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AUTHOR Williams, Janice E.

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ABSTRACT

Self-concept to performance congruence was assessed for academically-able ninth graders (54 females, 49 males) in both math and verbal content domains. Overall, the majority of these able learners fell outside the congruent range. Analyses revealed similar congruence patterns for females and males, in both subject areas. These findings suggest that, regardless of gender or content area, able adolescents may be at risk for unrealistic self-concept perceptions relative to their performance. (Two tables present data and statistical analysis. Contains 17 references.) (Author)

Academic Self-Concept to Performance Congruence Among Able Adolescents

Janice E. Willliams

Oklahoma State University

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Abstract

Self-concept to performance congruence was assessed for academically-able ninth graders (54 females, 49 males) in both math and verbal content domains. Overall, the majority of these able learners fell outside the congruent range. Analyses revealed similar congruence patterns for females and males, in both subject areas. These findings suggest that, regardless of gender or content area, able adolescents may be at risk for unrealistic self-concept perceptions relative to their performance.

Academic Self-Concept to Performance Congruence

Among Able Adolescents

A realistic conception of self has been identified as an important educational objective for able learners (Feldhusen & Hoover, 1986), and crucial for the actualization of potential for high-achieving students (Whitmore, 1980). Although one might anticipate self-concept to be compatible with school performance for able learners, Feldhusen (1986) has noted that high academic potential is not necessarily related to self-concept. The current study was conducted to assess the similarity between self-concept and performance among academically-able students.

The literature has documented the considerable changes that occur to the self-concept of high achieving students during adolescence (see Leroux, 1988; Van Boxtel & Monks, 1992). For example, many studies focusing on the self-concept of able learners have reported a dip at adolescence (Janos & Robinson, 1985). Additionally, demanding academic workloads (Yadusky-Holahan & Holahan, 1983), unrealistic personal goals (Bovilsky, 1982), high expectations from significant others (Gowan & Bruch, 1971), and peer contact and comparison (Felson & Reed, 1986) all encourage academic stress and may influence the academic self-concept of talented adolescents.

This study was designed to explore the consistency between academic self-concept and actual performance for high-achieving adolescents. Due to current research which questions gender-stereotypic self-concept and performance differences (see Marsh, 1993), this compatibility was assessed for male and female students in both math and verbal content areas. The frequency of self-concept to performance congruence was determined to uncover the accuracy of perceived self-concept among high-ability adolescents.

Method

Students voluntarily participating in this study (49 Males; 54 Females) included ninth-graders selected for public school honors courses. Selection was based upon both teacher and parental nomination, with 85th percentile standardized test scores used as additional criteria. All participants were administered the ME: Self-Concept Scale for Gifted Children (Feldhusen & Kolloff, 1981). Validity studies (see Feldhusen & Hoover, 1986) have concluded that the ME is effective in measuring the unique conceptions of self among high-ability students. In this study, students completed two counterbalanced versions of this scale, which had been adapted to assess both verbal and then math self-concept. Alpha coefficients, calculated with the student data for the modified ME, were .85 for both scales, indicating good internal consistency

reliability. Standardized ITBS language and math scores were then obtained from school records, and each participant's gender was noted.

Results

Table 1 presents raw score descriptive data for the student sample. To compute congruence, student self-concept and performance raw scores were transformed to standardized (z) scores. Performance scores were then subtracted from self-concept scores to obtain content-specific congruence scores for each student. Percentages of scores falling into a congruence classification system are displayed in Table 2. The cutoffs for the five discrepancy categories were determined by Dowling (1978) and supported in further research (Hackett & Betz, 1989; Williams, 1992) with average-ability students. The discrepancy scores indicated that both groups tended to be more congruent in math (45% female; 39% male) than in the verbal area (26% female; 27% male). This may be due to the nature of math, which often requires accurate, detailed knowledge of specific rules and precise answers (Everson, Tobias, Hartman & Gourgey, 1991). Students may have had a better sense of their performance potential in math than in the less exacting verbal domain.

Discussion

Overall, the majority of students fell outside the congruent range in both the math (55% female; 61% male) and verbal areas

(74% female; 73% male). Chi-square analyses on the data in Table 2 yielded nonsignificant relationships between gender and congruence, and between content area and congruence. Apparently, males and females exhibited similar congruence patterns. Additionally, the congruence categories did not appear to be influenced by the content domain. These findings suggest that, regardless of gender or content domain, able adolescents may be at risk for unrealistic self-concept perceptions relative to their performance.

