On the basis of exploratory factor analysis with an oblique (promax) rotation and using separate samples of 145 preschool and kindergartners and 104 first and second graders (ages 6 and 7). The preschool/kindergarten version is used in the present study. Harter and Pike (1984) designed the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (PSPCSA) to assess the self-perceptions of children ages 4 to 7. The PSPCSA has been widely used in research; over 135 references to the PSPCSA are found in the Social Sciences Citation Index since the PSPCSA was published and at least 34 studies of preschool children used the instrument between 1984 and 1994 (Fantuzzo, McDermott, Manz, Hampton, & Burdick, 1996). The PSPCSA has been used to study various topics such as the epidemiology of psychological disorders (Garrison, Earls, & Kindlon, 1983), learning disabilities (Holguin & Sherrill, 1990), and sickle cell disease (Lemanek, Horwitz, & Obene-Frempong, 1994) in children. Despite the PSPCSA's popularity, Byrne (1996) concluded that although the PSPCSA is a "potentially valuable measure for use with young children," that "construct validity studies are urgently needed before the psychometric soundness of its structure and use with intended populations can be judged appropriately" (p. 84).

The PSPCSA is a modified, downward extension of Harter's (1982) original Perceived Competence Scale for Children, which was revised as the Self-Perception Profile for Children (Harter, 1985). Harter's original scale was designed for children in Grades 3 to 6 (ages 8 to 12), and rested on two theoretical assumptions: (a) children's self-perceptions are multidimensional, and (b) children ages 8 and above form a view of their "general self-worth" that is not merely a sum of their self-ratings of specific competencies. In the original Harter scale, general self-worth is conceptualized as a facet of the complex of self-perceptions, rather than the apex of a hierarchical model (Harter, 1982). Based on this theoretical framework, Harter's 1982 scale comprised four subscales: (a) Cognitive, (b) Social, (c) Physical Competence, and (d) General Self-worth. Harter (1982,1985) found a factor structure supporting the scale's structure. For a detailed review of the 1985 revised scale, see Byrne (1996).

To construct a developmentally appropriate downward extension of the 1982 scale for use with young children, Harter and Pike (1984) modified it in several ways. First, they constructed the scale using a pictorial, rather than a written, format. Second, they devised two versions of the PSPCSA scale, one for preschoolers and kindergartners (ages 4 and 5), and one for first and second graders (ages 6 and 7). The preschool/kindergarten version is used in the present study. Harter and Pike made two additional modifications to the content of the PSPCSA. On the basis of the theoretical and empirical findings (Harter, 1983) suggesting that children younger than age 8 cannot reliably determine self-worth, Harter and Pike omitted the general self-worth scale from their version of the PSPCSA. They defined two general constructs, perceived competence and perceived social acceptance, each of which has two subscales. As a result, the PSPCSA has four subscales: (a) Cognitive Competence, (b) Physical Competence, (c) Social Acceptance, and (d) Maternal Acceptance.

Unlike the analyses of the original upper elementary-school scale, which supported that scale's structure, Harter and Pike's (1984) data suggested a simpler structure.
second graders, Harter and Pike concluded that the data supported only a two-factor structure (acceptance, competence) for both versions of the PSPCSA. For the combined preschool/kindergarten, sample factor loadings were moderate to high (20 of 24 > .30; 14 of 24 > .40), with only two items having significant cross loadings. Analyses of the first/second-grade version showed higher loadings on a similar two-factor structure. Garrison et al. (1983), using a sample of 6- and 7-year-old rural children reported a similar two-factor structure for the first/second-grade version of the PSPCSA.

Some contradictory evidence exists. In one of the few structural validity studies of the PSPCSA, Fantuzzo et al. (1996) explored the scale's factor structure and developmental appropriateness for two samples of urban Headstart children (N = 476). Using the same exploratory factor analytic procedures used in the original Hatter and Pike (1984) study, Fantuzzo et al. were unable to replicate the two-factor (competence, acceptance) structure reported by the scale's authors; the analyses did not yield stable or psychologically meaningful factors.

