CHAPTER 3. METHOD

The current research employed principal components factor analysis to identify numerous predictors of parent and teacher ratings of children's social skills and problem behaviors. These predictors were structured into meaningful univariate models and examined. The current research used hierarchical multiple regression to:

(a) determine the unique contribution of select predictors of parents' ratings of the children's social skills;
(b) determine the unique contribution of select predictors of parents' ratings of the children's problem behaviors;
(c) determine the unique contribution of select predictors of teachers' ratings of the children's social skills; and
(d) determine the unique contribution of select predictors of teachers' ratings of the children's problem behaviors.

Sample

Data included in this research were gathered as part of the Head Start/Public School Transition Project (Virginia Site), and involved two cohorts (i.e., Cohort I and Cohort II). A total of 15 schools were randomly selected within Fairfax County, Virginia from a population of schools with high enrollments of Head Start children to participate in the Project. From the 15 schools, eight were randomly selected and served as the demonstration schools while the remaining seven schools served as the comparisons. All Head Start graduates who entered any of the demonstration and comparison schools upon enrollment in kindergarten in 1992 and 1993 were included in the sample (i.e., Cohort I and Cohort II, respectively). Also included were small samples of non-Head Start children, who were matched on ethnicity and gender to their Head Start classmates, in each of the same kindergarten classes. Thus, the total sample consisted of three to eight Head Start and three to eight non-Head Start children in each kindergarten class of each demonstration and comparison school.

For Cohort I, 184 of the 366 children included in the Project were enrolled in the demonstration schools and 182 children were enrolled in the comparison schools. Of the 184 children in the demonstration sample, 104 (57%) children had attended Head Start and 80 (43%) were non-Head Start children. Further, this sample included 107 (58%) males and 77 (42%) females, and represented all major ethnic groups (i.e., 31 Caucasians [17%]; 53 African Americans [29%]; 65 Hispanics/Latinos [35%]; 33 Asians [18%]; and 2 "other" [1%]). Of the 182 children included in the comparison sample, 100 (55%) children had attended Head Start and 82 (45%) were non-Head Start children. This sample included 100 males (55%) and 82 females (45%), and also represented all major ethnic groups (i.e., 50 Caucasians [27%]; 45 African Americans [25%]; 56 Hispanics/Latinos [31%]; and 31 Asians [17%]).

For Cohort II, 144 of the 290 children included in the Project were enrolled in the demonstration schools and 146 children were enrolled in the comparison schools. Of the Cohort II demonstration sample, 95 (66%) children had attended Head Start and 49 (34%) were non-Head Start children. Within this sample were 80 males (56%) and 64 females (44%). All major ethnic groups were represented, including 21 Caucasians (15%), 32 African Americans (22%), 62 Hispanics/Latinos (43%), and 29 Asians (20%). Of the Cohort II comparison sample, 99 (68%) children had attended Head Start and 47 (32%) were non-Head Start children. This sample included 69 males (47%) and 77 females (53%), and represented all major ethnic groups (i.e., 9 Caucasians [6%]; 52 African Americans [36%]; 66 Hispanics/Latinos [45%]; and 19 Asians [13%]).

Although the whole classroom served as the unit of treatment (i.e., the developmentally appropriate curriculum was administered to each full classroom), the Project followed only the Head Start children, their matched non-Head Start classmates, and their families from entry into kindergarten through the third grade. Over the course of the Project, data were gathered from the children in the sample and their families, teachers, and principals. Academic test scores (e.g., Metropolitan Achievement Test, Stanford) were also gathered from all children in the classroom as all classmates of the sample children were required to take them.

During the course of the Project, some children and their families moved out of the Fairfax County Public School (FCPS) system and were ultimately removed from the sample. Other children and their families moved to schools within Fairfax County, but outside the sample of 15 demonstration and comparison schools. It was possible to track these children through the FCPS management information system, but much too expensive to continue measuring them and their new classmates. Although the parents of these children were interviewed each year as long as they could be found, the children were dropped from the sample.

The remaining children were enrolled in one of the eight demonstration or seven comparison schools during the entire Project. Some of these children remained in a demonstration or a comparison school during their kindergarten through third grade year. Other families moved from the school in which the children were enrolled in kindergarten to another demonstration or comparison school. The current research included only the Head Start children and non-Head Start children matched on ethnicity and gender to their Head Start classmates, who remained in a demonstration or comparison school from the beginning of kindergarten through the end of second grade.

Sample Attrition

Attrition patterns were examined to detect biases that might have operated with respect to the loss of children. At the end of the Project, 102 of the 184 Cohort I children were still enrolled in the demonstration schools (i.e., 55%; 56 of the 104 Head Start children and 46 of the 80 non-Head Start children) and 84 of the 182 Cohort I children were still enrolled in the comparison

schools (i.e., 46%; 41 of the 100 Head Start children and 43 of the 82 non-Head-Start children). Although approximately 45% of the original Cohort I demonstration sample was lost, there were no significant differences on any of the demographic characteristics in the proportion of children who stayed compared to the proportion of children who left. That is, for the Cohort I demonstration sample, there were no significant differences in gender (i.e., males, 53 of 107 [52%]; females, 49 of 77 [48%]), ethnicity (i.e., Caucasian, 15 of 31 [15%]; African American, 28 of 53 [27%]; Hispanic/Latino, 37 of 65 [36%]; Asian, 20 of 33 [20%]; Other, 2 of [2%]), or Head Start/non-Head Start status (i.e., Head Start, 56 of 104 [55%]; non-Head Start, 46 of 80 [45%]) in the proportion of children who remained in the demonstration schools compared to the children who left.

There was a slightly greater loss of the original Cohort I comparison sample (i.e., 54%), in that this sample had a slightly greater loss of Head Start than non-Head Start children (i.e., Head Start, 41 of 100 [49%]; non-Head Start, 43 of [51%]). The Cohort I comparison sample also experienced a significantly greater loss of females than males (i.e., males, 51 of 100 [61%]; females, 33 of 82 {39%]). However, the final sample contained approximately the same proportion of ethnic representation as in the original comparison sample (i.e., Caucasian, 19 of 50 [23%]; African American, 19 of 45 [23%]; Hispanic/Latin, 31 of 56 [37%]; Asian, 15 of 31 [18%]).

For Cohort II, there remained enrolled at the end of the Project 73 (out of 144) children in the demonstration schools (i.e., 52 of the Head Start children and 21 of the non-Head Start children) and 78 (out of 146) children in the comparison schools (i.e., 60 of the Head Start children and 18 of the non-Head Start children). Although both Cohort II demonstration and comparison schools lost approximately 50% of their samples (i.e., 51% and 53%, respectively), both samples retained significantly more Head Start (i.e., demonstration, 52 of 95 [71%]; comparison, 60 of 99 [77%]) than non-Head Start children (i.e., demonstration, 21 of 49 [29%]; comparison, 18 of 47 [23%]). Further, while the Cohort II comparison sample retained approximately equally the number of males and females (i.e., males, 37 of 69 [47%]; females, 41 of 77 [53%]), the demonstration sample lost more females than males (i.e., females, 27 of 64 [37%]; males, 46 of 80 [63%]). Finally, the demonstration sample lost a greater proportion of its African American children (i.e., African American, 8 of 32 [11%]; Caucasian, 10 of 21 [14%]; Hispanic/Latino, 38 of 62 [52%]; Asian, 17 of 29 [23%]) while the comparison sample retained approximately the same proportion of members in each ethnic group as in the original sample (i.e., Caucasian, 5 of 9 [6%]; African American, 28 of 52 [36%]; Hispanic/Latino, 38 of 66 [49%]; Asian, 7 of 19 [9%]).

There appeared to be a different demographic pattern between the demonstration and comparison samples in Cohort I and Cohort II, with bias present in both samples. However, the bias was different in each Cohort, which indicates that the findings in one Cohort would likely be based on a different set of factors than the findings in the other Cohort. One reason for the difference between the Cohorts may be that, although the same matching procedures (i.e., gender,

ethnicity, and eligibility for free or reduced lunch) were used to select the non-Head Start children in both Cohorts, matching was much more accurate for Cohort II. Further, researchers on the Project considered Cohort I somewhat of a pilot test, such that lessons learned about the identification of the Cohort I sample and the procedures employed to collect data from these participants were applied to Cohort II. Because of the more accurate matching of the Cohort II sample and the increased confidence in the data gathered, the current research focused only on the demonstration and comparison samples included in Cohort II. Finally, only Cohort II Head Start children and non-Head Start children who remained in a demonstration or comparison school from the beginning of kindergarten through the end of second grade were included.

Instruments and Procedures

Face-to-face interviews were conducted to collect parent and teacher ratings about the children included in the present database. During interviews with the parents, various instruments were employed to collect qualitative and quantitative information about the child and his/her family. The interviews with teachers also used a number of instruments to collect both qualitative and quantitative information about the child.

Interview data were gathered from the families and teachers of the Transition Project sample children at the beginning and at the end of the children's kindergarten year, and at the end of the children's first, second, and third grade years. This research included only data gathered at the beginning and end of kindergarten and at the end of the first and second grades (i.e., four of the five time points). Each interview lasted approximately one hour and included multiple instruments. Brief descriptions of all instruments used in this research are provided below. Because of copyright agreements, copies of the instruments are not included in this document; however, full copies of the instruments can be obtained by writing to this author.1

Family Background Interview

The Family Background Interview was administered to collect demographic/background information about each family, including information about the families' households and the people who lived there. The interview was developed by staff at the Civitan International Research Center, University of Alabama and contains 20 core questions; branching was used so that additional questions were included, as appropriate. For this instrument, interviewees were instructed they could paraphrase, explain, or supplement any items included so that the interview was more sensitive to individual families and to cultural settings.

1 Copies of the instruments can be obtained by writing to Sheila Schultz at 66 Canal Center Plaza, Suite 400, Alexandria, Virginia 22314.

Family Resource Scale

The family was asked to respond to the Family Resource Scale (1985), which examined whether the family had adequate resources (e.g., time money, energy) to meet the needs of the family as a whole and the needs of the individual family members. This instrument was developed by H.E. Leet and C.J. Dunst, and includes 30 items. If the item was applicable, the family used a 5-point scale (1 = not at all, 5 = almost always adequate) to rate each item. Interviewers were instructed to read the items and directions as written on the instrument; however, they could re-read or clarify an item for the respondent, if necessary.

Family Routines Questionnaire

To obtain an idea of the family's general daily living pattern, the Family Routines Questionnaire (1983) was modified and administered. Developed by W.T. Boyce, E.W. Jensen, S.A. James, and J.L. Peacock, this questionnaire includes 28 core questions, plus four additional questions not from the original instrument, designed to gather data concerning the types of common and routine events repeatedly performed by the family. Interviewers were instructed to read verbatim the items and instructions for the instrument; however, minor modifications in wording were acceptable. If an item was applicable, respondents rated the item using a 4-point scale (1 = every day, 4 = almost never).

