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**A COMPARISON OF THE EFFECTS OF HEAD START WITH AND WITHOUT
THE USE OF A NEWLY DEVELOPED RESILIENCY-BASED CURRICULUM**

A Thesis

Presented to

The Faculty of the Department of Psychology

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

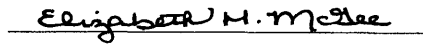
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Elizabeth H. McGee

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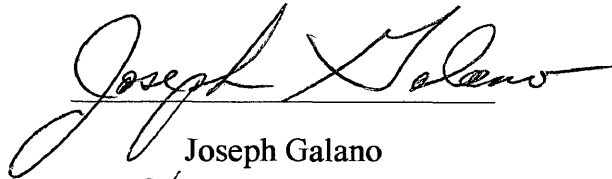
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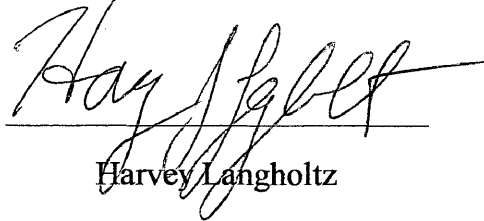


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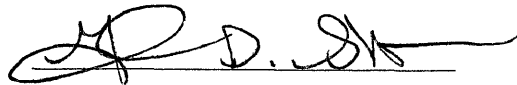
Approved, June 1997



Joseph Galano



Harvey Langholtz



Glenn D. Shean

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ABSTRACT

The Al's Pals: Kids Making Healthy Choices curriculum was developed to aid preschool teachers in promoting health and social competence in young children exposed to the detrimental effects of poverty in order to enhance their resilient development. Child behavior change and the home environment were measured at a local Head Start program in which the new resiliency program has been implemented over the past three years. In addition, an analysis of reliability and validity of the measures used was conducted. While the reliability and validity of the measures proved to be sufficient, the Al's Pals program appeared to have mixed effects on the behavior of those children whose classrooms participated in the program compared to the behavior of those children whose classrooms did not. Overall, an increase in appropriate behavior approached significance for those children participating in Al's Pals compared to those children who did not participate. However, there was no significant difference between the two groups in inappropriate behavior.

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"John and Paul were friends who grew up in the same run-down housing project in a large industrial city. Their neighborhood was plagued by drugs and violence. By the time the boys were 10 years old and each had experienced several years of family conflict, their respective parents divorced. Each was subsequently raised, along with an older sibling and two younger siblings, by a single mother. Their fathers played only a minor role in their lives after the divorce. They were below average students in school and got into some trouble with the police as they were growing up. Both older siblings dropped out of school and spent time in prison. John finished high school and received two years of training in a local trade school. He is now 30 years old, works at a local factory, and lives with his wife and two children. John is happy, healthy, and well adapted to his life in a nice neighborhood in the city. He hopes to help send his children to college so they might have opportunities in life he never had. Paul never graduated from high school. He has been in and out of prison over the last several years, is currently unemployed, and drinks alcohol excessively on a regular basis. He has two children he rarely sees, and he was never married to either mother. Paul has lived in several locations over the years, mostly in his old, unchanged neighborhood"

(Zimmerman & Arunkumar, 1994, p.1).

What causes some people to overcome adversities associated with poverty while others succumb to them? This question of interest has motivated research during the past two decades on the topic of resiliency. While much is known about the causes of negative outcomes, researchers know less about the factors that lead to positive outcomes. Born into the cycle of poverty, some children are unable to overcome its harmful effects in contrast to others who develop into well-functioning, healthy adults. The latter case is what researchers now term being "resilient" (Garmezy, 1991; Zimmerman & Arunkumar, 1994).

Defining Resiliency

According to Zimmerman & Arunkumar (1994), resiliency refers to "those factors and processes that interrupt the trajectory from risk to problem behaviors or psychopathology and thereby result in adaptive outcomes even in the presence of adversity" (p. 4). Risk factors are the elements existing in children's lives that are potentially damaging to their healthy development (Benard, 1992). Growing up under conditions of great stress and difficulty lead to an increased probability of developing later problems such as personality disorders, behavioral problems, and substance abuse. Different factors faced by at-risk children in particular include environments of poverty, neglect, abuse, physical handicaps, war, parental personality disorders, depression, alcoholism, and criminality. Yet many children who have lived under these conditions have not become disturbed or drug abusers, but instead have been able to maintain a healthy pattern of development.

According to Garmezy (1991), protective factors are the fortifying components of the environment that strengthen and support children's reactions to stressors and challenges. These factors enhance children's abilities to be adaptable in the face of adversity. Some of these characteristics include having a positive relationship with at least one adult, membership in a supportive family, and having parents who possess good parenting skills, who serve as positive role models, and who set positive goals for their children's behavior. Other protective factors are being given family responsibilities such as chores and being in a supportive and caring school and community environment. These protective factors have been associated with alteration or even reversal of negative outcomes. They have aided in promoting a sense of basic trust, a more structured, understandable life, and a feeling of being a worthy and integral part of family and community within a child (Garmezy, 1991; Segal, 1986).

The "Resilient Child"

Werner and Smith (1989) found that attributes which appear to build resiliency in a child fall within the following areas: social competence, problem-solving skills, autonomy, and sense of purpose and future. Resilient children often possess qualities of prosocial attitudes and behaviors such as responsiveness, flexibility, empathy, communication skills, and a sense of humor. Having the ability to produce comic relief gives them a way to laugh at themselves as well as at ridiculous situations. A sense of humor also enables them to look at their discouraging environments with less stress and to generate alternate ways of looking at and dealing with things; this helps them build more positive relationships with others (Masten, 1986). In addition, the flexibility of resilient children allows them to find alternate solutions to both cognitive and interpersonal problems. In cases where children are members of dysfunctional families, some are able to distance themselves from problems, realizing they are not the cause and believing that their futures can be different if they are persistent and hardworking (Chess, 1989).

Prosocial Behavior

According to Benard (1992), the resilient child has often been described as one who "works well, plays well, loves well, and expects well" (p. 3). Being socially competent is an important attribute that resilient children possess. They tend to exhibit more prosocial behaviors including being agreeable and being able to evoke positive responses and feedback from others. Prosocial behavior is defined as "voluntary actions that are intended to help or benefit another individual or group of individuals" (Eisenberg & Mussen, 1989, p.3). Some sample prosocial behaviors of preschool-aged children include following instructions, playing cooperatively with others, following rules in games, sharing toys, helping others, taking turns, and contributing to conversation (Swetnam, Peterson, & Clark, 1982).

Peer and Teacher Influence

Children's behavior is socialized through interactions with peers, teachers, and parents in different environments such as school and home. Even as early as the preschool age, interactions not only with parents but also with both peers and teachers can foster the development of prosocial behavior in children (Benard, 1992; Eisenberg & Mussen, 1989).

According to Eisenberg and Mussen (1989), peers can shape gender-typed activities, aggressive activities, and cooperative and friendly behaviors. Through modeling and reinforcement, peers influence each other to behave in socially competent and appropriate manners. The ability of children to exhibit prosocial behavior as preschoolers has been found to be associated with a variety of favorable peer interactions. For example, prosocial behavior has been indicated as an influential determinant of peer likability. Denham and Holt (1993) found that as early as in preschool peer reputation formation, friendlier, more cooperative, less aggressive, and less difficult children were more well liked. In addition to these prosocial characteristics, preschoolers' knowledge of emotion was related to peer likability (Denham, McKinley, Couchoud, & Holt, 1990). Those children who were better at understanding emotional situations were also rated as more likable by their peers.