In theory, Harter and Pike (1984) interpreted the factor analytic data as indicating that young children's self-perceptions are not very differentiated. Others, (e.g., Stipek & Mac Iver, 1989) have echoed this position and have often cited the Harter and Pike research in support thereof. Marsh, Craven, and Debus (1991) challenged this notion on the basis of factor analysis of an individually administered, downward extension of Marsh’s (1988) Self Description Questionnaire I (SDQ I) used with children in kindergarten through second grade. Marsh et al. (1991) confirmed an eight-dimensional structure of the kindergartner’s self-concept. Likewise, Eccles, Wigfield, Harold, and Blumenfield (1993), using a large sample of first-, second-, and fourth-grade students, found that first graders had well-differentiated self-perceptions of competence and that the degree of differentiation did not increase with age. After reviewing Harter and Pike’s work, Marsh et al. (1991) hypothesized that the use of confirmatory factor analysis of the PSPCSA to test competing hypotheses about factor structure might have produced conclusions different from those reached by Harter and Pike. The present study tests Marsh et al.’s (1991) hypothesis.

Regarding the practical issues of instrument validation with kindergartners, Harter and Pike (1984) found internal consistencies ranging from .52 to .81. Correlations, calculated across all age groups combined, between children’s self-ratings and teachers’ ratings of the children were moderate for cognitive (.37) and physical competence (.30), but nonsignificant for acceptance by peers.

As a test of convergent validity, Harter and Pike (1984) reported the results of a study that asked children to elaborate on the evaluations they made of their cognitive and physical competencies. Children were asked questions such as “How do you know that you are good/not good at [depending on the child’s initial response] this [activity specified]” (pp. 1975, 1977). Of a sample of 81 first and second graders who were asked follow-up questions regarding their cognitive competencies (reading, spelling, and writing) and their physical competencies (climbing and running), 96% gave specific reasons for their self-evaluations of cognitive skills and 85% to 95% did so for their physical skills. Examples included “I can write words like ‘cat’ and ‘dog’” and “I was first place in running in gym” (pp. 1977-1978). Harter and Pike concluded from these data that there was a pattern of convergence between perceived competence judgments and reasons children gave for their perceptions. This study, however, involved only first- and second-grade children; a systematic study of kindergarten children has yet to be conducted.

Hatter and Pike (1984) also reported a series of “discriminant validity” studies to assess the validity of the subscales. In one of these studies, 12 children who were retained in first grade for academic reasons were compared with 12 nonretained children matched on age and sex. As predicted, the self-perceptions of cognitive competence of children who were retained were significantly (p < .005) and substantially lower (M = 2.4 vs. 3.3) than those of children who were promoted. In a second study, 10 children who were new at a particular school were compared with 10 children, matched for age and sex, who had been at the school for a longer time. As predicted, the peer self-acceptance scores of the new children (M = 2.9) were significantly lower (p < .01) than those of the comparison children (M = 3.3).

Regarding physical competence, Hatter and Pike (1984) compared 8 preschool children who were born pre-term with 8 children born full-term, under the assumption that children born pre-term often have poorer motor skills than have full-term children. The children born pre-term had significantly (p < .01) lower self-perceptions of physical competence (M = 2.8) than did the children born full-term (M = 3.3). This difference paralleled teachers’ ratings of the children’s physical competence. The authors of the scale also reported a correlation of .48 between the PSPCSA Maternal Acceptance Scale and a measure of “depression/cheerfulness,” but with few details. Harter and Pike acknowledged that this study was only a preliminary examination of the validity of the PSPCSA Maternal Acceptance subscale.

Although these studies provide some support for the validity of the PSPCSA, the samples used in each case were small; therefore, although the studies are creative, they are not definitive. Moreover, there is little other validity data on the PSPCSA (Byrne, 1996).

