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The Relationship Between School Belongingness And Drop Out Rates

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The Relationship between School Belongingness and Drop Out Rates

BY

Lauren Sanders

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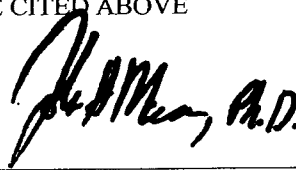
Specialist in School Psychology

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
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Dedication

This project is dedicated to my family: Derek Sanders, Debbie Sanders, Logan Sanders, Nikki Sanders, and Michael Assalley. I cannot thank each of you enough for your undying support, love, and encouragement throughout this process.

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Abstract

The present study investigated the relationship between several measures of school belongingness and drop out rates for 22 high schools in a Midwestern state. Measures of school belongingness were taken from students' responses to the adapted version of the Center for Disease Control for the Department of Health and Human Service's *Youth Risk Behavior Survey (YRBS)*. Results indicated that the relationship between items addressing school belongingness (i.e., the student's feeling comfortable in, being respected in, feeling that school contributes to his or her experience in an important way, and feeling connected to the larger school community) and drop out rates were not statistically significant. However, statistically significant relationships were found between school belongingness and parents helping with homework, as well as with students' level of school enjoyment. Additionally, enjoyment of school correlated significantly with parental help with homework and with interest in coursework. Limitations and implications of the present research are discussed.

The Relationship between School Belongingness and Drop Out Rates

The consequences of not graduating from high school and not getting a General Equivalency Diploma (GED) can be financially detrimental for the individual. According to the United States Department of Commerce (2007), individuals between the ages 18 to 65 who did not graduate high school or receive a GED earned a median income of \$24,000 in 2007. On the other hand, those who received a high school diploma or GED made a median income of \$40,000 in the same year. Because the economic benefits for completing secondary school are obvious, it is critical that methods be identified to ensure students complete their education.

According to the United States Department of Education, the percentage of students in the state of Illinois who dropped out of public high schools between the beginning of one year and the beginning of the next was 4% for the school year 2005-2006 (Cataldi, Laird, KewalRamani, & Chapman, 2009). The United States Department of Commerce (2007) reported the range of drop out rates across the United States to be between 1.7 and 8.4 percent. For example, New Jersey had a drop out rate of 1.7 percent for the 2005-2006 academic year, while Louisiana had a drop out rate of 8.4 percent for the same school year (United States Department of Commerce, 2007). These discrepancies from state to state are interesting and not completely understood. Why are school drop out rates lower in some states than in others? The answer to this question appears to be complicated and is hampered by the fact that there is no one factor that determines when someone is likely to drop out of school. Many researchers have examined the relationship between drop out rates and specific constructs such as self-esteem, academic success, and family and other background characteristics. However,

there has been little research on the relationship between school belongingness and drop out rates. According to Finn & Rock (1997), "...there have been few attempts to define or study [school] engagement formally" (p. 222).

Because dropping out of high school is a serious problem with economic consequences that needs to be addressed in this country, it is the focus of the present research. Specifically, this study investigated the relationship between school belongingness and dropout rates for high schools in seven counties in a Midwestern state. This paper first defines school belongingness. Then, relevant theories for school belongingness or the decision to drop out of school are summarized. Next, the constructs of, and previous research pertaining to, school belongingness and dropping out of school are described. Finally, a research study that investigates the relationship between these two constructs is presented.

Definitions of School Belongingness

The construct of *sense of school belonging*, also known as *school belongingness*, has been defined as the student's feeling of being respected and also of feeling comfortable in his or her school (Anderman, 2003). School belonging has also been defined as more than having quality relationships within the school, but having a more global sense of belonging and feelings of connection with the larger school community (Pittman & Richmond, 2007).

Finn (1989) has further defined school belongingness as "...an internalized conception of belongingness—that [the student is] discernibly part of the school environment and that school constitutes an important part of their own experience" (p. 123). However, Finn (1989) goes on to mention that there has been a divide in this

understanding—i.e., does the child feel a belonging or connection to “the place” or to learning?

Many more definitions have been put forth in the literature, but all tend to repeat the same theme—that is, a feeling of connection or a real link to one’s school. For the purposes of this investigative study, the terms *sense of school belonging* or *school belongingness* will refer to the student’s feeling comfortable in, being respected in, feeling that school contributes to his or her experience in an important way, and feeling connected to the larger school community.

Previous Research on School Belongingness

In an examination of 6th and 8th graders’ sense of school belonging using hierarchical linear modeling, Ma (2003) found that when examining self-esteem, general health, academic press, disciplinary climate, and parent involvement, a student’s self-esteem was the most important predictor of a sense of school belonging.

Goodenow’s (1991) research looked at the relationship between a student’s sense of belonging in his or her classes and measures of effort, academic achievement, and motivation. Goodenow’s (1991) multiple regression analysis revealed that a student’s subjective sense of belonging in class had a significant influence upon several motivation measures and upon his or her persistent and engaged effort with difficult academic work—even when controlling for the influence of the student’s immediate peer group’s values. Goodenow (1991) commented that “...although doubtlessly the sense of school belonging and support are important for all students, they may be crucial to the academic survival of many at-risk students” (p. 3).

According to Rountt (1996), a sense of belonging is harbored via three key elements: acceptance from others, personal choice, and contribution to or involvement with school. Rountt (1996) further asserted that teachers can foster belongingness among students by encouraging them to fully participate in activities, but teachers should keep in mind that activities need to be appealing to the students. Rountt (1996) also stated that one of the most effective ways to foster belongingness is to find ways for each student to feel he or she makes important contributions to the class.