From the findings of their study on preschool socialization of prosocial behavior, Eisenberg, Cameron, Tryon, and Dodez (1981) have suggested that children who perform more prosocial behaviors tend to elicit more positive feedback from their peers than less social children. Prosocial children become more positive as they are reinforced for positive behaviors while less social children do not elicit this positive reinforcement, exhibiting less responsiveness in interactions with their peers. Thus, large differences in interaction styles can result -- peers play an important role in developing positive interactions.

Similarly, teachers are influential in the development of prosocial behavior in young children and serve as important role models for preschoolers. As teachers, they provide children with crucial examples of nurturing, considerate behaviors. In addition, simply giving children attention when they perform desired behaviors increases the performance of those behaviors. Teachers also direct children in sharing and helping activities during the typical preschool day (Eisenberg & Mussen, 1989). In fact, when performing studies with young children, many researchers have preferred working with teachers to obtain their ratings of children's prosocial behaviors. As teachers, it is their responsibility to spend large amounts of time with the children, supervising and observing their behavior. Thus, their ratings are meaningful because they are based on children's interactions with different people in various situations throughout the day (Denham & Holt, 1993; Eisenberg & Mussen, 1989).

Parent Influence

According to Dubanoski and Tanabe (1980), children's most important and salient teachers are their parents. Children are continuously learning new patterns of behavior through direct praise and punishment by parents, but more often, through subtle channels such as modeling and identification of parental behavior. Children imitate the positive actions of their parents which enhances their own development of prosocial behaviors. They not only copy their parents' actions, children also incorporate their parents' patterns of behavior, motivation, and thought into their own personal development (Eisenberg & Mussen, 1989).

Parental attitudes also play an important role in promoting prosocial behavior in children. According to Belsky (1984), parents' perception of internal locus of control affects how they interact with their children. Three types of parents emerge from this research: traditional parents, modern parents, and paradoxical parents (Palacios, 1990). As parents, the traditional type feel that they can do little to shape the course of their child's prosocial development. Modern parents, however, believe that genetic and

environmental factors interact, and thus, they are optimistic concerning the effects of a positive environment on child behavior. Paradoxical parents are even more positive about the beneficial effects of the environment, but when these parents experience failures with their children they feel they have little control, blaming shortcomings in their environment. They feel that they are unable to produce a positive influence on their children.

Because believing that one can determine one's own life outcomes facilitates psychological well-being, how parents model this belief is important as it affects the development of their children's own beliefs concerning their behaviors and life outcomes. This is especially important to children growing up surrounded by the detrimental effects of poverty. Having a feeling of control over their lives is a characteristic that resilient children exhibit. Promoting this feeling in young children encourages prosocial behaviors which shapes their abilities to positively interact with people in everything they do and say throughout their lives (Benard, 1992; Chess, 1989).

Head Start

Based on the theory that children have a better chance of developing characteristics of resiliency if given support as early as possible, several intervention programs have been created to promote aspects of resiliency such as prosocial behavior at an early age. Benard (1992) found that most intervention programs currently designed for building resilience in children were based on Bronfenbrenner's (1974) theory that personality is a "self-righting mechanism" that is actively adapting to its environment. Thus, they focused on creating and enhancing personal and environmental attributes that contribute to healthy development. From a different perspective, intervention programs have also tried to help foster resiliency by attempting to decrease the potential harmful effects of risk factors by enhancing protective factors.

Sponsored by the Office of Economic Opportunity in 1965, Head Start was first begun as a summer program designed to combat the effects of poverty. The following

year, Head Start was expanded to a nine-month, half-day program for disadvantaged children, ages three to five. Like many early childhood educational intervention programs now existing, Head Start is a comprehensive program aimed at helping ameliorate the detrimental effects of poverty on the lives of young children. Today, Head Start provides services to over 700,000 children and their families (Washington & Bailey, 1995; Zigler & Styfco, 1993).

The basic goals of Head Start are to meet the developmental needs of disadvantaged children in order to enhance their competence in social and cognitive functioning. Each program is required to provide the following four components: education, health, parent involvement, and social services. The educational component includes not only exposure to academic learning experiences such as words and numbers, but also exposure to prosocial activities of getting along with others in a play setting and learning to express feelings. Head Start also plays a key role in providing children access to health care including health screening, nutrition services, and mental health services. Viewing parents as an integral part of the program, their involvement is encouraged in areas such as parent education, planning, and volunteering. Finally, social services provides families a link to obtaining services to meet their needs in the community (Zigler & Styfco, 1993).

According to Hohmann and Weikart (1995), the curriculum employed by many Head Start programs across the country is the High/Scope Preschool Curriculum. The basic framework of the High/Scope approach is the "plan-do-review process." Teachers provide time for children to plan their play activities, carry them out, and reflect on what they have done. The principles that guide teachers in their daily work concern active learning, adult-child interaction, learning environment, and daily routine. Teachers support children's initiative to learn actively about their environment. Young children gain knowledge by experiences which they obtain meaning from through reflection. These experiences help them to make sense of their world. Teachers encourage

experiences by supporting activities such as pretending and role playing, having fun with language, expressing creativity in movement, etc. Realizing that positive adult-child interaction is important, teachers attempt to be as supportive as possible -- sharing control with children, focusing on children's strengths, and adopting a problem-solving approach to social conflict.

In addition to supporting active learning through positive adult-child interactions, High/Scope also considers planning the layout of the preschool classroom and selecting appropriate materials as important because the physical environment has a strong impact on behavior of children. Teachers, thus, organize stimulating play materials into different areas of the classroom to support children's interests such as reading centers, pretending and role play areas, and counting, singing, and dancing spaces. Within this setting teachers also plan a consistent daily routine that supports active learning. This gives preschoolers an opportunity to expect what happens next, giving them a sense of control in their lives (Hohmann & Weikart, 1995).

According to Zigler and Styfco (1993), evaluations of the effectiveness of Head Start programs have led to controversial results due mostly to disagreements concerning program goals. Head Start has been considered a failure in some respects and a success in others. According to Zigler (1979), if success is determined by the measure of long-term, increased IQ scores of disadvantaged at-risk children, then Head Start has been a failure. However, if improved social competence is used to determine program impact which was its original goal, then Head Start has been a success. Head Start children have been found to achieve goals of effectively learning formal concepts, performing well in school, abiding by the law, and relating well with other people. In addition, they have had less need for special education and less chance of failing a grade level in later school years. Despite facing the adversities of poverty and single-parent homes, Head Start children have acquired many social and problem solving competencies (Schweinhart & Weikart, 1986).

Al's Pals: Kids Making Healthy Choices

According to Dubas, Lynch, Galano, Geller, and Hunt (in press), Al's Pals: Kids Making Healthy Choices is a resiliency-based curriculum designed to aid teachers in serving the special needs of at-risk preschool children who often live in poverty-stricken neighborhoods. Its overall goal is to build positive attitudes and prosocial health-promoting competencies. The Al's Pals curriculum consists of 43 20-minute lessons which trained teachers present to their preschool students. The lessons cover a variety of topics adapted from research on resiliency and give teachers the opportunity to introduce substance abuse and violence prevention strategies.

