ABSTRACT
        Children's adjustment and achievement in first grade
is crucial to subsequent long-term school success. This study
investigated characteristics related to kindergarten and first-grade
children's social competence and school adjustment: (1) associations
between personality characteristics and social competence; (2) the
contribution of social and academic competence to school achievement;
(3) similarities between competence in school and non-school
contexts; and (4) differences in the previous relationships between
kindergarten and first grade. Results indicate that social competence
at school contributes importantly to school adjustment, independent
of academic competence and intelligence, particularly in
kindergarten; and that social competence differs between school and
non-school contexts. Agentic (traditionally male sex-typed) and, to a
lesser degree, nurturing (traditionally female sex-typed)
characteristics predicted social competence in both family and school
contexts, while nervousness and creativity were negative predictors.
(Contains 10 references.) (TM)

Personality characteristics, social competence,

and early school adjustment:

A contextual and developmental perspective

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Abstract

We investigated the contribution of social competence to kindergartners' and first graders' school adjustment. We also investigated the children's personality characterisitics as predictors of social competence, rated by both the children's mothers and teachers.

We found that social competence at school makes an important contribution to children's school adjustment, independent of academic competence and IQ. This influence was particularly strong for kindergartners.

Both mothers and teachers rated the children differently with regards to their social competence, although each scale was internally consistent. This finding implies that school and out-of-school contexts exert different demands for social competence, and these two contexts become more differentiated between kindergarten and first grade.

Agentic (traditionally male sex-typed) and, to a lesser extent, nurturing (traditionally female sex-typed) characteristics were predictive of social competence in both family and school contexts. Being nervous and creative were negative predictors of first graders' social competence at school.

Personality characteristics, social competence, and early school adjustment:

A contextual and developmental perspective

Research (e.g. Ladd & Price, 1987) has indicated that making a successful adjustment to school is a crucial factor affecting children's initial and subsequent school attitudes and achievement. Several longitudinal studies (e.g. Alexander & Entwisle, 1988) have shown that children establish remarkably stable educational trajectories from as early as first grade. For example, children's first year grades and standardized achievement test scores have been found to be significantly correlated with children's subsequent academic achievement up to 11 years later (Alexander & Entwisle, 1988; Entwisle & Hayduk, 1982; Stevenson & Newman, 1986). Further, children's end-of-year first grade reading and math grades have been shown to be significant predictors of long-term academic difficulties and dropping out of high school (Ensminger & Slusarcick, 1992; Simner & Barnes, 1991). These findings contribute to a growing awareness of the importance of investigating children's transitions to beginning school (Alexander & Entwisle, 1988; Ladd & Price, 1987). It has been argued therefore that first grade is a 'window of opportunity', whereby children develop the foundations of these trajectories, and that "first grade is a critical settling-in time" (Alexander, Entwisle, & Dauber, 1993, p. 813).

Beginning school involves more than learning academics. Children must also learn to negotiate a new social environment, often with new demands, many of which are not made explicit by teachers or parents. These demands include: learning and conforming to the school's and teacher's routines and expectations. becoming more independent and responsible for themselves and their possessions, making friends and joining a new peer group, and confronting new academic and social challenges and developing strategies for mastering them. From considering these demands it would appear that successfully negotiating the transition to

beginning school would require different types of competencies. Some researchers have stressed the influence of children's cognitive competence on their early school success (e.g. Stevenson & Newman, 1986). However others have found that factors related to school beginners' social competence, such as positive peer relationships, making new friendships, and classroom conduct, are equally important to early school success (Alexander & Entwisle, 1988; Alexander et al., 1993; Ladd, 1990) and also have long-term educational effects (Ensminger & Slusarcick, 1992). Given the apparent significance of being socially competent at school, it is important to continue investigation of characteristics that are related to children's social competence and school adjustment. It appears to continue to be true that "little attention has been focused on factors that may predict children's social and school adjustment during this period [of beginning school]" (Ladd & Price, 1987, p. 1169), as Alexander et al. have more recently argued that "identification of personal characteristics that help children adjust to schooling is strategically important for school research" (p. 813). Additionally, it is important to note developmental changes and differing contextual demands on young children in the early school years, as "the processes involved in youngsters' achievement over the first year of full-time schooling are structurally different from processes over later years" (Alexander et al., p. 813).

