

Spring 2018

The Impact of a Social Skills Curriculum on School Connectedness for Students with Disabilities

Riley Glenn
California State University, Monterey Bay

Follow this and additional works at: https://digitalcommons.csumb.edu/caps_thes_all

Recommended Citation

Glenn, Riley, "The Impact of a Social Skills Curriculum on School Connectedness for Students with Disabilities" (2018). *Capstone Projects and Master's Theses*. 301.
https://digitalcommons.csumb.edu/caps_thes_all/301

This Master's Thesis (Open Access) is brought to you for free and open access by the Capstone Projects and Master's Theses at Digital Commons @ CSUMB. It has been accepted for inclusion in Capstone Projects and Master's Theses by an authorized administrator of Digital Commons @ CSUMB. For more information, please contact digitalcommons@csumb.edu.

Running head: SOCIAL SKILLS CURRICULUM & SCHOOL CONNECTEDNESS

The Impact of a Social Skills Curriculum on School Connectedness for Students with Disabilities

Riley Glenn

Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Arts in Education

California State University, Monterey Bay

May 2018

©2018 by Riley Glenn. All Rights Reserved

SOCIAL SKILLS CURRICULUM & SCHOOL CONNECTEDNESS

The Impact of a Social Skills Curriculum on School Connectedness for Students with Disabilities

Riley Glenn

APPROVED BY THE GRADUATE ADVISORY COMMITTEE

Kerrie Lemons Chitwood, Ph.D.
Advisor and Program Coordinator, Master of Arts in Education

Erin Ramirez, Ph.D.
Advisor, Master of Arts in Education

Kris Roney, Ph.D. Associate Vice President
Academic Programs and Dean of Undergraduate & Graduate Studies

SOCIAL SKILLS CURRICULUM & SCHOOL CONNECTEDNESS

Abstract

Social skills are necessary abilities humans must obtain in order to get along with others and hold satisfying relationships. School connectedness is a value held by students that makes them feel accepted and valued as a member of the school community (CDC, 2009). The purpose of this quasi-experimental quantitative study was to examine if the introduction of a social skills curriculum could improve feelings of school connectedness in students with mild to moderate disabilities. Participants ranged from ages 14-18 and took part in various social skills activities over the course of a five-week period. The feelings of school connectedness were measured using the Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993) with a pretest and posttest design. The results from the intervention group were compared to the control group who did not receive the intervention. It was hypothesized that the participation in social skills activities for three times a week for five weeks would increase high school students with mild to moderate disabilities feelings of school connectedness. Results indicated no significant differences between mean scores on the pre and post tests for either the treatment or control group. Further research should increase intervention time and continue the use of a consistent social skills curriculum to determine if school connectedness could be improved for students with mild to moderate disabilities.

Keywords: school connectedness, social skills curriculum, special education

Table of Contents

Literature Review 1

Methods..... 11

 Research Question 11

 Hypothesis..... 11

 Research Design..... 11

 Setting & Participants 12

 Measures 14

 Intervention..... 15

 Procedures..... 16

 Ethical Considerations 17

 Data Analyses 19

Results..... 19

 Limitations 24

 Future Studies 25

Appendix A..... 31

Appendix B 32

The Impact of a Social Skills Curriculum on School Connectedness for Students with Disabilities

Literature Review

Social skills are known as abilities necessary to get along with others and to maintain satisfying relationships (Kennedy-Moore, 2011). Students with disabilities often lack the appropriate social skills needed to get along with others. Further, students with disabilities are often secluded from the rest of campus for a majority of the school day. Due to this seclusion, the window to practice social skills with same aged peers is limited. This limited window to build, engage, and maintain positive peer relationships at school becomes increasingly important as it helps promote positive feelings of school connectedness (California Children's Report Card, 2014; Gresham, Sugai, & Horner, 2001). According to the Center for Disease Control (CDC; 2009), school connectedness is defined as, the belief by students that the school community (including adults and other students) have a genuine care and belief in the student's learning as well as in the student themselves. Improving school connectedness on school campuses and incorporating positive social environments, have been a large focus for educational settings (Bond et al., 2007; Chhuon & Wallace, 2014; Ross, Shochet, & Bellair, 2010).

Since the introduction of The Individuals with Disabilities Education Act (IDEA, 2004), more than 40 years ago, enrollment of students with disabilities in public schools has significantly increased from 8% in 1975 to nearly 14% in 2005 (National Center for Education Statistics, 2016). With this statistic, students with disabilities can make up nearly one-fifth of a school population; specifically, students with mild to moderate disabilities make up approximately 80% of that population (National Center for Education Statistics, 2016). Furthermore, that same diverse group of students often struggle with using appropriate social skills (Kavale & Mostert, 2004). In addition, students with disabilities are often misguided and

misunderstood in school and are more vulnerable to crime, drugs/alcohol, and dropping out than general education peers their age (Blackorby & Wagner, 1996). Given these factors, teaching and implementing social skills in school could potentially boost students with disabilities feelings and attitudes toward school connectedness.