Some of the components of resiliency and prosocial behavior covered in the curriculum include identifying and understanding feelings, appreciating different ideas, brainstorming, coping in safe and healthy ways, and non-violent problem solving. Other lessons teach knowledge about which substances are safe or harmful to touch, pick up, smell, taste, or eat. After being introduced, teachers review these concepts and children practice them in naturally occurring interactions in the ongoing environment of the classroom. Teachers serve as guides and facilitators, encouraging children to actively participate through hands-on experience. Through the use of creative activities, puppetry, and songs, children learn prosocial alternatives to violent and negative behaviors they may be experiencing in their home environments.

Parents are also encouraged to use the techniques described by the curriculum. Letters are sent home with children which suggest activities parents can do with their children to supplement and reinforce the lessons the child is exposed to at preschool. In addition a newly-designed parent curriculum is being developed to coincide with the Al's Pals curriculum.

During the past two school years and the current school year, a local Head Start has implemented the Al's Pals curriculum in addition to the High/Scope curriculum within its daily schedule. During the first two years of implementation of Al's Pals, only

one of four classrooms used the curriculum. During the current school year, this local Head Start expanded to using the curriculum in three of its four classrooms. Thus, this specific Head Start lends itself to an evaluation examining students exposed to the resiliency curriculum compared to those students not exposed to the curriculum.

In the present study, a comparison was made and analyzed concerning the effects on prosocial behavior of enrolled students at a local Head Start program with and without the use of the resiliency curriculum, Al's Pals: Kids Making Healthy Choices. By analyzing data collected over three years, it was hypothesized that children attending classrooms using the resiliency curriculum would make more improvements in prosocial behaviors and would decrease in their display of inappropriate social behaviors over the course of the school year compared to those students whose classrooms did not use the resiliency curriculum. In addition to being exposed to the resiliency curriculum, those children whose parents were more involved in their education were expected to show the greatest improvements in prosocial behavior.

Method

Participants

The participants in the present study were 71 children, ages three to five, and their parent/guardian(s) enrolled at a local Head Start program during the 1996-1997 school year. In addition, the measures completed on 93 other students during the previous two years at the same Head Start program were analyzed. The sample consisted of data collected on students' behaviors over the course of three years from a total of 12 classrooms -- 8 previous classrooms and 4 new classrooms. Five classrooms used the Al's Pals curriculum (the Al's Pals group) while the other seven classrooms did not (the control group). Table 1 summarizes participant information and data collection.

 Insert Table 1 here.

Materials

Child measures. Two questionnaires -- the "Matson Evaluation of Social Skills With Youngsters" (MESSY) and the "Prosocial Behaviour Questionnaire" (PBQ) -- were used in this study to assess social behavior change over the course of the Head Start school year. The MESSY consists of 64 items describing various behaviors which teachers rated on a 5-point Likert-type scale. For each item, teachers rated each child on whether or not the child performed the behavior on a scale from (1) never to (5) always. The questionnaire was scored on two factors: Inappropriate Assertiveness/Impulsiveness and Appropriate Social Skills. Examples of the first factor include "Becomes angry easily," "Is bossy," and "Breaks promises." The second factor includes items such as "Makes other people laugh," "Helps a friend who is hurt," and "Looks at people when they are speaking." The test-retest reliability of the MESSY was found to be $r = 0.55$ ($n = 322$) (Matson, Rotatori, & Helsel, 1983). See Appendix A for measure.

The PBQ is a 12-item scale measuring naturally occurring prosocial behavior of young children in the school setting. Teachers rated each child on such behaviors as "will invite bystanders to join in a game" and "stops talking quickly when asked to" as either (1) rarely applies, (2) sometimes applies, or (3) often applies. According to Weir and Duveen (1981), PBQ test-retest reliability was $r = 0.91$ ($n = 79$) and inter-rater reliability was $r = 0.58$. See Appendix B for measure.

Parent measures. Teachers also completed parent measures in this study. To assess parent involvement, a question concerning parent involvement was added to the end of the MESSY which asked teachers to indicate the extent to which the parent was involved in the child's education. In addition, Head Start records were used to determine how much time parents spent interacting in the Head Start program.

Teachers also completed the "HOME Inventory for Families of Preschoolers," an observation and semistructured interview conducted in the home with parent and child. The HOME Inventory evaluates the quality and quantity of support for the cognitive,

social, and emotional development available to the child in the home environment. The inventory was modified from 55 questions to 50 questions for this study in order to eliminate nonapplicable questions. The items were evaluated using a "true" or "false" format. According to Bradley and Caldwell (1981), the HOME Inventory has proven to be a valid and reliable measure. See Appendix C for measure.

Procedure

In order to continue a 3-year longitudinal study, the original methodology was modified only slightly so that valid comparisons could be made. Like the previous two years, the Head Start teachers completed the child measures at two different times during the school year to assess child behavior changes. However, they no longer completed the "Children's Psychiatric Rating Scale" due to its nonapplicability to the present study. The first time teachers filled out the questionnaires was during October, the second month of school (Time 1). The second time data collection took place was in March, the seventh month of school (Time 2). Teachers were encouraged to work with their aides in order to obtain a more accurate rating of child behavior change.

In order to collect data on the parent measure of the HOME Inventory, teachers completed the questionnaire after their second home visit in February. Head Start teachers are required to make three visits to the homes of each of their students during the course of the school year. Thus, completion of the measure did not inconvenience the normal schedule of the teachers.

Scoring

Child measures. The MESSY and the PBQ were scored using similar methods. For each child on which the teachers completed the MESSY, a mean rating was computed by averaging the ratings for those items which measured the Inappropriate Assertiveness/Impulsiveness factor and then averaging the ratings for those items measuring the Appropriate Social Skills factor. This resulted in two MESSY scores for each child. For each year of the study, change scores were also computed for each child

by subtracting the Time 1 scores from the Time 2 scores. Two overall mean change scores for the 3-year study were then calculated by averaging all change scores for the Inappropriate Assertiveness/Impulsiveness factor and then averaging all change scores for the Appropriate Social Skills factor.

For each child on which the teachers completed the PBQ, a mean rating was computed by averaging the ratings on all the items. This was used as each child's score. Like the MESSY, change scores were also computed using the PBQ by subtracting the Time 1 scores from the Time 2 scores. An overall mean PBQ change score was calculated by averaging the mean PBQ change scores from each year of the study.

Parent measures. The rating for the item at the end of the MESSY served as one measure of parent involvement in child education while the total number of minutes in which parents volunteered at Head Start served as another indication of parent involvement.

For each child on which the HOME Inventory was completed, a mean rating served as each child's score of parent/home environment. This score was calculated by averaging the ratings of all the items. "True" ratings were scored as "1" while "false" ratings were scored as "2." All items on the HOME Inventory described positive parent behaviors except items 21, 25, and 38 which were reverse scored. An overall mean HOME score was then computed by averaging the HOME scores across the 3-year study.