The model we use for the present study is shown in Figure 1. Specifically, we investigate: (1) the association between young children's personality characteristics and their social competence in relating to peers, as reported by both mothers (re: the out-of-school context) and teachers (re: the school context); (2) the contributions of both children's social and academic competence, controlling for their cognitive development, to their school adjustment; (3) the similarities in the requirements for social competence between school and non-school contexts; and (4) the extent to which the previous relationships differ from kindergarten to first grade. We predict

that: (1) social competence will be an important independent contributor to children's school adjustment, (2) there will be greater disparity between the requirements of socially competent behavior in school and non-school contexts in first grade than in kindergarten; (3) there will be greater disparity between children's social and academic competence in first grade than in kindergarten; and (4) children's social competence will make a smaller contribution to their school adjustment in first grade than in kindergarten, once academics becomes more salient than and differentiated from the social arena.

Method

Participants and procedure

This study is part of a larger 4-year longitudinal research project investigating the school experiences of 865 children in southeastern Michigan (The Childhood and Beyond Study - CABS: PIs - Jacque Eccles, Allan Wigfield, Rena Harold, & Phyllis Blumenfeld). The data in this study came from the first wave of data collection. The participants are 123 kindergartners and 156 first graders attending 10 elementary schools in four suburban school districts in southeastern Michigan. The participants are predominantly White and from lower middle-class to middle-class socioeconomic backgrounds. There are approximately equal numbers of boys and girls. We collected information about these children from both their mothers and their school teachers.

Measures

Children's personality characteristics. Both children's mothers and teachers rated the children on a 7-point scale with regard to 27 personality characteristics. Using these personality ratings we conducted factor analyses, separately for the mother and the teacher-reported items. Each factor analysis identified the presence of five

factors: Agentic, Nurturing, Nervous, Creative, and Self-controlled (see Appendix for items). We created almost identical scales of children's personality characteristics, using the factor scores, for each of the mothers' and teachers' reports. These scales had high internal consistency, with alphas from .76-.86 for the teacher ratings and from .58-.85 for the mother ratings.

Children's social competence with peers. We asked both mothers and teachers to rate the children's ability to make friends. The mother-report scale was constructed using four items (see Appendix for items), rated on a 7-point scale, (α=.92). An analogous scale was created from three teacher-report items (adding also ability at making new friends compared to other children); it also had high internal consistency (α=.87).

Children's academic competence. We formed a composite index to measure children's academic competence, composed of teachers' ratings of the children's math and reading talent, and their expectancy for their math and reading achievement in the next year (α=.93).

Children's school adjustment. This item asked teachers to report on how well each child had adjusted to school, using a 7-point Likert-type scale.

Cognitive development. We also individually administered the Slosson IQ test.

Results

We conducted a confirmatory factor analysis to investigate the presence of gender differences. The goodness of fit statistics indicated that there was no significant gender difference; goodness of fit index =.932, χ^2 (df=91) =110.10 (p=.08). Therefore we combined the results for girls and boys. We conducted a second confirmatory factor analysis to investigate the presence of grade differences. There was a significant difference for grade; goodness of fit index =.88, χ^2 (df=91) =143.59

(p<.001). Therefore we conducted all analyses separately for kindergartners and first graders.

The correlations, means, and standard deviations of all variables are shown in Table 1, separately for kindergartners and first graders.

Personality and social competence. First, to determine which child personality characteristics are associated with children's social competence in the family and school contexts, we regressed the five mother-rated child personality scales on the mothers' rating of social competence, and did likewise with the analogous teacher scales. The results for these two simultaneous regressions are shown in Table 2.