Parenting Dimensions Inventory

Matters of interest and concern to parents were measured by the Parenting Dimensions Inventory (Short Form). Developed by M.A. Slater and T.G. Power (1987), the inventory contains 26 items. A sample item is, "I do not allow my child to get angry with me." Interviewers were instructed to read verbatim the items and directions for this instrument. Respondents rated each item using a 6-point scale (1 = not at all descriptive of me, 6 = highly descriptive of me).

Neighborhood Scales

Developed by F.F. Furstenberg, T.D. Cook, J.P. Eccles, G.H. Elder, and A.J. Sameroff (1990), the Neighborhood Scales ask families about the people and services within their neighborhoods. The instrument includes six scales that contain questions about neighborhood cohesiveness, barriers to services, negative affects, social control in neighborhood, probability of success for children in neighborhood, and an overall rating of the neighborhood. Interviewers were instructed to read verbatim the items and directions for this instrument. Respondents used a 5-point scale to rate items in the first three scales (1 = strongly agree, 5 = strongly disagree); a 4-point scale for the next two scales (1 = very unlikely, 4 = very likely); and a 3-point scale for the last scale (1 = better than other neighborhoods, 3 = worse than other neighborhoods).

School Climate Survey

Information about what most people within the family's school and community think about the school was collected from the School Climate Survey (Modified - Form A). This instrument was developed by Kelley, Glover, Keefe, Halderson, Sorenson, and Speth (1986). The survey asks the respondent to indicate the extent to which he/she agrees/disagrees with 46 statements. An example item is, "Teachers in this school like their students." Interviewers were instructed to read verbatim the items and directions for this instrument. Respondents rated each item using a 6-point scale (1 = strongly disagree, 5 = strongly agree, 6 = don't know).

Your Child's Adjustment to School

The intent of the Your Child's Adjustment to School instrument was to make the interviews more sensitive to individual families and to cultural settings. This instrument was developed by M. Reid and S. Landesman (1988), and included 14 core items (i.e., 6 open-ended and 8 close-ended items), plus four additional (close-ended) items not from the original instrument. The current research focused only on the close-ended items included on the instrument. A sample close-ended item from this instrument is, "How well does your child get along with other children at school?" Interviewers were instructed they could paraphrase, explain, or supplement the items and/or instructions on this instrument as long as the meaning remained the same. Respondents provided ratings to the close-ended core items using a 11-point scale (0 = not much, 10 = a lot). For the additional items that applied, respondents provided a rating using a 4-point scale (1 = almost every day, 4 = less than monthly).

Life Events

The family was interviewed about various events that affect the lives of children and families. The instrument used to collect this information was the Life Events, developed by the Frank Porter Graham Child Development Center (1992). The instrument contains 15 items. The family was asked to think about each item and indicate whether or not (i.e., yes or no responses) the event had occurred during the previous year.

Social Skills Rating System, Social Skills Questionnaire (Parent Form)

Characteristics of the child's social behavior was gathered from the Social Skills Rating System (Elementary Level, Grades K-6). Developed by F.M. Gresham and S.N. Elliott (1990), the instrument contains 55 items; there are 38 core items that pertain to social skills and 17 additional items that pertain to problem behaviors. The available database includes parents' ratings about the children's problem behaviors only at the end of second grade. Interviewers were instructed to read verbatim the items and directions for this instrument. Respondents used 3-point scales to rate the frequency (0 = never, 2 = very often) and importance (0 = not important, 2 = very important/critical) of each item.

Social Skills Rating System, Social Skills Questionnaire (Teacher Form)

Ratings about the child's social behaviors also was gathered from the teacher. Data collected at the end of kindergarten and at the end of first grade used Form A of the Social Skills Rating System (Elementary Level, Grades K-6) while data collected at the end of second grade used Form B. Both forms of the instrument were developed by F.M. Gresham and S.N. Elliott (1990) and contains 30 items. Form A includes a 3-point scale for respondents to rate the importance (0 = not important, 2 = very important/critical) of each social behavior for success in the classroom. Form B includes a 3-point scale for respondents to rate how often (0 = never, 2 = very often) they observe the child display the social behavior.

Social Skills Rating System, Problem Behavior Questionnaire

The teacher also was asked to provide information about whether the target child displayed certain problem behaviors. The available database includes teachers' ratings for the children's problem behaviors only at the end of second grade. The instrument used to collect this information was the Social Skills Rating System (Teacher Form B; Elementary Level, Grades K-6), developed by F.M. Gresham and S.N. Elliott (1990). The teacher used a 3-point scale to rate how often (0 = never, 2 = very often) he/she observed the target child display each of the 18 problem behaviors included on the instrument.

Data Analysis

A series of exploratory factor analyses (EFA) were conducted to identify from the available database meaningful predictor and dependent variables to use in the current research. Results of the EFA were used to construct, across four time points, 32 new predictor variables and nine new dependent variables. In addition to the variables constructed from the EFA results, another six new independent variables were constructed by (a) adding together the scores of two or more original variables, (b) recoding one or more original variables, or (c) transforming two variables to obtain an interaction. The various predictor and dependent variables were structured into meaningful univariate models. Additionally, for each instrument used to collect data included in the current research, reliability estimates were computed using data from the available database. Finally, hierarchical multiple regression was employed as a hypothesis testing technique to examine the unique contributions that the predictors had towards the parents' and teachers' ratings of the children's social skills and problem behaviors. Each data analysis procedure is described in more detail below.

Exploratory Factor Analysis

Exploratory factor analyses, using principal components extraction and varimax rotation, were performed with the data gathered from each relevant instrument to identify both dependent and predictor variables for use in the current research. An EFA was first performed on each

relevant instrument to determine the extent to which all items measured a single or multiple dimensions. A series of EFA were then performed to identify those underlying constructs measured by the instruments that were associated with the socioemotional development of the children. Based on results of the EFA, meaningful constructs were identified for each relevant instrument. For each meaningful construct, regression scores were saved and used to construct predictor or dependent variables. The latent structure across instruments also was examined; however, the EFA failed to identify any meaningful cross-structure variables.

The factors were retained based on a set of criteria. First, factors were retained that obtained eigenvalues of 1.00 and greater. Then, to ensure conceptual coherence of the underlying constructs, additional analyses were performed that called for one factor above and one factor below the number of principal components identified with eigenvalues of 1.00. In a few cases, this resulted in a relatively large number of components (with eigenvalues of 1.00 and greater). As there was an interest in reducing the number of factors, additional analyses were conducted that called for the fewest number of factors that were theoretically justifiable. Again, analyses were performed that called for one factor above and one factor below the number of components that were theoretically justifiable. This was done to ensure the factors were coherent and internally consistent. The last step involved verification by others as to the clarity and cohesion of the underlying structure.

Predictor Variables

The data collected at the beginning and end of kindergarten and at the end of the first and second grades were used to construct a total of 32 predictor variables across four time points. These variables were constructed for each year the appropriate data were collected, and were based on the underlying constructs identified from the EFA. The 32 variables were used as predictor variables when testing the various regression models in the current research.

Family Resources. When the child entered kindergarten, information was gathered during the interview as to whether the family had adequate resources to meet the needs of the family. A series of EFA were performed on these data, using principal components extraction and varimax rotation. Based on the EFA, two meaningful factors were identified. Items included in the current research, along with results of this EFA are presented in Table 3-1. The total variance explained by these two factors is 34.43%. Using the regression scores of these factors, two new variables were constructed that describe (1) the time the family had available to spend together and (2) the income the family had available to purchase basic necessities (e.g., food, clothing). As in this and all subsequent cases, factors were retained and labeled based on the items for which moderate to high loadings were obtained (i.e., factor loadings of .400 and greater). Factor loadings indicated with E-01, E-02, etc. should be read by adding the appropriate number of decimal places to the left of the first digit listed. For example, the factor loading for item 26 in Table 3-1 below should be read as .007815.

Table 3-1. Factor Loadings Factors: Adequate Income and Available Time Time Point: Beginning of Kindergarten (N=255)		
Item	Factor 1 Adequate Income	Factor 2 Available Time
26. Time to keep in shape/look nice	.760	7.815E-02
7. Money for monthly bills	.698	-8.370E-02
27. Money for self	.690	.266
3. Money for necessities	.682	.108
4. Clothes for family	.655	.154
13. Furniture	.641	8.579E-02
28. Money for family entertainment	.629	.312
21. Money for special equipment/ supplies	.624	-1.888E-02
8. Good job for self/spouse	.616	.108
29. Money to save	.608	.170
30. Travel/vacation	.551	.182
22. Dental care for family	.543	-.160
2. House or apartment	.537	-.137
11. Dependable transportation	.528	8.688E-02
9. Medical care for family	.459	-.318
5. Heat for house/apartment	.449	.126
1. Food for 2 meals	.427	.188
19. Babysitting for children	.392	-7.527E-02
18. Telephone/access to phone	.381	7.297E-02
6. Indoor plumbing/water	.316	-1.072E-02
20. Child/day care	.275	-.207
24. Time to socialize	.112	.716
12. Time for sleep/rest	4.620E-02	.667
25. Toys for children	.236	.636
14. Time for self	-8.970E-02	.604
16. Time for children	-7.835E-02	.565
17. Time for spouse/close friend	.138	.551
15. Time for family	-9.567E-02	.524
23. Someone to talk to	.356	.489
10. Public assistance	-5.369E-02	-.232

Family Routines. Information about the family's daily living pattern also was gathered when the child entered kindergarten. A series of EFA were performed on these data, using principal components extraction and varimax rotation. Based on the EFA, four meaningful factors were identified. Items included in the current research, along with results of this EFA are

presented in Table 3-2. Regression scores for these factors were used to create four new variables. Across these four factors, the total variance explained is 32.73%. One new variable measures a routine the family had with its immediate members. A second new variable measures a routine the children within the family had established. The third new variable measures a routine that working parents established for the family. The final new variable measures a routine the family had with extended members, including daycare providers.

