Examining the Relationship Between Participation in Extracurricular Activities and School Connectedness

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Abstract

A disconcerting number of alternative education students appear to be disconnected with school. The author of the present study hypothesized that students who spend more time in extracurricular activities have an increased sense of school connectedness. The sample consisted of 72 alternative education students in Grades 9 through 12 attending the Vast Education Centre in Port Alberni, British Columbia. Participants completed a questionnaire that produced two scores: reported degree of school connectedness and time spent in extracurricular activities per month. A correlational study was conducted to determine the strength of the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness. The results of the study indicated a moderate positive relationship, indicating that as extracurricular participation increased so did school connectedness. The results bring to light a critical need for the inclusion of extracurricular activities in alternative education programming to promote school connectedness.
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Chapter 1: Problem to be Investigated

Purpose of the Study

The problem investigated in the present study was the lack of school connectedness in alternative schools. An alarming number of alternative education students appear to be disconnected with school, engaging in health-compromising behaviors, and lacking in home support. Although a number of potentially malleable factors affecting school connectedness have been recognized (cigarette use, violence, substance abuse, early sexual initiation, school nurse visits, declining health status) (Bonny, Britto, Klostermann, Hornung & Slap, 2000), student participation in extracurricular activities is often cited as the primary way in which to facilitate a connection or attachment to school (Finn, 1989). Despite this, many alternative education programs do not offer their students an opportunity to engage in extracurricular activities.

Students require attachments and connections for positive adolescent development (Whitlock, 2004). If families and schools are unable to meet the developmental needs of youth they become at risk for health compromising behaviors and are unable to make a safe transition into adulthood. The purpose of the study was to provide an increased understanding of the issue of school connectedness and the positive role that extracurricular participation can have in addressing the problem. This study could also provide a rationale for the inclusion of extracurricular activities in alternative education programming.

Justification of the Study

Schools have a mandate and responsibility for the social-emotional and academic development of children and adolescents (Elias et al., 1997). Students who feel cared for individually and who feel that they belong to their school are more likely to succeed (Blum,
The sense of belonging and acceptance in a school environment, best defined as school connectedness, is a powerful predictor of various behavior, health and academic outcomes (Bonny et al., 2000; Klem & Connell, 2004). As a growing number of students become disconnected with school due to a plethora of factors (Klem & Connell, 2004), participation in extracurricular activities provides a critical means to engage students and increase school connectedness (Gilman, Meyers, & Perez, 2004). The power of school connectedness is of particular importance for alternative education students who are more likely to be disengaged with school, at risk of health compromising behaviors and lacking other sources of support (Darling, Caldwell & Smith, 2005).

Many educators are continually campaigning for students to engage in learning; however, students are becoming more disengaged as they progress in school. Research points out that between 40% to 60% of high school students are chronically disengaged, not taking into consideration those who have already dropped out (Klem & Connell, 2004). This is reiterated in the McCreary Centre’s Review of Alternative Education Programs in British Columbia (BC) which states that 59% of students polled disliked their previous school (McCreary Centre Society, 2008). A report by the Provincial Health Officer of British Columbia stated that only 12% of BC students in Grades 11 and 12, felt a strong connectedness to their school, while only 23% reported connectedness in Grade 7 (Ministry of Health Planning, 2003). It is also of concern that disengagement is disproportionately experienced by students living in poverty, students with disabilities and students from Aboriginal communities (Willms, Friesen, & Milton, 2009). These statistics are alarming considering the general consensus of educators and health practitioners recognizing school connectedness as an important factor in reducing health compromising behaviors and increasing academic success. Therefore, the challenge facing educators is how to
connect with students, how to keep them connected and how to re-connect disconnected students.

School connectedness provides an ideal opportunity for attachment to develop with adults. These attachments can lead to an increase in positive developmental experiences, a decrease in negative developmental experiences and buffer the effects of risk (Catalano, Haggerty, Oesterle, Fleming & Hawkins, 2004). Therefore, school connectedness appears to promote healthy development and reduce negative behaviors (Catalano et al.). Unfortunately, some current research reveals that youth do not generally feel supported or connected to their schools (Whitlock, 2004). This detachment from school and other adults is unnatural and alarming in terms of adolescent developmental theory. As youth age it is developmentally appropriate for them to detach from their families. However, this detachment from family should coincide with attachment to community, school and other supportive adults. If youth are not connecting to school and other adults, they lack the guidance and resources to transition into adulthood (Whitlock, 2004).

Evidence suggests that extracurricular participation has the potential to promote mental health among all youth, but particularly those considered at risk for negative interpersonal and academic outcomes (Mahoney & Stattin, 2000; Gilman et al., 2004). Therefore, encouraging youth in an alternative education setting, who are at a statistically greater risk of manifesting negative interpersonal and academic outcomes, to participate in extracurricular activity should be of high priority (McCreary Centre Society, 2008). Gillman and Perez (2004) suggest that:

getting at-risk teens involved in a structured activity of their choice, under the influence of positive social networks and competent adults, may lead to
demonstrable positive outcomes...including high self-esteem and life satisfaction, engagement with school, social competence, improved school performance and graduation. (p. 37)

The relationship between school connectedness and extracurricular involvement is predictive of many positive outcomes (Larson, 2000). Generally, extracurricular activities are known to increase student engagement with school, promote interaction with non-parental adults, encourage pro-social behaviors, and develop personal strength and school connectedness (Gilman et al., 2004).

Research Question and Hypothesis

The following research question was proposed for the present study: How strong is the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness for Grade 9 to 12 students at an off-site alternative school?

