

Components of School Engagement Among African American Adolescents

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This study examined how various components of school engagement contribute to the academic performance of African American adolescents. The sample consisted of 499 African American adolescents in Grades 9 to 11. We investigated how adolescents' gender, grade, cognitive functioning, and parental education affect their school engagement and whether school engagement contributes to academic performance above and beyond students' background factors. Confirmatory factor analysis supported the conceptual school engagement model with 3 factors: school identification, school participation, and school expectations. Results revealed that students' gender, cognitive functioning, and mothers' education are related to school engagement. It also showed that components of school engagement predicted a significant portion of academic performance even after controlling for these background variables as well as their grade level. In examining the components of school engagement, school participation and school expectations emerged as significant predictors of academic performance, although school identification was not significantly associated with academic performance after controlling for students' background factors. Implications for future research and practice are discussed.

National surveys tell us how African American students are performing in school compared to their White peers but we know little about the diversity of academic experiences among African American students (Hill, 1997; Tatum, 1987). When the research focuses solely on comparing African American students to White students, many within-group differences based on gender, socioeconomic background, and students' psychological and behavioral characteristics are overlooked (Fisher, Jackson, & Villarruel, 1997; Graham, 1992; Hill, 1997). Fisher et al. (2002) noted research that uses "broad, pan-ethnic labels" (p. 1026) will not capture the effects of moderating factors and disregard the unique aspects of minority youth development. They recommended research should examine within-group and individual differences to better address factors that may impact ethnic minority youth development. For this reason, this article focuses on African American youths, looking specifically for within-group differences. We hope to provide educators and developmental psychologists greater knowl-

edge about the educational processes specific to African American youth.

Although research on African American students has successfully illustrated the impact of contextual factors such as minority status, socioeconomic status (SES), family structure, and parental involvement on academic performance (e.g., Gonzales, Cauce, Friedman, & Mason, 1996; Mickelson, 1990; Ogbu, 1982), research on individual factors has focused primarily on cognitive variables, such as IQ and cognitive skills (e.g., Brody, 1997; Herrnstein & Murray, 1994; Jacobson, Olsen, Rice, Sweetland, & Ralph, 2001). To understand the school experiences of African American adolescents, it is important to examine not only contextual factors or cognitive functioning but also the behaviors, emotions, and expectations that differentiate students who are more successful in school from those who are less so (Fine, 1991; Finn & Rock, 1997; Voelkl, 1996). Investigating these individual factors could be very useful, because unlike contextual factors or cognitive abilities these qualities can be directly addressed through psychoeducational interventions.

The conceptual framework that guided this study was school engagement (Finn, 1993; Finn & Rock, 1997; Voelkl, 1996a). Students who have an emotional investment in school and engage in behaviors that support this investment are considered to be engaged in school (Fine, 1991; Finn, 1989, 1993; Finn & Rock,

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1997; Voelkl, 1993, 1996a, 1996b). Finn's two-dimensional model of student engagement that focuses on participation and identification (1989, 1993; Finn & Rock, 1997); *participation*, the behavioral dimension of school engagement, refers to attending class on time, participating in class, initiating discussions with teachers, out-of-class activities, and responding to teacher-initiated directions and questions. The second dimension, *identification*, refers to affective aspects of school engagement, such as the students' feelings of belonging in the school setting and identifying with others in school. It is important for students to both behaviorally engage with and value school and to feel a sense of belonging in school. Finn's research on school engagement (Finn, 1993; Finn & Rock, 1997) used data from the National Educational Longitudinal Study of 1988 (NELS:88), which followed students starting in eighth grade and continuing past high school. The students represented four racial-ethnic groups: Asian or Pacific Islanders, Hispanic, Black, and White. Using this data set Finn and his colleagues found those students who were more engaged in school were more likely to perform well even though they were considered "at-risk" for school failure because of their SES and racial background.