Table 3-2. Factor Loadings
Factors: Immediate Family Routine, Child's Routine, Working Parents Routine, and Extended Family Routine
Time Point: Beginning of Kindergarten (N=245)

Item	Factor 1 Immediate Family	Factor 2 Child's Routine	Factor 3 Working Parents	Factor 4 Extended Family
27. Parents have hobby/sport they do together.	.584	-2.559E-02	7.626E-02	-.163
19. Family has "quiet time" in evening when everyone talks/plays.	.512	1.890E-02	.202	-.167
14. Parents read/tell stories to children.	.511	2.645E-02	7.651E-02	-4.652E-02
28. Parents have certain things they do when children get out of line.	.504	-.192	-2.488E-02	.137
25. Family goes someplace special together.	.475	-2.466E-02	.121	.146
23. Family has certain "family time" to do things at home.	.467	8.788E-02	.300	.204
6. Parents have some time each day to talk with children.	.467	-3.717E-02	-3.800E-02	-.224
2. Whole family eats dinner together.	.369	.234	-9.029E-02	.108
7. Parents and children play together.	.368	7.926E-02	-9.974E-02	-.113
18. Family eats same time at night.	.337	.273	9.123E-02	.115
4. Children do same things in morning when awake.	.204	2.019E-02	4.092E-02	8.332E-02
5. Children do homework at same time of day.	-.315	.646	.204	4.557E-02
30. Parents participate in school activities for parents.	.115	.561	-.206	-.125
3. Children do household chores.	-.272	.546	2.625E-02	-2.598E-02
8. Children go to bed at certain time.	5.253E-02	.519	8.637E-02	.158
32. Parents keep in touch with child's teacher/school staff.	.283	.501	-.112	2.069E-02

Table 3-2. Factor Loadings Factors: Immediate Family Routine, Child's Routine, Working Parents Routine, and Extended Family Routine Time Point: Beginning of Kindergarten (N=245)				
Item	Factor 1 Immediate Family	Factor 2 Child's Routine	Factor 3 Working Parents	Factor 4 Extended Family
13. Children take part in regular after school activities.	-.310	.491	.176	.249
31. Parents volunteer in child's school.	4.479E-02	.474	-9.238E-02	-.325
11. Non-working parents and children do something together outside home.	9.400E-02	.446	-.389	-.238
17. At least some of family eats breakfast together.	.329	.364	-.148	4.514E-02
29.Parents discuss school day with child.	1.983E-02	.126	8.652E-02	6.573E-02
10. Working parents come home same time each day.	-7.188E-02	7.707E-02	.761	9.332E-02
12. Family has certain things they do to greet working parents at end of day.	.180	-7.439E-02	.689	-.298
15. Working parents have regular play time with children when come home.	.166	-3.984E-02	.661	-.219
21. Children have time to play alone.	.293	-.198	.360	-5.031E-02
1. Parents have things they do in morning to start day.	.215	3.939E-02	.239	.202
20. Young children go to child care regularly.	-.136	-8.996E-02	2.676E-02	.688
26. At least one parent talks to his/her parents.	-1.500E-02	.169	-9.693E-02	.596
22. Working parents care for children sometimes.	-.166	.119	.482	.505
24. Family visits with relatives.	.312	-4.607E-02	-7.481E-02	.460
16. Children have special things they do at bedtime.	.143	.151	-.6.772E-02	.302
9. Family checks in/out when leaves or comes home.	.181	.240	.216	-.296

Parental Involvement in School. The family provided information about the child's adjustment to school when the child finished kindergarten as well as when the child completed first and second grades. A series of EFA were performed on these data, by year, using principal components extraction and varimax rotation. Based on the EFA, the same single meaningful factor emerged each year. Items included in the current research, along with results of this EFA are presented in Tables 3-3, 3-4, and 3-5. Note in Table 3-5, the factor loading for item 15 is positive, whereas the factor loading for this same item in the two previous years (i.e., item 16 in Table 3-3 and item 24 in Table 3-4) is negative. Investigation of these results failed to uncover an explanation for this directional change.

The total variance explained by this factor at the end of kindergarten is 52.68%; at the end of first grade is 49.46%; and at the end of second grade is 54.67%. Regression scores for this factor were used to construct a new variable for each year included in the database. This new variable measures the extent to which the parents were involved in and/or volunteered for the child's school activities.

Table 3-3. Factor Loadings
Factor: Parental Involvement in School
Time Point: End of Kindergarten (N=235)

Item	Factor 1 Parental Involvement
17. How often do you participate in school activities planned for parents?	.845
18. How often do you volunteer in child's school?	.829
19. How often do you keep in touch with child's teacher/ school staff so know how things are going?	.737
16. How often do you have the opportunity to discuss school day with child?	-.244

Table 3-4. Factor Loadings
Factor: Parental Involvement in School
Time Point: End of First Grade (N=218)

Item	Factor 1 Parental Involvement
25. How often do you participate in school activities planned for parents?	.696
26. How often do you volunteer in child's school?	.562
27. How often do you keep in touch with child's teacher/ school staff so know how things are going?	.485
24. How often do you have the opportunity to discuss school day with child?	-.428

Table 3-5. Factor Loadings Factor: Parental Involvement in School Time Point: End of Second Grade (N=199)	
Item	Factor 1 Parental Involvement
16. How often do you participate in school activities planned for parents?	.813
17. How often do you volunteer in child's school?	.740
18. How often do you keep in touch with child's teacher/ school staff so know how things are going?	.652
15. How often do you have the opportunity to discuss school day with child?	.400

Parental Attitude Toward School. At the end of kindergarten and first and second grades, the family also provided information about what they thought most people felt about the school. A series of EFA were performed on these data separately by year, using principal components extraction and varimax rotation. At the end of kindergarten, two meaningful factors emerged. Items included in the current research, along with results of this EFA are shown in Table 3-6. The total variance explained by these two factors is 37.38%. Regression scores from these factors were used to construct two new variables that measure whether the parents thought most people felt (1) the school was a "good" school and (2) the school's policies and administrators were effective.

Table 3-6. Factor Loadings Factors: Good School and Effective Administration Time Point: End of Kindergarten (N=227)		
Item	Factor 1 Good School	Factor 2 Effective Administration
26. Students are interested in learning new things.	.817	7.046E-02
6. Teachers are willing to help students.	.789	.103
17. School building is kept clean and neat.	.772	.160
16. Classrooms are usually clean and neat.	.711	.272
4. Teachers help students to be friendly and kind.	.707	1.163E-02
25. Students understand why they are in school.	.666	.108
34. Students want to be friends with each other.	.632	.314
39. There is a clear set of rules that students follow in school.	.617	.259
12. Teachers explain carefully so students can get their work done.	.593	.322
19. School grounds are neat/attractive.	.590	.239
27. Students have fun but also work hard on their studies.	.583	.286
43. Students are able to take part in school activities if interested.	.578	.325
18. School building is kept in good repair.	.549	.252
8. Teachers make extra efforts to help students.	.547	.282
13. Students usually feel safe in school building.	.504	.210
2. Teachers are on the side of their students.	.498	.147
1. Teachers like their students.	.490	.203
3. Teachers give students the grades they deserve.	.482	.223
5. Teachers treat students as individuals.	.476	.226
14. Teachers/other workers feel safe in building before/after school.	.455	.429
9. Teachers understand/meet needs of students.	.436	.333
28. Students work hard to complete school assignments.	.430	.385
35. Students have a sense of belonging in school.	.414	.411
7. Teachers are patient when a student has trouble learning.	.406	.397
45. Students are comfortable staying after school for activities like sports and music.	.365	.362

Table 3-6. Factor Loadings Factors: Good School and Effective Administration Time Point: End of Kindergarten (N=227)		
Item	Factor 1 Good School	Factor 2 Effective Administration
30. Students are well-behaved even when the teachers aren't watching them.	.297	.635
24. Teachers and students help decide what happens in school.	.245	.628
42. Outside interruptions of classroom are few.	.170	.601
40. Taking attendance and other tasks do not interfere with classroom teaching.	.274	.562
46. Students can take part in sports/other school activities even if families can't afford it.	.178	.555
29. If one student makes fun of someone, other students do not join in.	9.952E-02	.544
41. Teachers spend almost all classroom time in learning activities.	.398	.541
22. Administrators set good example by working hard.	.323	.526
31. Most students would do their work even if the teacher stepped out of the room.	.388	.511
33. Students respect each other.	.389	.503
20. Administrators talk often with teachers and parents.	.290	.503
23. Administrators are willing to hear student complaints and opinions.	.327	.502
21. Administrators set high standards and let teachers, students, and parents know what they are.	.324	.480
10. Teachers praise more than scold students.	.218	.473
37. Most people in community help the school in one way or another.	-6.603E-02	.462
44. Students can be in sports, music, and plays even if they aren't very talented.	.418	.419
32. Students are about each other.	.348	.415
11. Teachers are fair to students.	.401	.405

Table 3-6. Factor Loadings Factors: Good School and Effective Administration Time Point: End of Kindergarten (N=227)		
Item	Factor 1 Good School	Factor 2 Effective Administration
15. People aren't afraid to come to school for meetings/programs in evening.	.324	.383
38. Community attendance at school meetings/ programs is good.	-3.391E-02	.331
36. Parents and members of community attend school meetings/activities.	7.485E-02	.299

The EFA of parents' attitudes about the school at the end of first grade identified three meaningful factors. Items included in the current research, along with results of this EFA are presented in Table 3-7. The total variance explained by these three factors is 41.54%. Regression scores from these factors were used to construct three new variables that measure whether the parents thought most people felt (1) the school employed "good" teachers, (2) the school was clean and well-maintained, and (3) the students were disciplined and well-behaved.

Table 3-7. Factor Loadings Factors: Good Teachers, Well-Maintained School, and Well-Behaved Students Time Point: End of First Grade (N=217)			
Item	Factor 1 Good Teachers	Factor 2 Well-Maintained School	Factor 3 Well-Behaved Students
11. Teachers are fair to students.	.684	9.299E-02	.135
9. Teachers understand/meet needs of students.	.683	.129	.229
4. Teachers help students to be friendly and kind.	.650	.340	4.456E-02
3. Teachers give students the grades they deserve.	.608	.219	-2.986E-02
7. Teachers are patient when a student has trouble learning.	.601	.209	.263
8. Teachers make extra efforts to help students.	.601	.233	.214
2. Teachers are on the side of their students.	.596	.160	2.401E-02
6. Teachers are willing to help students.	.583	.430	3.788E-02
1. Teachers like their students.	.568	.248	-3.436E-02

Table 3-7. Factor Loadings Factors: Good Teachers, Well-Maintained School, and Well-Behaved Students Time Point: End of First Grade (N=217)			
Item	Factor 1 Good Teachers	Factor 2 Well-Maintained School	Factor 3 Well-Behaved Students
12. Teachers explain carefully so students can get their work done.	.537	.247	.171
5. Teachers treat students as individuals.	.524	.162	.151
20. Administrators talk often with teachers and parents.	.448	.252	.232
22. Administrators set good example by working hard.	.448	.257	.276
10. Teachers praise more than scold students.	.437	2.307E-02	.138
28. Students work hard to complete school assignments.	.421	.274	.168
21. Administrators set high standards and let teachers, students, and parents know what they are.	.416	.221	.250
15. People aren't afraid to come to school for meetings/programs in evening.	.378	.348	.264
17. School building is kept clean and neat.	.287	.761	3.461E-02
16. Classrooms are usually clean and neat.	.313	.724	.126
18. School building is kept in good repair.	8.364E-02	.699	.151
19. School grounds are neat/attractive.	.363	.639	.164
26. Students are interested in learning new things.	.319	.575	.221
13. Students usually feel safe in school building.	.262	.535	.307
25. Students understand why they are in school.	.411	.525	9.989E-02
27. Students have fun but also work hard on their studies.	.404	.521	.145