Researchers (Fantuzzo et al., 1996) and reviewers (Byrne, 1996; Wylie, 1989) have raised questions about the PSPCSA’s validity with children who are either of low-income households or members of an ethnic minority, or both. The original PSPCSA research was conducted on a small, homogeneous sample of children. The kindergarten subsample used for the primary analyses included 56 children. Ninety-six percent of the children of the total sample were White and middle class. In a study of Headstart children, for example, Fantuzzo et al. found that 95% of these low-income children comprehended less than 80% of the verbal concepts necessary to validly respond to the PSPCSA items. On the basis of their findings of an unclear factor structure, Fantuzzo et al. concluded that use of the PSPCSA with urban Headstart children is questionable. This conclusion raises concerns because the PSPCSA has been used frequently in research with low-income children.

The present study addressed one hypothesis and three research questions. We hypothesized, on the basis of Marsh et al.’s (1991) research, that confirmatory factor analyses would provide more support for a four-factor model of the PSPCSA than for a two-factor model of the PSPCSA, which would support the contention that young children have more differentiated self-perceptions than the Harter and Pike (1984) research implies. We asked the following questions:

Using a larger and more racially diverse sample of kindergarten children than was used in the original Harter and Pike (1984) research, what results will obtain for the internal consistencies, stabilities, and correlations with teacher ratings of children’s competencies for the PSPCSA subscales?

Will these measurement data differ by race or gender?

Using the traditional criteria of item-total subtest score correlation, do any of the PSPCSA items seem especially weak or differentially effective when compared across race?

Because participants in the present study were from a rural area, the study can be considered a companion to the Fantuzzo et al. (1996) study of the PSPCSA, which focused on low-income urban children.

**METHOD**

**Participants**

A total of 227 kindergarten students (118 boys, 109 girls; 57 African Americans, 164 Whites, and 6 students whose race was not recorded) from 31 classes in a rural/suburban county participated in this study. We contacted the parents of every child in 8 of the classes and the parents of a random number of children in each
of the remaining 23 classes. Every child whose parents permitted him or her to participate was included in the study. Because of missing data, sample sizes for analyses varied from 177 to 227 children.

**Measures**
The PSPCSA uses a 24-item forced-choice, pictorial format. Children point to pictures designed to elicit their self-perceptions of cognitive competence, peer acceptance, physical competence, and maternal acceptance. Separate forms are used for boys and for girls. The administration of each item includes the display of two pictures depicting opposite item poles accompanied by the administrator's verbal description (e.g., "This boy (girl) is pretty good at puzzles" or "This boy (girl) isn't very good at puzzles"). For each item, the administrator asks two questions. The first question asked is "Which boy (girl) is most like (child's name)?" Underneath each picture is a large and a small circle. Pointing to the picture that the child chose in response to the first question, the administrator asks a follow-up question, such as "Are you really good at puzzles (large circle) or pretty good at puzzles (small circle)?" In counterbalanced order, half of the pictures present the more competent or accepted child on the left, and half present the more competent or accepted child on the right. Each item is scored on a 4-point scale, on which a score of 4 indicates the most competent or accepted child. Scores for each of the four subscales may range from 6 to 24.

The PSPCSA includes a parallel form (PSPCSA-T) for teachers' ratings of the children's cognitive competence, physical competence, and peer acceptance. Items from the pictorial child form are restated in positive terms (e.g., "Good at puzzles" or "Can tie shoes"). Teachers respond on a 4-point scale, ranging from not very true to really true. There has been much less research reported in the literature on the PSPCSA-T than on the PSPCSA. Harter and Chao (1992), using teachers' ratings of preschool and kindergarten children, reported internal consistency reliability of .88 for the composite score. However, this information is of minimal help given that the focus of the scale is not a composite. Garrison et al. (1983) provided some evidence of the PSPCSA-T's validity in the moderate correlations between teachers' ratings of students' cognitive competence and students' scores on a standardized achievement test (reading, 56; spelling, 57; math, .49), but these data were for the first/second grade version of the PSPCSA-T. Because the PSPCSA-T was not the focus of the present study, we analyzed it only for internal consistency. For the present data set (N = 178) coefficient alphas for the PSPCSA-T subscales were (a) Cognitive, .81, (b) Physical, .76, and (c) Peer, .80.