Small Schools and School Belongingness. According to research findings, small schools may be better equipped than larger schools to foster a sense of belonging in students. Cawelti (1995) reviewed the extant research related to high school restructuring (restructuring refers to substantially changing the way important properties of the school and its supporting district interact in order to improve learning) and found four key themes including – “...high schools with smaller enrollments, either as separate schools or self-contained units within larger schools, are better able to create a sense of belonging for students...” (p. 16). Other researchers have reached similar conclusions. Raywid (1996) asserted that small schools create specific benefits for students, including better attendance and retention, better engagement, and greater academic performance when compared to larger schools. Cotton (1996) further explained this trend, highlighting research investigating whether it is the rural-ness of small schools or small schools themselves that has positive effects on the student. Cotton (1996) concluded that the research is clear that it is the smallness of schools, not the setting, which is beneficial to students. The benefit for students from small schools compared to students from large schools, therefore, may include an increased sense of belongingness (Cotton, 1996).

Teachers and School Belongingness. Teachers may also play a role in students' feelings of school belonging. In an ethnographic research study consisting of culturally diverse adolescents whom the school had identified as at-risk for dropping out of school, Schlosser (1992) reported that these students indicated that they often felt "put down" in classrooms and perceived themselves as outsiders at their schools. Schlosser (1992) further relayed that these students felt that their teachers did not care about them or understand their needs, but instead that their teachers were working against them. Teachers reported that they began distancing themselves from the marginal students if the teachers felt they had little to no impact on the student's achievement. Overall, the marginal student's relationship with his or her teacher appeared to have a direct relationship to the student's behaviors and attitudes towards school—including school belongingness. Students who reported that their teachers emphasized a sense of belonging were more likely to assume their teachers' educational principles and persist in school (Schlosser, 1992).

Factors that Might Influence Dropping Out of School

There has been much research investigating potential factors that might be related to a student's decision to drop out of school. An early study by Pittman (1991) looked at how 11 different variables related to high school drop out status. These variables included level of participation in vocational courses, the student's relationship with school staff, peers' interest in school, the student's interest in school, the student's grades, the student's perception of the utility of schooling, the student's history of changing schools, the student's sense of social belonging, the student's participation in sports, the student's participation in non-sport activities, and the general school climate. Pittman surveyed

over 2,000 students and matched those who dropped out with those who did not according to size of community, region of residence, tenth grade reading comprehension scores and socioeconomic status. Pittman found four variables that were highly related to the drop out decision. These variables included the student's grades, the student's level of interest in school, peers' interest in school, and the student's experience with changing schools since the fifth grade (Pittman, 1991). Later researchers have also reported that peers' support for staying in school (e.g., Terry, 2008), teacher support of student's autonomy (Hardre & Reeve, 2003), race (Finn & Rock, 1997) and other individual characteristics (Ma, 2003) may influence the decision to drop out of school. Relevant theories and models associated with the decision to drop out of school and also school belongingness are described next.

Relevant Theories & Models

McNeal (1997) stated that a student's decision to drop out of school is not an individually based process and other potential influences on this decision include the student's family, peers, community, and state characteristics. Other researchers shared this view of multiple influences on students' decisions and behaviors related to dropping out of school. For instance, Finn and Rock (1997) stated, "It is recognized that neither a student's self-view nor school-related behaviors occur independently of the larger social context, that is, family, peers, and the school environment" (p. 222). Because of the potential of multiple influences on students' behaviors, multiple theories are potentially relevant for the decision to drop out of school, as well as one's sense of school belongingness. Several theories that relate to these topics and are pertinent to the present research design are described below, beginning with self-determination theory.

Self-Determination Theory

Hardre & Reeve (2003) described self-determination as explaining the “...motivational source underlying students’ experiences of becoming interested in school and internalizing school-related values” (p. 347). According to self-determination theory, students engage in activities in the school that are interesting to them, that confirm their capabilities, and are related to their lives. Hardre & Reeve further explained that it is the student’s feelings of perceived competence and self-determination that motivate the student to persist in school.

Ryan & Deci (2000) summarized self-determination theory as investigating natural psychological needs and inherent tendencies for growth that are the root of an individual’s personality and self-motivation. Ryan & Deci further explained that the current literature base identifies three components—competence, relatedness, and autonomy (i.e., choice, opportunity for self-direction, and recognition of one’s feelings)—that appear “...to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being” (p. 68). According to self-determination theory, therefore, the more students think that the school environment coincides with their personal beliefs (about themselves or their worldview), the more likely they are to stay in school and the more likely they are to feel they belong in the school environment.

Social Control Theory

Finn (1989) summarized social control theory by hypothesizing that deviant behavior and deviant motivation are lessened when the individual is linked, bonded, or attached to the environment he or she is manipulated by or manipulates. These

environments function to inhibit or control deviant impulses (Liska & Reed, 1985). Liska & Reed (1985) expanded on this, explaining that there are two processes of social control—inner and outer. Inner social control refers to one's internalization of conventional beliefs and morals which exert control over the expression of deviant motives. Outer social control refers to the economic and social rewards one could lose when displaying deviant behavior as well as the economic and social costs that will ensue if one is labeled as socially deviant. Liska & Reed (1985) further explained that those individuals with strong bonds, ties, links, or attachments to "...conventional institutions are most likely to both internalize conventional beliefs and morals and to have the most to lose upon being socially identified as a deviant" (p. 548). Interestingly, the underlying threat which functions to control one's deviant behavior (e.g., inner control) is the same tool that ties an individual to conventional institutions.

