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ABSTRACT

This document presents results of a study exploring the relationships among academic achievement, gender, and adolescent nonacademic self-concepts. Two major research issues were assessed: (1) possible gender differences in nonacademic self-concept, and (2) the predictive utility of nonacademic self-concept facets. The study collected data from male and female high school students during nine workshops to prepare for college entrance examinations. Student participation was voluntary. Subjects responded to the test measuring self-concept through sociability, competence, and dependability according to their actual self and their ideal self. Because predictions derived from discrepancy scores between actual and ideal have generally received wide empirical support, this study utilized actual self-concept and self-concept discrepancy scores across the three nonacademic areas. The lack of gender differences in the students' use of the nonacademic self-concept subscales, and in the equations predicting student academic achievement, differs from findings in the literature relating gender and academic self-concept. The overall conclusion from the analysis is that nonacademic self-concept may be useful in predicting achievement. The individual predictors noted in this study may provide clues for constructing a true theoretically based model of nonacademic self-concept. (DK)

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Nonacademic Self-Concept and Gender as Achievement Predictors

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Educators have long sought methods of appropriately incorporating self-concept issues into the classroom. They have based curriculum, classroom management practices, and the organization of the school setting upon self-concept theory (Gorrell, 1990). Self-concept is frequently believed to predict academic performance.

Research in the self-concept arena has produced very weak relationships between general self-concept and academic achievement (e.g., Byrne, 1986; Shavelson & Bolus, 1982). Gose, Wooden, and Miller (1980) have argued that the prediction of school achievement might be enhanced through an assessment of the relationship between academic self-concept and achievement. However, even self-concepts of academic ability have been shown to correlate only moderately with student achievement (Byrne, 1984; Marsh, Byrne, & Shavelson, 1988). Some have suggested that reports of academic self-concept are biased. Marsh (1990) has indicated that academic self-concept primarily reflects student agreement with measures of school success. If this is the case, then academic self-concept measures may provide little information to practitioners interested in influencing the achievement of less academically-oriented students.

One potential solution to the problem of a lack of the practical utility of academic self-concept is to look at student nonacademic self-concept. Although Williams (1991) has suggested that nonacademic self-concept does significantly influence student academic achievement, only a few researchers have identified different sets of nonacademic self-concept variables useful in studying achievement-related behaviors (e.g., Marsh, 1986; Harter, 1986). There is a growing body of research suggesting that nonacademic facets are needed to adequately represent self-concept (Marsh & Holmes, 1990).

The current study explored the relationship between academic achievement, gender, and adolescent nonacademic self-concepts. Two major research issues were assessed: 1) possible gender differences in nonacademic self-concept, and 2) the predictive utility of nonacademic self-concept facets.

Participants in this study (N = 217) were male and female high school students attending Oklahoma public schools. Data were collected during nine ACT Preparation Workshops presented around the state. Student participation was voluntary, with most students referred by school counselors and/or parents. During

each one-day workshop, students completed two self-administered questionnaires. An ACT Assessment practice test (American College Testing Program, 1989) was used to measure student achievement whereas nonacademic self-concept was measured with The Multidimensional Test of Self-Concept (MTS) (Lathrop, 1988).

Individuals responded to the MTS subscales (sociability, competence, dependability) according to their actual-self and their ideal-self. Because predictions derived from discrepancy scores between actual and ideal have generally received wide empirical support (see Higgins, 1986; 1987), this study utilized actual self-concept and self-concept discrepancy scores (ideal minus actual) across the three nonacademic areas.

Means and standard deviations for the six self-concept subscales across both gender groups were relatively homogeneous, with independent t tests of the differences between male and female responses to each subscale indicating non-significant differences. This consistency indicated that students were using the subscales in a similar manner and rating their self-concepts in approximately the same way. Multiple regression analyses, with achievement regressed upon the set of self-concept variables separately for males and females, were used to test for invariance in the structure of the prediction equations. An omnibus test of the equality of the overall slopes and intercepts revealed non-significant differences. In addition, t tests of the individual beta-weights conducted across the gender groups also indicated non-significant differences.

Student achievement was then regressed upon the six nonacademic self-concept variables using data from the total sample. Competence-discrepancy was associated with a non-significant beta-weight thus it was dropped from the equation. The regression was then rerun. Goodness of fit indices (Pedhazur, 1982) indicated that the deletion of this variable from the variable set did not affect the predictive ability of the final equation with respect to academic achievement. Although the five remaining self-concept variables all had significant beta-weights, competence (actual) and sociability (discrepancy) accounted for most of the unique variance.

Some educational recommendations can be offered on the basis of the results obtained, keeping in mind the limited generalizability resulting from the use of a college-bound high-school sample, and a "practice" performance test.

The lack of gender differences in the students' use of the nonacademic self-concept subscales, and in the equations predicting student academic achievement, differs from findings in the literature relating gender and academic self-concept. For example, Byrne and Shavelson (1987), Marsh, Parker, and Barnes

(1985), and Meece, et al. (1982) have all reported large and consistent academic self-concept differences among male and female adolescents. The gender invariance finding reported here implies that the same set of predictor variables could be useful for both female and male high school students. Thus application of nonacademic self-concept in educational and applied settings might be simplified.

The overall conclusion from the analyses is that nonacademic self-concept may be useful in predicting achievement. The five-variable set accounted for about 14% of the achievement variability. Prior research relating self-concept and achievement have typically reported accounting for about 4% to 7% of the achievement variability (see Hansford & Hattie, 1982). The individual predictors noted in this study may provide clues for constructing a true theoretically-based model of nonacademic self-concept.

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