**Procedure**
The data from this study were drawn from a larger study that investigated developmental changes in kindergartners' self-perceptions, the interaction between developing self-perceptions and teachers' verbal feedback (Simonson & Strein, 1997), and racial differences in kindergartners' self-perceptions (Strein, Simonson, & Vail, 1999). Thirty-one of the 33 kindergarten classes in a county-wide school system participated in this study. In each of the twenty-three classes, we sent permission slips home with seven randomly selected students seeking their parents' permission for the children to participate in the study. When a parent denied such permission slip, we sent home a permission slip with another randomly selected student; a maximum of 10 permissions were sought per class. The number of students participating from each of the classes ranged from 2 to 8; although the study's goal was to include no more than 7 students from each class, in at least one class teachers obtained permission for 8 students to participate in the study. Twenty of the classes had 4 or more participants.

Because the larger study on which this study is based sought to assess possible differential effects of race of teacher by race of student, all parents of students in either the morning or afternoon classes of the four participating African American teachers received permission forms. Likewise, the parents of all of the students in either the morning or afternoon class of a White kindergarten teacher in the same building or in a building near the one in which the African American teacher was teaching received permission forms. For these eight classes, the number of participants per class ranged from 9 to 20.

Research staff administered the PSPCSA individually to the children in the sample in October and again in March of their kindergarten year. In early October, teachers completed an analogous scale (PSPCSA-T; Harter & Pike, 1984), rating each child on his or her cognitive and physical competence and on peer acceptance. All data analyses were performed on the October scores, except for the test-retest comparisons that included both October and March scores.

Confirmatory factor analyses performed by the EQS, Version 5.4, computer program (Bentler, 1996) were used to test the competing hypotheses of a four-factor versus two-factor model for the scale (see Figure 1).

Goodness of fit was assessed using a variety of indices, as recommended by Marsh, Balla, and Hau (1996). The traditional chi² test was included but is not emphasized, given its sensitivity to departures from normality and its tendency to overemphasize trivially small differences from perfect fit (Hu & Bentler, 1995). The LISREL goodness-of-fit (GFI; Joreskog & Sorbom, 1988) and root mean square residual (RMR) indices were also used to measure model fit. Because we were primarily interested in testing a series of nested models, we used two incremental fit indices, the Nonnormed Fit Index (NNFI; Tucker & Lewis, 1973), and the Relative Noncentrality Index (RNI; McDonald & Marsh, 1990) to compare the differing models. Marsh et al. (1996) recommended using both the NNFI and the RNI because the RNI rewards parsimony, whereas the RNI does not.

We assessed internal consistencies and item-subscale total correlations for the four-factor model and test-retest stability from October to March, and comparisons with teacher ratings using Pearson correlations. All of the measurement studies were analyzed for the aggregate group, and separately by race and gender.

**RESULTS**
Results of the confirmatory factor analyses indicated that the four-factor model fit the data significantly better than did the two-factor model (chi-square difference test for overall fit: p < .001). In addition, the goodness-of-fit indices (GFI, RMR) and the incremental-fit indices (NNFI, RNI) were essentially all equal to or better than (although only slightly) those for the four-factor model (see Table 1). However, both models produced large and highly significant chi² values, and neither the GFI, NNFI, nor the RNI reached the .90 level that is commonly accepted as an indication of "acceptable" fit (Marsh et al., 1996). If one interprets the GFI as a measure of "variance accounted for" (Joreskog & Sorbom, 1988), then both of the competing models account for only about 85% of the variance in the scale. Notwithstanding the finding that the four-factor model produced better fit indices than did the two-factor model (see Table 1), both models produced large and highly significant chi² values, and neither the GFI, NNFI, nor the RNI reached the .90 level that is commonly accepted as an indication of "acceptable" fit (Marsh et al., 1996). If one interprets the GFI as a measure of "variance accounted for" (Joreskog & Sorbom, 1988), then both of the competing models account for only about 85% of the variance in the scale.