Hirschi (1969) has further expanded upon these thoughts by saying that four components are necessary for these links, bonds, and/or attachments. According to Finn (1989), these four components are: "...attachment or concern with the opinions of others; commitment; a rational decision to behave in acceptable ways; involvement (the expenditure of time and energy in institutionally encouraged behaviors); and belief (a view that the principles encouraged by the institution are valid)" (p. 125). Social control theory suggests, therefore, the more linked or bonded a student is to the school environment, the less likely she or he would be to display deviant behaviors, such as dropping out of school.

Previous researchers have used social control theory to explain delinquent or deviant behavior of students, but focused on the role of parents and families in this

process. According to Finn (1989), schools can become institutional sources for control over a student's delinquent behavior, but the largest source of institutional control is the student's parents. Liska & Reed (1985) stated that "...parents, not school, are the major institutional sources of delinquency control" (p. 558). If parents play a significant role in social control, as suggested by previous researchers, then parents may influence a student's sense of school belongingness or decisions about dropping out of school. A theory that directly relates to families is presented next.

Family Systems Theory

Family systems theory posits that individuals interact with others in their environment in ways that mimic the patterns of interaction they are exposed to in their home (Rita & Adejanju, 1997). Rita & Adejanju (1997) explained how family dynamics become entrenched within individuals:

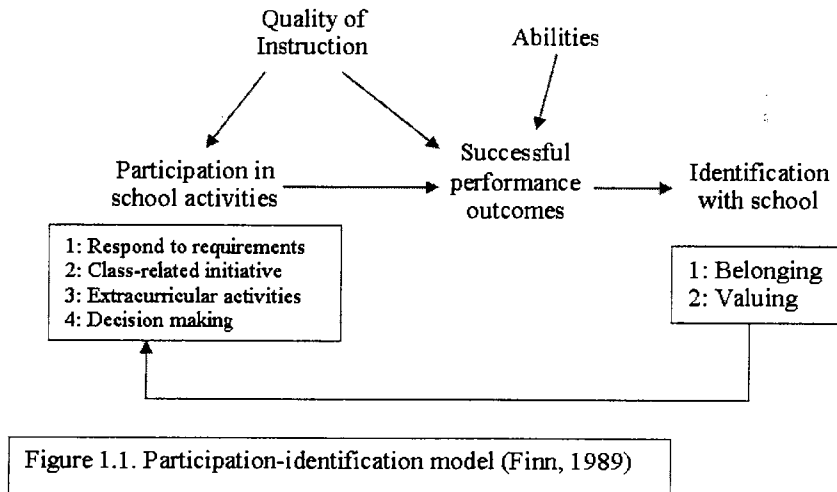
"...(1) the recurring observation that certain actions of one or more family members lead to characteristic reactions from others; (2) the comfort experienced from the constancy of these dynamics' and (3) the general lack of awareness that these patterns have [been] routinized and internalized (Wachtel, 1982; Williamson, 1981, 1982a, 1982b)..." (p. 90).

Additionally, Rita & Adejanju (1997) mentioned that for most individuals, these patterns are adaptive outside the home, but for some individuals, these patterns are maladaptive and may cause conflicts between the individual and others. Undoubtedly, these patterns carry over into school relationships, but little research has explored this relationship (Rita & Adejanju, 1997).

According to family systems theory, therefore, a student will likely respond to authority figures (e.g., teachers, principals, etc.) at school in the same manner he or she responds to his or her parent. If a child has an insecure attachment or poor sense of belonging to his or her family, it is likely that he or she will feel less attachment to, or sense of belonging for, his or her school. Further, the beliefs of one's family will influence the child to hold the same or similar beliefs. If a family is indifferent about whether the child persists or drops out of school, then the child may be less likely to feel attached to school or may not have the motivation or support to finish school.

Models Explaining the Decision to Drop Out

According to Finn (1989), there are two models that explain how a child comes to the decision of dropping out of school. The first model is called the *frustration-self-esteem model*, and it asserts that a child's school failure is a cycle that begins in early grades as the child rejects aspects of, or is rejected by, the school (Finn, 1989). This rejection can be in the form of failing grades, for example. The second model, and the more applicable one for this study, is called the *participation-identification model*, and it asserts that in order to maximize the number of school years the child completes, the child should be involved in multiple school-related activities (Finn, 1989). The more activities the child is enrolled in, the more he or she feels attached to the school and thus, the more likely he or she is to persist in school. If a child fails to become a participant in school-related activities, the consequences are deleterious (e.g., he or she may drop out of school). Figure 1.1 illustrates the *participation-identification model* suggested by Finn (1989).



Finn (1989) further elaborated that there are three levels of engagement that harbor school belongingness. Level 1 represents the student’s adoption of the school and classroom rules (Finn, 1989). In level 1, for example, the student would arrive to class on time, listen to the teacher’s requests, etc. A failure of level 1 acquisition is evident in a display of disruptive behaviors including inattentiveness and work refusal (Finn, 1989). Level 2 represents the student taking the initiative to ask questions or have dialogue with the teacher, doing extra work, and seeking help when needed. Level 3 represents the student being involved in extracurricular activities such as athletic teams and social events. These levels of engagements suggest, therefore, that the higher a student’s level of engagement, the more school belongingness is likely to be felt.

