

A Re-Examination of the Importance of Students' School Connectedness

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Abstract

The purpose of this study was to evaluate the school connectedness of students in relation to individual characteristics (i.e., gender, ethnicity, and socioeconomic status) and academic achievement (as measured by grade point average). Data from the Minnesota Student Survey was used to evaluate the sense of belonging of students in grade 6 ($N = 95,868$) from two survey administration years (2007 and 2010). Preliminary results confirmed the association of school connectedness with academic achievement, highlighting significant differences for gender, ethnicity, school location, and status as a member of the majority ethnic group within a school.

A Re-Examination of the Importance of Students' School Connectedness

Objective

The purpose of the current paper is to examine the importance of school connectedness of students. The degree of a student's sense of belonging in school is important to students during their adolescent years (Anderman, 2003). The social aspect or "psychological membership" strongly influences the motivation that students have for school (Goodenow, 1993). A student's connectedness to school gives insight into a student's perception of where they fit in the social context of the school environment (Anderman, 2003).

One key relationship in attempts to understanding a student's connectedness or disconnect from school may lie in the teacher-student relationship and perceived support that is grounded in fairness and respect in the classroom (Anderman, 2003). A positive connection to school and classroom belonging is essential for students to perceive support, which can help with school retention and participation (Akos & Galassi, 2004a). In the current study we evaluate the school connectedness of students in relation to individual characteristics and academic achievement (as measured by grade point average [GPA]) using a large survey dataset from a Midwestern state of the United States.

Perspective

Schools are continually pressured to prepare and support their students academically, socially, and emotionally (Abdulmalik, 2010). School adjustments are comprised of academic, procedural, and social components, influenced by situational and contextual factors (Goodenow, 1993) and discontinuity can have a negative impact on student performance (Rice, 2001), including achievement loss and dropping out of school (Mizelle & Irvin, 2000). Substantial changes in educational settings may include new physical spaces; unfamiliar peers and non-

parental adults; and, differing expectations, norms, and rules, which may lead to a complete disconnect from school (Barber & Olsen, 2004; Grossman & Cooney, 2009). Several research studies suggest that numerous outcomes can stem from unsuccessful adaptation including a decrease in desire for, and attitude towards, school, motivation, self-esteem, participation in school and extracurricular activities, monitoring from teachers, and support from school personnel, in addition to increased anticipation, anxiety (e.g. bullying, getting lost, failing to get to class on time), discipline problems, and stress (Akos & Galassi, 2004a, 2004b; Anderman et al., 2009; McCallumore & Sparapani, 2010; Reyes et al., 2000).

The importance of proactively addressing these undesirable outcomes may have more of an impact earlier in a student's academic years. Early adolescence is a time when student perceptions are still malleable; students are in the process of finding out who they are, who and what they want to be, and where they should focus their energy (Goodenow, 1993). Developmentally, early adolescent students are more susceptible to being self-conscious and sensitive to social comparisons and demonstrate a higher interest and need for positive and supportive relationships from both peers in the classroom as well as non-parental adults, such as teachers and administrators they encounter at school (Anderman, 2003).

The presence of a student's connection to school is significant during the adolescent years (Anderman, 2003). For example, Resnick et al. (1997), noted that both family and school connectedness were associated with lower levels of risky behaviors. Student perceptions, more than the reality, of educational experiences, influence their motivations for school (Anderman & Midgley, 1998). For example, a student's perceived change in teacher support significantly predicted a decrease in psychological functioning in the transition from eighth to ninth grade (Barber & Olsen, 2004).

A student can be influenced positively or negatively depending upon personal experiences and influences of others. Based on Maslow's (1943) theory of motivation, feelings of belonging and self-esteem are part of the basic needs in life. Fulfilling these needs can lead to greater success and achievement through feelings of confidence, respect, capability, and sense of worth (Maslow, 1943). In the social context of education, one prominent facet is a student's school connectedness; in other words, the perception and degree to which students feel accepted, valued, respected, and supported by peers and non-parental adults (Goodenow, 1993). A connection to and in school is more than simply fitting in, there is a need to sense one's own importance and perceive that other members in the school community can be relied on in a sense of attachment and security to that community (Hamm & Faircloth, 2005). One key relationship in attempts to understanding a student's connectedness or disconnect from school in terms of a classroom environment may lie in the teacher-student relationship and the perceived support from teachers (Anderman, 2003). Responses from students indicate that students who perceive less teacher and administrator support have a decrease in their like of school (Kennelly & Monrad, 2007) and students who reported a lack of belonging associated this absence largely to their perception of a lack of acceptance from peers (Hamm & Faircloth, 2005). For students at all grade levels, positive school environments, such as perceived support in classroom communities from peers and teachers and facilitation from teachers in the development of their connection, are essential for students to perceive support and lend themselves to positive academic outcomes including school retention and participation (McMahon, Wernsman, & Rose, 2009; Tillery, Varjas, Roach, Kuperminc, & Meyers, 2013).