Although the focus of these analyses was on the comparison of the four-factor with the two-factor model, two other models that correspond to theoretical positions described in the literature were tested. A hierarchical model in which the two Competence and Acceptance subscales are subsumed by two intercorrelated second-order factors formed Model 2A (see Figure 1). A model combining all of the items into one undifferentiated general self-concept factor (dubbed Model 3, but not shown in Figure 1) also was tested. The hierarchical model did not fit the data significantly better than the more parsimonious four-factor version. By contrast, the one-factor model was the most poorly fit when considering any of the fit indices except RMR. The chi-square difference tests for overall fit comparing this model with either the two- or four-factor model were highly significant.
Internal consistency estimates (coefficient alphas) for the four PSPCSA subscales were: Cognitive = .56, Physical = .55, Peer = .70, Maternal = .78 (see Table 2). These values are very close to those reported by Harter and Pike (1984) for their kindergarten sample. Coefficient alphas for the two Competence scales were substantially higher for African American than for White students, whereas the reverse was true for the two Acceptance scales. For the Cognitive subscale, coefficient alpha was smaller for girls than for boys. Gender differences in internal consistency were small or nonexistent for the other three subscales. For both boys and girls (across race) and for Whites, the two Acceptance subscales were more reliable than were the two Competence subscales. No such pattern was noted for African American children. Stability coefficients over 4 to 5 months ranged from .38 to .61 with few differences across race or gender.

Teachers' ratings (PSPCSA-T) versus child's October ratings (PSPCSA) of competence were significantly correlated (Cognitive = .40; Physical = .20) and were consistently higher for African Americans than for Whites, although these differences were not significant at the .05 level. Teachers' and children's ratings of peer acceptance were uncorrelated for either racial or gender groups. In addition, teachers' versus children's ratings for girls were uncorrelated for any of the three scales.

Specific item analysis (within subscale, item-total correlations) for the entire sample, and by race, did not produce any clear examples of items that seemed to be either particularly poor or culturally biased. Two items on the Peer Acceptance scale deserve mention. Item 6, "stays overnight at friends," and Item 22 "eats dinner at friends' houses" were consistently the poorest performing items within the Peer Acceptance scale for both African American and White students. The present sample included many children from rural areas, where there may have been fewer opportunities to socialize in other children's homes. These two items, at least on their face, suggest content that may be more appropriate for the middle-class children for whom the PSPCSA was originally developed.

DISCUSSION

Results of this study add weight to the position (Eccles et al., 1993; Marsh et al., 1991) that self-perceptions of young children are more differentiated than was previously thought. As Marsh et al. (1991) predicted, when we analyzed the structure of kindergartners' PSPCSA responses using the more powerful CFA procedures, the more differentiated, four-factor structure provided a better fitting model than did the less differentiated two-factor structure found by Harter and Pike (1984) using exploratory factor analysis.

Results from the present study also provide support for a hierarchical structure of self-concept, consistent with the Marsh/Shavelson model (Marsh, 1990). However, given that the hierarchical model did not provide a significantly better fit than did the four first-order factor model and that the first-order model is more parsimonious, the four-factor model seems most supportable. Note that the four-factor model corresponds to the structure that Harter and Pike (1984) had intended for this instrument. Harter and Pike's conclusion that a less differentiated model was more supportable than a highly differentiated model has been frequently cited to support the position that young children's self-perceptions are largely undifferentiated.

Although the factor structure of the PSPCSA originally proposed by Harter and Pike (1984) is more supportable than the less-differentiated two-factor model, the best-fitting (four-factor) model fits the data only moderately well. This indicates that, although the four-factor model provides the best fit for the data, the PSPCSA
items form only a moderately well-structured set of scales.

Internal consistencies for the PSPCSA scales for the overall group were similar to those reported for kindergarten children in the original Hatter and Pike (1984) research. However, these consistencies are modest, at best, for an individually administered scale, especially if the scale were to be used to make interpretations about individual children. Internal consistency for the cognitive scale used with kindergartners is considerably lower than for the reading and math scales on the modified SDQ I reported by Marsh et al. (1991).