School Belongingness and Dropping out of School

There has been little research examining the relationship between school belongingness and dropping out of school, but there are some suggestions based on previous research that such a relationship exists. For example, in a study of junior high, urban students, Goodenow (1992) found that “...even when controlling for the impact of the immediate peer group’s values, a student’s subjective sense of belonging appears to

have a significant impact on measures of motivation and engaged and persistent effort in difficult academic work” (p. 13-14). If a student fails to persist once work becomes difficult, he or she is more likely to drop out. Therefore, it appears that there is research supporting a relationship between school belongingness and dropping out. However, more recent research is needed to verify if this relationship continues once the student enters high school because Goodenow’s (1992) study focused on junior high students.

Bryk & Thum (1989) examined the 1980 High School and Beyond (HSB) database. Bryk & Thum (1989) found that the presence of an orderly environment, a committed faculty, and an emphasis on engagement in academics resulted in a lower probability of dropping out of school for disadvantaged and youth at-risk. Arhar & Komrey (1993) have supported this statement asserting within their article that, “...a major factor related to poor school performance and early school leaving is the lack of connectedness experienced by students between students and their school...” (p.2).

In her book, *Framing Dropouts*, Fine (1991) also reported a direct link between a student’s sense of belonging and dropping out. However, her research was based upon narrative field notes; unstructured and semi-structured interviews with current students; retrospective, unstructured and semi-structured interviews with dropouts; and case studies. More data-driven research is needed to support Fine’s (1991) conclusions.

Quantitative research by Pittman (1991) indirectly investigated the relationship between dropping out and school belonging. Pittman’s data came from responses to the National Center for Educational Statistics’ High School and Beyond (HSB) study wherein 25,000 graduates and 2,500 dropouts were surveyed. Pittman’s (1991) research found the relationship between public high school students’ sense of *social* belonging and

the decision to drop out as not significant. The sense of social belonging was defined as the student's perception of his or her popularity, as well as the student's perception of how others view him or her (Pittman, 1991). Several factors had the following statistically significant correlations with the decision to drop out: utility (-.04); grades (-.18); frequency of changing schools (.17); interest in school (-.25), sports (-.09), school climate (-.05); and participation in nonsport activity (.07).

There are several limitations, however, to Pittman's (1991) research. One limitation includes the procedure for matching students who graduated and dropouts. He explained that the "matching procedure" created a sample of 1,114 dropouts and 1,114 graduates, but that the final sample included 263 dropouts and 263 graduates. In the report of this research, however, there is no discussion or explanation as to why some students were eliminated. Likewise, there is no discussion or explanation as to why some students were eliminated from the final sample or why the final sample included only 526 participants.

Another limitation of Pittman's study related to the purpose of Pittman's research. Pittman wanted to investigate whether enrollment in vocational courses or personal and social characteristics had more of an impact on whether or not a student stayed in school. Pittman (1991) found that participation in the vocational courses was not related to the student's persistence in school. Students who choose vocational programs while in high school may be fundamentally different than students who do not choose to participate in these programs. Because of this, the results of Pittman's research may not generalize to all high school students.

Yet another limitation of Pittman's (1991) study is that his data included participants only from urban high schools. Perhaps a different result would be found among rural high school youth. As previous researchers have suggested (e.g., Cotton, 1996), students from small schools may have more feelings of connectedness to their schools than those from large schools. More current research is needed in this area in order to better understand this relationship.

The most critical limitation of Pittman's (1991) research however, is that variables that collectively make up what is considered to be school belongingness today were examined individually (e.g., sense of *social* belonging, interest in school, grades, peers' interest in school, frequency of changing schools, etc.), but the relationship of school belonging and dropping out was not examined directly. Based upon Pittman's findings, there appears to be shared variance between these individual variables, suggesting that perhaps they make up one factor – possibly relating to school belongingness as a whole—that contributes to the decision to drop out of school. Based on this possibility and other limitations of Pittman's research, current research is needed in order to further understand the relationship between school belongingness and dropping out.

Summary

Current research investigating the relationship between high school students' sense of school belonging and dropping out is lacking. Several theories have been developed to explain why a student comes to drop out of school and how a student feels more or less a sense of belonging to his or her school. These theories include self-determination theory, social control theory, and family systems theory. Finn (1989) also

put forth two models (i.e., the *frustration-self-esteem model* and the *participation-identification model*) to explain mechanisms underlying both dropping out of school and a sense of school belonging. There is some research supporting the notion that these constructs are directly related, but the extant research is minimal, not current, and limited to urban youth. Based on Raywid (1996) and Cotton's (1996) research, urban youth and rural youth may differ in feelings of belongingness based on the size of their schools (i.e., smaller schools may offer more inherent benefits related to a sense of belongingness when compared to larger schools). Rural schools typically fit the parameters of what is considered to be a small school. Therefore, more research is substantially needed to ensure that rural youth are not left out when examining the relationship between sense of school belongingness and dropping out.

The Present Study

There is limited recent research examining the relationship between school belongingness and dropping out at the high school level. The background characteristics of student participants, for instance, have been limited. Ma (2003) looked at 6th and 8th graders from a rural, Canadian setting. Goodenow (1992) examined students in junior high grades in an urban, American setting. Pittman (1991) studied urban, high school students who were enrolled in vocational courses. The present study examined the relationship between school drop out rates and schools' student body's rating of school belongingness in students from several rural counties in a Midwestern state.

Hypothesis

Based on previous research investigating the relationship between school belongingness and drop out rates (e.g., Goodenow, 1992) and investigations of school

belongingness with students who attend small schools (e.g., Cawelti, 1995; Cotton, 1996; Raywid, 1996), the hypothesis for the present study was that rural students' ratings of school belongingness would be inversely related to drop out rates for their schools.