Focusing on the emotional aspect of school engagement, Steele (1992) argued African American students disidentify with school even when they have ample resources and are well prepared in terms of knowledge and skills. "Something else has to be involved," suggested Steele, "[T]hat something else could be of just modest importance—a barrier that simply adds its effect to that of other disadvantages—or it could be pivotal, such that were it corrected, other disadvantages would lose their effect" (p. 70). According to Steele, this "something else" was the process of identifying with school. He posited that because African American students face stigmatization throughout their schooling, they are likely to disidentify with school to insulate themselves from the hurt of having their successes overlooked, and their weaknesses viewed as confirmation of racist notions of Black inferiority. Steele stated academic success requires a belief that academic performance can be a potential basis of self-esteem, and that belief requires continuous reaffirmation for all students, gifted and disadvantaged ones alike.

Several studies conducted with students in middle school, junior high, and high school from various racial and ethnic groups found students who emotionally engage in school and develop a sense of belonging in school are more likely to succeed in school than those who disidentify with school (Goodenow, 1993; Osterman, 2000). Additionally, Voelkl's (1996a, 1996b) research with African American and White eighth graders showed an emotional bond with school is directly related to their academic success. Likewise,

Michelle Fine's (1991) research on predominantly African American and Latino high school students who dropped out of school provided qualitative support for the importance of identification with school. Her work showed one of the primary reasons for dropping out was that some adolescents simply did not emotionally engage with school.

In addition to identification and participation, a third dimension of school engagement, *school expectations*, has emerged from the research on adolescent development (Nurmi, 1991; Voelkl, 1993; Yowell, 1999). Adolescence, more than any other developmental phase, marks an epoch when concerns about the future become paramount to an individual. In this study, "school expectations" refers to students' desire to continue in school and their beliefs about whether they will attend college.

Several recent investigations show that for African American and Latino adolescents, school performance may be related to perceptions of future educational prospects (Voelkl, 1993; Yowell, 1999) but these studies did not investigate the link between school expectations and school engagement in relation to academic performance. By looking at the link between various components of school engagement, we hope to provide more insight into how current academic performance and future goals are related for this particular group of adolescents.

The relation between school engagement and academic performance is likely to be influenced by adolescents' gender. It has long been argued that African American adolescent boys and girls experience school differently, particularly during their high school years (Reed, 1988). A recently published Educational Testing Services report on gender differences in academic performance within racial and ethnic groups (Coley, 2001) found that the gender gap is the widest within African American high school students among all the other racial-ethnic groups. Likewise, African American 17-year-olds were the only racial-ethnic group that had no male advantage in math and science tests. Furthermore, examination of the gender differences in the SAT 1 scores indicates that African American adolescents were the only group in which females scored significantly higher than males (Coley, 2001). Thus, to better understand the school experiences of African American adolescents, this study examines whether there are gender differences in terms of how students engage with school.

The goal of this study was not only to examine how various components of school engagement contribute to the academic performance of African American adolescents but also to evaluate the contributions of gender, grade, cognitive functioning, and parental education level to African American adolescents' school performance. More specifically, this study asks the following questions:

- Is there a significant difference between male and female African American adolescents' engagement schooling?
- How do various components of school engagement contribute to academic performance above and beyond students' background, factors?
- Does gender moderate the relation between school engagement and academic performance?

Methods

Participants

This study examined the data set from the National Longitudinal Study of Adolescent Health (ADD Health). ADD Health is a national longitudinal study of adolescent health with a sample of 80 high schools and 52 middle schools from the United States (Bearman, Jones, & Udry, 1997). Participants in the national sample are representative of the U.S. student population in Grades 7 through 12 with respect to region of country, urbanicity, school type, race, and school size. Although the ADD Health data set is longitudinal, only the first wave of the data was available for this study, which was cross-sectional. We chose this data set because it has an oversampling of African Americans, which yields large samples for analyses with minority subgroups. To correct for biases introduced by the sampling design, cases were weighted to reflect the overall population of students in the United States.

Three questionnaires were used for data collection: an in-home questionnaire, an in-school questionnaire, and a parent questionnaire. All the variables used in this study came from the in-home questionnaire, with the exception of the parental education variable that was part of the parent questionnaire. The interviews took from 1 to 2 hr to complete depending on the respondent's age and experiences. The majority of interviews were conducted in the respondents' homes. Detailed information regarding the methodology for the ADD Health data set is provided elsewhere (see Bearman et al., 1997).