The finding that the internal consistencies of the two competence scales was higher for African American children than for White children was surprising. Combined with the finding that correlations with teachers' ratings were marginally better (though not high) for African Americans than for Whites, these results question the assertion that the PSPCSA is not appropriate across cultures. As suggested by several researchers (Fantuzzo et al., 1996; Marsh et al., 1991; Stipek & Mac Iver, 1989), the validity of self-perception scales with young children may be primarily an issue of developmental appropriateness. Because neither SES data nor a good measure of development were available for children in the present study, it is not possible to separate out effects of culture and developmental status on the study results.

Regarding both internal consistency and stability over a 4- to 5-month period, a pattern emerges in favor of the two acceptance subscales versus the two competence subscales. Given that this pattern does not emerge on the comparable scales in the Marsh et al. (1991) study, this finding most likely reflects psychometric issues with the PSPCSA, rather than indicates a pattern in child development. In fact, for the current sample, the PSPCSA acceptance scales seem to be more sound measures than do the competence scales. In general, the short-term stability of the PSPCSA subscales is moderate.

Correlations between children's self-perceptions and adults' perceptions of them (the children) form a difficult-to-interpret index of validity. On the one hand, "accuracy" of self-perceptions may be seen as evidence of validity. On the other hand, perceptions held by the individual, in principle, need not be "accurate" to be valid. A child's self-perceptions are precisely that--perceptions held by the child--and need not necessarily accord with some externally defined criteria to be "valid". Accordingly, data on such correlations may be better interpreted not as validity indices but as descriptive information regarding the similarity or dissimilarity of children's and adults' views. (For a detailed discussion of differing interpretations of "accuracy" of self-perceptions, see Eshel & Kurman, 1991.)

In the present study, correlations between children's and teachers' ratings were highest for cognitive competence, somewhat lower for physical competence, and nonsignificant for peer acceptance. These correlations were moderate, at best. The levels and pattern of these correlations were similar to those in the Harter and Pike (1984) research. Lemanek et al. (1994) also found that children's ratings of peer acceptance and adults' ratings of children's social competencies were uncorrelated. One interpretation of these data is that teacher-student agreement is related to the amount of information that the teacher has about the child's functioning. Presumably, kindergarten teachers are more familiar with the child's cognitive development than with his or her peer acceptance. Teachers' lack of a basis for rating may be particularly problematic on the PSPCSA Peer Acceptance scale because the scale includes items such as "stays overnight at friends" and "eats dinner at friends' houses"--information that is typically not available to teachers. Differences between students' and teachers' perceptions may also be more substantive. In addition to the well-known overoptimism of young children regarding their competencies (Stipek & Mac Iver, 1989), children may define being "accepted" by one's peers differently than do adults who observe the children's social behavior.

CONCLUSION

There are few instruments available to assess the self-perceptions of kindergarten and preschool children. Both Wylie (1989) and Byrne (1996) in their respective books reviewing self-concept instruments, identify only the PSPCSA and the Joseph Pre-School and Primary Self-Concept Screening Test (Joseph, 1979) as potentially psychometrically sound instruments for use with kindergarten and preschool children. Of these two scales, only the PSPCSA provides domain-specific measures, consistent with the now-dominant view of self-concept as a multidimensional construct. Given the paucity of self-concept measures for use with young children, the PSPCSA is an important instrument. However, although Wylie and Byrne both noted positive features of the PSPCSA, they concluded that more validity information, including data from more diverse samples, is needed. The present study provides some such data.

Overall, the PSPCSA is psychometrically adequate for some types of research. Researchers should consider using the original four scales as a basis for analysis, instead of only combining the scales into the larger competence and acceptance factors. Use of the PSPCSA for research on lower-income students seems questionable until further research produces results different from those produced by the Fantuzzo et al. (1996) study. Until more convincing data are produced on the validity of the PSPCSA, researchers using this instrument will need to analyze its psychometric qualities based on the data for their specific samples under study.