Table 3-7. Factor Loadings Factors: Good Teachers, Well-Maintained School, and Well-Behaved Students Time Point: End of First Grade (N=217)			
Item	Factor 1 Good Teachers	Factor 2 Well-Maintained School	Factor 3 Well-Behaved Students
43. Students are able to take part in school activities if interested.	.250	.515	.252
39. There is a clear set of rules that students follow in school.	.419	.505	.191
36. Parents and members of community attend school meetings/activities.	-.116	.230	.656
30. Students are well-behaved even when the teachers aren't watching them.	.333	-.201	.620
32. Students are about each other.	.304	5.601E-02	.596
29. If one student makes fun of someone, other students do not join in.	.267	-.203	.594
37. Most people in community help the school in one way or another.	-2.759E-02	.160	.579
31. Most students would do their work even if the teacher stepped out of the room.	.290	-.208	.575
34. Students want to be friends with each other.	.360	.234	.550
42. Outside interruptions of classroom are few.	-7.167E-02	.281	.547
33. Students respect each other.	.381	8.799E-03	.539
38. Community attendance at school meetings/ programs is good.	-7.792E-02	.222	.503
40. Taking attendance and other tasks do not interfere with classroom teaching.	9.568E-02	.256	.484
46. Students can take part in sports/other school activities even if families can't afford it.	.168	.373	.458
35. Students have a sense of belonging in school.	.392	.380	.450
41. Teachers spend almost all classroom time in learning activities.	.174	.229	.442
44. Students can be in sports, music, and plays even if they aren't very talented.	.253	.300	.411

Table 3-7. Factor Loadings Factors: Good Teachers, Well-Maintained School, and Well-Behaved Students Time Point: End of First Grade (N=217)			
Item	Factor 1 Good Teachers	Factor 2 Well-Maintained School	Factor 3 Well-Behaved Students
45. Students are comfortable staying after school for activities like sports and music.	.103	.276	.409
24. Teachers and students help decide what happens in school.	.310	.247	.380
14. Teachers/other workers feel safe in building before/after school.	.216	.361	.368
23. Administrators are willing to hear student complaints and opinions.	.323	.282	.343

At the end of second grade, two meaningful factors were identified from the EFA performed on parents' attitudes about the school. Table 3-8 presents the items included in the current research, along with the results of this EFA. The variance explained by these two factors is 40.34%. Regression scores from these factors were used to construct two new variables that measure the parents' belief that most people felt (1) the school was a "good" school that employed "good" teachers and (2) the students were disciplined and well-behaved.

Table 3-8. Factor Loadings Factors: Good School/Teachers and Well-Behaved Students Time Point: End of Second Grade (N=200)		
Item	Factor 1 Good School/Teachers	Factor 2 Well-Behaved Students
16. Classrooms are usually clean and neat.	.798	.127
6. Teachers are willing to help students.	.786	.155
17. School building is kept clean and neat.	.744	1.467E-02
13. Students usually feel safe in school building.	.740	.243
19. School grounds are neat/attractive.	.686	.183
4. Teachers help students to be friendly and kind.	.677	.140
9. Teachers understand/meet needs of students.	.660	.146
8. Teachers make extra efforts to help students.	.630	.201
18. School building is kept in good repair.	.617	.117

Table 3-8. Factor Loadings Factors: Good School/Teachers and Well-Behaved Students Time Point: End of Second Grade (N=200)		
Item	Factor 1 Good School/Teachers	Factor 2 Well-Behaved Students
39. There is a clear set of rules that students follow in school.	.599	.250
43. Students are able to take part in school activities if interested.	.591	.395
7. Teachers are patient when a student has trouble learning.	.585	.275
11. Teachers are fair to students.	.578	.318
1. Teachers like their students.	.572	.264
12. Teachers explain carefully so students can get their work done.	.572	.318
35. Students have a sense of belonging in school.	.571	.492
26. Students are interested in learning new things.	.549	.200
3. Teachers give students the grades they deserve.	.532	.277
5. Teachers treat students as individuals.	.521	.233
44. Students can be in sports, music, and plays even if they aren't very talented.	.516	.492
15. People aren't afraid to come to school for meetings/programs in evening.	.513	.195
27. Students have fun but also work hard on their studies.	.465	.456
2. Teachers are on the side of their students.	.448	.321
28. Students work hard to complete school assignments.	.445	.382
23. Administrators are willing to hear student complaints and opinions.	.407	.401
30. Students are well-behaved even when the teachers aren't watching them.	-8.177E-02	.772
31. Most students would do their work even if the teacher stepped out of the room.	4.453E-02	.757
29. If one student makes fun of someone, other students do not join in.	5.204E-02	.730
33. Students respect each other.	.194	.682

Table 3-8. Factor Loadings Factors: Good School/Teachers and Well-Behaved Students Time Point: End of Second Grade (N=200)		
Item	Factor 1 Good School/Teachers	Factor 2 Well-Behaved Students
32. Students are about each other.	.276	.641
42. Outside interruptions of classroom are few.	.161	.577
34. Students want to be friends with each other.	.416	.537
41. Teachers spend almost all classroom time in learning activities.	.309	.526
40. Taking attendance and other tasks do not interfere with classroom teaching.	.297	.500
21. Administrators set high standards and let teachers, students, and parents know what they are.	.285	.499
45. Students are comfortable staying after school for activities like sports and music.	.336	.498
24. Teachers and students help decide what happens in school.	.296	.478
20. Administrators talk often with teachers and parents.	.307	.462
46. Students can take part in sports/other school activities even if families can't afford it.	.269	.441
10. Teachers praise more than scold students.	.294	.415
22. Administrators set good example by working hard.	.345	.408
36. Parents and members of community attend school meetings/activities.	.134	.389
14. Teachers/other workers feel safe in building before/after school.	.316	.357
37. Most people in community help the school in one way or another.	6.443E-02	.345
38. Community attendance at school meetings/ programs is good.	5.545E-02	.169

Parental Attitude About Neighborhood. Information about the people and services within the neighborhood was gathered from the family when the child finished kindergarten and again when the child completed first grade. A series of EFA were performed on these data by year, using principal components extraction and varimax rotation. Results of the separate EFA

indicate the same three meaningful factors were identified for both years. Items included in the current research, along with results of the EFA performed at the end of kindergarten and at the end of first grade are presented in Table 3-9 and Table 3-10, respectively. Note in these tables that the ordering of the factors changed from one time point to the other. The total variance explained by the three factors at the end of kindergarten is 47.52% and at the end of first grade is 49.61%. Regression scores were used to construct three new variables that measure the parents' beliefs that (1) they had concerned neighbors, (2) they lived in a cohesive neighborhood, and (3) they lived in an undesirable neighborhood and/or had undesirable neighbors.

Table 3-9. Factor Loadings
Factors: Cohesive Neighborhood, Concerned Neighbors, and Undesirable Neighborhood
Time Point: End of Kindergarten (N=230)

Item	Factor 1 Cohesive Neighborhood	Factor 2 Concerned Neighbors	Factor 3 Undesirable Neighborhood
F3. Does your neighborhood have more involved parents?	.700	1.672E-02	-2.007E-02
A3. There are lots of adults here that your children can look up to.	.689	.126	-.114
F4. Is your neighborhood a better place to live?	.668	-6.566E-02	9.590E-03
F2. Does your neighborhood have more neighbors help each other than most?	.644	-6.354E-02	4.047E-02
A2. This is a close-knit neighborhood.	.600	4.016E-02	-6.883E-03
E2. In your neighborhood, what are a student's chances of completing college?	.597	.327	-.287
A4. You can count on neighbors to let you know about opportunities for kids.	.576	.147	-.224
C4. People in neighborhood gossip too much about each other.	-5.76	-.156	.360
C5. Your family would be better off if your neighbors stuck more to their own business.	-.566	-.261	.399
E1. In your neighborhood, what are a student's chances of graduating from high school?	.532	.296	-.321
E3. In your neighborhood, what are a student's chances of finding a stable, well-paying job when adult?	.516	.437	-.305

Table 3-9. Factor Loadings
Factors: Cohesive Neighborhood, Concerned Neighbors, and Undesirable Neighborhood
Time Point: End of Kindergarten (N=230)

Item	Factor 1 Cohesive Neighborhood	Factor 2 Concerned Neighbors	Factor 3 Undesirable Neighborhood
F1. Is your neighborhood safer than most neighborhoods?	.514	-8.344E-02	-5.092E-02
C3. If you are too friendly, your neighbors take advantage of you.	-.446	-.122	.413
A1. Your neighbors have similar views about how to raise children.	.402	5.463E-03	-.125
E4. In your neighborhood, what are a student's chances of entering military?	.249	-.181	-1.462E-02
D2. How likely would someone do something if someone was trying to sell drugs to your children in plain sight?	4.837E-02	.881	-2.520E-02
D4. How likely would someone do something if your kids were getting into trouble?	7.039E-02	.862	-.123
D3. How likely would someone do something if there was a fight in front of your house and someone was beaten?	6.528E-02	.852	-9.718E-02
D1. How likely would someone do something if someone was breaking into your home in plain sight?	-9.087E-03	.829	-4.558E-02
D5. How likely would someone do something if a child was showing disrespect to an adult?	1.892E-02	.727	5.421E-02
B3. If you want decent health/social services for children, you can't find them here.	3.414E-02	5.456E-02	.747
B2. Unless you know the right people, you can't get services in neighborhood.	-.131	-.124	.743
B4. Getting help when your children need it always takes more time and energy than you have.	.103	8.321E-02	.609

Table 3-9. Factor Loadings
Factors: Cohesive Neighborhood, Concerned Neighbors, and Undesirable Neighborhood
Time Point: End of Kindergarten (N=230)

Item	Factor 1 Cohesive Neighborhood	Factor 2 Concerned Neighbors	Factor 3 Undesirable Neighborhood
B1. Schools are so bad here, you can't blame students for not attending class.	-.242	-1.343E-02	.579
C1. Your neighbors often ask too much of you.	-.305	-.218	.525
C2. People here are more willing to ask for help than give help.	-.395	-.108	.427

Table 3-10. Factor Loadings
Factors: Undesirable Neighborhood, Cohesive Neighborhood, and Concerned Neighbors
Time Point: End of First Grade (N=219)

Item	Factor 1 Undesirable Neighborhood	Factor 2 Cohesive Neighborhood	Factor 3 Concerned Neighbors
B3. If you want decent health/social services for children, you can't find them here.	.747	-6.019E-02	.132
B4. Getting help when your children need it always takes more time and energy than you have.	.738	2.843E-02	4.836E-02
B2. Unless you know the right people, you can't get services in neighborhood.	.733	-5.604E-02	5.328E-02
C1. Your neighbors often ask too much of you.	.650	-.142	-2.246E-02
E3. In your neighborhood, what are a student's chances of finding a stable, well-paying job when adult?	-.622	.338	.164
B1. Schools are so bad here, you can't blame students for not attending class.	.613	-2.925E-02	.195
C2. People here are more willing to ask for help than give help.	.604	-.349	-.139
E2. In your neighborhood, what are a student's chances of completing college?	-.602	.336	.183

Table 3-10. Factor Loadings
Factors: Undesirable Neighborhood, Cohesive Neighborhood, and Concerned Neighbors
Time Point: End of First Grade (N=219)