For the this study, we utilized the ADD Health's public use data set containing data from 6,500 students who were in Grades 7 to 12. From this set, we selected African American adolescents ($N = 1,243$). From this sample, we selected those who were currently in high school but excluded 12th graders as prior research has shown that those who continue to stay in school through 12th grade are likely to be more engaged with school than their peers in earlier grades (Jacobs et al., 2002). Students in the 7th and 8th grades were not included because students in middle school are in a different stage of development than are high school students. In addition, past research on school transitions (e.g., Wigfield, Eccles, & Pintrich, 1996) has sug-

gested that middle school and high school environments exert different influences on students' academic experiences. Nevertheless, by focusing on 9th through 11th graders and by controlling for grade within our sample, we were able to test possible grade differences in the study variables without compromising the representativeness of the sample. Overall there were 608 students who met the criteria for our sample, from which we selected students who were currently at school that had full information on all of the study variables as well as full information from at least one parent. Thus, the final study sample consisted of 499 adolescents, 263 girls and 236 boys, and data from at least one parent for each adolescent.

All participating adolescents and parents identified themselves as African Americans. Participant's age ranged from 14.42 to 19.17, with an average age of 16.46 ($SD = 1.05$). Participants included 164 9th graders, 169 10th graders, and 166 11th graders. About one third of the participants (32.3%) repeated a grade. Mothers varied in education level: 13.4% had less than a high school degree, 37.3% completed high school or its equivalent, 23.8% had some training beyond high school (e.g., business, trade, vocational school, courses in college), 16.2% graduated from college and another 9.2% received professional training beyond college. Of those who reported family income ($n = 345$), the average family income was \$36,550 ($SD = \$44,930$). Nineteen percent of the participants received food stamps. About half of the adolescents (47.7%) lived with married parents.

Measures

Using the items available in the ADD Health Data set, we developed indexes for academic performance and school engagement. Background variables, including gender, grade, mothers' educational level, and cognitive functioning were also obtained in the data set.

Academic performance. Academic performance was assessed by school grades for one year in four subject areas: mathematics, science, history or social studies, and language arts. The range for subject scores was 1 (*D or lower*) and 4 (*A*). Grade point average was measured by taking the average of subject grades. The ADD Health data set included students' reports of grades. Several previous studies examined the correlation between self-reported grades and school-reported grades and found significant positive correlations that ranged from .76 to .97 (Bogensneider, 1997; Cassady, 2001; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987).

School engagement. The school engagement index consisted of nine items that measured both affective components (Voelkl, 1996a, 1996b), behavioral

components (Finn, 1993), and students' perceptions of their educational future (Voelkl, 1993; Walker & Sutherland, 1993). The items in all three components were coded appropriately so that the higher scores indicate higher school engagement. The subscale scores were calculated by taking the mean of the item scores.

The first component, School Identification, represents students' sense of belonging to their school. This subscale has five items that ask students to rate their feelings about school, the degree to which they "feel close to" and "feel part of" their school as well as the degree to which they are "happy" and "safe" at their school. The Cronbach's alpha reliability coefficient for this subscale was .78.

The second component, School Participation, captures students' behavioral school engagement at school and in the classroom. This component included two items that measure the extent to which the students pay attention in classes and have trouble getting homework done. The items were significantly correlated ($r = .50$). Responses were rated along a 5-point Likert scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*).

The third component, School Expectations, measured both educational aspirations and expectations about attending college. It is typical in the United States for students to say they want to attend college. However, they may not think it is likely to happen for them for a range of reasons, including economic limitations and racial barriers. Hence, this index is composed of two items that asked how much a student wanted to attend college and how likely it was that they would attend college. Responses for these items rated along a 5-point Likert-scale ranging from 1 (*low*) to 5 (*high*). The items were significantly correlated ($r = .59$).

Background variables. In addition to gender, prior research also shows that adolescents' grade level (Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002), intellectual functioning (Brody, 1997), and parental education level (White, 1982) contribute to their school achievement. In this study, we controlled for these background factors to directly test the effects of school engagement on academic performance.

