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Student Identification Across School Levels

Roxanne Mitchell

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As schools continue to grapple with the challenge of achieving success for all students many questions come to mind. Despite continued efforts of educators to reach all students a number of students seem to be left on the periphery and appear unreachable. How do we explain the failure of some students to achieve academically despite remedial efforts and individualized instruction? Are students more susceptible to intervention at a particular age? What can educators do to encourage such students to take a more active role in their academic future?

Failure to identify with school has been suggested as one explanation for why some students persistently fail to meet academic expectations. Identification with school has been conceptualized as involving a sense of belonging and a valuing of school and school related outcomes (Voelkl 1997). Students who fail to identify with school often experience a host of problems ranging from behavioral problems, social and emotional withdrawal, and academic failure. These students are also at-risk for delinquency and dropping out of school (Finn 1989, Finn & Voelkl 1993, Voelkl 1997). Empirical research thus far has attempted to explain this failure to identify with school as being the result of cultural expectations, prior experience with success in school, the structural environment of the school, the regulatory environment of the school, stereotype threat, poverty, and peer-pressure (Finn 1989, Finn & Voelkl 1993, Fordham 1996, Steele 1992, Voelkl 1997).

Prior investigation into student identification has shown that it has significant implications for student outcomes such as participation and academic performance; it can even have major life consequences for those who fail to identify with school. Recent research in the area of trust has shown that parent and student trust of the principal and the school also have significant consequences for student identification (Mitchell & Forsyth 2004). However, while it appears that parent and student trust tends to wane as students progress through school very little is known about the relationship between student identification, school level, and academic performance. Prior empirical research, existing theory, and reason give credence to the argument that there is a relationship between school level and student identification with school and academic performance. This study asks the question:

Question 1: Does student identification with school have significant consequences for academic performance across school levels?

Theoretical Rationale

Identification with School

Identification refers to the sense of attachment one has with an individual or with an institution such as a school (Voelkl 1997). It involves (1) feelings of belongingness and (2) valuing of school and school related outcomes. Students who develop this sense of belonging tend to generally express the belief that they are an integral part of the school and that they are accepted, valued, and included. They are proud of being a part of the school, and have a sense that success in school has consequences for their perceptions of self. Furthermore, they value the school as an important social institution and see

schooling as being a significant avenue for accomplishing future life goals.

Identification with School and School Membership Theory

The terms identification with school and school membership have been used interchangeably in the literature. According to Wehlage (1989) school membership takes place when "students have established a social bond between themselves, the adults in the school, and the norms governing the institution" (p. 10). Thus the students' psychological sense of school membership or belonging is in a large part dependent on the extent to which the student is able to bond with significant others in the school. It is these links between students and adults within the school that help schools to deter the risk of dropping out of school for students identified as being at-risk. The strength of the bonds that the student develops with school personnel is dependent upon the extent to which the student feels supported and able to experience positive interactions and to establish on-going positive relationships with key significant others in the school environment. Wehlage posits that in order for students to experience social bonding within schools it is necessary to cultivate the following things:

1. attachment – a sense of bonding and relatedness towards teachers;

2. commitment – a conscious decision to strive to meet personal and academic goals;

3. involvement – active participation in school activities and in academics; and

4. belief – trust in the school and accordance of legitimacy to its governance policies.

According to Wehlage, all schools are capable of reducing the risk of student withdrawal and failure to identify with school if they (1) promote academic engagement and (2) foster school membership. The relationship that students have with the adults within the school is considered to be of utmost importance. Positive reciprocal relationships between the faculty and students foster a sense of legitimacy towards the governance of the school, and may result in enhanced student acceptance, compliance, and cooperation with expected norms and regulations. Students who have a strong sense of school membership are actively involved in school activities and identified with school. This identification with school is manifested even in the face of challenges and difficulty. In contrast, students who do not have a strong sense of school membership are often disengaged in academics and fail to identify with school.

Overall, prior investigation into student identification with school suggests that identification with school is temporally defined, that is, students are more identified with school at the elementary level, and this identification tends to decrease over time and is particularly influenced at the transitions between elementary/middle school and the middle school/high school stages (Finn, 1993; Furrer & Skinner, 2003; Voelkl, 1997). Students who experience a stronger emotional bonding and sense of belongingness are more engaged in school and motivated to succeed in the face of difficult academic challenges (Finn 1993, Furrer & Skinner 2003, Goodenow 1992, Hagborg 2003, Voelkl 1997).