Results

Child Measures

To assess whether or not AI's Pals had an overall effect on the development of social behavior in Head Start children, a one-way MANOVA was first performed using the 3-year mean change scores on the Inappropriate Assertiveness/Impulsiveness factor, the Appropriate Social Skills factor, and the PBQ as the dependent variables. The grouping or independent variable was whether or not the child had participated in the AI's Pals program. To ensure that this was a valid method to analyze the data, it was

necessary to first determine whether or not the two groups differed at Time 1 of each year. The two groups did not differ at Time 1 of each year. Also, no significant differences in the 3-year change means were found between the two groups, $F(3, 145) = 1.56, p = .201$ according to the Pillais criterion. However, the MESSY measure of appropriate social behavior approached significance, $F(1, 147) = 2.82, p = .095$. Compared to those children not exposed to the Al's Pals curriculum, participants in the Al's Pals program appeared to improve more in their appropriate behaviors indicated by their increase in performing these social skills. Means and standard deviations are presented in Table 2.

 Insert Table 2 here.

To determine when during the study Al's Pals was having an effect, separate one-way MANOVAs were conducted for each year on the change scores for the Inappropriate Assertiveness/Impulsiveness factor, the Appropriate Social Skills factor, and the PBQ. MANOVAs revealed no significant differences between the two groups for Year 1, $F(3, 46) = 1.62, p = .194$ and for Year 2, $F(3, 38) = 1.27, p = .294$ according to the Pillais criterion. However, for Year 3, a significant difference was found between the two groups with $F(3, 53) = 4.36, p < .01$. Univariate F-tests revealed that change in the Appropriate Social Skills factor was found to be significant, $F(1, 55) = 12.69, p < .01$. Like the overall results, participants in Al's Pals ($M = .34, SD = .49$) improved in their use of appropriate social skills compared to those children who did not participate in the program ($M = -.11, SD = .59$). This effect held even when a MANCOVA was performed using the HOME Inventory scores as a covariate, $F(3, 52) = 3.83, p < .05$. Univariate F-tests also showed that change in the Appropriate Social Skills factor was significant, $F(1, 54) = 11.34, p < .01$. The Al's Pals group ($M = .34, SD = .48$) improved significantly more than the control group ($M = -.15, SD = .63$).

Because Al's Pals exerted its effect most significantly on children's display of appropriate behavior in Year 3 of the study, t-tests were run in order to ascertain whether or not the children scoring below the mean in appropriate behavior at Time 1 improved at Time 2 in comparison to the children scoring above the mean. Overall, without examining these two groups according to whether or not they participated in Al's Pals, the two groups did significantly differ in terms of changes in their appropriate behavior from Time 1 to Time 2. The children scoring below the mean ($M = .3492$, $SD = .605$) increased in appropriate behavior significantly more than children scoring above the mean ($M = .0016$, $SD = .504$) with $t(1,55) = 2.39$, $p < .05$.

In respect to the children scoring *below* the mean, those children participating in Al's Pals ($M = .4920$, $SD = .456$) tended to improve more in appropriate behavior than those children not participating in the program ($M = .0280$, $SD = .793$). These results were significant with $t(1, 23) = 1.90$, $p < .05$. Of the children scoring *above* the mean at Time 1, those children participating in Al's Pals ($M = .1781$, $SD = .488$) also improved significantly more than those children not participating in the program ($M = -.1750$, $SD = .470$). These results were significant with $t(1, 30) = 2.08$, $p < .05$.

Parent Measures

Pearson correlations were performed on the parent measures (MESSY parent involvement question, parent volunteer minutes, and the HOME Inventory) and the child measures (the MESSY Inappropriate Assertiveness/Impulsiveness factor, the MESSY Appropriate Social Skills factor, and the PBQ) for Year 2 and Year 3. Because two of the three parent measures were added after Year 1 of the study, only the data from the last two years of the study were included. This examination was done in order to assess whether or not there was a relationship between child behavior and parent involvement in child education. Two sets of correlations were run: one set consisting of Al's Pals participants and one set consisting of the control group.

For those children participating in Al's Pals, significant relationships were found between the following variables: MESSY involvement question for Year 2 and volunteer minutes for Year 2 ($r = .496, p < .05$), MESSY involvement question for Year 3 and volunteer minutes for Year 3 ($r = .466, p < .05$), change in inappropriate behavior for Year 3 and the HOME score for Year 3 ($r = .406, p < .05$), and MESSY involvement question for Year 3 and HOME score for Year 3 ($r = -.486, p < .05$). The first two correlations are logical in that as teachers' perceptions of parent involvement increased (indicated by their ratings of the MESSY involvement question) so did the parent volunteer minutes (indicated by the records at Head Start). The third correlation indicates that inappropriate behavior increased as the home environment was less supportive for Year 3. Finally, the last correlation shows the relationship that as teachers' perceptions of parent involvement increased the home environment was more supportive for Year 3. The correlations between the key parent measure, the HOME Inventory, and the child behavior measures are shown in Table 3.

 Insert Table 3 here.

For those children making up the control group, significant relationships were found between the following variables: MESSY involvement question for Year 2 and volunteer minutes for Year 2 ($r = .411, p < .05$), MESSY involvement question for Year 2 and HOME score for Year 2 ($r = -.344, p < .05$), change in inappropriate behavior for Year 3 and HOME score for Year 3 ($r = -.520, p < .05$), and MESSY involvement question for Year 3 and HOME score for Year 3 ($r = -.522, p < .05$). The first correlation is logical in the same way as explained previously with the Al's Pals group. The second correlation shows that as teachers' perceptions of parent involvement increased the home environment was more supportive during Year 2. The last two correlations concern Year 3. As inappropriate behavior increased, the home environment was more supportive.

Finally, as teachers' perceptions of parent involvement increased, the home environment was more supportive.

Reliability and Validity

As part of this study, a substudy of reliability and validity was conducted by using the original measures of the study (the MESSY and the PBQ) and also the evaluative measure developed by the AI's Pals evaluation program (VCU measure) only for Year 3. Like the MESSY and the PBQ, the VCU measure asked teachers to rate prosocial behaviors for each child. Completion of this measure also occurred at two different times, at the beginning of the school year and at the end of the school year. While the Time 1 completion was at the same time as the measures of this study, the Time 2 completion was slightly later, during the eighth month of the school year. See Appendix D for VCU measure.

As a measure of reliability, the internal consistency was calculated using Cronbach's alpha coefficient for each measure. The alphas were .971, .888, .955, and .906 for the VCU measure, PBQ, MESSY Inappropriate Assertiveness/Impulsiveness factor, and MESSY Appropriate Social Skills factor respectively. Thus, all items within each questionnaire consistently measured what they were supposed to measure, the same construct.

To assess concurrent validity, Pearson correlations were run between this study's measures and the VCU measure at Time 1 and Time 2. Table 4 summarizes these results.

 Insert Table 4 here.

As can be seen above, the measures significantly correlate with each other establishing concurrent validity.

Finally, a factor analysis was run on all the items from these questionnaires at Time 2. The analysis revealed that there may actually exist three factors instead of simply two factors. To establish factors, item loadings > 0.50 were retained for all factor-based scales.

Insert Table 5 here.