The purpose of the current paper is to examine the importance of the sense of school connection and its relationship with other factors found in previous studies, such as academic

achievement, gender, ethnicity, and socioeconomic status (SES). Previous studies have demonstrated that the sense of school belonging or membership is higher in females than in males (Goodenow, 1993; Sari, 2012). Goodenow (1993) indicated that suburban students had a stronger sense of school membership because they live in a more homogenous community and, in general, in more highly educated families; and that the status of belonging to the majority ethnic group within the school was associated with higher levels of belonging. Anderman (2003) found that GPA positively predicted a student's sense of belonging and Sari (2012) found that there are differences in the degree of student belonging depending upon the level of GPA. Sari also indicated that students of lower SES had the lowest mean score on the sense of belonging scale. In this paper we will replicate these findings regarding a student's sense of belonging in school, but simultaneously as the data utilized allow us to do these analyses.

Method

Data

Data for this study come from the Minnesota Student Survey (MSS). The MSS is administered to 6th, 9th, and 12th grade students every three years, for which we have data from 2004, 2007, and 2010. This study includes the 95,868 6th grade students from the 2007 and 2010 administration years due to the availability of selected survey items. This sample includes 50.20% male students, 5.69% African American, 6.81% Hispanic American, 5.04% Asian American, 2.09% American Indian, and 65.18% Caucasian. There were 613 schools that took part in the survey collection, with 94 schools that had a non-white majority.

School Connectedness Scale

Two scales from the MSS, along with another related question from the survey, were scaled to create a measure of school connectedness for each student using confirmatory factor

analysis. The two scales were Teacher and Community Support, and School Safety Climate. These scales were constructed from a pool of relevant items and have demonstrated excellent reliability and validity (Author, 2011; Author, 2013). Responses to the question “How do you feel about going to school?” were also included in the school connectedness scaled score (see Appendix A).

Analysis

The current study is a secondary analysis of the MSS dataset. To examine the sense of connection to school, as indicated above, questions from the survey were used to create factor scores to model the school connectedness. In addition, another variable was created that indicated whether or not a student was a member of the ethnic majority group within that school. For these multiple regression analyses, a preliminary assumption was made that the racial profile for the majority ethnic group was the same or similar for both administration years and was based on the ethnic group totals for 6th grade students at the school level in 2010.

Results

School Connectedness

Females were found to have a higher sense of school connectedness (see Model 1, Table 1) compared to males. Ethnic minority groups, except Asian Americans have a lower sense of school connectedness in comparison to Whites, with American Indians having the greatest disparity ($b = -0.19, SE = 0.02, p < .001$). Those in town and rural schools have a lower sense of school connectedness in comparison to suburban schools, but those in city schools have a higher sense of school connectedness than suburban schools. Lastly, those with low SES (as measured

by free and reduced lunch status) have a lower sense of school connectedness than high SES students.

Majority status was included in the model just described, and was found to be a statistically significant incremental factor ($F(4) = 80.82, p < 0.001$). By including majority member status in the model (Model 2), school connectedness of city students increased by three-fold (from 0.021 to 0.068). Controlling for other majority statuses, all ethnic groups had a slight increase in school connectedness in comparison to Whites, especially for African Americans. It is clear that in comparison with schools where Whites are the majority, schools where the ethnic minority groups are the majority are affected negatively in their connection to school (see Model 2, Table 1).

Academic Achievement

Model 3 (Table 1) shows the results for the multiple regression analysis that used academic achievement (as measured by GPA) as the dependent variable. Controlling for ethnicity, school location, SES, and school connectedness scale scores, females have higher GPAs than males ($b = 0.11, SE = 0.01$). Ethnic minority groups, except for Asian American students, have lower GPAs in comparison to Whites. In comparison to suburban schools, students from rural, town, or city schools have lower GPAs. Low SES students have lower GPAs in comparison to high SES students. Most importantly, a higher sense of connection to school is strongly associated with higher GPAs ($b = 0.23, SE = 0.003$); the zero-order correlation between school connectedness and academic achievement was 0.289 in this model.