Research Questions

The present research will address the following questions. Does school belongingness relate to drop out rates? If so, what is the direction of this relationship?

Method

Participants

Participants included 4,834 high school students from 9th through 12th grade. The sample included 1,302 ninth-grade students; 1,336 tenth-grade students; 1,098 eleventh-grade students, 1,041 twelfth-grade students, and 57 who did not report their grade level. The participants ranged in age from 12 to 18 years and over. The sample population was from a Midwestern state and included students from 24 high schools in seven rural counties. The participants were recruited through a program carried out in public schools entitled *I Sing the Body Electric*, whose goal is to prevent risky health behaviors in teens. Parental consent was obtained for participants under the age of 18. Participation was voluntary, with the understanding that all information provided would be kept confidential.

Materials

Each student completed questions on the Youth Risk Behavior Survey (YRBS) for A Midwestern state to evaluate his or her subjective sense of school belongingness. The YRBS for A Midwestern state was adapted from the Youth Risk Behavior Survey (YRBS) developed by the Center for Disease Control for the Department of Health and

Human Services (Harrison, Dust, & Hillard, 2010). According to the Centers for Disease Control and Prevention (2010), the YRBS monitors priority health risk behaviors which contribute to the leading causes of social and health problems among youth and adults in the United States. Sample questions included: (a) "How much do you think people risk harming themselves (physically or in other ways), if they take cocaine occasionally?" Response choices for this question included: "no risk", "slight risk", "moderate risk", "great risk", and "can't say, drug unfamiliar"; and (b) "What are the chances you would be seen as 'cool' if you smoked cigarettes?" Response choices for this question included: "no chance or very little chance", "little chance", "some chance", "pretty good chance", and "very good chance."

For the present study, five questions from the *I Sing Body Electric's* YRBS were examined. One question directly related to school belongingness. The question was: "Do you agree or disagree that you feel a sense of belonging to this school?" Response options for this question included: "strongly agree", "agree", "not sure", "disagree", and "strongly disagree." Additional items from *I Sing Body Electric's* YRBS which previous researchers have suggested as related to school belongingness and dropping out of school were also investigated. These items included: "How often do your parents (step-parents or guardians) work with you when you need help with your homework?" with response options of: "never, rarely, sometimes, & often"; "During the past 12 months, how would you describe your grades in school?" with response options of: "not sure", "none of these grades", "mostly Fs", "mostly Ds", "mostly Cs", "mostly Bs", and "mostly As"; "How interesting are most of your courses to you?" with response options of: "very dull", "slightly dull", "fairly interesting", "quite interesting", and "very interesting &

stimulating; and “Thinking over this school year, how often did you enjoy being in school?” with responses options of: “never enjoyed school”, “seldom enjoyed it”, “sometimes enjoyed it”, “often enjoyed it”, and “almost always enjoyed it.”

Reliability & Validity of the Youth Risk Behavior Survey. Brener, Kann, McManus, Kinchen, Sundberg, and Ross (2002) conducted an independent study on the reliability of the 1999 Youth Risk Behavior Survey (YRBS) Questionnaire and found that overall students were reliably reporting health risk behaviors, with a kappa range of 23.6%-90.5%. The Centers for Disease Control and Prevention (2004) described the reliability as “approximately three fourths of the items were rated as having a substantial or higher reliability,” with a kappa of 60% -100% (p. 7). No validity estimates were given (Centers for Disease Control and Prevention, 2004). No more recent reliability or validity estimates are available.

I Sing the Body Electric. For the present study, YRBS data were collected in 2010 by a local agency that conducts the *I Sing the Body Electric* program. The *I Sing the Body Electric* program utilizes the arts in an attempt to connect adolescents to common health concerns. There were three sequential phases for the *I Sing Body Electric* program.

Phase One. The *I Sing Body Electric* coalition collected data about adolescent health concerns from East Central-Illinois county high schools via the Youth Risk Behavior Survey (YRBS). Permission was obtained from teachers and school officials to allow the *I Sing the Body Electric* agency representatives to enter the cooperating schools’ classrooms and administer the surveys. Consent forms were sent home to all of the students’ parents. Participants who returned consent forms took the time to complete the survey in group sessions during class periods, study periods, or lunchtime.

Participants were asked to provide their age, grade, and gender on the survey form in order to ensure they were applicable to the study, but all participants remained anonymous. The entire survey consisted of 148 questions, and took approximately 30 minutes to complete. The questions on school belongingness were included in the 148 questions students answered. The *Body Electric* coalition conducts this data collection on a biennial basis. Data for the present study was collected from phase one in 2010.

Phase Two. The *I Sing Body Electric* representatives worked with area youth to develop art and other creative projects related to the identified health concerns. At the end of the year, these artworks and projects were displayed via the Body Electric Arts & Health Festival.

Phase Three. The *I Sing Body Electric* take the artworks and projects on a “tour” to schools, communities, and parents (in the workplace). Involved students also create messages based upon the identified health issues. These messages are broadcast via the local university radio station and local Public Broadcasting Service (PBS) affiliate.