Grade level. Students' grade levels were chosen as a control variable to adjust for possible grade differences. This variable is measured by students' self-reporting in their in-home interviews. There were three grades included in the study: 9th, 10th, and 11th grade.

Cognitive functioning. Because prior research illustrates that student's intellectual functioning is an important indicator of their academic performance (Brody, 1997), an abbreviated version of the Peabody Picture Vocabulary Test, the Add Health Picture Vo-

cabulary Test (ADPVT) was used to account for students' cognitive functioning. Raw scores were age standardized with a mean of 100 and a standard deviation of 15 for the general sample (see Bearmen et al., 1977). For the current sample, the ADPVT scores ranged from 71 to 130 with a mean of 96.24 and a standard deviation of 12.04.

Mothers' education. Research shows family SES strongly relates to adolescents' academic performance (White, 1982). To control for family background differences, the residential mother's educational background was used as a proxy for family SES (McLoyd, 1998; White, 1982). In terms of highest level of education, 13.4% had completed at least some high school, 37.3% had completed high school, 23.8% had completed some college or an associate's degree, 16.2% had completed college, and 9.2% had completed a graduate degree.

Results

Confirmatory Factor Analysis

Before addressing the research questions, a confirmatory factor analysis (CFA) was conducted on the nine items of the school engagement measure using the LISREL 8 (Jöreskog & Sörbom, 1996). Confirmatory factor analysis was used over exploratory factor analysis as a more rigorous method of examining factor structure. The maximum likelihood fitting function was used to assess the correspondence of the actual input matrix to the matrix predicted from the proposed model. Root mean square error of approximation (RMSEA), Akaike information criterion, goodness-of-fit index (GFI), and adjusted goodness-of-fit index were used as measures of fitness of the proposed models (Bentler & Bonett, 1980).

Comparisons between the three-factor model proposed in this study, a two-factor model (participation and identification), and a global factor model (all nine items), were made to determine the extent to which the three-factor model fit the sample of African American adolescents. For the two-factor model, the participation factor included both the participation and expectation items partly because adding them to the identification items would make the two-factor model very similar to the global factor model. Because we expected gender differences in school engagement, we fitted the model in girls and boys separately.

The results of the CFAs are shown in Table 1. Findings are given for the three models for each sample. The chi-square goodness-of-fit statistic should be small and nonsignificant, so that it fails to reject the null hypothesis, which indicates a good fit. However, chi-square statistics are highly sensitive to sample size,

Table 1. Goodness-of-Fit Indicators for the Three Models for the School Engagement Measure

Sample	df	χ^2	χ^2/df	RMSEA	AIC	GFI	AGFI
Female ^a (N = 263)							
Single-factor model	27	221	8.19	.17	257	.84	.74
Two-factor model	26	120	4.62	.12	158	.91	.84
Three-factor model	24	50	2.08	.06	92	.96	.92
Male ^b (N = 236)							
Single-factor model	27	175	6.48	.15	211	.86	.76
Two-factor model	26	147	5.65	.14	185	.88	.79
Three-factor model	24	59	2.46	.07	101	.95	.90

Note: RMSEA = root mean square error of approximation; AIC = XXX; GFI = goodness-of-fit index; AGFI = adjusted GFI.

^a $n = 263$. ^b $n = 236$.

model complexity, and deviations from normality in the data (Bollen, 1989). Therefore, it is common for a well-fitting model not to fit according to the chi-square goodness-of-fit statistic. Jöreskog and Sörbom (1996) offered some additional indices of fit (listed previously) to address this issue. As illustrated in Table 1, results are comparable across the two samples. All of the indexes indicated that the three-factor model had the best fit to the data. The GFI for the three-factor model was .96 for the female sample and .95 for the male sample. The RMSEA values for this model were .06 for the female sample and .07 for the male sample. Finally, the χ^2 to df ratio for this model is also good in both the female sample (2.08) and male sample (2.46). Overall these findings provide an evidence of a well-fitting model (Bollen, 1989; Carmines & McIver, 1981). Furthermore, the chi-square difference between the three-factor model and the two-factor model was significant, $\Delta \chi^2(2, N = 263) = 70, p < .001$ for the girls and $\Delta \chi^2(2, N = 236) = 88, p < .001$ for the boys. The three-factor model also provided a significantly better solution than the single factor model, $\Delta \chi^2(2, N = 263) = 171, p < .001$ for the girls and $\Delta \chi^2(2, N = 236) = 116, p < .001$ for the boys.