Lastly, for Model 4, we added the majority status variable to Model 3. The same pattern of relationships for females, ethnic minority groups, and school connectedness with GPA

emerged. The estimate for Asian Americans in comparison to Whites in terms of GPA increased slightly (from 0.017 to 0.031). In comparison to suburban schools, rural and town schools still have lower GPAs. The most striking difference was that when adding the majority member status variable, students from city schools were found to have similar GPAs to students from suburban schools (in Model 3, the estimate was $b = -0.02$, $p < 0.01$; in Model 4, the estimate became positive, $b = 0.002$, $p = 0.85$).

Discussion

The results both confirm and contradict findings found in previous research but demonstrate the importance of considering a student's sense of school connection as well as its association with being a member of the majority in their school. Like previous studies, females were found to have a higher sense of school connectedness than males. Unlike previous studies, city students had a higher sense of school connectedness than suburban students, and being a member of the majority within a school did not align with a higher connection to school for most minority groups when that group was the majority within the school.

Limitations of these analyses include the availability of the ethnic breakdown at the school level for each year of administration and this should be explored further. The inclusion of city schools creates many speculations as to why they are different than the other schools, one explanation may be due to school choice, however, the rate of school choice at a particular school is not taken into account in these analyses. The scales constructed are also limited to the data collected from one state of the United States, which may not be generalizable to other states. Future analyses will address these limitations as well as include an analysis that addresses the

other findings in the previous research regarding differing levels of academic achievement and SES.

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Table 1

Regression analysis results for an overall model and for individual models

Predictor	Model 1			Predictor	Model 2			Predictor	Model 3			Predictor	Model 4		
	B	SE	β		B	SE	β		B	SE	β		B	SE	β
Intercept	-0.037	0.006		-0.042	0.006		3.173	0.005		3.171	0.005				
Gender	0.233	0.005	0.142***	0.233	0.005	0.143***	0.110	0.005	0.074***	0.111	0.005	0.074***			
American Indian	-0.193	0.020	-0.033***	-0.163	0.020	-0.028***	-0.401	0.017	-0.076***	-0.405	0.018	-0.077***			
African American	-0.041	0.013	-0.011**	0.002	0.013	0.001	-0.259	0.011	-0.077***	-0.242	0.012	-0.072***			
Hispanic	-0.100	0.011	-0.031***	-0.069	0.012	-0.021***	-0.304	0.010	-0.100***	-0.288	0.010	-0.095***			
Asian	-0.010	0.013	-0.003	0.022	0.013	0.006	0.017	0.012	0.005	0.031	0.012	0.009*			
City	0.021	0.008	0.010**	0.068	0.008	0.032***	-0.019	0.007	-0.010**	0.002	0.008	0.001			
Town	-0.051	0.008	-0.025***	-0.055	0.008	-0.027***	-0.063	0.007	-0.034***	-0.064	0.007	-0.035***			
Rural	-0.054	0.007	-0.030***	-0.055	0.007	-0.030***	-0.050	0.006	-0.030***	-0.051	0.006	-0.031***			
Free/Reduced Lunch	-0.160	0.006	-0.090***	-0.144	0.006	-0.081***	-0.276	0.006	-0.169***	-0.271	0.006	-0.165***			
				Maj. Am Indian	-0.236	0.049	-0.196***				0.070	0.045	0.052		
				Maj. African Am	-0.230	0.017	-0.141***				-0.086	0.016	-0.093***		
				Maj. Hispanic	-0.298	0.027	-0.052***				-0.184	0.026	-0.123***		
				Maj. Asian	-0.196	0.023	-0.055***				-0.146	0.030	-0.028***		
				School Connection	0.232	0.003	0.253***				0.230	0.003	0.068***		

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Appendix A

*Scale and item information for the Minnesota Student Survey (MSS) to model school belonging*Scale Name and Item StemTeacher Community Support

- 1-4 How much do you feel...
1. Friends care about you?
 2. Teachers/other adults at school care about you?
 3. Religious or spiritual leaders care about you?
 4. Other adults in your community care about you?
- 5-6 How many of your teachers...
5. Are interested in you as a person?*
 6. Show respect for the students?*

School Climate

- 1-3 How many students in your school...
1. Are friendly?
 2. Behave well in the hallways and lunchroom?
 3. Have made fun of or threatened students of different races or backgrounds?*
- 4-7 How much do you agree or disagree with the following statements?
4. I feel safe going to and from school
 5. I feel safe at school
 6. Bathrooms in this school are a safe place to be
 7. Students use of alcohol or drugs is a problem at this school*
8. During the last 30 days, how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?

Other

- How to do you feel about going to school?*
- I like school very much
 - I like school quite a bit
 - I like school a little
 - I don't like school very much
 - I hate school

Note: *Indicates that items were reverse coded.