In the longer run, development of more rigorous psychometric instruments is needed to advance self-concept research with preschool and kindergarten children. The modification of the SDQ I (Marsh et al., 1991) and the scales used by Eccles et al. (1993) are promising additions to the research literature. Clinical use of the PSPCSA (i.e., using it as part of an evaluation of an individual child) is not warranted.

### TABLE 1 Fit Indices From Confirmatory Factor Analyses

<table>
<thead>
<tr>
<th>Mode</th>
<th>A - Variable</th>
<th>B - chi²</th>
<th>C - df</th>
<th>D - GFI</th>
<th>E - RMR</th>
<th>F - NNFI</th>
<th>G - RNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (two factors)</td>
<td>472.58[c]</td>
<td>251</td>
<td>.846</td>
<td>.056</td>
<td>.772</td>
<td>.793</td>
<td></td>
</tr>
</tbody>
</table>

Legend for Chart:

A - Variable
B - chi²
C - df
D - GFI
E - RMR
F - NNFI
G - RNI
2 (four factors)               430.05[c]       246      .861
    .057     .807      .828

2A (hierarchical)              430.44[c]       247      .861
    .058     .808      .828

3 (one factor)                 515.44[c]       252      .829
    .055     .730      .753

Model Comparisons

Models 1 vs. 2                  42.53[c]         5        --
    --        --        --

Models 2A vs. 2                     0.39         1        --
    --        --        --

Models 3 vs. 1                  42.86[c]         1        --
    --        --        --

Models 3 vs. 2                  85.39[c]         6        --
    --        --        --

Note. GFI = Goodness-of-Fit Index (Joreskog & Sorbom, 1988); RMR = root mean square residual; NNFI = Nonnormed Fit Index (Tucker & Lewis, 1973); RNI = Relative Noncentrality Index (McDonald & Marsh, 1990).

c p < .001.

**TABLE 2 Psychometric Data for the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children by Gender and Race**

Legend for Chart:

A - Group
B - Cognitive Competence
C - Physical Competence
D - Peer Acceptance
E - Maternal Acceptance

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (N = 227)</td>
<td>.56</td>
<td>.55</td>
<td>.70</td>
<td>.78</td>
</tr>
<tr>
<td>Boys (n = 118)</td>
<td>.60</td>
<td>.57</td>
<td>.71</td>
<td>.80</td>
</tr>
<tr>
<td>Girls (n = 109)</td>
<td>.50</td>
<td>.54</td>
<td>.68</td>
<td>.75</td>
</tr>
<tr>
<td>White (n = 164)</td>
<td>.52</td>
<td>.53</td>
<td>.74</td>
<td>.80</td>
</tr>
<tr>
<td>African American (n = 57)</td>
<td>.61</td>
<td>.62</td>
<td>.56</td>
<td>.88</td>
</tr>
</tbody>
</table>

Stability

| Total (N = 209)    | .45[b]      | .39[b]      | .53[b]      | .53[b]      |
| Boys (n = 109)     | .49[b]      | .40[b]      | .55[b]      | .50[b]      |
| Girls (n = 100)    | .39[b]      | .38[b]      | .51[b]      | .58[b]      |
| White (n = 158)    | .49[b]      | .39[b]      | .51[b]      | .53[b]      |
| African American (n = 51) | .40[b] | .39[b] | .61[b] | .50[b] |

Correlation with teacher ratings

| Total (N = 177)    | .40[b]      | .20[b]      | .02         | --          |
| Boys (n = 94)      | .51[b]      | .28[b]      | .12         | --          |
| Girls (n = 83)     | .19         | .11         | -.09        | --          |
| White (n = 135)    | .35[a]      | .17[a]      | .02         | --          |
| African American (n = 42) | .42[b] | .38[a] | .25 | -- |

Note: Six children's data did not include race; accordingly cross-race comparisons include only 221 participants.

a p < .05. b p < .01.


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