By examining the factor loadings and corresponding items in Table 5, it appears that three factors may more fully explain what the questionnaires are measuring. In addition to an Inappropriate Assertiveness/Impulsiveness factor (Factor 1) and an Appropriate Social Skills factor (Factor 2), a third factor which can be called Appropriate Assertiveness/Extraversion (Factor 3) should be considered in future use.

Discussion

This evaluation comparing Head Start children participating in Al's Pals to those Head Start children not participating in the program has given some support to its effectiveness. Although the Al's Pals group was not overall significantly different from the control group on any of the measures used (the MESSY Inappropriate Assertiveness/Impulsiveness factor, the MESSY Appropriate Social Skills factor, and the PBQ), there was a trend found in which the Al's Pals group did tend to show a greater increase in prosocial behaviors indicated by the MESSY Appropriate Social Skills factor. In fact, during Year 3 of the study, this effect reached significance. This finding supported the hypothesis that children attending classrooms using the resiliency curriculum would make more improvements in prosocial behaviors compared to those children not exposed to the curriculum. Contrary to the expected results, the Al's Pals group did not significantly differ in their display of inappropriate social behavior over the course of the school year compared to the control group. Thus, it appears that the Al's

Pals program has a greater effect in increasing prosocial behaviors than in decreasing inappropriate social behaviors.

As opposed to the .01 significance level, the .05 significance level was chosen to use during the analyses in this study. Because the Al's Pals program is still so new, it would be a disservice to today's young children if benefits of the program went undetected due to using a conservative significance level to analyze data collected. However, employing a significance level less conservative than the commonly accepted .05 level may not prove credible to outside evaluators and critics.

To investigate the significant effects of Al's Pals on child prosocial behavior during Year 3, children who scored below the mean on the MESSY Appropriate Social Skills factor at the beginning of the year were specifically examined. Because these children were exhibiting fewer prosocial behaviors at the beginning of the school year, they would have the most room for improvement and could benefit the most from this resiliency curriculum. They did in fact benefit from participating in the program indicated by their greater change scores compared to those children who scored above the mean at the beginning of the year. Although part of this change can simply be attributed to regression toward the mean, the change is large enough that it can be reasonably concluded that the change is partially due to the effects of the Al's Pals curriculum. These results show that all children can benefit from the curriculum -- those children who at first already exhibit prosocial behaviors and those children who at first exhibit fewer prosocial behaviors.

Only in Year 3 of the study did the MESSY Appropriate Social Skills factor reach significance, indicating greater improvement in prosocial behavior in the Al's Pals group compared to the control group. This could be due to the youth of the Al's Pals curriculum. Each year since the curriculum was first field-tested in 1993-1994, it has undergone implementation, evaluation, and revision. Training of teachers to guide the

children through each lesson of the curriculum has also been revised each year in order to improve implementation (Dubas et al., in press).

It is interesting that the MESSY Appropriate Social Skills factor which measures different child prosocial behaviors detected differences between the Al's Pals group and the control group while the PBQ, which also measures different child prosocial behaviors, did not. This may be due to the MESSY Appropriate Social Skills factor consisting of 20 items while the PBQ only consists of 12 items. In addition, Cronbach's alpha coefficient for the PBQ was slightly less than for the MESSY Appropriate Social Skills factor. Thus, these points may suggest that the MESSY Appropriate Social Skills factor may be a better measure of prosocial behavior than the PBQ.

In respect to the parent measures used in this study, it is not surprising that a significant relationship was found between the MESSY parent involvement question and parent volunteer minutes. As Head Start teachers' perceptions of parent involvement increased so did the time that parents volunteered at Head Start. As Head Start teachers' perceptions of parent involvement increased, the home environment was also found to be more supportive. An unexpected and interesting comparison that can be made between the Al's Pals group and the control group is the relationship between display of inappropriate behavior and home environment in Year 3. The Al's Pals group increased its inappropriate behavior as the home environment was less supportive, or in other words, it decreased its inappropriate behavior as the home environment was more supportive. However, the control group increased its inappropriate behavior as the home environment was *more* supportive. This may suggest that parents may be reacting to their children more appropriately when the children have been exposed to the Al's Pals program and were using more prosocial skills.

Finally, the reliability and validity analyses showed that the MESSY, the PBQ, and the VCU measure all had high internal consistency and significantly correlated with each other. These results gave support to the measures' reliability and validity. However,

the factor analysis revealed that there may exist a third factor that the questionnaires were measuring. This factor appeared to be another dimension of appropriate behavior which could be more specifically called an Appropriate Assertiveness/Extraversion factor due to the content of the items loading on it.

Methodological Considerations

Due to convenience and the need to cause as little disruption as possible, teachers served as raters of their students' behavior and their students' home environments in this study. Consequently, each teacher and her aide determined their students' scores on each of the questionnaires. Teacher bias could be a problem in interpreting the results of this study specifically in regard to the appropriate behavior scoring. First of all, it is impossible to know if the children's prosocial behavior really improved or not. It is especially a problem for those teachers using the Al's Pals curriculum. They knew they were using new resiliency-based lessons and may have been eager to see changes in child behavior across the year. However, the fact that no significant decreases in inappropriate behavior were found could lend support to the absence of teacher bias. In addition, many researchers in other studies have found teachers to be a highly reliable and valid source of ratings for child behavior (Denham & Holt, 1993; Eisenberg & Mussen, 1989). Ideally, outside raters would observe child behavior in order for ratings to be more objective, but because this study took place in an applied setting with no funding to pay raters, this was not possible.

Another factor to be addressed in this study is the way in which the two comparison groups -- the Al's Pals group and the control group -- were formed. It was ideal that some of the Head Start classrooms used the Al's Pals curriculum while others did not in order that comparisons could be made concerning the effects of this resiliency program. To analyze the overall effects of the program, the groups were formed by collapsing across the three years of data collection so that all students who were exposed to Al's Pals made up the Al's Pals group while those students not exposed to Al's Pals

made up the control group. However, the analyses may have revealed more precise effects if equal numbers of students used the curriculum and did not use it each year.

During the first two years of the study, only one classroom used the AI's Pals curriculum. This classroom could have biased the results because it was considered to be the strongest classroom by the education coordinator. Thus, one might conclude that AI's Pals would simply possess a better chance of having a beneficial effect due to this fact. When the effects of the AI's Pals curriculum were examined separately for each year, however, there were no effects found for either Year 1 or Year 2. In Year 3, AI's Pals did appear to have a beneficial effect on child prosocial behavior. With two additional classrooms using the curriculum, any effects of the "stronger" classroom were most likely diluted. It must be considered, however, that the control or comparison group consisted of only one classroom not using the AI's Pals curriculum. The participants in this group were 3-year-old children compared to the 4-year-old children in the AI's Pals group. While the results are promising, it is necessary to be cautious about their interpretation due to the unequal numbers of participants each year and the age difference between the two groups during the last year of the study.

Future Research

Because AI's Pals appears to have promising effects on increasing prosocial behavior in children in this Head Start program, studies should continue to evaluate it and refine the curriculum so that it can become a high-quality, maximum effective curriculum. A specific question which would be interesting to investigate is determining what minimum age is necessary for children to be in order to obtain benefits from AI's Pals. According to Benard (1992), children are more likely to develop characteristics of resiliency if given support as early as possible. Can 3-year-old children benefit from the program in the same ways as 4- and 5-year-old children? In addition, how long do these benefits continue? Longitudinal studies are needed in order to answer the latter question.