The means, standard deviations, and correlations for all variables of interest are presented in Table 2. To examine gender differences in school engagement, we carried out a multivariate analysis of variance (MANOVA) to control for Type I errors because of the existence of significant correlations among the school engagement components. The MANOVA, with gender as the independent variable and school engagement components as dependent variables, revealed significant gender differences overall, $F(3, 495) = 8.52, p < .001$. Follow-up analyses of variance conducted at the component level showed females scoring significantly higher than males on participation ($M = 3.78, SD = .96$ vs. $M = 4.04, SD = .81, p < .001$), and expectation ($M = 4.44, SD = .86$ vs. $M = 4.15, SD = .94, p < .001$). No gender differences were found on identification ($M = 3.60, SD = .78$ vs. $M = 3.54, SD = .80, p < .34$).

To test the second question, how does school engagement contribute to academic performance above

and beyond students' background factors, we used hierarchical regression analyses. The background variables were entered in the first step and the school engagement variables were entered in the second step. The R^2 change statistic was used to examine increments in variance in academic performance as predicted by the study variables. Background variables explained 21% of variance in academic performance, $F(4, 494) = 32.51, p < .001$. School engagement, however, uniquely explained an additional 13% after controlling for the background variables, $F_{\text{change}}(3, 491) = 33.08, p < .001$. More specifically, school participation ($\beta = .27$) and school expectations ($\beta = .18$) emerged as two significant predictors of academic performance, although school identification was not found to be significantly associated with academic performance of African American adolescents in this sample.

Finally, because the MANOVA results showed significant gender differences in two of the three components of school engagement and because gender was significantly correlated with academic performance (.28), we also tested for a possible moderating effect of gender in the previously tested regression model. First, we evaluated the data and established evidence of normality (through visual inspection of data plots, skew, and kurtosis), linearity (through the evidence from prior research and through examination of residual plots), and multicollinearity (through the bivariate correlations presented in Table 2). Next, following the guidelines outlined by Baron and Kenny (1986), we centered all the predictors and calculated three interaction terms (i.e., Gender \times Participation, Gender \times Identification, and Gender \times Expectations). To test for moderation, we entered the interaction terms together in the third step of the previously described hierarchical regression analysis and used an incremental F test to determine whether the interactions added significantly to the account predicted by the additive model, which included the background factors and the other predictors. The results showed that the R change ($\Delta R^2 = .01$) was not significant, $F_{\text{change}}(3, 488) = .94, p < .420$, indicating that gender did not significantly moderate the relation between

Table 2. *Descriptive Statistics and Correlations for the Study Variables.*

Variables	M	SD	1	2	3	4	5	6	7	8
Academic performance	2.56	.71	1							
Gender ^a	1.5	.5	.28**	1						
Grade level	10	.81	.14**	.01	1					
ADPVT	96.03	12.28	.34**	.01	.05	1				
Mother's education	5.48	2.27	.16**	-.04	.03	.28**	1			
School identification	3.57	.79	.16**	-.04	.01	.03	.05	1		
School participation	3.92	.89	.35**	.15*	.03	.01	-.02	.29**	1	
School expectations	4.30	.91	.36**	.16**	.03	.21**	.27**	.24**	.19**	1

Note: ADPVT = Add Health Picture Vocabulary Test.

^aGender coded as 1 for male and 2 for female.

* $p < .01$. ** $p < .001$.

school engagement and academic performance in this study.

Discussion

We explored components of school engagement among African American adolescents. First, using confirmatory factor analysis, we found evidence for a three-factor solution to school engagement: school identification, school participation, and school expectations. Results were also quite comparable across the two samples, which add to their generalizability. Although these components are interrelated, as illustrated with significant correlations, each represents a unique aspect of adolescents' engagement with school.