The hypothesis of the author of the present study proposed that students who spend more time in extracurricular activities have an increased sense of school connectedness.

Definition of Terms

The following definitions will be pertinent to the present study:

Extracurricular activities are activities that are voluntary, interactive, structured, and organized by school staff outside the regular academic curriculum. Activities require active participation by the student.
School connectedness is the belief by students that adults in the school care about them and provide positive support. It includes the sense of belonging that a student feels with their school environment.

An off-site alternative school is an alternative to the regular school setting. The program is its own entity and not attached to a traditional school. The school operates as a self-paced flexible model for students who do not fit the regular school system for a variety of reasons. The academic courses adhere to the Ministry of Education curriculum. Teacher to student ratio is lower than a traditional school. The school offers additional support and resources for students having academic and personal issues. Alternative education schools are funded by the provincial government.

**Brief Overview of Study**

The present study investigated the degree of the relationship between the amount of extracurricular participation and the reported sense of school connectedness. Participants completed a questionnaire (Appendix A & B) which addressed their reported sense of school connectedness and amount of extracurricular activity participation per month. The subjects’ scores on the two variables were analyzed, without manipulation of either variable, to determine the degree of the relationship.
Chapter 2: Background and Review of Related Literature

In focusing on school-based interventions for the highest health risk students, Bonny et al. (2000) tried to identify potentially malleable factors capable of differentiating youth who do and do not feel connected to their school. Students were asked to complete an in-school survey. A school connectedness score (SCS) was derived from the survey questions. The authors evaluated the association between the SCS and 13 self-reported variables (Bonny et al.).

Bonny et al.’s (2000) study population consisted of students in Grade 7 through 12 from 8 public (urban or suburban) high schools in the United States. Of the 1959 subjects in the study sample, 55% were female and 45% were male. The racial composition of the subjects was primarily “white (61%) and black (33%)” (Bonny et al., p. 1018).

The focus of Bonny et al.’s (2000) study was to identify personal characteristics of students who do and do not feel connected to their schools. The authors found significant associations between school connectedness and several modifiable factors including extracurricular involvement, alcohol and cigarette use, perceived health status, and frequency of school nurse visits (Bonny et al.). Lower levels of school connectedness were found among students who reported lower parental education, age-grade synchrony, or urban school type (Bonny et al.). Gender and race differences were also noted with boys feeling more connected to school than girls, and “white students feeling more connected than black students” (Bonny et al., p. 1019).

Characteristics of the subject population need to be considered when evaluating the results of Bonny et al.’s (2000) study. The findings of Bonny et al. lack generalizability as the subject population is not representative of many other areas due to such factors as race, cultural
identity, geography, and school type differences. There were several concerns with the administration and data collection in this study. The survey contained 106 questions with the SCS related questions found near the end. Students with lower school connectedness, motivation or reading ability would have more difficulty completing the survey. Of the 4534 eligible subjects only 1959 students completed usable surveys. Absent students would be proportionally less connected to school and therefore would have altered the study findings. The schools in the study were chosen for their high rates of adverse outcomes including school failure, child abuse, and teen pregnancy. The survey was also administered at the end of the first year of a three year school based intervention program.

McNeely, Nonnemaker, and Blum (2002) examined the association between school connectedness and school environment. The authors analyzed data from a national representative sample of students in Grade 7 through to 12 to evaluate the relationship between school connectedness and several attributes of schools (demographics, teacher qualification, discipline policies, structural characteristics, classroom management, and participation in extracurricular activities) thought to be positively linked to adolescent development (McNeely et al.).

Data for McNeely et al.’s (2000) study came from Bearman, Jones and Udry’s (1997) National Longitudinal Study of Adolescent Health (Add Health). The National Longitudinal Study of Adolescent Health (Add Health) was originally designed to examine how social contexts influence teens’ health and risk behaviors. Add Health used a sample of 80 high schools and 52 middle schools from the United States, selected with probability proportional to size. Systematic sampling methods and stratification ensured that the sample was representative of American schools with respect to region, school type, school size, and ethnicity. The final sample was comprised of 71, 515 students in 127 schools. During the 1994-1995 school year, a
survey was administered to all the subjects. School administrators also completed a survey about their respective schools. Add Health supplied school connectedness researchers with a uniquely relevant data set because it provided data on both students’ feelings of school connectedness and school attributes. McNeely et al. constructed school connectedness from positive responses to five statements from Add Health. Response options for each statement used a five point Likert-type scale.

In an attempt to answer the central question of whether school structure and environment are associated with shifts in the average level of school connectedness, McNeely et al. (2000) found that: students’ feelings of school connectedness is lower in schools with difficult classroom management climates; students’ feelings of school connectedness is lower in schools that have strict discipline policies; students in smaller schools feel more attached to school; class size is not associated with school connectedness; school connectedness is relatively high in racially or ethnically segregated schools; and students who participate in extracurricular activities feel more attached to school.

Several limitations of McNeely et al.’s (2000) study are worth noting. First, the outcome variable of school connectedness was constructed with data from only one source (Add Health). The authors developed a student connectedness score using responses to only five questions (McNeely et al.). If additional measures and a more detailed survey were used, other variables or dimensions of school connectedness may have surfaced. Second, the subjects are representative of American norms and do not represent other national populations. Third, 10.9% of the sample was dropped due to missing questions comprising the school connectedness scale. Fourth, the questions used by McNeely et al. were located at the end of the survey.
Involvement in extracurricular activities is particularly vital for at-risk students (Brown & Evans, 2005). These students may benefit the most from an increased sense of school connectivity associated with extracurricular participation (Brown & Evans). Brown and Evans examined extracurricular participation rates among ethnically diverse students. The authors also investigated the relationship between extracurricular participation and school connectedness (Brown & Evans).