Item	Factor 1 Undesirable Neighborhood	Factor 2 Cohesive Neighborhood	Factor 3 Concerned Neighbors
E1. In your neighborhood, what are a student's chances of graduating from high school?	-.553	.369	1.697E-03
C3. If you are too friendly, your neighbors take advantage of you.	.529	-.369	-8.288E-03
C4. People in neighborhood gossip too much about each other.	.495	-.418	-.105
C5. Your family would be better off if your neighbors stuck more to their own business.	.488	-.398	-9.048E-02
E4. In your neighborhood, what are a student's chances of entering military?	-.120	4.393E-02	2.194E-02
F2. Does your neighborhood have more neighbors help each other than most?	-7.917E-02	.793	-4.878E-02
F3. Does your neighborhood have more involved parents?	-1.690E-02	.693	-8.567E-02
F4. Is your neighborhood a better place to live?	-8.968E-02	.666	-.117
A2. This is a close-knit neighborhood.	-.179	.638	2.001E-02
A3. There are lots of adults here that your children can look up to.	-.357	.630	4.993E-02
A4. You can count on neighbors to let you know about opportunities for kids.	-.281	.590	4.466E-02
F1. Is your neighborhood safer than most neighborhoods?	-.104	.567	-9.998E-02
A1. Your neighbors have similar views about how to raise children.	-.201	.465	1.493E-02
D3. How likely would someone do something if there was a fight in front of your house and someone was beaten?	.112	3.436E-03	.876
D2. How likely would someone do something if someone was trying to sell drugs to your children in plain sight?	-4.601E-03	-9.674E-02	.876

Table 3-10. Factor Loadings Factors: Undesirable Neighborhood, Cohesive Neighborhood, and Concerned Neighbors Time Point: End of First Grade (N=219)			
Item	Factor 1 Undesirable Neighborhood	Factor 2 Cohesive Neighborhood	Factor 3 Concerned Neighbors
D4. How likely would someone do something if your kids were getting into trouble?	-.146	-1.269E-02	.857
D1. How likely would someone do something if someone was breaking into your home in plain sight?	-.115	-7.618E-02	.813
D5. How likely would someone do something if a child was showing disrespect to an adult?	8.502E-02	8.540E-04	.729

Parenting Style. During the background interview, the families were asked to provide information about matters of interest and concern to parents. This information was gathered at the end of the child's kindergarten and first grade years. A series of EFA were performed on these data separately by year, using principal components extraction and varimax rotation. The EFA identified a total of four meaningful factors; three of the factors emerged as meaningful for both years and the fourth emerged as meaningful only at the end of kindergarten. Items included in the current research, along with results of the EFA performed on data at the end of kindergarten are shown in Table 3-11. The total variance explained by these four factors is 46.56%. Items included in the current research, along with results of the EFA performed on data at the end of first grade are shown in Table 3-12. The total variance explained by these three factors is 43.32%. For both years, regression scores were used to construct three new variables that measure the extent to which the families' parenting style was (1) encouraging and respectful, (2) domineering, and (3) disinterested or indifferent. Using only the data from the end of kindergarten, regression scores were used to construct a fourth new variable that measures the extent to which the families' parenting style was strict.

Table 3-11. Factor Loadings **Factors: Encouraging/Respectful, Domineering, Disinterested, and Strict** **Time Point: End of Kindergarten (N=227)**				
Item	Factor 1 Encouraging/ Respectful	Factor 2 Domineering	Factor 3 Disinterested	Factor 4 Strict
24. I respect my child's opinion and encourage him/her to express it.	.746	.104	-6.374E-02	.118
10. I encourage my child to be curious, explore, and question things.	.696	.175	-4.301E-02	2.940E-02
16. I make sure my child knows I appreciate what he/she tries to accomplish.	.672	8.713E-02	9.021E-03	.181
15. I encourage my child to express his/her opinions.	.659	4.017E-02	-.115	8.980E-02
9. My child and I have warm intimate moments together.	.598	.251	4.044E-02	-9.738E-03
1. I encourage my child to talk about his/her troubles.	.523	-2.444E-02	-.312	.184
11. I find it interesting/educational to be with my child for long periods.	.501	.377	6.296E-02	9.343E-04
8. I think a child should be encouraged to do things better than other children.	.180	.766	.115	2.493E-02
4. I do not allow my child to get angry with me.	.149	.736	6.942E-02	.126
18. I believe in toilet training a child as soon as possible.	.191	.648	.127	9.398E-02
12. I don't think children should be given sexual information.	-5.264E-02	.626	-7.492E-02	-1.492E-02

Table 3-11. Factor Loadings Factors: Encouraging/Respectful, Domineering, Disinterested, and Strict Time Point: End of Kindergarten (N=227)				
Item	Factor 1 Encouraging/ Respectful	Factor 2 Domineering	Factor 3 Disinterested	Factor 4 Strict
26. I believe once a family rule has been made, it should be strictly enforced without exception.	.200	.574	-2.128E-02	.383
17. I let my child know how ashamed/disappointed I am when he/she misbehaves.	.360	.433	-1.533E-02	.189
6. My child can often talk me into letting him/her off easier than I had intended.	.106	9.0765E-02	.649	-.293
7. My child convinces me to change my mind after I have refused a request.	.151	6.491E-02	.642	-.278
5. There are times I just don't have the energy to make my child behave as he/she should.	-1.445E-02	3.869E-02	.638	-.109
19. I believe most children change their minds so often it is hard to take their opinions seriously.	-.201	.108	.623	.355
3. Sometimes it is so long between a misbehavior and the opportunity to deal with it that I just let it go.	-9.291E-02	-9.598E-02	.589	-2.402E-02
14. I believe it is not always a good idea to encourage children to talk about their worries because it can upset them even more.	-.226	.177	.523	.317
21. When I let my child talk about his/her troubles, he/she ends up complaining even more.	-.183	-4.822E-02	.506	.360

Table 3-11. Factor Loadings Factors: Encouraging/Respectful, Domineering, Disinterested, and Strict Time Point: End of Kindergarten (N=227)				
Item	Factor 1 Encouraging/ Respectful	Factor 2 Domineering	Factor 3 Disinterested	Factor 4 Strict
23. Once I decide how to deal with a misbehavior of my child, I follow through on it.	8.478E-02	6.114E-02	-.156	.719
2. I always follow through on discipline for my child, no matter how long it takes.	.177	-4.766E-02	.137	.639
25. I never threaten my child with a punishment unless I am sure I will carry it out.	.125	.212	-.214	.572
20. I have little/no difficulty sticking with rules for my child even when close relatives are there.	.205	.156	-9.026E-02	.560
13. I believe a child should be seen and not heard.	-.325	.258	.385	.410
22. I expect my child to be grateful to his/her parents, and appreciate the advantages he/she has.	.169	.262	.223	.341

Table 3-12. Factor Loadings Factors: Domineering, Encouraging/Respectful, and Disinterested Time Point: End of First Grade (N=212)			
Item	Factor 1 Domineering	Factor 2 Encouraging/ Respectful	Factor 3 Disinterested
26. I believe once a family rule has been made, it should be strictly enforced without exception.	.687	.330	-.122
18. I believe in toilet training a child as soon as possible.	.638	.126	.113
23. Once I decide how to deal with a misbehavior of my child, I follow through on it.	.630	.475	-.290

Table 3-12. Factor Loadings Factors: Domineering, Encouraging/Respectful, and Disinterested Time Point: End of First Grade (N=212)			
Item	Factor 1 Domineering	Factor 2 Encouraging/ Respectful	Factor 3 Disinterested
25. I never threaten my child with a punishment unless I am sure I will carry it out.	.612	.390	-.235
4. I do not allow my child to get angry with me.	.597	.104	.282
8. I think a child should be encouraged to do things better than other children.	.574	3.921E-02	9.186E-02
13. I believe a child should be seen and not heard.	.544	-.266	9.404E-02
19. I believe most children change their minds so often it is hard to take their opinions seriously.	.498	-.148	.372
14. I believe it is not always a good idea to encourage children to talk about their worries because it can upset them even more.	.457	-.169	.234
21. When I let my child talk about his/her troubles, he/she ends up complaining even more.	.437	-.131	.216
17. I let my child know how ashamed/disappointed I am when he/she misbehaves.	.419	.216	.123
20. I have little/no difficulty sticking with rules for my child even when close relatives are there.	.393	.180	.174
22. I expect my child to be grateful to his/her parents, and appreciate the advantages he/she has.	.308	8.091E-02	.253
15. I encourage my child to express his/her opinions.	4.781E-02	.769	-.127
16. I make sure my child knows I appreciate what he/she tries to accomplish.	9.121E-02	.698	.153
1. I encourage my child to talk about his/her troubles.	-.114	.695	-9.996E-02
24. I respect my child’s opinion and encourage him/her to express it.	.110	.687	-4.824E-02

Table 3-12. Factor Loadings Factors: Domineering, Encouraging/Respectful, and Disinterested Time Point: End of First Grade (N=212)			
Item	Factor 1 Domineering	Factor 2 Encouraging/ Respectful	Factor 3 Disinterested
9. My child and I have warm intimate moments together.	.127	.677	4.865E-02
10. I encourage my child to be curious, explore, and question things.	-7.799E-02	.617	-4.358E-02
2. I always follow through on discipline for my child, no matter how long it takes.	.388	.446	-.303
11. I find it interesting/educational to be with my child for long periods.	.162	.433	.130
6. My child can often talk me into letting him/her off easier than I had intended.	1.789E-02	5.898E-02	.816
7. My child convinces me to change my mind after I have refused a request.	-4.459E-02	.103	.795
5. There are times I just don't have the energy to make my child behave as he/she should.	.321	-9.559E-02	.675
3. Sometimes it is so long between a misbehavior and the opportunity to deal with it that I just let it go.	.233	-2.199E-02	.607
12. I don't think children should be given sexual information.	.180	-9.114E-02	.441

Life Events. When the child completed second grade, the family was asked to provide information about various events that may have affected their child. A series of EFA were performed on these data, using principal components extraction and varimax rotation. Based on the EFA, three meaningful factors were identified. Table 3-13 presents the items included in the current research, along with results of this EFA. The total variance explained by the three factors is 35.88%. Regression scores were used to construct three new variables that measure the extent to which the child may have been affected by (1) being separated from a loved one, (2) the parent getting engaged or married, and (3) experiencing a traumatic event (e.g., victim of a crime).

Table 3-13. Factor Loadings Factors: Separated from Loved One, Married/Engaged, and Traumatic Event Time Point: End of Second Grade (N=156)			
Item	Factor 1 Separated from Loved One	Factor 2 Married/ Engaged	Factor 3 Traumatic Event
4. Separate from partner	.758	.174	-.118
6. Separate from family member	.681	2.454E-02	.142
12. Family member in jail/prison	.544	-.107	6.878E-02
3. Divorced	.416	.292	-.345
2. Engaged	3.957E-02	.710	-1.237E-02
1. Married	.186	.671	3.831E-02
5. New family member	-.169	.601	.173
7. Death of someone important	6.194E-03	.458	-4.932E-03
11. Family member had serious illness	.199	.213	1.570E-02
10. Child lived with someone else during past year	1.513E-02	-4.210E-02	.658
15. Events that affected you/your child	.459	-3.478E-02	.548
9. Victim of violent crime	-.134	-7.242E-02	.536
8. Major change in living conditions	-4.477E-02	8.233E-02	.443
14. Change in partner's work	.197	.110	.410
13. Change in your work	.113	.238	.361

Dependent Variables

The factors identified from the EFA of parents' and teachers' ratings of the children's social skills and problem behaviors were used to construct nine dependent variables across four time points. The dependent variables were constructed by summing together the scores for all factors identified from the appropriate EFA. The results of the EFA for parent and teacher ratings of the children's social skills and problem behaviors, by each appropriate year, are presented and discussed below.