Second, the results highlighted gender differences. More specifically, it appears that African American girls, compared to African American boys, tend to do better in school academically, to participate in academic activities at higher rates, and to be more likely to expect to further their education beyond high school. Combined, these findings underline the importance of viewing school engagement in relation with students' background characteristics.

Third, we found that engagement with school predicted a significant portion of academic performance even after controlling for several background variables, including gender, grade level, cognitive functioning, and mothers' education. This was important because it shows students' school engagement has important consequences for their academic success, holding individual and contextual variables constant. Furthermore, when school engagement is examined as a multidimensional construct, two of the three components of school engagement—participation and expectations—were particularly important in understanding students' academic performance. Contrary to what was expected, students' identification with school—whether they emotionally identify with school—did not seem to contribute to academic performance in a significant way when it was considered with the other

two components. To put it simply, students who actively participate in school by getting along with teachers and by paying attention in class and students who expect to continue their education beyond high school tend to do well academically despite differences in background factors, such as mothers' education, and individual differences, such as cognitive functioning.

Finally, given the several significant gender differences observed in this study and the magnitude of research focusing on gender differences among African American adolescents, we investigated whether gender moderates the reported relation between school engagement and academic performance. The test for a moderation effect revealed no empirical support for a gender interaction, indicating that although gender is related to school performance and school engagement, it did not significantly influence the relation between school engagement and academic performance.

These results should be interpreted with care because of the limitations of this study. For example, this study used cross-sectional data in correlational analysis. Therefore, it is not possible to determine the directionality of the relationships found or to assume causality. For example, do students who do better in school expect to go to college because they have more reason to believe they can succeed? Alternatively, do students who expect to go to college engage more fully with school because they are more motivated? Or, does a third, uncontrolled factor contribute to both school engagement and future expectations? Further studies are needed to answer questions about directionality.

Another limitation comes from using a secondary data set. This study was limited by the items available for the construction of various indexes. For example, the school expectations index focused only on college and not on any other possible educational outcomes (e.g., community college, vocational school). Likewise, we used self-reported grades as a measure of academic performance, not school-reported, official grades. These limitations notwithstanding, the items available for the school engagement index are unique in that we were able to construct an index that mea-

asures all three conceptual components of school engagement. Furthermore, confirmatory factor analysis supported our predetermined three-factor model. This is rarely done; most studies focus on either the behavioral (Finn & Rock, 1997) or the affective (Voelkl, 1996).

Despite these limitations, this study adds important evidence to the growing body of research regarding factors that impact African American students' academic performance. For example, our finding that school participation and future school expectations, not school identification, are related to current academic performance builds on past research that has found a link between school participation among students of various racial and ethnic backgrounds (African American, Israeli, Latino, and White; Israelashvili, 1997; Nurmi, 1991) and with African American students in particular (Walker & Sutherland, 1993). Prior research on African American students suggests that although they may espouse positive attitudes about their educational aspirations in the abstract, they are less likely than their White peers to believe that performing well in school will lead to future opportunities such as attending college (Mickelson, 1990; Ogbu, 1994). Mickelson called this phenomenon the "achievement-attitude paradox," and showed that although many students value education highly, they often do not perceive education as offering them concrete help in achieving their future goals. Our finding that the various components of school engagement do not all contribute significantly to school performance suggests that for African American adolescents engaging with school should be viewed as a complex construct with multiple, sometimes competing, components. Confirmatory factor analysis provided support for this position as it showed that behavioral participation, emotional identification, and future expectations are three components of school engagement with each component dealing with a unique aspect of African American adolescents' school engagement. A student may emotionally identify with school but if they are not participating actively, or do not have expectations of future education, they are not likely to perform well.