Data for Brown and Evans’ (2005) study was drawn from assessments which sampled two California school districts. The 1789 Grade 7 to 12 students, including alternate schools, were chosen to represent a cross section of students from a large metropolitan location. The sample included socioeconomic and ethnically diverse students from urban, inner city, and suburban neighborhoods.

Brown and Evans’ (2005) surveys were completed by participants and measured extracurricular activity participation, school connectedness, demographics, ethnicity, and substance use. The school connectedness component was measured with 16 self-report items. The authors measured extracurricular activity participation by four items: 1) sports activities (playing on an organized team such as hockey or soccer); 2) fine arts activities (participating in such things as dance, music, or band either in or out of school); 3) in-school activities (participating in school activities and clubs like leadership and cheerleading); and 4) out-of-school activities (participating in activities, clubs and organizations like youth groups and 4-H) (Brown & Evans). Participation was calculated as the total number of hours in activities each week.
Brown and Evans (2005) found that students who reported higher levels of extracurricular activity also reported higher levels of school connectedness. This relationship was consistent for various ethnic and background variables. The authors also revealed that ethnic student groups differ considerably in regard to participation in extracurricular activities (Brown & Evans). Therefore, the authors concluded that schools need to create extracurricular programs that are inclusive and target marginalized student groups (Brown & Evans).

Three limitations of the Brown and Evans’ (2005) study should be highlighted. First, the authors failed to reference their standards for participant inclusion in an ethnic group (Brown & Evans). Second, it is quite probable that there are unmeasured factors that influence both extracurricular activity levels and sense of school connectedness. Third, although the study population consisted of diverse students, it sampled a relatively small population in one geographically isolated region. Therefore, the researchers’ conclusions are difficult to generalize.

School connectedness is an important element of development for healthy youth (Faulkner, Adlaf, Irvin, Allison & Dwyer, 2009). Faulkner et al. set out to achieve two objectives in regard to school disconnectedness: first, to replicate previous research in a Canadian context, specifically Bonny et al. (2000), identifying factors that differentiate youth who do not feel connected to their school; second, to investigate whether physical activity was an additional health behavior that distinguished connected students from disconnected.

Data for Faulkner et al.’s (2009) study was based on questionnaires from 2243 Grade 7 to 12 students in Ontario, Canada. The questionnaires were derived from the Ontario Student Drug Use Survey, which was created by the Centre for Addiction and Mental Health (2001). The survey assesses the prevalence of health risk behaviors among Ontario youth. The surveys for
Faulkner et al.’s study were self-administered, anonymous and completed in a classroom under trained data collector supervision. Faulkner et al. measured the following variables: school disconnectedness, vigorous physical activity, involvement in extracurricular activities, substance abuse, perceived academic performance, perceived physical health, and physician visits. The authors also included four socio-demographic variables: age, parental education, sex, and location of school.

Faulkner et al.’s (2009) findings substantiated the results of Bonny et al. (2000). The authors found significant associations between school disconnectedness and several variables. Faulkner et al. found that lower perceived physical health and lack of extracurricular involvement were associated with lower school connectedness. In addition they found that physical inactivity may be an additional risk factor for disconnectedness. The authors found that chances of feeling disconnected from school was greater for female students who perceived their physical health and academic performance as low, reported three or more physician visits during the past year, and had lower extracurricular participation. Also noteworthy, no significant association between school disconnectedness and socio-demographic factors or substance abuse measures was found.

There are several important limitations of Faulkner et al. (2009). First, school connectedness was measured from responses on only three statements. Second, the measure of physical activity only accounted for vigorous physical activity. Third, a number of variables were not assessed that may contribute to school connectedness. Finally, factors regarding the study population should be considered. The majority of students attended an urban school (86.4%). Also, the mean socio-demographic level, measured by parental education, was considerably high.
The main threats to adolescents’ health are the health-risk behaviors and choices they make (Resnick et al., 1997). This reality has inspired an interest in identifying the protective factors, that if present, reduce the chances of negative health and social outcomes. Social contexts, largely family and school, are the most important forces that influence adolescent health-risk behaviour. However, there is a lack of knowledge in regards to how adolescents’ connections to social contexts influence their health-risk behaviours (Resnick et al.). Resnick et al. identified risk and protective factors at the family, home, school and individual levels as they related to emotional health, violence, substance abuse and sexuality.

Data for Resnick et al.’s (1997) study came from Bearman, Jones and Udry’s (1997) National Longitudinal Study of Adolescent Health (Add Health). The participants for Resnick et al.’s study were randomly selected from 90,118 adolescents who had completed the national in-school survey (Add Health). 15,243 adolescents in Grade 7 to 12, stratified by grade and sex, were selected to complete a 90-minute in-home interview. The final sample was comprised of 11,572 adolescents.

Resnick et al. (1997) found that family context, school context and individual characteristics are associated with adolescents’ health-risk behaviours. Specifically, the authors found that perceived school connectedness and parent-family connectedness was protective against all but one health-risk behaviour. The authors also made the following key findings: parental expectations regarding school achievement were associated with lower levels of health risk behaviour; repeating a grade was associated with emotional distress; access to guns in the home was associated with thoughts and attempts of suicide as well as violence; appearing older than classmates was associated with emotional distress, suicidal thoughts, substance abuse, and an earlier age of sexual debut; and access to substances in the home was associated with the use
of cigarettes, alcohol and marijuana. The authors noted that they found consistent evidence that perceived caring and connectedness to others is important to understanding the health and lives of adolescents (Resnick et al.).