Children's personality characteristics and social competence: out-of-school context.

Children's agentic characteristics were most strongly associated with mothers' ratings of social competence, particularly for kindergartners (ß=.63, p<.001 for kindergartners & ß=.51, p<.001 for 1st graders). Being nurturing was also important for social competence with peers, again more so for kindergartners than first graders (ß=.33 & .24, respectively, both p<.001). Mothers' ratings of their child being nervous, self-controlled, and creative were not significantly associated with their ratings of social competence in the out-of-school context.

Children's personality characteristics and social competence: school context.

Paralleling mothers' reports, children's social competence at school was significantly associated with agentic characteristics (ß=.50 & .64, for kindergartners and 1st graders respectively, both p<.001) and, to a lesser extent, with nurturing characteristics (ß=.47 & .26, both p<.001). As above, both these characteristics were more important for kindergartners' social competence than first graders'. Additionally, teacher ratings of being nervous was significantly negatively

associated with social competence at school, particularly for the younger children (ß=-.48, p<.001, for kindergartners & -.20, p<.01, for 1st grade). Of interest, too, is the relationship between teacher ratings of creativity and social competence. When the other characteristics were controlled for there was no significant association between kindergartners' creativity and social competence at school, however there emerged a significant negative association (ß=-.22, p<.05) between the two for first graders. Teachers' rating of children's self-control was not significantly associated with social competence, controlling for the other personality characteristics.

It is interesting to note that the correlation between mothers' and teachers' ratings of the kindergarten children⌣ social competence was rather modest, although significant (r=.32, p<.01). However there was no shared perception between teachers and mothers for first graders' social competence in the school and non-school contexts (r=.09, n.s.).

Social and academic competence and school adjustment. In the second part of this study we conducted a simultaneous regression to determine the contributions of children's social competence in both the out-of-school and school contexts and academic competence on school adjustment, controlling for their cognitive development. The results for this regression are shown in Table 3.

As a control for social and cognitive competence, children's IQ did not significantly influence their school adjustment, as seen in both the bivariate correlation (r=.31, p<.01 and r=.12, n.s. for kindergartners and 1st graders, respectively) and the regression analysis. IQ was significantly related to children's academic competence, however (r=.50 and .41 for kindergartners and 1st graders, respectively, both p<.01).

Both teachers' ratings of children's social competence and their academic competence made large, significant independent contributions to children's school

adjustment. For kindergartners, their social competence was almost as important for successful school adjustment as was their academic competence ($\beta=.40$ & $.45$, respectively, both $p<.001$). The pattern of relationships between social and academic competence and school adjustment was somewhat different for first graders. The correlation between teacher ratings of social and academic competence was markedly smaller ($r=.18$, $p<.05$) indicating increased differentiation between the social and academic domains by first grade. The effect of first graders' academic competence on school adjustment was similar to kindergartners' ($\beta=.47$, $p<.001$). However first graders' social competence made a lesser, although still strong, contribution to their school adjustment ($\beta=.33$, $p<.001$).

Mothers' ratings of their children's social competence did not influence teachers' ratings of school adjustment for either grade level ($\beta=-.02$ and $-.05$ for kindergartners and 1st graders, respectively, both n.s.).

Discussion

Both mothers and teachers regarded the same personality characteristics as being important to the children's social competence. Agentic characteristics (typically male gender-typed, e.g. a leader, assertive, independent) were most strongly related to social competence for children at both grade levels. Nurturing characteristics (typically female gender-typed, e.g. co-operative, caring) were also important for social competence, although to a lesser extent. Nervousness made a negative contribution to social competence, but only at school.

The moderate agreement between mothers' and teachers' ratings of the kindergartners' social competence implies that the school and out-of-school contexts are different and consequently that children must learn to negotiate a new social context when beginning school. The non-significant correlation between mothers'

and teachers' reports of first graders' suggests that the school context becomes increasingly distinct from the out-of-school context past kindergarten.