Two other areas of investigation should also be examined -- ascertaining if child behavior change is affected by teacher experience with the program and learning how child behavior is affected when the child participates in AI's Pals and the parent participates in the corresponding parent program. In reference to the first question, it may make a difference in child behavior if the teacher has had several years of experience working with the curriculum. Logically, the teacher with more practice would be more skilled at guiding the children through the resiliency lessons. The second question deals with an ideal intervention program -- one that educates both the child and the parent. Involving the parent has been identified and recommended as a necessary contributor to program success (Gomby, Lerner, Stevenson, Lewit, & Behrman, 1995).

Some final suggestions for areas of research include collecting qualitative data concerning the effects of AI's Pals and also follow-up data. Qualitative data such as teacher feedback could be important in detecting effects of AI's Pals not easily discerned by the measures used in this study. Teacher feedback could serve as evidence for support of the curriculum. Follow-up data is also necessary to fully understand the effects of AI's Pals. Specifically, data should be collected on the same children the following year after they are exposed to AI's Pals. Because some of the most influential lessons were not completed at the Time 2 data collection, this study may have limited the measured effects. These lessons are placed near the end of the school year because they deal with complex skills which must build on simple skills learned in earlier lessons.

In conclusion, newly-designed curricula like AI's Pals are much needed in today's world. According to Gomby et al. (1995), the disadvantages associated with poverty are much more severe today than they were in the past. Children now face environments filled with alcohol and drug abuse, domestic violence, and street violence. Many children live in single-parent homes. It is unlikely to see the same benefits today from programs that were effective with disadvantaged children 20 or 30 years ago. Poverty has changed and with it the needs of children and families have changed. Curricula used

in the most high-quality programs employ children as active learners and expose children to what they are likely to experience in school. The AI's Pals curriculum has attempted to address some of these issues through its lessons that actively engage children in learning to deal with issues such as solving conflict in non-violent ways, knowing which substances are safe or harmful to taste or smell, expressing feelings, and understanding that problems in the family are not the child's fault. Resiliency-based programs like AI's Pals deserve attention and investigation in order to aid the growing number of children which are confronted with the detrimental effects of poverty each day.

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Appendix A

Identification Information

Rater's Name _____ Date _____

Classroom Number _____

Child's Name _____

Sex: F M
Date of Birth _____
Race _____

Average frequency of rater and child contact (average days/week):

1 _____ 2 _____ 3 _____ 4 _____ 5 _____

Parent/Guardians' Name _____

Marital status: Single-1 Married-2 Separated-3 Divorced-4
Number of children _____

*Identification Number _____
-rater does not code-

Matson Evaluation of Social Skills
with Youngsters (MESSY):
(Teacher Rating Form)

DIRECTIONS

This survey is a measure of social behavior. This assessment involves rating how often a CHILD you're familiar with engages in the behaviors described.

Rate how often the CHILD demonstrates the behaviors in those situations where they might occur.

Be sure to rate how often each behavior is done, not what you think a good answer would be. Please circle your response. No one will be told how you answer.

ID number _____	Teacher Report				
	Never		Sometimes		Always
1. Makes other people laugh (tells jokes, funny stories, etc.).	1	2	3	4	5
2. Threatens people or acts like a bully.	1	2	3	4	5
3. Becomes angry easily.	1	2	3	4	5
4. Is bossy (tells people what to do instead of asking).	1	2	3	4	5
5. Gripes or complains often.	1	2	3	4	5
6. Speaks (breaks in) when someone else is speaking.	1	2	3	4	5
7. Takes or uses things that are not his/hers without permission.	1	2	3	4	5
8. Brags about self.	1	2	3	4	5
9. Slaps or hits when angry.	1	2	3	4	5
10. Helps a friend who is hurt.	1	2	3	4	5
11. Gives other children dirty looks.	1	2	3	4	5
12. Feels angry or jealous when someone else does well.	1	2	3	4	5
13. Picks out other children's faults and mistakes.	1	2	3	4	5
14. Always wants to be first.	1	2	3	4	5
15. Breaks promises.	1	2	3	4	5
16. Lies to get what (s)he wants.	1	2	3	4	5
17. Picks on people to make them angry.	1	2	3	4	5
18. Walks up to people and starts a conversation.	1	2	3	4	5
19. Says "thank you" and is happy when someone does something for him/her.	1	2	3	4	5
20. Is afraid to speak to people.	1	2	3	4	5
21. Hurts others' feelings on purpose (tries to make people sad).	1	2	3	4	5
22. Is a sore loser.	1	2	3	4	5

Teacher Report

	Never	Sometimes	Always		
23. Makes fun of others.	1	2	3	4	5
24. Blames others for own problems.	1	2	3	4	5
25. Sticks up for friends.	1	2	3	4	5
26. Looks at people when they are speaking.	1	2	3	4	5
27. Thinks (s)he knows it all.	1	2	3	4	5
28. Smiles at people (s)he knows.	1	2	3	4	5
29. Is stubborn.	1	2	3	4	5
30. Acts like (s)he is better than others.	1	2	3	4	5
31. Shows feelings.	1	2	3	4	5
32. Thinks people are picking on him/her when they are not.	1	2	3	4	5
33. Thinks good things are going to happen.	1	2	3	4	5
34. Works well on a team.	1	2	3	4	5
35. Makes sounds that bother others (burping, sniffing).	1	2	3	4	5
36. Brags too much when (s)he wins.	1	2	3	4	5
37. Takes care of others' property as if it were his/her own.	1	2	3	4	5
38. Speaks too loudly.	1	2	3	4	5
39. Calls people by their names.	1	2	3	4	5
40. Asks if (s)he can be of help.	1	2	3	4	5
41. Feels good if (s)he helps others.	1	2	3	4	5
42. Defends self.	1	2	3	4	5
43. Always thinks something bad is going to happen.	1	2	3	4	5
44. Tries to be better than everyone.	1	2	3	4	5
45. Asks questions when talking with others.	1	2	3	4	5
46. Feels lonely.	1	2	3	4	5
47. Feels sorry when hurts others.	1	2	3	4	5
48. Gets upset when (s)he has to wait for things.	1	2	3	4	5
49. Likes to be the leader.	1	2	3	4	5

	Teacher Report				
	Never	Sometimes			Always
50. Joins in games with other children.	1	2	3	4	5
51. Plays by the rules of a game.	1	2	3	4	5
52. Gets into fights a lot.	1	2	3	4	5
53. Is jealous of other people.	1	2	3	4	5
54. Does nice things for others who are nice to him/her.	1	2	3	4	5
55. Tries to get others to do what (s)he wants.	1	2	3	4	5
56. Asks others how they are, what they have been doing, etc.	1	2	3	4	5
57. Stays with others too long (wears out welcome).	1	2	3	4	5
58. Explains things more than needs too.	1	2	3	4	5
59. Is friendly to new people (s)he meets.	1	2	3	4	5
60. Hurts others to get what (s)he wants.	1	2	3	4	5
61. Talks a lot about problems or worries.	1	2	3	4	5
62. Thinks that winning is everything.	1	2	3	4	5
63. Hurts others when teasing them.	1	2	3	4	5
64. Wants to get even with someone who hurts him/her.	1	2	3	4	5

1. The extent to which the parent is involved in the child's education. (General concern, volunteer hours, communication with teachers, encouragement of child, etc.)