Several limitations of Resnick et al.’s (1997) study are noteworthy. First, this was the first study from an expansive data set (Add Health). Second, the study did not incorporate all the data available as the longitudinal in-home and parent data sets were not analyzed. Third, the data from the study is seventeen years old. Lastly, the subject population is American and therefore may not be representative of the Canadian context.

Participating in extracurricular activities is associated with positive development including school achievement and educational attainment (Eccles, Barber, Stone & Hunt, 2003). Eccles et al. summarized the current research linking participation in extracurricular activities to positive youth development. The authors also examined the association of extracurricular activities with educational and health risk outcomes. Finally, the authors explored possible mediating mechanisms of these associations.

Eccles et al. (2003) drew on data from the Michigan Study of Adolescent Life Transitions (MSALT). MSALT is a longitudinal study which commenced in 1983 with a group of Grade 6 students representing ten school districts in southeastern Michigan. The study included approximately 1800 youth and data was collected over eight waves. The final data collection wave was completed in 1996-1997 when the participants were 25-26 years old. Each wave of data collection consisted of an interview which incorporated a number of constructs. The focus of Eccles et al. was on 1259 participants who completed the Grade 10 survey items involving activity involvement.
The authors (Eccles et al., 2003) submitted that youth who participated in pro-social activities in Grade 10 reported less involvement in health risk behaviours during each wave of the following three data collections. Eccles et al. also found that participation in team sports was associated with increased academic performance and school attachment. Furthermore, the authors found that extracurricular activities facilitate positive adolescent development in the areas of social relatedness, competence, identity as a valued member of the school community and relationships with both peers and adults. Finally, the authors concluded that extracurricular activities are a constructive avenue to school attachment and belonging, particularly for youth who do not excel academically.

A couple of limitations with Eccles et al.’s (2003) study are worth citing. A large majority of the sample was middle-class and Caucasian. Also, the study participants were entirely urban and American. Also worth noting, the study does not sufficiently identify or address the specific mechanisms within extracurricular activities that make them work and influence positive adolescent development.

The studies reviewed informed the present study in several ways. The articles substantiated the belief that school connectedness and extracurricular activities are associated with positive youth development. The studies also demonstrated significant associations between school connectedness and extracurricular involvement. The present study addresses a gap in the research which does not establish whether participation in extracurricular activities is associated with school connectedness in alternative education students. The literature reviewed also justified the methods used in the present study. The studies used correlational research to analyze the relationships among variables. For the purposes of this study reported sense of school connectedness and amount of time spent in extracurricular activities were analyzed.
Chapter 3: Procedures & Methods

*Description of the Research Design*

This exploratory study examined the relationship between the reported degree of school connectedness and time spent in extracurricular activities, without attempting to influence either variable. Participants completed one paper-pencil questionnaire which consisted of a survey and self-checklist. The survey (Appendix A) addressed the participants’ perceived level of school connectedness and their amount of monthly extracurricular activity participation. School connectedness scores were measured using an 18 item survey. The survey used an attitude rating scale to measure participants’ agreement or disagreement to statements regarding school connectedness.

The amount of time spent in extracurricular activities was self-reported by participants using a self-checklist (Appendix B). Participants were asked to consider statements about their participation in extracurricular activities. Participants were instructed to declare the frequency of their participation with each extracurricular activity. The corresponding amount of time for each activity was summed by the researcher to create a monthly extracurricular participation score for each participant.

Two scores were obtained from each participant, one for reported degree of school connectedness and one for time spent in extracurricular activities. The scores were then analyzed using correlational methods to determine the relationship between reported sense of school connectedness and amount of time in extracurricular activities. Correlational studies are used to examine the strength of relationships between variables.
**Description of the Sample**

The population for this study consisted of 72 students in Grades 9 through 12 at Vast Education Centre in Port Alberni, BC. Vast Education Centre is an off-site alternative school that has approximately 300 full-time students. Approximately 60% of the student population is First Nations. Students enroll for a myriad of reasons including: mental health, poverty, expulsion, truancy, specific learning needs, court order, pregnancy, and behavioral/emotional/cognitive concerns. The Centre offers a self-paced, flexible program and has a continuous enrollment process. There are no formal lecture style academic courses. Each student works on an individual program that is designed by the student and their academic advisor. Each student in conjunction with their academic advisor creates a set of expectations in terms of attendance and course progress.

The author of the present study is a teacher in the Vast Centre. The sampling criteria for the study required that the participants: 1) be enrolled in Grade 9-12; 2) be at least 15 years of age; 3) have been a student at the centre for more than 1 month; and 4) be willing to read the consent form (Appendix C) and complete the questionnaire (Appendix A & B).

**Description of the Instruments Used**

Participants were given a questionnaire which asked them to answer questions regarding school connectedness and the amount of extracurricular activity they participate in each month.

School connectedness was assessed by the Psychological Sense of School Membership survey (PSSM) (Appendix A). The survey, developed by Carol Goodenow (1993), was designed to measure a students’ sense of belonging at school. Permission was obtained by the author of the present study directly from Carol Goodenow to use the PSSM for this study. The PSSM is
an 18 item survey. Each item is matched with a 5-point Likert Scale. Participants answered statements with choices ranging from “not at all true” (1) to “completely true” (5). The mean of each participant’s score on the 18 items produced a reported degree of school connectedness score.