Parent Ratings About Child's Social Skills. Parents' opinions of their child's social skills were gathered at the beginning and end of kindergarten, and at the end of the first and second grades. The items, which described various social behaviors, were the same across years. The parents responded to the items in terms of two scales at the beginning and end of kindergarten (i.e., how often they observed each social behavior and how important they believed each social behavior was to the child's development). In subsequent years, however, the parents responded to the items only in terms of how often they observed the child display each social behavior. Because an additional scale was used, the variables associated with the data gathered at

the beginning and end of kindergarten were constructed somewhat differently than the variables associated with the data gathered at the end of the first and second grades. For the beginning and end of kindergarten data, parents' importance ratings were doubled and then added to their ratings for how often they observed the child display the behavior. This was done to emphasize the effect of the parents' ratings about how important they believed the social behaviors to be to the child's development.

A series of EFA, using principal components extraction and varimax rotation, were then performed on these transformed data. At the beginning of kindergarten, two meaningful factors were identified. The items included in the current research, along with results of this EFA are presented in Table 3-14. The total variance explained by these two factors is 33.78%. Regression scores for these factors were added together to construct a single new variable that measures the extent to which the parents believed the child (1) behaved appropriately and (2) was friendly and outgoing.

Table 3-14. Factor Loadings
Factors: Behaves Appropriately and Friendly/Outgoing
Time Point: Beginning of Kindergarten (N=241)

Item	Factor 1 Behaves Appropriately	Factor 2 Friendly/ Outgoing
28. Completes household tasks within a reasonable time.	.699	.206
33. Uses time appropriately while waiting for your help with homework or some other task.	.644	.250
2. Keeps room clean and neat without being reminded.	.613	8.293E-02
26. Controls temper in conflict situations with you.	.603	.360
19. Helps you with household tasks without being asked.	.595	.287
36. Cooperates with family members without being asked to.	.594	.260
16. Volunteers to help family members with tasks.	.594	.320
25. Ends disagreements with you calmly.	.573	.310
15. Puts away toys or other household property.	.556	2.116E-02
29. Asks permission before using another family member's property.	.525	.144
22. Controls temper with arguing with other children.	.520	.264
21. Attempts household tasks before asking for your help.	.490	.430
1. Uses free time at home in acceptable way.	.485	.239
14. Avoids situations that are likely to result in trouble.	.477	.282
17. Receives criticism well.	.431	.324
31. Requests permission before leaving the house.	.420	.265
9. Politely refuses unreasonable requests from others.	.388	.373
3. Speaks in appropriate tone of voice at home.	.381	.107

Table 3-14. Factor Loadings Factors: Behaves Appropriately and Friendly/Outgoing Time Point: Beginning of Kindergarten (N=241)		
Item	Factor 1 Behaves Appropriately	Factor 2 Friendly/ Outgoing
6. Responds appropriately when hit/pushed by other children.	-.356	.101
32. Responds appropriately to teasing from friends or relatives of own age.	-5.346E-02	5.145E-02
12. Makes friends easily.	6.159E-02	.664
20. Appropriately questions household rules that may be unfair.	.229	.635
5. Introduces self to new people without being told.	2.418E-02	.601
37.Acknowledges compliments or praise from friends.	.308	.591
30. Is self-confident in social situations such as parties or group outings.	.260	.588
7. Asks sales clerks for information/assistance.	.154	.576
13. Shows interest in a variety of things.	.250	.565
4. Joins group activities without being told to.	.129	.564
23. Is liked by others.	.273	.562
24. Starts conversations rather than waiting for others to talk first.	2.395E-02	.554
34. Accepts friends' ideas for playing.	.332	.516
27. Gives compliments to friends or other children in family.	.396	.502
11. Congratulates family members on accomplishments.	.364	.464
38. Reports accidents to appropriate persons.	.329	.460
35. Easily changes from one activity to another.	.195	.441
10. Invites others to your home.	8.910E-02	.386
18. Answers the phone appropriately.	.270	.360
8. Attends to speakers at meetings, such as church or youth groups.	.295	.303

At the end of kindergarten, the EFA identified three meaningful factors. Two of these factors were the same as those identified at the beginning of kindergarten. The items included in the current research, along with results of this EFA are presented in Table 3-15. The total variance explained by these three factors is 43.73%. Regression scores for these factors were added together to construct a single new variable that measures the extent to which the parents believed the child (1) was friendly and outgoing, (2) was helpful, and (3) behaved appropriately.

Table 3-15. Factor Loadings Factors: Friendly/Outgoing, Helpful, and Behaves Appropriately Time Point: End of Kindergarten (N=235)			
Item	Factor 1 Friendly/ Outgoing	Factor 2 Helpful	Factor 3 Behaves Appropriately
24. Starts conversations rather than waiting for others to talk first.	.730	3.747E-02	.116
5. Introduces self to new people without being told.	.665	7.419E-02	-7.957E-02
12. Makes friends easily.	.637	6.441E-02	.401
30. Is self-confident in social situations such as parties or group outings.	.612	.201	.359
4. Joins group activities without being told to.	.596	.229	.203
20. Appropriately questions household rules that may be unfair.	.542	.296	.102
27. Gives compliments to friends or other children in family.	.516	.353	.228
35. Easily changes from one activity to another.	.496	.127	7.566E-02
16. Volunteers to help family members with tasks.	.494	.438	.355
34. Accepts friends' ideas for playing.	.488	.383	.363
37.Acknowledges compliments or praise from friends.	.455	.437	.323
7. Asks sales clerks for information/assistance.	.453	.440	-2.943E-02
10. Invites others to your home.	.416	8.474E-02	.160
19. Helps you with household tasks without being asked.	.347	.739	.114
21. Attempts household tasks before asking for your help.	.286	.725	.102
2. Keeps room clean and neat without being reminded.	.166	.681	.180
28. Completes household tasks within a reasonable time.	.279	.648	.383
15. Puts away toys or other household property.	.131	.593	.228
33. Uses time appropriately while waiting for your help with homework or some other task.	.259	.573	.456
36. Cooperates with family members without being asked to.	.468	.475	.377

Table 3-15. Factor Loadings Factors: Friendly/Outgoing, Helpful, and Behaves Appropriately Time Point: End of Kindergarten (N=235)			
Item	Factor 1 Friendly/ Outgoing	Factor 2 Helpful	Factor 3 Behaves Appropriately
11. Congratulates family members on accomplishments.	.435	.453	.234
9. Politely refuses unreasonable requests from others.	.268	.449	.364
17. Receives criticism well.	.303	.445	.349
29. Asks permission before using another family member's property.	-2.822E-02	.425	.382
6. Responds appropriately when hit/pushed by other children.	.134	-.424	.188
8. Attends to speakers at meetings, such as church or youth groups.	.252	.334	.156
26. Controls temper in conflict situations with you.	.155	.298	.689
22. Controls temper with arguing with other children.	.256	.234	.577
14. Avoids situations that are likely to result in trouble.	8.411E-02	.131	.575
31. Requests permission before leaving the house.	8.900E-02	9.993E-02	.554
38. Reports accidents to appropriate persons.	.233	8.947E-02	.533
13. Shows interest in a variety of things.	.507	.140	.524
25. Ends disagreements with you calmly.	.263	.425	.519
23. Is liked by others.	.437	.189	.444
32. Responds appropriately to teasing from friends or relatives of own age.	1.194E-02	-4.350E-02	.421
3. Speaks in appropriate tone of voice at home.	.198	.274	.417
1. Uses free time at home in acceptable way.	.153	.377	.391
18. Answers the phone appropriately.	.306	.319	.349

Recall data associated with the end of the first and second grades were collected using only one scale (i.e., how often the parent observed the social behavior). A series of EFA, using principal components extraction and varimax rotation, were performed on these data. The same two factors that were identified at the beginning and the end of kindergarten emerged as meaningful at the end of first grade. The items included in the current research, along with results of the EFA performed on the end of first grade data and the end of second grade data are

presented in Table 3-16 and Table 3-17, respectively. The total variance explained by the two factors at the end of first grade is 32.21% and at the end of second grade is 35.07%. Regression scores from these factors were added together to construct a single new variable that measures the extent to which the parents believed the child (1) behaved appropriately and (2) was friendly and outgoing.

Table 3-16. Factor Loadings
Factors: Behaves Appropriately and Friendly/Outgoing
Time Point: End of First Grade (N=212)

Item	Factor 1 Behaves Appropriately	Factor 2 Friendly/ Outgoing
25. Ends disagreements with you calmly.	.704	.163
36. Cooperates with family members without being asked to.	.684	.149
19. Helps you with household tasks without being asked.	.650	4.517E-02
27. Gives compliments to friends or other children in family.	.640	.241
28. Completes household tasks within a reasonable time.	.639	6.466E-02
16. Volunteers to help family members with tasks.	.636	.158
26. Controls temper in conflict situations with you.	.634	8.229E-02
15. Puts away toys or other household property.	.630	-.143
2. Keeps room clean and neat without being reminded.	.629	2.380E-02
33. Uses time appropriately while waiting for your help with homework or some other task.	.623	.146
14. Avoids situations that are likely to result in trouble.	.588	.141
3. Speaks in appropriate tone of voice at home.	.586	2.499E-02
22. Controls temper with arguing with other children.	.580	.229
11. Congratulates family members on accomplishments.	.576	.318
21. Attempts household tasks before asking for your help.	.552	8.524E-02
37.Acknowledges compliments or praise from friends.	.520	.364
17. Receives criticism well.	.503	.101
29. Asks permission before using another family member's property.	.493	-.135
1. Uses free time at home in acceptable way.	.490	.362
34. Accepts friends' ideas for playing.	.439	.321
20. Appropriately questions household rules that may be unfair.	.397	.253
31. Requests permission before leaving the house.	.395	.196
32. Responds appropriately to teasing from friends or relatives of own age.	.354	.137
9. Politely refuses unreasonable requests from others.	.352	.317
23. Is liked by others.	.334	.316