Although we found that identification with school is significantly related to academic performance, when examined in relation to the other two components of school engagement, this did not appear to be the case. This is surprising because prior research has shown that students' emotional bond with school (identification with school) is an essential part of school engagement and is related to academic performance (Fine, 1989; Finn, 1989; Osborne, 1997; Voelkl, 1996a). This unexpected finding may be due to the differences between prior studies and this study. First, unlike Finn's (1992) and Voelkl's (1996) work, which studied school engagement among eighth graders in ethnically mixed

samples, this study focused on 9th through 11th graders. Perhaps the emotional bond with school is more important for younger students than it is for students preparing to enter adulthood. Second, the way school identification was operationalized in this study differs somewhat from the conceptualization offered by Steele (1992) or Osborne (1997). In this study, we looked at whether students "feel close to" and "feel part of" their school as well as the degree to which they are "happy" and "safe" at their school. Steele focused on whether African American students felt their positive self-image was being reinforced at school, whereas Osborne (1997) used the relation between self-esteem and academic outcomes as an indicator of "identification with academics" for minority and White students. Although these ideas are related to emotional aspects of engagement, our definition did not directly address a student's self-esteem or self-image. Rather, the scale used in this study referred to whether a student felt good in the school environment. Likewise, it is possible that identification with school was not significant because it is a precursor to the participation or expectation components in high school. Future research must examine developmental trajectories of African American students' school engagement.

The significant gender differences found in this study are in line with previous findings that African American boys are particularly at risk for school failure, partly because of their disengagement with school (Graham, Taylor, & Hudley, 1998; Osborne, 1997; Taylor & Foster, 1986). In his examination of the national data, Osborne found African American boys were the only group that experienced serious and significant disidentification with school compared to White boys and Hispanic boys. The next important research question would thus be "Why do African American girls participate more in school and have higher school expectations?" To begin to deal with this question, we tested the possibility that gender influences the way student engagement relates to academic performance. Despite the significant gender differences, it appears that gender did not moderate the relation between school engagement and academic performance. In other words, for both male and female students the same components of school engagement were predictive of academic performance. Future research should further focus on what factors lead to gender disparity in educational performance among African American adolescents.

Overall, our findings support previous research with students of various ethnic backgrounds, showing that school engagement is related to school performance. This study, however, indicates that for African American students certain components of school engagement are more important than others. More specifically, African American students are more likely to perform well if they are actively participating in

Table 3. Summary of Hierarchical Regression Analyses Predicting Academic performance for African American Adolescents.

Step	Variable	ΔR^2	β
1		.21***	
	Gender		.27***
	Grade level		.13**
	ADPVT		.30***
2	Mothers' education		.08*
		.13**	
	Gender		.20***
	Grade level		.11**
	ADPVT		.27***
	Mothers' education		.04
3	School identification		.04
	School participation		.27***
	School expectations		.19***
		.01	
	Gender \times Identification		-.12
	Gender \times Participation		.15
		.09	

Note: ADPVT = Add Health Picture Vocabulary Test.

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

school and have expectations to continue in their education but school identification does not seem to be an important factor in performance. This finding differs from previous research done with ethnically mixed samples (Fine, 1991; Goodenow, 1993; Osterman, 2000; Voelkl, 1996a, 1996b). These results further underline the need for school personnel and helping professionals to focus on interventions aimed at increasing school participation and school expectations for African American adolescents. For example, teachers and school counselors may present students with a realistic assessment of their future possibilities with a focus on ways to keep students academically engaged in school. This is not an easy task to accomplish. If such guidance is offered ineffectively, students may conclude there are too many barriers to goal attainment.

For realistic assessments to be useful for students, counselors and teachers must provide strategies for students to engage in school and effectively cope with existing barriers and limited resources. African American adolescents require coping skills and options for successfully negotiating challenges both in and out of school so that they can more effectively engage in school. It seems that they would especially benefit from receiving guidance about their educational futures as well as behavioral study skills necessary to succeed in school. Moreover, any effort to help African American adolescents should be informed by the negative stereotypes about minority boys (Hudley & Graham, 1993) and their psychological effects (see Steele, 1992, for further discussion). Providing African American adolescents with concrete strategies that support their school participation and help them to attain their

dreams and aspirations, despite existing barriers, can improve their school experience significantly regardless of their cognitive potential or their family background (see Carter & Cook, 1992; Helms & Cook, 1999, for further details).

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