The amount of extracurricular activity was measured by a self-checklist instrument (Appendix B) developed for this study. Subjects were asked to study each statement and circle the number opposite which corresponded with their current level of participation. Participants answered statements with choices ranging from “never participating” to participating the maximum of “4 times per month”. Each extracurricular activity participation statement was transferred to an hourly value by the researcher using the corresponding hours associated with each activity. Each student’s participation hours were summed to create a total number of hours per month for each participant. Correlational techniques were used to describe the degree of the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness.

Explanation of the Procedures Followed

Permission to complete this study was obtained from the Vancouver Island University Ethics Board, School District #70 (Alberni), and the Vast Education Centre. Participants completed the questionnaire (Appendix A & B) during the month of October 2010. Potential participants were given a brief summary of the purpose of the study and told that their participation was completely voluntary and anonymous. The potential participants were informed of the four criteria for participation.
Participants were informed that they were not required to complete the questionnaire (Appendix A & B) and could choose to discontinue participation by simply not submitting their survey. Participants were also informed that by completing and submitting the questionnaire they were providing their consent to participate in the study. Participants were offered a quiet place (spare classroom) to complete the questionnaire. Participants were asked to submit their questionnaire directly into a locked box stored in the main office of the school.

The researcher handed out the paper–pencil questionnaire (Appendix A & B) to all potential participants in the main classroom at scheduled times. During the first week, questionnaires were given out to students at 9:00 AM daily. During the second week, questionnaires were given out at 10:15 AM daily. During the third week, questionnaires were given out at 1:00 PM daily. During the final week questionnaires were given out at 3:00 PM daily. The designated times were chosen strategically to recruit and enable the largest number of potential participants, eliminate any potential selection bias, and not interfere with class time. The questionnaire was completed by participants in approximately five minutes.

Discussion of Validity

The quantitative data produced by the questionnaire minimized threats to internal validity. The researcher also chose an appropriate study design to test the hypothesis. The questionnaire used in the present study measured two variables: reported degree of school connectedness and time spent in extracurricular activities. Students’ reported sense of school connectedness was measured using the PSSM, which was derived from previous research on the same topic (Appendix A). The 18 item attitude scale was specifically designed to measure a students’ sense of belonging that they felt at school. The PSSM included items that attended to perceived liking, respect and encouragement for participation, personal acceptance, and
inclusion. The second variable measured in the survey was the amount of time spent in extracurricular activity. The survey used a self-checklist to measure time spent in extracurricular activities each month. Participants were asked to answer statements about their level of participation in each available extracurricular activity.

The risk of data collector bias was mitigated by having the participants complete an anonymous questionnaire. In order to minimize threats to internal validity the conditions under which the study occurred were standardized. Standardizing the testing conditions also helped control for subject attitude threats.

**Description and Justification of the Statistical Techniques Used**

The data gathered was examined using quantitative procedures. Each questionnaire produced two scores: reported degree of school connectedness and time spent in extracurricular activities per month. School connectedness scores were produced by adding up all the individual question scores and then dividing the sum by the total number of questions which produced a mean score. Time spent in extracurricular activities was established by summing up the participation times per month and converting it to an hourly value. The data collected from the surveys was entered into Microsoft Excel by the researcher.

The author of the present study used correlational techniques to describe the degree of the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness. After data was entered into Microsoft Excel, the degree of the relationship was illustrated using the Pearson Product – Moment Coefficient of correlation, Pearson \( r \). The correlation coefficient means that scores within a certain range on one variable are associated with scores within a certain range on the other variable. As data for both variables
were expressed in quantitative scores, the Pearson $r$ was the most appropriate correlation coefficient to use.

The same data scores entered into Microsoft Excel to calculate the Pearson $r$ were also used to create a scatterplot. The scatterplot provides a pictorial representation of the relationship between school connectedness (x-axis) and amount of time spent per month in extracurricular activities (y-axis). To interpret the data revealed by the scatterplot, a line of best fit was calculated and plotted to illustrate the degree of the relationship between the two variables.

The study examined the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness for Grade 9 to 12 students at an off-site alternative school. The correlational research design determined the strength of the relationship between the two variables: reported sense of school connectedness and time spent in extracurricular activity. The Pearson $r$ and scatterplot provided accurate and efficient ways to measure and illustrate the degree of the relationship.
Chapter 4: Results

The purpose of the present study was to determine the strength of the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness for Grade 9 to 12 students at an off-site alternative school. This chapter provides the results of the questionnaires which collected data through the PSSM survey (Appendix A) and the extracurricular activity self-checklist (Appendix B).

Seventy-three surveys were submitted. One participant was not included in the analysis due to significant portions of the survey being incomplete. Therefore, data from seventy-two surveys was analyzed. No outliers were eliminated from the data set. Survey responses were entered into a spreadsheet. The PSSM has five negative statements. The scores for the negative statements had to be converted to reflect positive school connectedness. School connectedness scores were then calculated by taking the mean of all eighteen questions. Potential school connectedness scores could range from 1 to 5. Total hours of extracurricular activity were calculated and analyzed on a monthly basis in hours.

Table 4.1 Summary of Reported School Connectedness Scores

<table>
<thead>
<tr>
<th>Parameter</th>
<th>School Connectedness Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>2.4</td>
</tr>
<tr>
<td>Highest</td>
<td>4.9</td>
</tr>
<tr>
<td>Mean</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Table 4.1 contains the descriptive statistics for student’s reported school connectedness scores. The table indicates the low, high and mean score on the PSSM Survey. School
connectedness scores had a potential range of 1.0 to 5.0. The mean in Table 4.1 exhibits that a significant portion of the participants feel particularly connected to the school.