Procedure

For the present study, permission was first sought and granted from *I Sing the Body Electric* to use data collected in 2010. Responses to the question on school belongingness (“Do you agree or disagree that you feel a sense of belonging to this school?”) were coded as the following: 1 = “strongly disagree”, 2 = “disagree”, 3 = “not sure”, 4 = “agree”, and 5 = “strongly agree.” An average belongingness score for each school (i.e., the 22 high schools) was calculated. There was one mean belongingness score for each school. The other questions from the *I Sing Body Electric*’s YRBS of interest to this study included, and were coded, as follows: “How often do your parents

(step-parents or guardians) work with you when you need help with your homework?” with responses coded as: 1 = “never”, 2 = “rarely”, 3 = “sometimes”, and 4 = “often”; “During the past 12 months, how would you describe your grades in school?” with responses coded as: 1 = “not sure”, 2 = “none of these grades”, 3 = “mostly Fs”, 4 = “mostly Ds”, 5 = “mostly Cs”, 6 = “mostly Bs”, and 7 = “mostly As”; “How interesting are most of your courses to you?” with responses coded as: 1 = “very dull”, 2 = “slightly dull”, 3 = “fairly interesting”, 4 = “quite interesting”, and 5 = “very interesting & stimulating; and “Thinking over this school year, how often did you enjoy being in school?” with responses coded as: 1 = “never enjoyed school”, 2 = “seldom enjoyed it”, 3 = “sometimes enjoyed it”, 4 = “often enjoyed it”, and 5 = “almost always enjoyed it.”

Next, the drop out rates for each high school surveyed by *I Sing the Body Electric* were obtained from administrators at the *I Sing Body Electric*. The drop out rates were converted to decimal form for analyses (e.g., drop out rate of 1.7% was converted to .017).

Results

The relationship between drop out rates and students’ ratings of school belongingness was investigated in this research study. Although data were collected from 24 schools, two school organizations were omitted from the data analysis. These two schools were alternative high school programs that glean students from multiple high school buildings in multiple counties. These two schools’ data were omitted from the present analyses because it was not possible to identify each student’s home school district or their school’s drop out rate. As a result of the exclusion of these two alternative high school programs, responses to the YBRS were examined from a total of 22 high

schools. The final total of student participants was 4,711. A table of the mean ratings of the variables measured for each school is presented in Table 1.

Table 1

Mean Ratings of Variables Measured (Standard deviation in parenthesis)

School	School Belongingness	Parent Help with Homework	Grades	Interest In Courses	Enjoyment of School	Drop Out Rate
1	3.71 (1.00)	2.53 (1.20)	5.78 (1.59)	3.28 (1.01)	3.42 (.99)	0.3%
2	3.70 (1.11)	2.55 (1.07)	5.79 (1.19)	2.78 (.92)	3.09 (.98)	0.9%
3	3.73 (1.08)	2.49 (1.15)	6.00 (1.32)	3.09 (1.05)	3.33 (1.16)	0.6%
4	3.63 (1.18)	2.51 (1.14)	5.71 (1.41)	2.92 (.91)	3.08 (1.06)	1.7%
5	3.49 (1.09)	2.45 (1.16)	5.68 (1.55)	2.73 (1.03)	3.04 (1.03)	3.3%
6	3.82 (1.06)	2.73 (1.19)	6.15 (1.22)	3.24 (.95)	3.61 (.97)	3.1%
7	3.76 (1.07)	2.69 (1.12)	5.21 (1.81)	2.82 (.99)	3.08 (1.04)	0.7%
8	4.00 (.84)	2.71 (1.01)	5.63 (1.66)	2.97 (1.11)	3.41 (1.16)	0.9%
9	3.69 (.89)	2.58 (1.07)	5.53 (1.53)	2.66 (.88)	2.87 (1.05)	2.3%
10	3.55 (1.20)	2.33 (1.16)	5.75 (1.42)	2.94 (1.15)	2.90 (1.26)	1.6%
11	3.87 (1.00)	2.47 (1.12)	5.93 (1.27)	2.81 (1.00)	3.10 (1.08)	2.4%
12	3.34 (1.16)	2.26 (1.16)	5.81 (1.51)	2.92 (1.12)	2.85 (1.16)	2.7%
13	3.68 (1.05)	2.33 (1.01)	6.21 (.94)	3.05 (.91)	3.29 (1.04)	2.0%
14	3.56 (1.05)	2.33 (1.14)	5.55 (1.54)	2.68 (1.04)	2.88 (.94)	2.9%
15	3.55 (.99)	2.48 (1.16)	5.45 (1.49)	2.94 (.96)	3.06 (1.08)	4.6%
16	3.86 (.88)	2.70 (1.15)	5.82 (1.53)	3.15 (.99)	3.34 (.98)	2.0%
17	3.70 (1.14)	2.44 (1.19)	5.72 (1.43)	3.04 (.94)	3.14 (1.07)	2.7%
18	3.38 (1.21)	2.24 (1.16)	5.85 (1.53)	2.70 (1.06)	2.86 (1.07)	0.0%
19	3.64 (1.05)	2.37 (1.11)	5.66 (1.49)	2.87 (1.04)	2.97 (1.14)	1.1%
20	3.77 (1.05)	2.67 (1.14)	6.13 (1.17)	3.03 (.92)	3.28 (1.01)	2.1%
21	3.74 (1.09)	2.37 (1.18)	5.85 (1.34)	2.91 (1.00)	3.00 (1.06)	2.1%
22	3.47 (1.17)	2.84 (1.19)	5.73 (1.58)	2.94 (1.01)	3.24 (1.04)	0.6%
Overall	3.67 (.16)**	2.50 (.17)*	5.77 (.23)***	2.93 (.17)**	3.13 (.21)**	1.8%(.01)

Note: * Scale of 1 to 4.
 ** Scale of 1 to 5.
 *** Scale of 1 to 7.