1	2	3	4	5
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Appendix B

Pro-Social Behaviour Questionnaire (PBQ)

DIRECTIONS

Selections from the Prosocial Behaviour Questionnaire (PBQ)

Below is a list of 12 statements about children's behavior which may be shown by a child during the school day. Based on your knowledge and observations of the child, circle the appropriate number beside each statement.

Although it is difficult, it is important to try to answer each question as objectively and independently as possible.

In rating each statement disregard your ratings for that child on every other statement; try not to let general impressions color your judgements about specific aspects of the child's behavior.

ID number _____	PBQ- Teacher Rating		
	Rarely	Sometimes	Often
1. If there is a quarrel (s)he will try to stop it.	1	2	3
2. Shares materials being used in a task.	1	2	3
3. Will invite bystanders to join in a game.	1	2	3
4. Will try to help someone who has been hurt.	1	2	3
5. Apologizes spontaneously after a misdemeanor.	1	2	3
6. Stops talking quickly when asked to.	1	2	3
7. Helps other children who are feeling sick.	1	2	3
8. Can work easily in a small peer group.	1	2	3
9. Comforts a child who is crying or upset.	1	2	3
10. Is efficient in carrying out regular tasks--such as helping with school milk.	1	2	3
11. Settles down to work easily.	1	2	3
12. Voluntarily helps clean up a mess someone else has made.	1	2	3

Appendix C
Identification Information

Rater's Name: _____

Date: _____

Classroom Number: _____

Child's Name: _____

*Identification Number (rater does not code) _____

Home Inventory for Families of Preschoolers

In each category, place a "T" (true) or a "F" (false) in the appropriate box. Please base your ratings as closely as possible on your actual observations. If you are unable to base ratings on observations, please infer what you believe is the correct rating whenever you feel comfortable in doing so.

ID Number _____

I. LEARNING STIMULATION

1. Child has toys which teach color, size, shape..... _____
2. Child has three or more puzzles..... _____
3. Child is encouraged to learn shapes..... _____

II. LANGUAGE STIMULATION

4. Child is encouraged to learn the alphabet..... _____
5. Parent teaches child simple verbal manners (please, thank you)..... _____
6. Parent encourages child to talk and takes time to listen..... _____
7. Parent's voice conveys positive feeling to child..... _____
8. Parent engages in much meaningful verbal interaction with child..... _____

III. PHYSICAL ENVIRONMENT

9. House is reasonably clean and minimally cluttered..... _____

IV. WARMTH

10. Parent converses with child at least twice during the visit..... _____
11. Parent usually responds verbally to child's speech..... _____
12. Parent caresses, kisses, or cuddles child during visit..... _____
13. Child is treated with warmth..... _____
14. Parent responds to child's bids for closeness and tenderness with attention..... _____
15. Parent listens carefully to child when (s)he relates personal experiences; encourages child to express personal experiences..... _____

V. ACADEMIC STIMULATION

16. Child is encouraged to learn patterned speech (songs, etc.)..... _____
17. Child is encouraged to learn colors..... _____
18. Child is encouraged to learn numbers..... _____
19. Appropriate standards are set and encouraged for child..... _____
20. Parent teaches child what (s)he needs to know in order to fulfill expectations of self-help or participation in household tasks..... _____

VI. MODELING

21. Parent expresses few feelings about, and places few or no restrictions on, child's TV viewing..... _____
22. When child does not do as (s)he wishes, parent remains calm and in control of (her)himself..... _____

23. Parental directives or expressed wishes generally include a reason _____
24. Restrictions are placed on what the child eats between meals, or on amount of sweets or other foods regarded as non-nutritive..... _____
25. Parent seems to have a low energy level, is withdrawn, or depressed..... _____

VII. VARIETY IN EXPERIENCE

26. Parent encourages child to put away toys without help..... _____
27. Child's art work is displayed some place in the home..... _____
28. Parent actively encourages child to experiment and to act independently provided (s)he asks (her)him first..... _____
29. Parent encourages child to share and be cooperative with others..... _____
30. Parent generally offers child alternatives; avoids directing the child's day-to-day activities. _____
31. Parent feels comfortable about leaving child with other safe adults in (her)his absence..... _____
32. Parent encourages child to (un)dress (her)himself with only occasional help..... _____
33. Parent requires child to help clean up any mess (s)he makes..... _____
34. Parent appears to devote time to teaching child how to do things for (her)himself and encourages child to be self-sufficient..... _____

VIII. ACCEPTANCE

35. Parent does not scold or derogate child more than once during visit..... _____
36. Parent does not slap nor spank child during visit..... _____
37. When child initially does not obey, parent does exert force or influence to alter (her)his behavior..... _____
38. When child does not obey, parent is often clearly and openly irritated, annoyed, or impatient..... _____
39. Discipline or correction is administered in a supportive manner; with love and concern..... _____

IX. LIMIT SETTING

40. Parent directs child's activity with rules and regulations during the visit..... _____
41. Parental directives are generally enforced when the child at first fails to comply..... _____
42. Child is expected to regularly perform one or two household tasks (chores) on a routine basis and parent insists that (s)he do so..... _____

- 43. Parent appears to have a code of (un)acceptable behavior which (s)he consciously attempts to convince child is right....._____
- 44. Child cannot overcome parental opposition by crying or causing a commotion....._____
- 45. Child is expected to put (her)his own toys away or to considerably help parent in putting (her)his own toys away....._____
- 46. Parent exercises (her)his power to punish noncompliance and rewards compliance and is not ambivalent about the use of social reinforcement to obtain compliance....._____
- 47. Parent requires child to pay attention to (her)him when (s)he talks to (her)him and will persistently repeat directives and demand attention if child tries to disregard (her)him....._____
- 48. Parent reinforces mannerly behavior during visit when necessary....._____

X. MISCELLANEOUS

- 49. Parent's childrearing is adapted to the stage, age, and developmental level of the child....._____
- 50. Parent behaves in a secure and self-accepting manner during the visit; seems at ease....._____

COMMENTS:

Please feel free to add any pertinent information regarding your ratings or comments on the child's family which you feel would help clarify your responses.

Appendix D

VIDD/VCU CHILD BEHAVIOR RATING SCALE

Using the 1 to 5 scale below, please rate the child on each of the 20 items, based on your observations of the child's behavior. Indicate one rating for each item by writing the number of the rating you select on the line in front of the item.