Table 3-16. Factor Loadings Factors: Behaves Appropriately and Friendly/Outgoing Time Point: End of First Grade (N=212)		
Item	Factor 1 Behaves Appropriately	Factor 2 Friendly/ Outgoing
12. Makes friends easily.	3.093E-02	.641
13. Shows interest in a variety of things.	.243	.581
5. Introduces self to new people without being told.	3.171E-02	.552
24. Starts conversations rather than waiting for others to talk first.	4.942E-02	.552
10. Invites others to your home.	-3.402E-02	.543
4. Joins group activities without being told to.	.351	.482
30. Is self-confident in social situations such as parties or group outings.	.293	.440
7. Asks sales clerks for information/assistance.	.300	.439
38. Reports accidents to appropriate persons.	.320	.420
6. Responds appropriately when hit/pushed by other children.	-8.349E-02	.377
8. Attends to speakers at meetings, such as church or youth groups.	.235	.371
35. Easily changes from one activity to another.	-.161	.230
18. Answers the phone appropriately.	.213	.219

Table 3-17. Factor Loadings Factors: Behaves Appropriately and Friendly/Outgoing Time Point: End of Second Grade (N=198)		
Item	Factor 1 Behaves Appropriately	Factor 2 Friendly/ Outgoing
22. Controls temper with arguing with other children.	.708	.134
14. Avoids situations that are likely to result in trouble.	.658	-1.998E-02
21. Attempts household tasks before asking for your help.	.656	.143
19. Helps you with household tasks without being asked.	.642	.233
2. Keeps room clean and neat without being reminded.	.642	.105
26. Controls temper in conflict situations with you.	.623	.127
25. Ends disagreements with you calmly.	.619	.111
36. Cooperates with family members without being asked to.	.610	.105
16. Volunteers to help family members with tasks.	.608	.321
15. Puts away toys or other household property.	.607	-6.740E-03

Table 3-17. Factor Loadings Factors: Behaves Appropriately and Friendly/Outgoing Time Point: End of Second Grade (N=198)		
Item	Factor 1 Behaves Appropriately	Factor 2 Friendly/ Outgoing
33. Uses time appropriately while waiting for your help with homework or some other task.	.605	.203
32. Responds appropriately to teasing from friends or relatives of own age.	.591	.150
3. Speaks in appropriate tone of voice at home.	.580	2.330E-02
1. Uses free time at home in acceptable way.	.577	.147
28. Completes household tasks within a reasonable time.	.543	.256
8. Attends to speakers at meetings, such as church or youth groups.	.542	.184
17. Receives criticism well.	.542	.306
29. Asks permission before using another family member's property.	.506	-1.184E-02
34. Accepts friends' ideas for playing.	.492	.405
11. Congratulates family members on accomplishments.	.469	.465
7. Asks sales clerks for information/assistance.	.437	.331
38. Reports accidents to appropriate persons.	.368	.229
35. Easily changes from one activity to another.	-.316	.293
18. Answers the phone appropriately.	.273	.247
20. Appropriately questions household rules that may be unfair.	.212	.207
24. Starts conversations rather than waiting for others to talk first.	4.160E-02	.682
12. Makes friends easily.	-1.039E-02	.679
13. Shows interest in a variety of things.	.114	.636
5. Introduces self to new people without being told.	-5.907E-03	.623
37.Acknowledges compliments or praise from friends.	.299	.606
4. Joins group activities without being told to.	.163	.534
27. Gives compliments to friends or other children in family.	.509	.532
23. Is liked by others.	.198	.517
10. Invites others to your home.	-.143	.478
30. Is self-confident in social situations such as parties or group outings.	.315	.441
31. Requests permission before leaving the house.	.254	.416
9. Politely refuses unreasonable requests from others.	.393	.406

Table 3-17. Factor Loadings Factors: Behaves Appropriately and Friendly/Outgoing Time Point: End of Second Grade (N=198)		
Item	Factor 1 Behaves Appropriately	Factor 2 Friendly/ Outgoing
6. Responds appropriately when hit/pushed by other children.	8.688E-02	9.697E-02

Parent Ratings About Child's Problem Behaviors. Parents' opinions about the problem behaviors displayed by their child were gathered at the end of second grade. Responding to a single scale, parents provided ratings about how often they observed their child display certain problem behaviors. A series of EFA, using principal components extraction and varimax rotation, were performed and four meaningful factors were identified. Table 3-18 shows the items included in the current research, along with results of this EFA. The total variance explained by the four factors is 59.63%. Regression scores from these factors were added together to construct a single new variable that measures the extent to which the parents felt their child was (1) difficult or behaved in a defiant manner, (2) sad, lonely, and depressed, (3) self-conscious, and (4) quick-tempered.

Table 3-18. Factor Loadings Factors: Difficult/Defiant, Sad/Lonely/Depressed, Self-Conscious, and Quick-Tempered Time Point: End of Second Grade (N=200)				
Item	Factor 1 Difficult/ Defiant	Factor 2 Sad/Lonely/ Depressed	Factor 3 Self- Conscious	Factor 4 Quick- Tempered
1. Fights with others.	.788	2.353E-02	.146	4.428E-02
11. Talks back to adults when corrected.	.743	.188	5.966E-02	.223
8. Argues with others.	.654	.209	.301	.119
10. Disobeys rules or requests.	.639	8.114E-02	.456	.123
12.Acts impulsively.	.619	.190	.364	.253
13. Doesn't listen to what others say.	.604	.195	.472	-5.046E-02
5. Threatens or bullies others.	.560	.278	-2.940E-02	.145
6. Disturbs ongoing activities.	.520	.291	5.447E-02	.334
4. Has low self-esteem.	.209	.794	-1.413E-02	1.202E-02
3. Appears lonely.	.122	.768	.130	7.178E-02
2. Acts sad or depressed.	.294	.673	.207	.158

Table 3-18. Factor Loadings Factors: Difficult/Defiant, Sad/Lonely/Depressed, Self-Conscious, and Quick-Tempered Time Point: End of Second Grade (N=200)				
Item	Factor 1 Difficult/ Defiant	Factor 2 Sad/Lonely/ Depressed	Factor 3 Self-Conscious	Factor 4 Quick-Tempered
7. Shows anxiety about being with a group of children.	7.481E-02	.518	.214	4.365E-02
14. Is easily embarrassed.	.190	.111	.814	-5.354E-02
15. Is easily distracted.	.157	.235	.776	.217
9. Fidgets or moves excessively.	.230	.177	.475	.415
17. Has temper tantrums.	.183	5.592E-02	-4.487E-02	.825
16. Gets angry easily.	.146	6.640E-02	.194	.758

Teacher Ratings About Child's Social Skills. Opinions about the child's social skills were gathered from the teacher at the end of kindergarten, and at the end of the first and second grades. For data gathered at the end of kindergarten and at the end of first grade, the teachers used a single scale to rate how important they believed certain social skills exhibited by the child were for success in his/her classroom. The items administered across these two years were the same.

A series of EFA, using principal components extraction and varimax rotation, were performed on these data. For both years, the separate EFA identified the same three meaningful factors. Items included in the current research, along with results of the EFA performed at the end of kindergarten are presented in Table 3-19 and results of the EFA performed at the end of first grade are presented in Table 3-20. The total variance for the three factors at the end of kindergarten and at the end of first grade is 57.85% and 58.16%, respectively. Regression scores from these factors were added together to construct for each year a single new variable that measures the extent to which the teacher believed the child behaved (1) appropriately, (2) in a controlled manner, and (3) confidently.

Table 3-19. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of Kindergarten (N=255)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
28. Attends to your instructions.	.789	.310	5.445E-02

Table 3-19. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of Kindergarten (N=255)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
9. Finishes class assignments within time limits.	.769	.157	.139
16. Produces correct schoolwork.	.734	.114	.212
20. Follows your directions.	.711	.370	2.861E-02
15. Uses time appropriately while waiting for help.	.695	.360	.219
21. Puts work materials/school property away.	.679	.216	.176
29. Easily makes transition from one classroom activity to another.	.671	.408	.232
26. Ignores peer distractions when doing class work.	.645	.346	.116
27. Keeps desk clean and neat without being reminded.	.631	.347	.157
24. Joins ongoing activity/group without being told to do so.	.619	.189	.390
8. Uses free time in acceptable way.	.523	.461	.211
1. Controls temper in conflict situations with peers.	.173	.813	1.122E-02
25. Responds appropriately when pushed or hit by other children.	.293	.778	3.348E-02
12. Controls temper in conflict situations with adults.	.216	.744	6.416E-02
11. Responds appropriately to teasing by peers.	.255	.743	.108
5. Responds appropriately to peer pressure.	.230	.737	.149
13. Receives criticism well.	.241	.729	.115
4. Compromises in conflict situations by changing own ideas to reach agreement.	.200	.672	.106
22. Cooperates with peers without prompting.	.400	.658	9.965E-02
18. Accepts peers' ideas for group activities.	.342	.620	.163

Table 3-19. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of Kindergarten (N=255)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
30. Gets along with people who are different.	.391	.411	.284
3. Appropriately questions rules that may be unfair.	4.716E-02	-8.289E-02	.743
17. Appropriately tells you when he/she thinks you have treated him/her unfairly.	5.733E-03	.115	.732
6. Says nice things about self when appropriate.	-1.309E-02	.179	.716
19. Gives compliments to peers.	.222	.207	.690
2. Introduces self to new people without being told.	.227	-.193	.652
14. Initiates conversations with peers.	.262	1.558E-02	.640
7. Invites others to join activities.	.234	.253	.639
23. Volunteers to help peers without prompting.	.446	.308	.562
10. Makes friends easily.	.238	.330	.546

Table 3-20. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of First Grade (N=208)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
25. Responds appropriately when pushed or hit by other children.	.274	.765	-4.685E-02
1. Controls temper in conflict situations with peers.	.360	.752	-5.657E-02
13. Receives criticism well.	.201	.727	.109

Table 3-20. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of First Grade (N=208)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
11. Responds appropriately to teasing by peers.	.265	.702	.218
12. Controls temper in conflict situations with adults.	.359	.691	-1.785E-02
22. Cooperates with peers without prompting.	.338	.689	.175
30. Gets along with people who are different.	.333	.672	.134
18. Accepts peers' ideas for group activities.	8.418E-02	.672	.252
5. Responds appropriately to peer pressure.	.321	.624	.172
4. Compromises in conflict situations by changing own ideas to reach agreement.	.234	.585	.159
10. Makes friends easily.	.326	.487	.460
28. Attends to your instructions.	.794	.300	.123
9. Finishes class assignments within time limits.	.784	.100	.196
20. Follows your directions.	.760	.378	5.625E-02
16. Produces correct schoolwork.	.739	.163	.176
21. Puts work materials/school property away.	.704	.327	.126
8. Uses free time in acceptable way.	.700	.338	7.982E-02
15. Uses time appropriately while waiting for help.	.698	.330	.188
29. Easily makes transition from one classroom activity to another.	.695	.385	.170
27. Keeps desk clean and neat without being reminded.	.691	.174	.200
26. Ignores peer distractions when doing class work.	.658	.339	.119
2. Introduces self to new people without being told.	2.532E-03	7.836E-02	.739
3. Appropriately questions rules that may be unfair.	.146	-1.399E-02	.715

Table 3-20. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of First Grade (N=208)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
17. Appropriately tells you when he/she thinks you have treated him/her unfairly.	5.373E-02	-9.658E-02	.711
7. Invites others to join activities.	.129	.367	.653
6. Says nice things about self when appropriate.	.154	.407	.589
14. Initiates conversations with peers.	.165	.109	.578
19. Gives compliments to peers.	.224	.488	.546
23. Volunteers to help peers without prompting.	.294	.404	.528
24. Joins ongoing activity/group without being told to do so.	.412	.407	.418

For data gathered at the end of second grade, the teacher used a single scale to rate how often he/she observed the child display certain social behaviors. Although the scale changed, the items to which the teacher responded at this time were the same as those administered the two previous years. A series of EFA, using principal components extraction and varimax rotation, were performed on these data. This EFA identified as meaningful the same factors as those found to be meaningful the previous years. Table 3-21 presents the items included in the current research, along with results of this EFA. The total variance explained by the three factors is 59.92%. Regression scores for these three factors were added together to create a single new variable that measures the extent to which the teacher believed the child behaved (1) appropriately, (2) in a controlled manner, and (3) confidently.