School Belongingness and Drop Out Rates

A correlation matrix examining high school students' ratings on the various constructs measured and drop out rates is presented in Table 2. No significant relationship was found between any measure of school belongingness and school drop out rates. The correlation between high school students' ratings of school belongingness ($M = 3.67$, $SD = .16$) and the percentage of high school drop outs for each school ($M = 1.8\%$, $SD = .01$) was nonsignificant at an alpha level of .01 ($r = -.08$, $p = .36$). Inspection of Table 2 also indicates that other indirect measures of school belongingness, including parents' help with homework ($r = -.14$, $p = .27$), and grades ($r = -.03$, $p = .45$) did not correlate significantly with drop out rates. Further, interest in courses ($r = -.06$, $p = .40$) and enjoyment of school ($r = -.12$, $p = .30$) were not significantly related to drop out rates.

Table 2

Correlation Matrix

Variables	1	2	3	4	5	6
1. School Belongingness						
2. Parent Help with Homework	.54*					
3. Grades	.15	-.08				
4. Interest in Courses	.39	.34	.49			
5. Enjoyment of School	.64*	.66*	.46	.82*		
6. Drop out Rate	-.08	-.14	-.03	-.06	-.12	

Note. $N = 22$ schools. * = $p < .01$.

Relationships Between Other Variables

Although drop out rates did not correlate significantly with any other variable, there were some other significant relationships found between several of the other variables. At an alpha level of .01, four significant correlations (one-tailed) were found between the following variables: school belongingness & parents helping with homework

($r=.54, p=.005$); school belongingness & students' rating of enjoying school ($r = .64, p = .001$); parent help with homework & students' rating of enjoying school ($r = .66, p = .000$); and students' ratings of interest in school courses & students' ratings of enjoying school ($r = .82, p = .000$). These results suggest that students' school belongingness increases as the frequency of parent(s) helping the student with homework increases and enjoyment for school increases, and vice versa. These significant relationships between reports of school belongingness and both parental help with homework and enjoyment of school indicate that these may not be independent constructs. It is not surprising, therefore, that if one of these variables (i.e., school belongingness) did not correlate with drop out rates, neither would the other variables (i.e., parental help with homework and enjoyment of school). The significant findings for the present research also indicate that enjoyment for school increases as the frequency of parent(s) helping the student with homework increases and when students are interested in their courses, and vice versa.

Discussion

The purpose of this study was to update and contribute to the extant, yet minimal, research on the direct relationship between school belongingness and dropping out. In the present study, no significant relationship was found between various measures of school belongingness and drop out rates for high schools in a Midwestern state. In fact, drop out rates did not correlate significantly with any of the variables measured. Four significant relationships were, however, found among several of the constructs investigated. These included correlations between (1) school belongingness and parental help with homework; (2) school belongingness and enjoyment of school; (3) enjoyment of school

and parent help with homework; and (4) enjoyment of school and interest in school courses. Potential explanations for the present study's findings are discussed next.

Previous researchers have also been divided on whether or not school belongingness relates to dropping out of school. On the one hand, Goodenow's (1992) research found a significant relationship between sense of belonging and persistent effort among junior high school students and suggested a relationship may be present between belongingness and drop out rates. On the other hand, other researchers have reported the relationship between school belongingness and the decision to drop out of school as not simple or direct because of other potential influences on the decision to drop out, including the student's family, peers, community, and state characteristics (McNeal, 1997). Finn & Rock (1997) also suggested that no one factor is responsible for dropping out of school and discussed the importance of multiple influences on the decision to drop out of school. They argued that a student's behaviors do not occur independently of larger contexts (e.g., families, peers, etc.). Although the present research did examine multiple variables associated with school belongingness, this study did not simultaneously consider multiple influences or measures on the decision to drop out. In fact, only the drop out rate for each school was measured and students were not asked directly whether or not they have (or ever have) considered dropping out of school. Additionally, in order to complete the YBRS, a student had to be enrolled in school. No information on school belongingness was collected from those students who already have dropped out of school. More research is needed, therefore, to better understand the relationship between a sense of school belongingness and the decision to drop out of school.

Another possibility for the lack of significant findings in the present research relates to the types of schools sampled. Cawelti's (1995) research supported the relationship between small schools and school belongingness. Raywid (1996) also suggested that small schools harbor inherent benefits, including better attendance and retention. All participants of the present study were students in small rural high schools and the ratings of school belongingness were fairly consistent across the 22 participating schools. Additionally, the majority of schools reported a drop out that was substantially below the state average of 4%. Because of this lack of variability for both the ratings of school belongingness and drop out rates, it is not surprising that school belongingness was not found to have a significant relationship with drop out rates.

One source of this lack of variability in ratings of school belongingness in the present study may be related to the response choices for questions on the YRBS. For instance, the question on the YRBS that directly asked about sense of belonging to the school included a middle choice option of "not sure," which was scored 3 in the present study. Most of the schools had a mean score between 3 and 4 for this item. If this "not sure" option was eliminated and students were forced to state whether they agreed or disagreed about experiencing a sense of belonging to their school, the mean scores may have been different and more meaningful. More research is needed to explore this possibility.

Additionally, Finn's (1989) *frustration-self-esteem* model for explaining the dropout decision suggests that factors which influence dropping out of school begin in early grades. The present study employed participants from high schools only, and perhaps analyzing these older individuals is "too late in the game." Future research could

investigate younger children in earlier grades to look for a relationship between school belongingness and considering dropping out of school.