It is evident that kindergartners' ability to be socially competent at school is just as important for their school adjustment as is their ability at academics. Social competence is still very important for first graders' adjustment, although academic competence makes a larger contribution to school adjustment.

It will be interesting to investigate if children's social competence continues to influence their school adjustment, or if it is a feature primarily of the early elementary years. Although not directly addressed in the literature to date, research has shown that adolescents' social goals (e.g. for social responsibility, social relationships) are related to their goals for academic engagement (Hicks, Murphy, & Patrick, 1995) and to their academic performance (Wentzel, 1989).

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Figure 1. Model of Personality Characteristics, Social Competence and Early School Adjustment
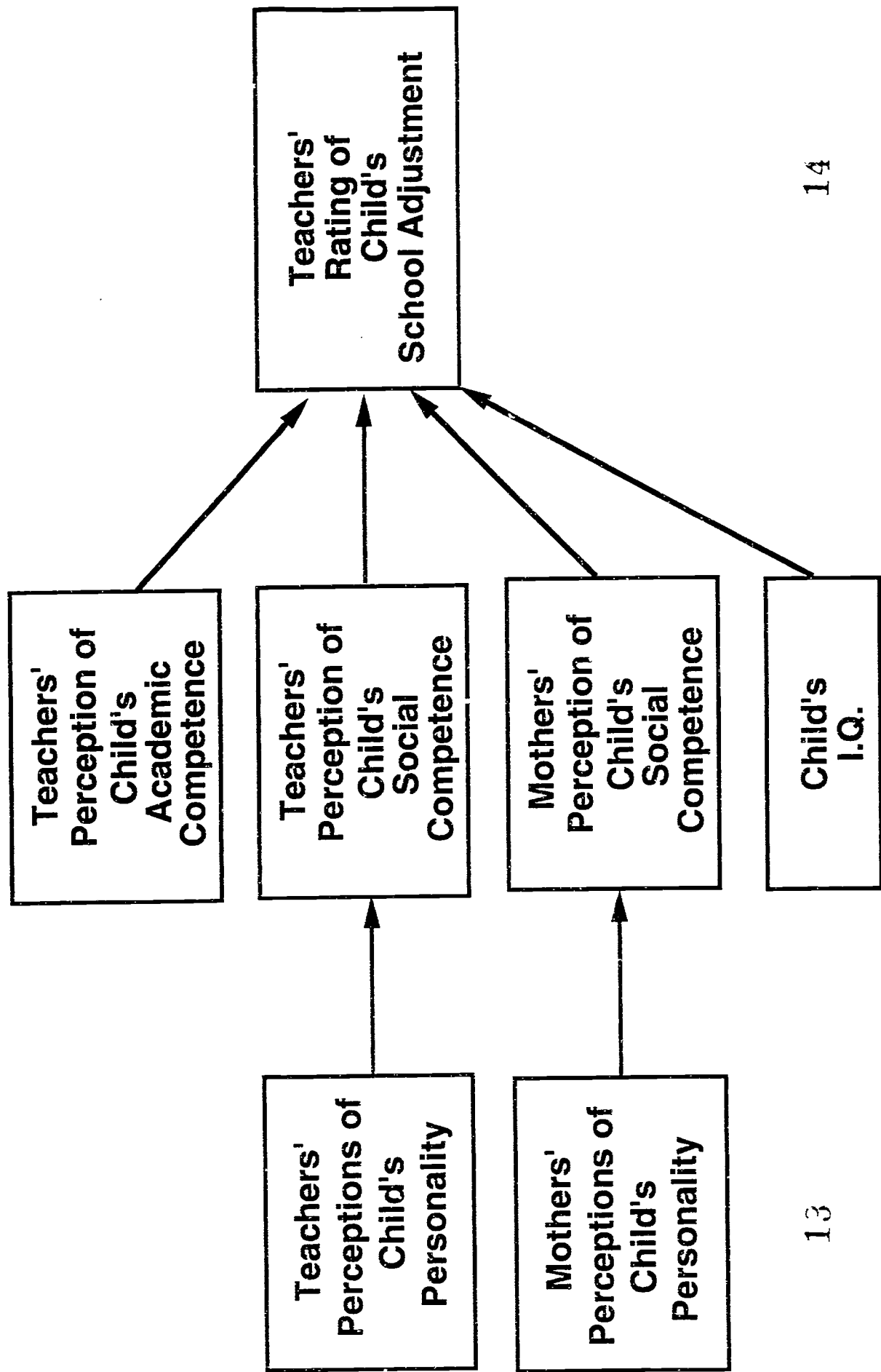
Table 1. Correlations, means and standard deviations of variables used in the model of personality characteristics, social competence and school adjustment §