Congruence between what students believe they can achieve and actual performance attainments serves as one motivational inducement in academic settings (Bandura, 1989). Based upon the findings presented here, practitioners might consider implementing educational programs to redirect and modify inappropriate perceptions of academic self among able learners. More specifically, educators might design strategies that increase the efforts of students whose performance falls short of their ability perceptions, while also increasing the academic goals and aspirations of students whose performance is high relative to their academic self-concept.

References

Bandura, A. (1989). Human agency in social cognitive theory. American Psychologist, 44, 1175-1184.

Bovilsky, D. (1982). Up against the ivy wall. Independent School, 41, 51-55.

Dowling, D.M. (1978). The development of a mathematics confidence scale and its application in the study of confidence inwomen college students. Unpublished doctoral dissertation, Ohio State University.

Everson, H.T., Tobias, S., Hartman, H., & Gourgey, A. (1991, April). Test anxiety in different curricular areas: An exploratory analysis of the role of subject matter. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Feldhusen, J.F. (1986). A conception of giftedness. In R.J. Sternberg & J.E. Davidson (Eds.), Conceptions of Giftedness. Cambridge: Cambridge University Press.

Feldhusen, J.F., & Hoover, S.M. (1986). A conception of giftedness: Intelligence, self concept and motivation. Roeper Review, 8, 140-143.

Feldhusen, J.F., & Kolloff, M.B. (1981). ME: A self-concept scale for gifted students. Perceptual and Motor Skills, 53, 319-323.

Felson, R.B., & Reed, M.D. (1986). Reference groups and self-appraisals of academic ability and performance. Social Psychology Quarterly, 49, 103-109.

Gowan, J., & Bruch, C.B. (1971). The academically talented student and guidance. Boston: Houghton-Mifflin.

Hackett, G., & Betz, N.E. (1989). An exploration of the mathematics self-efficacy/mathematics performance correspondence. Journal for Research in Mathematics Education, 20, 261-273.

Janos. P.M., & Robinson, N.M. (1985). In Horowitz & O'Brien (Eds.), The Gifted and Talented: Developmental Perspectives. American Psychological Association, Washington, D.C.

Leroux, J.A. (1988). Voices from the classroom: Academic and social self-concepts of gifted adolescents. Journal for the Education of the Gifted, 11, 3-18.

Marsh, H.W. (1993). The multidimensional structure of academic self-concept: Invariance over gender and age. American Educational Research Journal, 30, 841-860.

Van Boxtel, H.W., & Monks, F.J. (1992). General, social, and academic self-concepts of gifted adolescents. Journal of Youth and Adolescence, 21, 169-186.

Whitmore, J.R. (1980). Giftedness, conflict, and underachievement. Boston: Allyn & Bacon.

Williams, J.E. (1992). Gender differences in high school students' efficacy-expectation - performance discrepancies across four subject-matter domains. Psychology in the Schools, 31, 232-237.

Yadusky-Holahan, M., & Holahan, W. (1983). The effect of academic stress upon the anxiety and depression levels of gifted high school students. Gifted Child Quarterly, 27, 42-46.

Table 1

Self-Concept and Performance Means and Standard Deviations by Content Area for Female and Male Adolescents.

	Females (N = 54)				Males (N = 49)			
	Verbal		Math		Verbal		Math	
	M	SD	M	SD	M	SD	M	SD
Self-Concept	23.91	5.81	20.33	6.30	21.96	6.39	23.31	5.86
Performance	86.30	13.30	82.61	14.67	82.27	17.67	84.53	14.99

Table 2

Frequency of Congruence Categories by Content Area for Female and Male Adolescents.

Discrepancy Score Category	Female (N = 54)				Male (N = 49)			
	Math		Verbal		Math		Verbal	
	n	%	n	%	n	%	n	%
Overconfident (above 0.8)	6	11	11	20	12	25	11	22
Somewhat over-confident (from 0.4 to 0.8)	6	11	8	15	5	10	9	18
Congruent (from -0.4 to +0.4)	24	45	14	26	19	39	13	27
Somewhat under-confident (from -0.8 to -0.4)	6	11	12	22	3	6	2	4
Underconfident (below -0.8)	12	22	9	17	10	20	14	29

Note. Categorizations are based on average deviation scores.