%	50.4%	40.4%	4.29

	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?	3.6%	6.1%	30.5%	44.1%	15.8%	3.62
	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?	0.7%	2.1%	3.9%	47.7%	45.6%	4.35
	_					
	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?	1.1%	8.5%	18.5%	63.3%	8.5%	3.70
	Not at All (1)	Possibly (2)	Neutral (3)	Definitely (4)	Most Definitely (5)	Mean Score
Q11. Would you like ongoing training?	3.6%	12.7%	38.8%	33.3%	11.6%	3.37
	None (1)	Twice a year (2)	Quarterly (3)	Monthly (4)	Weekly (5)	Mean Score
Q12. How much technical assistance/coaching did you receive?	5.7%	22.6%	23.4%	42.3%	6.0%	3.20
	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?	0.4%	4.8%	13.3%	42.4%	39.1%	4.15



Regarding Stress Level	Irrelevant (0)	Not true of me now (1 2)				Somewhat true of me now (3 4 5)		Very tr me n (6		Mean Score
Q14. I am concerned about not having enough time to organize myself each day.	4.8%	13.4%	17.5%	22.7%	18.2%	11.2%	10.4%	1.9%	3.20	
Q15. I am concerned about conflict between my interests and my responsibilities.	10.4%	24.8%	34.1%	13.0%	7.8%	4.4%	5.2%	0.4%	2.19	
Q16. I am concerned about my inability to manage all that The Incredible Years program requires.	11.4%	24.4%	31.4%	15.5%	7.4%	6.3%	2.2%	1.5%	2.18	
Q17. Coordination of tasks and people is taking too much of my time.	10.3%	28.4%	26.6%	18.5%	6.3%	6.3%	3.7%	0.0%	2.15	

### Appendix C

### 2008-2009 Invest in Kids Final Report Appendix C Parents' Weekly Ratings of Group Sessions

Session 1 ( <i>n</i> range = 297-320)		
I found the content of the session	3.41	
I feel the videotape examples were	3.20	
I feel the group leader's teaching was	3.57	
I found the group discussion to be	3.40	

Session 2 ( <i>n</i> range = 339-344)		
I found the content of the session	3.46	
I feel the videotape examples were	3.34	
I feel the group leader's teaching was	3.61	
I found the group discussion to be	3.52	

Session 3 ( <i>n</i> range = 323-324)		
I found the content of the session	3.47	
I feel the videotape examples were	3.33	
I feel the group leader's teaching was	3.66	
I found the group discussion to be	3.54	

Session 4 ( <i>n</i> range = 302-309)		
I found the content of the session	3.63	
I feel the videotape examples were	3.38	
I feel the group leader's teaching was	3.69	
I found the group discussion to be	3.66	

Session 5 ( <i>n</i> range = 277-281)				
I found the content of the session	3.59			
I feel the videotape examples were	3.38			
I feel the group leader's teaching was	3.73			
I found the group discussion to be	3.66			

Session 6 ( <i>n</i> range = 283-287)	
I found the content of the session	3.63

I feel the videotape examples were	3.43			
I feel the group leader's teaching was				
I found the group discussion to be	3.67			

Session 7 ( <i>n</i> range = 253-255)				
I found the content of the session	3.62			
I feel the videotape examples were	3.41			
I feel the group leader's teaching was	3.72			
I found the group discussion to be	3.63			

Session 8 ( <i>n</i> range = 251-255)				
I found the content of the session	3.66			
I feel the videotape examples were	3.42			
I feel the group leader's teaching was	3.73			
I found the group discussion to be	3.67			

Session 9 ( <i>n</i> range = 256-259)					
I found the content of the session	3.65				
I feel the videotape examples were	3.45				
I feel the group leader's teaching was	3.78				
I found the group discussion to be	3.67				

Session 10 ( <i>n</i> range = 234-240)	
I found the content of the session	3.68
I feel the videotape examples were	3.49
I feel the group leader's teaching was	3.77
I found the group discussion to be	3.73

Session 11 ( <i>n</i> range = 236-241)	
I found the content of the session	3.62
I feel the videotape examples were	3.41
I feel the group leader's teaching was	3.74
I found the group discussion to be	3.72

Session 12 ( <i>n</i> range = 170-208)	
I found the content of the session	3.70
I feel the videotape examples were	3.48
I feel the group leader's teaching was	3.79
I found the group discussion to be	3.78

## Appendix D

# 2008-2009 Invest in Kids Final Report Appendix D Parent Program Satisfaction Results Number of Participants: 282 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):	0.4%	0.4%	0.0%	3.6%	10.4%	47.8%	37.4%	6.17
A2: My child's problems which  I/we have tried to change using the methods presented in this program are:	0.4%	0.0%	0.4%	2.2%	11.6%	57.0%	28.5%	6.10

	Very Dissatisfied (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:	0.0%	0.0%	0.0%	2.5%	6.1%	52.3%	39.0%	6.28

	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?	0.0%	0.0%	0.0%	6.8%	12.1%	39.6%	41.4%	6.16

	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:	0.0%	0.0%	0.4%	5.1%	5.4%	42.6%	46.6%	6.30

	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%	0.0%	0.0%	1.8%	3.6%	44.4%	50.2%	6.43