Identification with school is positively related to prior academic performance and active participation in school (Osborne 2001, 2002, Voelkl 1997). Students' perception of teacher support is positively correlated with academic engagement and feelings of belongingness and identification with school (Hagborg 2003, Ryan & Patrick 2001). The sense of relatedness/identification with school while higher

among girls, is more significant for boys, and it can even outweigh the deleterious effects of negative peer pressure (Furrer & Skinner 2003). Students who do not identify with school are highly likely to experience academic problems, emotional withdrawal, behavioral problems, and potentially even dropping out of school (Finn 1989, 1993, Furrer & Skinner 2003, Goodenow 1992, Hagborg 2003, Ryan & Patrick 2001, Voelkl 1996, 1997, Wehlage 1989). Finally, parental and student trust of the school and the principal has been found to be significantly correlated with and predictive of student identification with school (Mitchell & Forsyth 2004, Mitchell 2006, Mitchell & Robinson 2007).

Method

This study makes the unique contribution of treating student identification with school as an organizational level variable. Therefore the unit of analysis for this study was the school. Individual subject scores were aggregated to the school level. The first level of investigation involved obtaining bivariate correlations of all the variables that were included in the study were obtained. The second level of this investigation involved arranging two experimental factors into a 3 X 3 factorial ANOVA. The second factor, student identification with school, was aggregated by school and these aggregate scores were then trisected into (1) low, (2) medium, and (3) high student identification with school. The first factor, school level, consisted of (1) elementary school, (2) middle school, and (3) high school. The dependent variable was academic performance. Socioeconomic status was included as a control variable.

Data Source

The stratified sample for this study was drawn from a population of 836 public schools, in 26 contiguous counties, in the northeastern quadrant of one Mid-Western state. The final sample consisted of 74 schools. This included 21 elementary schools, 28 middle schools, and 25 high schools. The configuration of school level was defined as elementary (K-5), middle school (6-8), and high school (9-12). Information regarding the socioeconomic status (SES) of the school was determined based on the school's percentage of students receiving free and reduced lunch.

A 16-item, 4-point Likert type scale measuring student identification with school (Voelkl 1996) was administered to 15 randomly selected students in the fifth, eighth, and eleventh grades. This questionnaire was developed to measure student sense of belonging and valuing of school and school related outcomes. This scale has a coefficient alpha reliability of .84. Sample items on this scale include "School is one of the most important things in my life," "I am treated with as much respect as other students in my class," and "Most of what I learn in school will be useful when I get a job." The response set ranges from strongly agree to strongly disagree. This study produced a 52% return rate for instruments distributed which consisted of 619 participating students.

The Academic Performance Index (API) for the school year-2001 –2002 was used to assess the schools' academic performance. This score includes an assessment of students' performance on the state mandated criterion referenced tests as well as an assessment of student attendance. The score for each school ranges from zero to 1500. The larger the value of the score, the higher the performance is considered to be.

Results

The first level of investigation involved obtaining the bivariate correlations of all the variables in the study. These values are presented in Table 1. The correlations were obtained prior to recoding the student identification with school variable into a categorical variable.

Table 1: Bivariate Correlations

	Student Identification	Academic Performance	School Level	SES
Student Identification				
	1.0	.23*	-.62**	.11
Academic Performance				
		1.0	-.20	-.69**
School Level				
			1.0	-.12
SES				
				1.0

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

As can be seen from Table 1 there was a significant inverse correlation between school level and student identification with school ($r = -.62$, $p \leq .01$). This would signify that students are more identified with school at the elementary level and this identification with school significantly decreases by the time students reach high school. There was no relationship between SES and student identification ($r = .11$, $p > .05$). There was a significant relationship between student identification and academic achievement ($r = .23$, $p \leq .05$), indicating that as student identification with school increases the academic performance of the school also increases. There was a negative relationship between SES and academic achievement ($r = -.69$, $p \geq .01$). However, this result is somewhat misleading. Since this variable was measured by the percentage of students on free and reduced meals, this would indicate that as the percent of students on free and reduced meals increases the academic performance of the school decreases, leading us to interpret this result as a positive and direct relationship between SES and

academic performance.