	Agentic.p	Nurture.p	Control.p	Create.p	Nerve.p	Social.p	Nurture.t	Agentic.t	Create.t	Control.t	Nerve.t	Social.t	Adjust.t	Academ.t	IQ
Agentic.p	–	-.03	-.09	-.06	-.11	.64 **	-.07	.28 **	.24 **	.18	.00	.21 *	.12	.15	.18
Nurture.p	.02	–	.04	.01	.07	.30 **	.28 **	.09	.06	.13	-.14	.17	.29 **	.13	.08
Control.p	.02	.10	–	-.02	.00	.00	.16	.02	.09	.11	-.22 *	.09	.17	.28 **	.19 *
Create.p	.05	.01	-.06	–	-.01	-.09	.04	.04	.14	.05	-.02	-.04	.15	.17	.27 **
Nerve.p	.12	-.11	-.02	-.02	–	-.18	-.04	-.21 *	-.10	-.11	.22 *	-.20 *	-.20 *	-.06	-.10
Social.p	.51 **	.25 **	-.04	.12	-.03	–	.10	.26 **	.21 *	.19 *	.03	.32 **	.21 *	.21 *	.25 **
Nurture.t	-.19 *	.12	.19 *	.03	-.02	.02	–	.58 **	.57 **	.67 **	.10	.62 **	.67 **	.43 **	.04
Agentic.t	.07	.06	.18 *	-.04	-.08	.13	.44 **	–	.81 **	.82 **	.09	.61 **	.53 **	.58 **	.21 *
Create.t	-.09	-.03	.11	.12	-.04	-.02	.43 **	.74 **	–	.72 **	.16	.48 **	.53 **	.68 **	.25 **
Control.t	-.11	-.08	.14	.02	-.09	.05	.48 **	.74 **	.63 **	–	.35 **	.44 **	.47 **	.57 **	.06
Nerve.t	-.11	-.06	.02	.15	.08	-.01	-.02	.15	.15	.35 **	–	-.42 **	-.39 **	-.24 **	-.21 *
Social.t	-.13	.07	.15	-.11	-.20 *	.09	.43 **	.52 **	.30 **	.34 **	-.16 *	–	.59 **	.44 **	.19 *
Adjust.t	-.06	.03	.26 **	.04	-.17	-.05	.58 **	.58 **	.49 **	.52 **	-.33 **	.41 **	–	.63 **	.31 **
Academ.t	.05	.04	.38 **	.22 *	.03	-.08	.22 **	.57 **	.59 **	.45 **	-.06	.18 *	.50 **	–	.50 **
IQ	.02	.09	.13	.16	.02	-.07	-.04	.19 *	.34 **	.10	.06	-.02	.12	.41 **	–
M ¶															
K	-.05	.04	-.04	-.09	-.19	5.60	5.33 *	4.79	5.06	4.23	3.86	4.92	5.58	20.85	120.64
First	.13	-.06	.08	.11	.05	5.55	5.63	4.82	5.11	4.37	3.55	5.12	5.84	21.98	118.80
S.D.															
K	1.06	1.02	.96	1.09	1.04	1.09	1.41	1.54	1.43	1.42	1.41	1.19	1.37	5.61	16.27
First	.92	1.02	.97	.95	.95	1.02	1.09	1.15	1.16	1.03	1.47	1.01	1.11	4.62	17.12

