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How student and parent goal orientations and classroom goal structures influence the math achievement of African Americans during the high school transition

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Abstract

This study examined the effects of student and parent goal orientations and perceived classroom goal structures on grades and self-efficacy in mathematics during the high school transition. From a sample of 50 African American families living in a low-income school district, student survey data and open-ended parent interviews were examined. There were three significant findings. First, students who espoused more mastery goals in high school mathematics experienced more positive changes in self-efficacy and grades in mathematics during the high school transition than did their peers. Second, students who perceived more mastery and less performance goal structures in their high school math classrooms experienced more positive changes in mathematics self-efficacy during the transition than did their peers. Third, adolescents whose parents espoused mastery goals had higher grades than did their peers whose parents did not espouse mastery goals. Results indicate that mastery goals may be more influential in determining achievement and motivation in mathematics for African American students than are performance goals during the high school transition.
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1. Introduction

During the transition to high school, students experience a multitude of changes in their academic and social worlds that often clash with their developmental needs. At a time when peers become paramount, students confront the prospect of greater anonymity as well as the need to negotiate more complex peer groups with the increase in student body size from middle to high school (Eccles & Midgley, 1989). High schools also have stricter policies in terms of discipline and control that interfere with adolescents' developing needs of autonomy and independence (Eccles et al., 1993). High school students have more difficult work assignments and experience a higher grading standard than middle school students (Eccles & Midgley, 1989). Testing and the recognition of relative ability also become more pervasive in high school (Midgley, Middleton, Gheen, & Kumar, 2002). These circumstances can have a demoralizing effect on students and, in turn, compromise their academic efficacy and effort (Eccles et al., 1993).

Considering these challenges, it is not surprising that research has documented achievement and attendance declines following the transition to high school (Barone, Aguierre-Deandreis, & Trickett, 1991; Blyth, Simmons, & Carlton-Ford, 1983; Felner, Gintner, & Primavera, 1982) especially for low-income and minority students (Reyes, Gillock, Kobus, & Sanchez, 2000; Seidman, Aber, Allen, & French, 1996). Unfortunately, declining achievement has serious consequences for high school students. Not only is academic performance an important determinant of college enrollment and future job success (Children's Defense Fund, 2000), but achievement and attendance declines after the high school transition have been shown to predict the dramatic increase in school dropouts that occur at the beginning of the second year of high school (Roderick, 1995). Considering that low-income, minority students are less likely to attain post-secondary education and more likely to experience high school dropout (Children's Defense Fund, 2000), we need more research that focuses on the factors that help low-income, minority students successfully navigate the transition to high school.

Despite these documented declines, few studies have examined learning strategies and motivation across the high school transition for low-income, minority students. This is surprising considering that in recent years the middle school transition and its effect on motivation has become a focal point of scholarship (see Eccles et al., 1993; Eccles & Midgley, 1989, for reviews). To understand how to create a more facilitative learning environment in middle school, several studies have examined the middle school transition within the framework of achievement goal theory (e.g., Anderman & Midgley, 1997; Anderman, 1999).

Achievement goal theory examines the reasons for engaging in achievement-related behaviors (see Ames, 1987, 1992; Pintrich, 2000; Pintrich & Schunk, 1996; for reviews). Research has focused on two types of goals which have been contrasted as mastery versus performance goals (Ames & Archer, 1988; Nicholls, 1989). Mastery goals reflect a concern with developing new skills, learning the material, and improving over past performance. The attainment of mastery is seen as dependent on effort. Performance goals, in contrast, represent a concern about being judged and