The second level of investigation involved arranging two experimental variables into a 3 X 3 factorial ANOVA design. The second factor, student identification with school was aggregated by school, and then the aggregate scores were trisected into (1) low student identification with school, (2) medium student identification with school, and (3) high student identification with school for each school level. Thus a school score for student identification with school depicts its identification value relative to schools at the same level. The first factor, school level, also had three levels: (1) elementary school, (2) middle school, and (3) high school. The dependent variable was academic performance. The means obtained are presented Table 2.

Table 2: Means: Student identification X School Level

Student Identification With School		School Level			
		High School	Middle	Elementary	Total
	High	1106 N = 1	1054 N = 8	1036 N = 15	1045 N = 24
	Medium	943 N = 8	1014 N = 12	1173 N = 4	1017 N = 24
	Low	984 N = 16	816 N = 8	1300 N = 2	957 N = 26
	Total	976 N=25	969 N = 28	1040 N = 21	N = 74

As can be deduced from the overall means in Table 2, academic performance was generally higher at the elementary level and tended to decline by high school regardless of the level of student identification. The overall column means suggest that student identification is higher at the elementary school level and tends to decline by high school. The number of schools represented in the high student identification category was 15 for elementary schools, 8 for middle schools and only 1 for high schools. While there were fewer schools at the middle and high school levels that evidence high student identification with school, it appears that for those schools that did fall in this category the mean academic performance was higher, signifying that while student identification is less at the upper levels it has a more potent effect upon academic achievement at those levels. Table 3 displays the F test for this model.

Table 3: Tests of Between-Subjects Effects – School Level and Student Identification

Dependent Variable: Academic Performance

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Corrected Model						
656039.17	8	82004.90	2.09	.050	.204	
Intercept						
38022166.20	1	38022166.20	967.14	.000	.937	
Student Identification						
4963.34	2	2481.671	.06	.939	.002	
SCHLEV						
340937.39	2	170468.70	4.34	.017	.118	
Student Identification * SCHLEV						
418684.15	4	104671.04	2.66	.040	.141	
Error						
2555424.78	65	39314.23				
Total						
77957334.00	74					

Corrected Total					
3211463.95	73				

a R Squared = .20

As can be seen in Table 3 the F ratio for student identification (F=.06, df=2,p>.05) indicates that while school level was correlated with academic achievement and there was a noted increase in academic performance in high student identification schools, student identification was not significantly related to academic performance. School level was significantly related to academic performance (F=4.34, df=2, p<.05) such that as was observed earlier in the table of means, academic performance declined significantly as students moved to higher levels of school. There was a significant interaction effect between student identification and school level (F=2.66, df=4, p<.05) indicating that together student identification and school level had a significant effect upon academic performance. The indicates that the independent variables together explain 20% of the variance in academic performance.

Conclusion

This study indicates that serious changes in student identification occur across school level. Research Q1 asked if school level and student identification with school have consequences for academic performance. School level does, but while student identification was moderately correlated with academic performance, it did not have a statistically significant effect on academic performance. However, the interaction between school level and student identification did have a significant effect upon academic performance. It was noted that particularly at the middle school and high school levels that schools identified as having high student identification with school did have higher academic performance.

This study has confirmed Furrer & Skinner's (2003) finding that students identify with school at the elementary school level and that this identification tends to wane as students move on to higher levels. It follows that elementary school is the time to intervene and to develop positive relationships with students and parents. Everett, Bass, Steele, and McWilliams (1997) point out that:

Waiting until the high school student demonstrates his or her drop potential through low and or falling grades may be too late to rescue the student from dropping out. Drop out prevention programs should begin treatment for the student prior to his or her having the opportunity to fail academically (p. 25).

Based on the findings from this study there are several implications for school leaders who are interested in fostering increased student identification with school. First of all they must be willing to address impediments that stand in the way of identification with school such as inappropriate and uninteresting curriculum, lack of parental and student involvement, and pedagogical approaches that minimize active student participation in learning (Taylor-Dunlop & Norton 1995). Furthermore, school leaders must focus on creating a climate of trust that is conducive to the formation of identification with school. Prior studies have shown the importance of trust for fostering identification with school (Mitchell & Forsyth 2004, Mitchell 2006; Mitchell & Robinson 2007). When students trust the school, the

likelihood that they will develop a sense of belonging and valuing of school and school related outcomes is enhanced.

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