Table 3-21. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of Second Grade (N= 184)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
8. Uses free time in acceptable way.	.778	.333	.132
15. Uses time appropriately while waiting for help.	.768	.276	.234
9. Finishes class assignments within time limits.	.767	9.971E-02	.281
26. Ignores peer distractions when doing class work.	.766	.266	9.012E-02
21. Puts work materials/school property away.	.739	.323	-6.203E-02
28. Attends to your instructions.	.737	.354	7.504E-02
27. Keeps desk clean and neat without being reminded.	.732	.204	3.047E-02
16. Produces correct schoolwork.	.704	7.605E-02	.375
20. Follows your directions.	.685	.427	9.064E-02
29. Easily makes transition from one classroom activity to another.	.678	.484	4.378E-02
12. Controls temper in conflict situations with adults.	.356	.722	2.167E-02
1. Controls temper in conflict situations with peers.	.363	.682	-2.171E-02
30. Gets along with people who are different.	.431	.642	.187
22. Cooperates with peers without prompting.	.563	.606	.243
18. Accepts peers' ideas for group activities.	.351	.603	.300
13. Receives criticism well.	.492	.589	.239
25. Responds appropriately when pushed or hit by other children.	.425	.576	.122
11. Responds appropriately to teasing by peers.	.517	.541	.168
5. Responds appropriately to peer pressure.	.447	.498	.187
4. Compromises in conflict situations by changing own ideas to reach agreement.	.355	.396	.191

Table 3-21. Factor Loadings Factors: Behaves Appropriately, Behaves in Controlled Manner, and Behaves Confidently Time Point: End of Second Grade (N= 184)			
Item	Factor 1 Behaves Appropriately	Factor 2 Behaves in Controlled Manner	Factor 3 Behaves Confidently
2. Introduces self to new people without being told.	3.681E-02	2.088E-02	.800
3. Appropriately questions rules that may be unfair.	.134	-.292	.754
17. Appropriately tells you when he/she thinks you have treated him/her unfairly.	.237	-.203	.688
7. Invites others to join activities.	9.144E-02	.385	.650
14. Initiates conversations with peers.	3.335E-02	.316	.629
6. Says nice things about self when appropriate.	-2.249E-02	.432	.619
10. Makes friends easily.	.257	.402	.548
19. Gives compliments to peers.	7.759E-02	.400	.541
23. Volunteers to help peers without prompting.	.237	.401	.480
24. Joins ongoing activity/group without being told to do so.	.359	.439	.476

Teacher Ratings About Child's Problem Behaviors. The teacher's opinions about the problem behaviors displayed by the child were gathered at the end of second grade. The teacher used a single scale to rate how often he/she observed the child display certain problem behaviors. A series of EFA, using principal components extraction and varimax rotation, were performed on these data and three meaningful factors were identified. The items included in the current research, along with results of this EFA are shown in Table 3-22. The total variance explained by these three factors is 64.56%. Regression scores from these three factors were added together to construct a single new variable that measures the extent to which the teacher felt the child was (1) difficult and quick-tempered, (2) disruptive, and (3) sad, lonely, and self-conscious.

Table 3-22. Factor Loadings Factors: Difficult and Quick-Tempered, Disruptive, and Sad/Lonely/Self-Conscious Time Point: End of Second Grade (N=190)			
Item	Factor 1 Difficult & Quick-Tempered	Factor 2 Disruptive	Factor 3 Sad/Lonely/ Self-Conscious
13. Gets angry easily.	.800	.232	.236
12. Talks back to adults when corrected.	.791	.188	8.340E-02
14. Has temper tantrums.	.769	.196	.151
3. Threatens or bullies others.	.724	.259	8.869E-02
1. Fights with others.	.679	.388	1.086E-02
11. Argues with others.	.645	.438	.196
5. Is easily distracted.	4.990E-02	.852	.207
6. Interrupts conversations of others.	.393	.729	-3.667E-02
18. Fidgets or moves excessively.	.275	.725	.166
17. Acts impulsively.	.410	.704	.144
7. Disturbs ongoing activities.	.488	.692	2.441E-02
10. Doesn't listen to what others say.	.348	.681	.135
4. Appears lonely.	9.646E-02	3.116E-02	.844
16. Acts sad or depressed.	.206	8.884E-02	.816
2. Has low self-esteem.	5.896E-02	.339	.754
8. Shows anxiety about being with a group of children.	.148	8.152E-02	.747
9. Is easily embarrassed.	-9.246E-02	.155	.690
15. Likes to be alone.	.110	-1.552E-02	.614

Additional Predictor Variables

Using certain demographic data gathered from the Family Background Interview, the following six variables also were constructed and used as predictor variables in the current research.

Gender. Information about the gender of each child was gathered and included in the available database. By recoding the original variable, two (dichotomous) variables were constructed: (1) male, where a score of one was given if the child was male and a zero was given if the child was not male and (2) non-male, where a score of one was given if the child was not male and a zero was given if the child was male.

Ethnicity. The available database also included a categorical variable on the ethnic background of each child. This original variable was recoded into three ethnic group variables (i.e., black, Hispanic, and Asian) to account for the four ethnic groups included in the database (i.e., white/Caucasian, black/African American, Hispanic/Latino, and Asian/Pacific Islander). Each new variable was dichotomous, where the target child received a score of one if he/she belonged to that ethnic group and a zero if he/she did not belong.

Socioeconomic Status. A variable was constructed to measure the family's socioeconomic status (SES) by combining three variables that described the education level and employment status of the parent, and the per capita monthly income of the family. The available database included measures of the education level and the employment status of the parent; however, the scales used for these variables were not comparable. The original variables were recoded, using comparable 5-point scales, into new variables that measure education level and employment status. The monthly income data available in the database included a range of income rather than a single figure; therefore, a new variable was constructed that used the midpoint of this range as the family's monthly income. Using variables from the available database, a family size variable was constructed by adding together the two variables that measured the number of adults and the number of children in the family. A per capita monthly income variable was constructed by dividing the family's monthly income by the size of the family. Finally, a SES variable was constructed by adding together the new education level, employment status, and per capita monthly income variables. A SES variable was constructed for each of the four time points to reflect changes in the family's socioeconomic status.

Dual Parent Status. A new dichotomous variable was created to measure the family's configuration of dual or single parent status by using the original variable that measured the number of adults in the family. Families that reported only one adult received a new score of zero to indicate single parent status, while families that reported two or more adults received a new score of one to indicate dual parent status.

Interaction of Previous Head Start Experience and Gender. A new variable was constructed to measure the interaction of the child's previous Head Start experience and his/her gender. The gender and Head Start experience variables – both dichotomous – were transformed by multiplying them together to construct the new interaction variable.

Interaction of Previous Head Start Experience and Ethnicity. A new variable also was constructed to measure the interaction of the child's previous Head Start experience and his/her ethnicity. The ethnicity and Head Start experience variables – both dichotomous – were transformed by multiplying them together to construct the new interaction variable.

Reliability Estimates

Although national norms exist for the instruments used to collect the data for the current research, these norms were of little interest and use because the national sample on which the norms were developed have no known similarities with the local samples included in the Transition Project. Therefore, norms were established using data collected from the local samples (i.e., Cohort II demonstration and comparison samples). The reliability estimates (i.e., coefficient alpha) for the instruments used in the current research are presented in Table 3-23.

Table 3-23. Reliability Estimates of Data Collection Instruments
Time Points: All

Instrument	Beginning of Kindergarten (α)	End of Kindergarten (α)	End of First Grade (α)	End of Second Grade (α)
Family Resource Scale	.84 (N=255)	-	-	-
Family Routines Questionnaire	.61 (N=245)	-	-	-
Your Child's Adjustment to School	-	.82 (N=235)	.83 (N=218)	.83 (N=199)
School Climate Survey	-	.94 (N=227)	.94 (N=217)	.95 (N=200)
Parenting Dimensions Inventory	-	.77 (N=227)	.82 (N=212	-
Neighborhood Scales	-	.55 (230)	.56 (N=219)	-
Life Events	-	-	-	.54 (N=156)
Social Skills Rating System, Social Skills Questionnaire (Parent Form)	.92 (N=241)	.96 (N=235)	.91 (N=212)	.91 (N=198
Social Skills Rating System, Problem Behavior (Parent Form)	-	-	-	.88 (N=200)
Social Skills Rating System, Social Skills Questionnaire (Teacher Form)	-	.94 (N=255)	.95 (N=208)	.95 (N=184)
Social Skills Rating System, Problem Behavior Questionnaire (Teacher Form)	-	-	-	.91 (N=190)

Hierarchical Multiple Regression Analysis

The present study used hierarchical multiple regression analysis as a hypothesis testing technique to examine the relationships among the predictors and dependent variables identified from the EFA. These variables were used to construct meaningful univariate models that examined the unique contributions of different predictors of the summed factor scores for (1) parent ratings of children's social skills, (2) parent ratings of children's problem behaviors, (3) teacher ratings of children's social skills, and (4) teacher ratings of children's problem behaviors. Each univariate model was constructed to test a specific theoretical hypothesis so that, depending on the research question, all appropriate and meaningful predictors were included. A series of regressions were then run on each univariate model to determine the (1) total variance accounted for by the full model and (2) unique contribution of each predictor in the model.

The primary focus of the regression analyses was on the total variance accounted for by each univariate model. Thus, the first regression analysis included all of the predictors in the model. The results of this analysis were used to determine the significance of the full model as well as the standardized betas for each predictor included in that model. To do this, the overall R^2 for the full model was examined for significance ($p = .05$), followed by an examination of the significance ($p=.05$) of the standardized beta associated with each predictor in the model.

The secondary focus of the regression analyses was on the unique contribution of each predictor. To determine the unique contributions, a series of regressions were run on each univariate model. A backward approach was applied such that each predictor was iteratively eliminated from the model and its unique contribution in accounting for the total model variance determined. The unique contribution was determined by calculating the change in R^2 between that obtained for the full model and that obtained when the predictor was eliminated. The predictor was again included, and another predictor eliminated to determine its unique contribution. This process was repeated until the unique contribution of each predictor was determined.