Based on previous research and various theoretical models, it is not surprising that the relationships between students' level of school enjoyment and each of the following variables were significant: school belongingness, parent help with homework, and interest in school courses. Self-determination theory suggests that students engage in activities that are interesting to them, are related to their lives, and confirm their capabilities (Hardre & Reeve, 2003). Ryan & Deci (2001) elaborated upon self-determination theory, suggesting that students identify with, and have a sense of belonging to school environments when these environments coincide with their belief systems. Based upon the ideas behind this theory, enjoyment should increase as interest in one's activities increases; enjoyment should increase as tasks become related to the student's life (e.g., parents at home becoming involved and helping with homework); and belongingness should increase as the individual's capabilities are confirmed. Self-determination theory provides, therefore, a useful explanation for the significant findings in the present research.

The significant correlation between school enjoyment and parent help with homework found in the present study is arguably also supported in previous research. According to family systems theory, for example, the child comes to view school in the same way as his or her parents (Rita & Adejanju, 1997). When parents work with their children on their homework, the student will come to value the work and effort in the same way their parent does. Self-determination theory suggests that exerting energy into an activity increases the likelihood that one will enjoy said activity and seek out this

activity (Hardre & Reeve, 2003; Ryan & Deci, 2000). Thus, the student will likely enjoy and value the time spent with his or her parents while working on homework. This enjoyment will likely generalize to enjoying school in general (i.e., the source of the homework activity).

Finn (1989) suggested that parents are the largest influential force on students' decisions to stay in school. In the present study, however, no significant relationship was found between parental assistance with homework and school drop out rate. The participants in the present research were all enrolled in school; we do not know how students from these schools who have already dropped out would rate the level of their parents' assistance with homework. As suggested by Rita & Adejanju (1997) more research is needed to understand this relationship between parental influence and dropping out of school.

Pittman's (1991) research found that four variables (i.e., student's grades, level of interest in school, peers' interest in school, and students experience with changing schools since the fifth grade) were highly related to the drop out decision. Based on Pittman's findings, it is surprising that grades and interest in courses did not have a significant relationship with drop out rates in the present study. However, Pittman (1991) utilized participants who were enrolled in vocational courses only, so the results may not generalize to students who are not enrolled in similar courses. As with parental assistance with homework, it is also not known how students who have already made the decision to drop out of school would have reported their grades and interest in school because only students still enrolled in school were sampled in the present study.

Limitations

There are several limitations to the present study. One relates to reliability and validity of the scale used to collect data. The CDC created the Youth Behavior Risk Survey (YBRS), and the YBRS' reliability has been verified by research (e.g., Brener, et al., 2002; CDC, 2004). *I Sing Body Electric* program, however, adapted the YBRS survey and how these adaptations may have affected the scales' reliability is unknown. Furthermore, there has been no validity study of the YBRS reported in the research literature. These unanswered questions associated with reliability and validity of the scale used to collect data in the present research study are limitations that must be kept in mind when considering the research findings.

Secondly, another limitation of this study is the small number of items pulled from the adapted YBRS to measure school belongingness. The small number of items used for analyses may have decreased the reliability of the construct measured. Additionally, the analysis was limited to the questions contained in the YBRS. More or different questions could have been considered in an investigation of school belongingness and drop out rates. For example, students could be asked if they had ever seriously considered dropping out of school. How more or differently worded items may have influenced the results is also unknown.

Another limitation of this study is that the ratings were based on students' self-reports. Results from self-report measures should be interpreted with caution because the participants may rate themselves in a more favorable or unfavorable way than what reflects reality. Therefore, the ratings reported may not reflect the student's actual experiences. Additionally, the survey contained over 100 questions and its length could

have resulted in the high school students not considering all of the questions seriously because they viewed it as a tedious task.

Finally, concerns about generalization of the results of this study are another limitation of the present research study. Results are specific to seven counties in the central Illinois area. How well the results generalize to high school students in other areas of Illinois or the rest of the country is unknown.

Implications

Despite these limitations and the fact that the relationship between measures of school belongingness and schools' drop out rates was not supported in the present research, several variables, including interest in coursework and parental help with homework were found to correlate significantly with high school students' reports of enjoying school. School belongingness was also found to correlate significantly with parents' help with homework. These results add to the previous research that supports the important influence parents have on their children's attitudes about school (e.g., Finn, 1989; Liska & Reed, 1985; Rita & Adejanju, 1997) and suggests that encouraging and supporting parents' involvement in their children's schoolwork may be beneficial to students' interest in school. Results from the present study revealed that grades did not correlate significantly with enjoyment of school, but interest in coursework did—implying that success in school is not necessarily related to enjoyment of school. An important implication here is if assignments, reading materials, topics, activities, etc., are selected because they may be of interest to today's high school students, the students are likely to report more enjoyment with school. It is important to keep in mind, however, that the results of the present research are correlational. Increasing the value of one

variable only increases the probability of increasing the value of another variable, and decreasing the value of one variable is related to a reduction in the value of another. Also, it is always possible that some third variable is responsible for any significant finding. Cause and effect relationships, therefore, can not be assumed between parental behavior and a child's attitudes about school. Future experimental research is needed to explore the possibilities of cause and effect for variables associated with enjoyment of school and school belongingness.

Conclusion

In conclusion, a significant relationship between measures of school belongingness and schools' drop out rates were not found in the present research. Whether this lack of significant findings is due to characteristics of the participants sampled or other limitations of the research is unknown. Continued research on factors that may be related to dropping out of school, however, is important and needed. Not only is there a lack of research in the extant literature base examining the relationship between these constructs (i.e., school belongingness and dropping out), but the representation of rural youth in such studies is minimal at best. High school graduates continue to earn more money per year than those who drop out. Good high school retention rates are not only essential for increasing the number of working, contributing members in American society, but also for improving individuals' quality of life.

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