**Figure 4.1 Distribution of Reported School Connectedness Scores**

Figure 4.1 displays the distribution of school connectedness scores. School connectedness scores of less than 3.0 are considered to be associated with feelings of disconnectedness. Figure 4.1 indicates that only 4% of the respondents were disconnected from the school. The figure also indicates that 96% of the respondents reported feeling connected to the school in varying degrees.
Table 4.2 Summary of Time Spent in Extracurricular Activity per Month (Hours)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Hours Per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>0</td>
</tr>
<tr>
<td>Highest</td>
<td>84</td>
</tr>
<tr>
<td>Mean</td>
<td>20.7</td>
</tr>
</tbody>
</table>

Table 4.2 contains the descriptive statistics for student’s amount of time spent in extracurricular activity per month in hours. The table indicates the low, high and mean scores for time spent in extracurricular activity. The mean in Table 4.2 exhibits that a significant portion of the participants were frequently participating in extracurricular activities.

Figure 4.2 Distribution of Hours Spent in Extracurricular Activity per Month
Figure 4.2 displays the distribution of hours spent in extracurricular activity per month. Figure 4.2 indicates that 38% of the participants participated in 10 or less hours of extracurricular activity per month. The figure also indicates that 62% of the respondents reported participating in 11 – 60 hours of extracurricular activity per month.

![Figure 4.3 Amount of Time Spent in Extracurricular Activities and Reported School Connectedness Score](image)

**Figure 4.3 Amount of Time Spent in Extracurricular Activities and Reported School Connectedness Score**

The scatterplot shown in Figure 4.3 illustrates the degree of the relationship between reported sense of school connectedness and time spent in extracurricular activities. Figure 4.3 also displays the Pearson $r$ and a line of best fit. The study data is displayed as a collection of points, each having one variable determining the position on the x-axis (school connectedness) and the value of the other variable determining the position on the y-axis (extracurricular activities).
The data points are found primarily between school connectedness scores of 3.0 and 5.0 (right portion of the scatterplot). This demonstrates the generally high value of school connectedness scores in the study data. The data points are found primarily between 0 and 60 hours of time spent in extracurricular activities per month. This illustrates a wide range of time spent in extracurricular activities among study participants.

A line of best fit has been drawn to determine any relationship or trends in the data. The direction of the line of best fits displays a positive association between the two variables. The positive association indicates that high school connectedness scores correspond with high number of hours spent in extracurricular activities. The equation for the line of best fit is displayed in Figure 4.3.

The Pearson $r$ was calculated to evaluate the degree of the relationships between school connectedness scores and time spent in extracurricular activities per month. The Pearson $r$ was calculated using Microsoft Excel and resulted in a value of + 0.375. The magnitude of the Pearson $r$ indicates a moderate positive relationship between the two variables. The positive moderate relationship shown by the Pearson $r$ is consistent with the wide distribution of points, as shown in the scatterplot.

<table>
<thead>
<tr>
<th>Table 4.3 Mean Degree of School Connectedness Scores for Extracurricular Activity Participants and Non-Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Degree of School Connectedness Score of Extracurricular Activity Participants</td>
</tr>
<tr>
<td>Mean Degree of School Connectedness Score of Non-Extracurricular Activity Participants</td>
</tr>
</tbody>
</table>

Table 4.3 contains the mean school connectedness scores for extracurricular activity participants and non-participants. The mean degree of school connectedness score for students
who reported participating in extracurricular activity was 4.2. The mean degree of school connectedness score for students who did not report any extracurricular participation was 3.7. The mean scores illustrate that extracurricular participants feel more connected to school than non-participants.
Chapter 5: Summary and Conclusions

Summary

The problem investigated in the present study was the lack of school connectedness in alternative schools. The purpose of this study was to provide an increased understanding of the issue of school connectedness and the positive role that extracurricular participation can have in addressing the problem. This study investigated the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness for Grade 9 to 12 students at an off-site alternative school. The author of the current study completed a review of the literature relevant to school connectedness and extracurricular activity.

Participants completed a questionnaire (Appendix A & B) which addressed their reported sense of school connectedness and amount of extracurricular activity participation per month. Each questionnaire produced two scores: reported degree of school connectedness and time spent in extracurricular activities per month. The subjects’ scores were analyzed to determine the degree of the relationship. The strength of the relationship between the two variables was revealed by the Pearson $R$ and a scatterplot.

Analysis of the data revealed a moderate positive relationship between the two variables (Pearson $r = 0.375$). The data also illustrated that a considerably high portion of students (96%) feel connected to school. The mean school connectedness scores for extracurricular activity participants (4.2) and non-participants (3.7) illustrate that extracurricular participants feel more connected to school than non-participants. Results also exhibited that a substantial portion of the participants were frequently participating in extracurricular activities (mean 20.7 hours per month).
Discussion

The present study investigated the strength of the relationship between the amount of time spent in extracurricular activities and the reported degree of school connectedness for Grade 9 to 12 students at an off-site alternative school. The author of the present study hypothesized that students who spend more time in extracurricular activities have an increased sense of school connectedness. The results indicated that there was a moderate positive relationship between extracurricular participation and school connectedness.

The results of the study indicated that as extracurricular participation increased so did school connectedness. The association found in the present study is consistent with the results of other studies. The growing body of research supports the positive relationship between school connectedness and extracurricular participation. Faulkner et al.’s (2009) study found that the odds of feeling disconnected from school were substantially greater for students who had low extracurricular involvement. Bonny et al.’s (2000) study indicated that decreasing school connectedness was associated with a lack of extracurricular involvement. Brown and Evans’ (2005) study disclosed that students reporting high levels of extracurricular activity also reported higher levels of school connectedness.