§ Glossary of variables
.p denotes parent's measure.
.t denotes teacher's measure.
Agentic Agentic scale (e.g., outgoing, leader, assertive)
Nurture Nurture scale (e.g., cooperative, follows rules, easy-going)
Create Creativity scale (e.g., imaginative, try new things, creative)
Control Self-control scale (e.g., perfectionist, not impulsive, well-organized)
Nerve Nervousness scale (e.g., tense, nervous, overly sensitive)
Social Social competence scale (e.g., good at making friends)
Adjust School adjustment variable (how well child adjusts to school)
Academ Academic competence scale (e.g. how good at reading, math)

+ Correlations above the main diagonal are for kindergarteners (N=131). Correlations below the main diagonal are for first graders (N=165).
* significant at p<.05, ** significant at p<.01

¶ Mean difference between kindergarteners and 1st graders. * significant at p<.05.

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Table 2. The Effects of Children's Personality Characteristics (Parents' and Teachers' Ratings) on Their Social Competence by Grade: Standardized Regression Coefficients and R^2

Mothers' Ratings

Personality	Kindergarten	Grade 1
Agentic	.63 ***	.51 ***
Nurturing	.33 ***	.24 ***
Nervous	-.13	-.06
Self-controlled	.04	-.07
Creative	-.06	.08
R^2	.53	.34

Teachers' Ratings

Personality	Kindergarten	Grade 1
Agentic	.50 ***	.64 ***
Nurturing	.47 ***	.26 ***
Nervous	-.48 ***	-.20 **
Self-controlled	-.08	-.05
Creative	-.05	-.22 *
R^2	.74	.40

*p<.05   **p<.01   ***p<.001

Table 3. The Effects of Children's Social Competence (Parents' and Teachers' Ratings), Academic Competence, and I.Q. on Their School Adjustment by Grade: Standardized Regression Coefficients and R^2

	Kindergarten	Grade 1
I.Q.	.02	-.07
Social competence (Teacher)	.40 ***	.33 ***
Social competence (Parent)	-.02	-.05
Academic competence	.45 ***	.47 ***
R^2	.52	.36

*p<.05   **p<.01   ***p<.001

Children's Personality Characteristics: Parent and Teacher ratings

Agentic

Mother: α= .84   Teacher :   α=.84

A leader   A leader
Competitive   Competitive
Peers ask for assistance   Peers ask for assistance
Self-confident   Self-confident
Independent   Independent
Outgoing   Outgoing
Likes challenge
Assertive

Nurturing

Mother: α=.67   Teacher :   α=.86

Co-operates with peers   Co-operates with peers
Follows rules   Follows rules
Cares for others   Cares for others
Physically aggressive (R)   Physically aggressive (R)
Laid back/ easy going   Well-liked by peers
Argues with peers (R)

Nervous

Mother: α=.58   Teacher :   α=.77

Nervous   Nervous
Overly sensitive   Overly sensitive
Dislikes change   Test anxious
                                                  Handles stress well (R)
                                                  Concerned about
                                                  performance

Creative

Mother: α=.73   Teacher :   α=.87

Creative   Creative
Imaginative   Imaginative
Curious   Eager to try new things
                                                  Likes challenges

Self-controlled

Mother:	α=.75	Teacher:	α=.76

Well-organized

Well-organized

Perfectionist

Perfectionist

Responsible

Responsible

Impulsive (R)

Impulsive (R)

Follows rules .

Teacher ratings of Children's Academic Competence   α= .93
Math talent
Reading talent
Expectancy for math next year
Expectancy for reading next year

Teacher ratings of Children's Social Competence   α= .87
Talent for making new friends
Expectancy for new friends next year
Effort for making new friends

Parent ratings of Children's Social Competence   α= .92

Ability at making new friends
Talent for making new friends
Ability compared to others at making new friends
Expectancy for new friends next year

- All measures are based on a 7 point Likert scale.