	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?	0.0%	0.0%	0.0%	1.1%	2.8%	25.5%	70.6%	6.66

	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?	0.4%	0.0%	0.4%	1.4%	6.0%	52.8%	39.0%	6.27
A9: How confident are you in managing future behavior problems at home using what you learned from this program?	0.4%	0.0%	0.0%	1.1%	2.5%	43.6%	52.8%	6.31

	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:	0.0%	0.0%	0.0%	1.1%	2.5%	43.6%	52.8%	6.48

	Mean Score
Scale A: "The Overall Program"	6.31

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:	0.4%	0.7%	0.0%	2.5%	2.8%	35.2%	58.4%	6.46
B2: Demonstration of parenting skills through use of videotape vignettes was:	1.1%	0.4%	2.5%	7.4%	17.0%	37.2%	34.4%	5.88
B3: Group discussion of parenting skills was:	0.7%	0.4%	0.4%	1.4%	3.2%	26.0%	68.0%	6.56
B4: Practice of play skills at home with your child was:	1.1%	0.0%	1.1%	5.3%	6.4%	29.5%	56.6%	6.31
B5: Other home activities were:	0.4%	0.0%	0.4%	1.8%	3.6%	28.8%	65.1%	6.55
B6: Reading chapters from the book was:	0.4%	0.7%	0.4%	9.1%	10.9%	32.7%	45.8%	6.11
B7: If you used the CD/audiotape of the chapter, did you find them:	3.2%	0.6%	0.0%	30.4%	4.4%	24.7%	36.7%	5.53
B8: Weekly handouts were:	0.4%	0.0%	0.4%	7.6%	10.9%	34.4%	46.4%	6.17

	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:	3.3%	5.7%	3.3%	33.6%	11.5%	20.9%	21.7%	4.94
B10: Use of practice or role plays during group sessions were:	1.4%	1.4%	4.7%	13.6%	16.8%	29.4%	32.6%	5.62
B11: Phone calls from group leaders were:	2.1%	0.8%	0.4%	27.8%	6.3%	30.8%	31.6%	5.54

	Mean Score
Scale B: "Teaching Format"	6.01

C: "Specific Parenting Techniques" Scale

C. Specific Furcining Feet	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%	4.7%	5.4%	39.8%	50.2%	6.35
C2: Descriptive Commenting	0.0%	0.0%	0.0%	3.9%	7.9%	42.1%	46.1%	6.30
C3: Praise	0.0%	0.0%	0.0%	1.8%	1.8%	19.1%	77.3%	6.72
C4: Rewards	0.4%	0.4%	1.1%	6.9%	8.3%	29.6%	53.4%	6.25
C5: Ignoring	0.7%	0.4%	1.1%	5.4%	14.1%	35.7%	42.6%	6.09
C6: Positive Commands	0.0%	0.0%	0.0%	3.2%	6.5%	37.3%	53.0%	6.40
C7: Time Out	0.7%	0.7%	0.4%	6.2%	12.4%	32.7%	46.9%	6.15
C8: Loss of Privileges, Logical Consequences	0.0%	0.0%	0.0%	6.6%	10.9%	37.6%	44.9%	6.21
C9: Problem solving with children	0.0%	0.0%	0.0%	4.0%	11.6%	37.2%	47.3%	6.28
C10: Problem solving with adults & teachers	0.00%	0.0%	0.0%	5.8%	8.8%	38.0%	47.1%	6.26
C11: Helping child control his/her anger	0.0%	0.4%	1.1%	5.5%	11.6%	37.8%	43.6%	6.16
C12: This Overall Group of Techniques	0.0%	0.0%	0.0%	2.5%	4.0%	31.3%	62.2%	6.53

	Mean Score
Scale C: "Specific Parenting Techniques"	6.31

### 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:	0.4%	1.8%	3.9%	0.0%	0.0%	34.4%	59.6%	6.50
D2: The leader's preparation was:	0.4%	0.0%	0.4%	1.4%	2.8%	35.5%	59.6%	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:	0.4%	0.7%	0.4%	0.4%	1.1%	30.7%	66.4%	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:	0.4%	0.0%	0.0%	0.7%	1.4%	24.8%	72.7%	6.68

#### 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:	0.4%	0.0%	0.4%	1.8%	4.4%	37.6%	55.4%	6.44
D2: The leader's preparation was:	0.4%	0.0%	1.1%	0.0%	4.1%	38.5%	55.9%	6.48

	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:	0.4%	0.0%	0.4%	1.1%	1.8%	34.6%	61.8%	6.55

	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:	0.4%	0.0%	0.0%	1.1%	2.6%	27.2%	68.8%	6.62

	Mean Score
Scale D: "Evaluation of Parent Group Leaders" Combined Score	6.55

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:	0.4%	0.0%	0.4%	2.1%	2.9%	39.6%	54.6%	6.45

	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:	0.4%	0.0%	0.4%	7.1%	6.0%	44.5%	41.6%	6.19

	Yes	No
E3: I would like to keep meeting as a group:	81.4%	18.6%

	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?	3.2%	4.3%	4.3%	12.9%	12.9%	31.8%	30.7%	5.46

	Mean Score
Scale E: "Parent Group" Scale (E1, E2, E3)	6.03