The results of the Pearson $r$ (+.375) reveal that participation in extracurricular activity is positively associated with reported school connectedness. This association was also revealed by the larger mean of school connectedness scores for extracurricular activity participants (4.2) than non-participants (3.7). The relationship between extracurricular participation and school connectedness provides a framework from which to develop intervention strategies. Extracurricular participation is a malleable factor in youth’s lives that educators can target to
address disconnectedness. In order to meet the varying needs and preferences of students, a diverse selection of activities must be offered. Extracurricular activities must not only include traditional sports but expand to such areas as culture, leadership, fine arts, service learning, health and wellness and other hands-on group activities. Extracurricular activities in alternative schools are often hindered by a lack of physical space and resources. Educators must develop and sustain community relationships in order to make innovative and positive activities available.

The study data exhibited that a significant portion of the participants were frequently participating in extracurricular activities (mean 20.7 hours per month). Considering the association between participation in extracurricular activities and school connectedness, it is not surprising that the mean school connectedness score was considerably high (4.1).

The data illustrated that a noticeably high portion of alternative education students (96%) felt connected to school (school connectedness scores greater than 3.0). These findings are congruent with those found in Whitlock’s (2004) study of school connectedness. Whitlock’s (2004) study found that youth in nontraditional school programs perceived significantly higher levels of school connectedness than youth in traditional school settings. This discrepancy can be explained by the primary objective of alternative schools. Successful alternative schools provide support and opportunities for the cultivation of positive relationships. The positive relationships between staff and students were apparent in the results of the present study. Question eleven of the PSSM survey stated, “The teachers here respect me”. The mean score of respondents was 4.8 out of a possible 5.0.
As many alternative education programs are built on a model of individual and self-paced academics it is imperative that students are encouraged to participate in additional extracurricular programming. The flexible attendance structure of off-site alternative schools makes structured extracurricular programming that much more necessary for building school connectedness. Academic course work is often completed individually. Time spent in extracurricular activities gives students an opportunity to interact with peers and adults. Beyond school connectedness, extracurricular involvement also provides alternative students with an opportunity to develop social skills, resiliency, self-esteem and feel success (Larson, 2003).

School connectedness is particularly important for alternative education students, as they often lack other sources of support. School connectedness is critical for alternative education students as they are at greater risk for participating in health-risk behaviors. Schools must actively recruit high-risk and disconnected students for involvement in extracurricular activities. Fostering school connectedness among disenfranchised groups should be a priority within our schools. Extracurricular activities should be offered to students at no cost. Students should have equal opportunity to participate regardless of socioeconomic status.

Every youth should feel safe, supported and noticed by at least one adult in the school. Adolescents’ beliefs about themselves are shaped by the extent to which they perceive that the adults in their lives care about them and are involved in their lives. Fortunately, the students who participated in the present study indicated that they felt particularly supported at Vast. Question seven of the PSSM survey stated, “There’s at least one teacher or other adult in this school I can talk to if I have a problem.” The mean score of the respondents was 4.3 out of a possible 5.0. Extracurricular activities provide a venue to strengthen the adult and student relationships. The high scores on this question can likely be attributed to the Vast Education Centre’s advisement
system. Each student is assigned to a teacher advisor who supports and cares for their holistic and learning needs.

Research has demonstrated that students who are connected to school are more likely to succeed and make healthy choices. The present study suggests that extracurricular activities provide a vital opportunity to foster school connectedness and should be provided to students on a regular basis.

**Limitations**

Interpretation of the results of the present study should be done with consideration of the following limitations. The study relied on self-reported data which has the potential to be influenced by response bias. Response bias implies that subjects may consciously, or unconsciously, provide responses that they think the interviewer wants to hear. Self-reported data is also limited in that it relies on the subjects’ ability to accurately report on their feelings and experiences.

The method used to investigate the present study’s research question was correlational. Correlational studies do not solely establish cause and effect, and therefore limit the ability to make causal inferences. Although the present study found a correlational relationship (+.375), this does not establish a causal relationship between the two variables: time spent in extracurricular activities and reported degree of school connectedness.

The researcher distributed questionnaires to potential participants at scheduled times. The designated times were chosen to recruit and enable the largest number of potential participants. It must be noted that the sample group consisted of only students who were attending school at the designated times. It can be assumed that a large number of disconnected students, who do not
attend school as regularly, were left out of the sample group. It can also be assumed that attending students that were not connected with school would more likely choose to not complete the questionnaire.

The overall high school connectedness scores may be attributed to other factors. Based on current research and knowledge of the importance of school connectedness, the Centre for Disease Control and Prevention (2009) submitted the following six school connectedness strategies for policy and practice:

- Create decision-making processes that facilitate student, family, and community engagement; academic achievement; and staff empowerment.
- Provide education and opportunities to enable families to be actively involved in their children’s academic and school life.
- Use effective classroom management and teaching methods to foster a positive learning environment.
- Provide professional development and support for teachers and other school staff to enable them to meet the diverse cognitive, emotional, and social needs of children and adolescents.
- Create trusting and caring relationships that promote open communication among administrators, teachers, staff, students, families, and communities.

At the time of data collection the Vast Education Centre was applying most of these strategies. These strategies and policies may have led to the high mean school connectedness score.

The vocabulary and structure of the PSSM survey has the potential to confuse some participants. Reading comprehension varies significantly among alternative education students. The PSSM survey used an attitude rating scale to measure participants’ agreement or
disagreement to statements regarding school connectedness. Some participants may have failed to differentiate between the positive and negative statements of the PSSM survey. Despite these limitations, the present study provides an increased understanding of the issue of school connectedness and the positive role that extracurricular participation can have in addressing the problem. This study also provides a rationale for the inclusion of extracurricular activities in alternative education programming.