1	2	3	4	5
Almost Never Does	Usually Does Not	Sometimes Does	Usually Does	Almost Always Does

TO WHAT EXTENT DOES THE CHILD:

- ____ 1. Share toys or materials
- ____ 2. Act in a caring way toward others
[e.g., spontaneously helps others, assists another child with a difficult task, tries to help someone who has been hurt, picks up something someone has dropped]
- ____ 3. Play well with other children
- ____ 4. Take turns
[e.g., waits for a turn, or waits to be called on]
- ____ 5. Find non-aggressive ways of resolving a problem with other children
[e.g., uses words; trades, shares, or waits; does not hit or grab]
- ____ 6. Continue to participate in an activity without having to have an adult encourage or direct participation
- ____ 7. Accept limits set on his or her activity
[e.g., limits of play space, use of materials, type of activity]
- ____ 8. Move smoothly from one activity to another
[e.g., is not disruptive or rebellious]
- ____ 9. Accept change in routine without becoming upset or resisting
- ____ 10. Appropriately express feelings
[e.g., anger, sadness, pride, joy]

1	2	3	4	5
Almost	Usually	Sometimes	Usually	Almost
Never Does	Does Not	Does	Does	Always Does

TO WHAT EXTENT DOES THE CHILD:

- _____ 11. Try different ways of solving a problem
 [e.g., does not get stuck in one way of doing things]
- _____ 12. Demonstrate self-control
 [e.g., thinks before acting; does not act impulsively; thinks about the consequences of acting]
- _____ 13. Seem to feel good about who he or she is, to like himself or herself
- _____ 14. Use effective communication skills
- _____ 15. Show sensitivity to or awareness of the feelings of others
 [e.g., notices and responds appropriately when someone is sad, angry, proud]
- _____ 16. Work well in a small group
- _____ 17. Listen and pay attention
- _____ 18. Appropriately handle or manage very strong feelings
 [e.g., is able to calm self down]
- _____ 19. Seem to consider how his or her actions affect others
- _____ 20. Understand how to keep himself or herself safe and healthy
 [e.g., makes good food and drink choices, knows what is and is not appropriate touching, has respect for medicine, asks for adult help when needed]

THANK YOU!

Table 1

Number of Head Start Children Participating in Study by Group and Year

School Year	<u>Al's Pals</u>			<u>Control</u>		
	<u>T1</u> <u>n</u>	<u>T2</u> <u>n</u>	<u>Actually Used</u> <u>n</u>	<u>T1</u> <u>n</u>	<u>T2</u> <u>n</u>	<u>Actually Used</u> <u>n</u>
Year 1, 1994-1995	17	17	17	48	48	33
Year 2, 1995-1996	16	16	16	47	42	26
Year 3, 1996-1997	54	43	43	17	14	14

Note: Analyses in this study used change scores so only participants who had all measures at Time 1 and Time 2 were used. In addition, if children attended Head Start two years, only their second year measures were used in the analyses.

Table 2

Mean Change Scores Collapsed Across Study by Group

Group	<u>Appropriate factor</u>			<u>Inappropriate factor</u>			<u>PBQ</u>		
	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>
Al's Pals	.18	.58	76	.06	.59	76	.12	.41	76
Control	.04	.50	73	.03	.47	73	.15	.44	73

Table 3

Pearson Correlations Between the HOME Inventory and Child Measures for Year 3

	<u>AI's Pals</u>			<u>Non-AI's Pals</u>		
	<u>Appr</u>	<u>Inappr</u>	<u>PBQ</u>	<u>Appr</u>	<u>Inappr</u>	<u>PBQ</u>
HOME	.0292 p=.874	.4061 p=.021	-.1634 p=.372	.0259 p=.904	-.5203 p=.009	.0318 p=.886

Note: Appr is an abbreviation for the MESSY Appropriate Social Skills factor. Inappr is an abbreviation for the MESSY Inappropriate Assertiveness/Impulsiveness factor.

Table 4

Pearson Correlations Between VCU Measure and MESSY and PBQ for Year 3

	<u>Appr1</u>	<u>Appr2</u>	<u>Inappr1</u>	<u>Inappr2</u>	<u>PBQ1</u>	<u>PBQ2</u>
<u>VCU1</u>	.666 p= .013	.523 p= .066	-.656 p= .015	-.521 p= .068	.634 p= .020	.616 p= .025
<u>VCU2</u>	.562 p= .046	.514 p= .072	-.623 p= .023	-.700 p= .008	.671 p= .012	.702 p= .008

Note: Appr is an abbreviation for the MESSY Appropriate Social Skills factor and Inappr is an abbreviation for the MESSY Inappropriate Assertiveness/Impulsiveness factor. The numbers "1" and "2" stand for Time 1 and Time 2, respectively.

Table 5

Factor Analysis Loadings for Items from All Child Measures

	<u>Inappropriate</u>	<u>Appropriate</u>	<u>Extraversion</u>
<u>Item</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
VCUQ1	.	.89981	
VCUQ10	-.57013	.74194	
VCUQ11		.81309	
VCUQ12		.86703	
VCUQ13			
VCUQ14		.84184	
VCUQ15		.82681	
VCUQ16		.83657	
VCUQ17			
VCUQ18	-.52697	.54758	
VCUQ19		.86703	
VCUQ2		.97246	
VCUQ20		.65571	
VCUQ3		.77408	
VCUQ4		.96432	
VCUQ5		.73404	
VCUQ6	.68251	.58982	
VCUQ7		.96162	
VCUQ8		.62109	
VCUQ9		.97246	
MQ1			
MQ10			.50966
MQ11	.92254		
MQ12	.84057		
MQ13	.80275		
MQ14	.71527		
MQ15			
MQ16	.74126		
MQ17	.68511	-.50551	
MQ18			.77762
MQ19			.56149
MQ2	.89362		

(Table 5 continued)

MQ20	-.53022		
MQ21	.60760	-.65012	
MQ22	.80423		
MQ23	.77673		
MQ24	.85213		
MQ25		.77612	
MQ26		.77504	
MQ27	.91085		.70724
MQ28		-.70237	
MQ29			
MQ3	.74123		
MQ30	.90246		
MQ31	.73135		
MQ32	.76958		
MQ33		.56601	.62038
MQ34			.64343
MQ35			
MQ36	.90757		
MQ37			
MQ38	.61440		.75967
MQ39			.69032
MQ4	.67502		.93048
MQ40			.75389
MQ41			
MQ42			
MQ43	.74883		
MQ44	.95600		.94157
MQ45			
MQ46			
MQ47	-.70603		
MQ48	.76824		.50700
MQ49	.56924		
MQ5		.55503	.81644
MQ50			.52173
MQ51	-.50234		
MQ52	.72096		
MQ53	.69722		
MQ54			
MQ55	.64798		
MQ56		.50810	
MQ57	.80193		
MQ58			.74918
MQ59			
MQ6			
MQ60	.86514		
MQ61	.52327		
MQ62	.83215		
MQ63	.67202		
MQ64	.94081		
MQ7	.79525		
MQ8	.58094	-.63740	
MQ9	.89248		

(Table 5 continued)

PBQ1		.57004	
PBQ10			
PBQ11			
PBQ12			
PBQ2	-.75980		
PBQ3			
PBQ4		.55760	
PBQ5			.74228
PBQ6	-.57895		
PBQ7			.60318
PBQ8	-.81368		
PBQ9		.54080	

Note: VCUQ is an abbreviation for the VCU measure questions, MQ is an abbreviation for the MESSY questions, and PBQ is an abbreviation for the PBQ questions. The numbers following each abbreviation correspond to the item number on the questionnaire.

Elizabeth Holt McGee

She was born in Salisbury, North Carolina, on November 14, 1972. She graduated from Lee County Senior High School in Sanford, North Carolina, in June of 1991. She obtained her B.A. in Psychology from Wake Forest University in 1995 and her M.A. in General/Experimental Psychology from The College of William & Mary in 1997. She hopes to continue working with children in the future.