**Recommendations for Further Research**

Research has demonstrated that participating in extracurricular activities is associated with a number of positive outcomes, including school connectedness. However, these findings do not reveal the reasons for the associations. Further research should focus on what factors within extracurricular participation influence school connectedness. Additional research needs to be conducted in order to better understand the strength of specific concepts which lead to increased school connectedness. As current research has focused on traditional schools in an urban American context, more research that focuses on school connectedness in alternative schools, rural settings, and Canadian contexts is needed. In addition, new research should investigate the effect that student school connectedness has on educators. Finally, more research which explores programs and strategies that work to promote connection to school among disenfranchised groups is warranted.
References


*Transforming classrooms through social, academic, and intellectual engagement.* (First National Report) Toronto: Canadian Education Association.
Appendix A: Psychological Sense of School Membership (PSSM) Survey

Below are statements about your current school experience. Circle the answer which reflects how you feel about each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel like a real part of Vast.</td>
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<td>2. People here notice when I’m good at something.</td>
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<tr>
<td>3. It is hard for people like me to be accepted here.</td>
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<td>4. Other students in this school take my opinions seriously.</td>
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<td>5. Most teachers at Vast are interested in me.</td>
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<td>6. Sometimes I feel as if I don’t belong here.</td>
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<td>7. There’s at least one teacher or other adult in this school I can talk to if I have a problem.</td>
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<td>8. People at this school are friendly to me.</td>
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<td>9. Teachers here are not interested in people like me.</td>
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<tr>
<td>10. I am included in lots of activities at Vast.</td>
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<tr>
<td>11. I am treated with as much respect as other students.</td>
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<tr>
<td>12. I feel very different from most other students here</td>
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<td>13. I can really be myself at this school.</td>
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<td>14. The teachers here respect me.</td>
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<td>15. People here know I can do good work.</td>
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<td>16. I wish I were in a different school.</td>
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<td>17. I feel proud of belonging to Vast.</td>
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<tr>
<td>18. Other students here like me the way I am.</td>
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</tbody>
</table>
## Appendix B: Extracurricular Activity Self-Checklist

The following are statements about your participation in extracurricular activities offered at Vast. Consider each statement and circle the answer which reflects your current monthly participation level in each activity.

<table>
<thead>
<tr>
<th></th>
<th># Times per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I participate in Outdoor Education.</td>
</tr>
<tr>
<td>2.</td>
<td>I participate in Gym Night.</td>
</tr>
<tr>
<td>3.</td>
<td>I participate in Ice Hockey</td>
</tr>
<tr>
<td>4.</td>
<td>I participate in Tuesday Woodwork.</td>
</tr>
<tr>
<td>5.</td>
<td>I participate in Wednesday Recreation.</td>
</tr>
<tr>
<td>6.</td>
<td>I participate in Nashuck Youth Council.</td>
</tr>
<tr>
<td>7.</td>
<td>I participate in Leadership.</td>
</tr>
<tr>
<td>8.</td>
<td>I participate in Fitness Gym.</td>
</tr>
<tr>
<td>9.</td>
<td>I participate in Young Mom’s Group.</td>
</tr>
<tr>
<td>10.</td>
<td>I participate in Thursday Woodwork.</td>
</tr>
</tbody>
</table>
Appendix C: Research Consent Form

Examining the Relationship Between Participation in Extracurricular Activities and School Connectedness

(August 26, 2010)

Erik Waldriff, Master of Education Student Vancouver Island University
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Harry Janzen, Ph.D., Supervisor Faculty of Education Vancouver Island University
(250) 740-6220, local 6220

I am a graduate student at the University of Vancouver Island working to complete a Master of Education in Educational Leadership. As part of the program requirements, I am currently enrolled in a Research in Education course. In order to fulfill the requirements for the course and program I have designed a project to examine the relationship between school connectedness and time spent in extracurricular activities. ‘School connectedness’ is the belief by students that adults in the school care about them and provide positive support. It includes the sense of belonging that a student feels with their school environment.

During this study you will be asked to complete a survey which contains a number of brief questions regarding your feelings of school connectedness and current level of participation in extracurricular activities. These questions have the potential to evoke negative emotions. In the event that you experience any kind of distress, please contact available counseling services at the Vast Education Centre (250-723-3744) or the Central Vancouver Island Crisis Line (1-800-784-2433). The paper and pencil survey will take approximately 5 minutes to complete.

All records of participation will be kept confidential. Only I will have access to the information. The information you provide will be stored in the locked cabinet within main office of the Vast Education Centre. The information you provide will be burned at the end of the project, approximately June 2011. The results of this study will be reported in a written research report. The results will be completely anonymous. This means that no one will be able to connect you with any particular set of answers from the survey.

Your participation in this research is completely voluntary. You may choose to withdraw at any time without explanation or penalty. You may also choose not to answer any question for any
reason. The return of your completed questionnaire will indicate your consent to participate in this research. For this reason, please retain the cover letter for your reference.

If you have any concerns about your treatment as a research participant in this study, please contact the VIU Research Ethics Officer, by telephone at 250-753-3245 (ext, 2665) or by email at reb@viu.ca.

If you have any questions about this research project, or would like more information, please feel free to contact me at the email address below:

Erik Waldriff
Master of Education Student,
Vancouver Island University

ewaldriff@sd70.bc.ca

(250) 735-0935