School Connectedness

In school, every student regardless of gender, race, ethnicity, culture, and cognitive ability, is entitled to a meaningful education. The goal or objective of the American high school student is to learn and obtain knowledge and information to help him/her graduate at the end of senior year (Chhuon & Wallace, 2014). However, a significant number of students never reach this goal. After reviewing data from the 2014-2015 school year, the National Center for Education Statistics (2016) discovered that in the given school year, one in five (i.e., 17%) high school seniors did not graduate high school. According to Child Trends Databank (2015), reasons why students do not graduate include: absenteeism, low engagement, defiant behavior, work responsibilities, moving to a new school, and/or low parental education. This group of non-graduating high school seniors are often unprepared for a technology dependent workplace and an increasingly complex society (Child Trends Databank, 2015). The data presented begins to provide a connection between graduation and a student's feelings of school connectedness; particularly as absenteeism and low engagement can directly be tied to feelings of school connectedness.

Graduation rates have become a highly researched topic and many researchers have set out to find the problem and promote a solution. Bond and colleagues (2007) researched how a student's feelings of school connectedness could potentially impact graduation rates. Their findings found that feelings towards school increase when students feel connected to their school

and peers; thus leading to higher graduation rates (Bond et al., 2007). Their findings point to a single problem and a simple solution; to decrease dropout rates, positive school connectedness must be fostered in students. Given this solution, Bond and colleagues' (2007) findings have since emerged as a key area in positive educational outcomes for students in high school (Bond et al., 2007).

Positive educational outcomes are closely related to a student's feelings of school connectedness. Much of the research conducted encourages schools to be the setting and focus for building positive social learning environments and situations (Bond et al., 2007; Chhuon & Wallace, 2014; Ross et al., 2010). School environments impact academic and vocational pathways as well as a students' overall well-being (Bond et al., 2007; Ross et al., 2010). Unlike positive school environments, unengaged adolescents in school can suffer from: poor relationships with peers and adults, a higher chance of using drugs and alcohol, poor academic achievement, anxiety, and depression (Bond et al., 2007). Furthermore, Bond and colleagues (2007) found that teachers and other adult staff on campus play a major role in the lives of adolescents in school. Without the positive relationships with teachers and adult school staff, adolescents are more likely to have negative feelings and attitudes towards school connectedness (Bond et al., 2007). Not having a connection to school can support a student's feelings of not belonging.

Research has shown that belongingness and school connection are related variables (Bond et al., 2007). Adolescents rely heavily on teachers and adults to support them in school. Since high school is the last stop prior to adulthood, many high school students look to teachers and adult staff members to provide support in areas like social and emotional well-being (Rose & Shevlin, 2017). These areas are of considerable importance to students with disabilities, as this

population is even more susceptible to needing additional support for their social and emotional needs. In educational settings, support and guidance from a teacher or an adult staff member can lead to higher feelings of school connectedness (Rose & Shevlin, 2017). Rose and Shevlin's (2017) research shows that teacher support is critical not just for students in general education, but especially for students with disabilities.

Many students with disabilities take classes in the general education population. Thus, it has become more prevalent in educational settings to include and enroll students with disabilities into general education courses. The IDEA states that students with disabilities should receive as much of their education as possible with general education peers in inclusive settings (Wright, 2004). The term inclusion can be defined as the commitment to educate each child, to the maximum extent appropriate, in the general education school and classroom he or she would typically attend (Wisconsin Education Association Council, 2001). In inclusive school settings, students with disabilities would be educated in the same classrooms as peers their age. Inclusion in the general education classroom is considered to be the Least Restrictive Environment (LRE) and is the goal for all students with disabilities (Wright, 2004). IDEA states, that students with disabilities should be educated in the LRE (IDEA, 2004). With the variability of students with disabilities, the LRE will vary depending on the individual need of a particular student.

Including students with disabilities into mainstream classes allows a student to be immersed in a diverse classroom with peers their age. For students with disabilities in general education classes, additional academic, social, and emotional supports may be required for the student to be successful. In order for students with disabilities to be included into mainstream classrooms, additional academic support may be needed (Moore & Gilbreath, 1998). According to Rose and Shevlin, (2017), students with special needs in inclusive settings, reported having

feelings of acceptance and connectedness to school when adequate support was provided by the teacher or staff member that enabled them to participate fully in the classroom setting. A direct correlation of a student's sense of belonging at school can be associated with adequate supports provided which enable them to be successful (Rose & Shevlin, 2017).

School settings are a crucial environment for students due to the association between positive peer relationships and school connectedness. Before an adolescent reaches their freshman year of high school, it is likely that the student has spent more than 10,000 hours walking on school campuses (Eccles & Roeser, 2010). Students spend those 10,000 hours at school establishing relationships, building rapport, and finding their sense of belonging (Eccles & Roeser, 2010). Furthermore, Maslow (1943) considered belonging to be a psychological need within his construct of hierarchical needs. Within this model, Maslow's research suggests that, belongingness is related to friendship, intimacy, trust and acceptance, receiving and giving affection, and affiliating or being part of a group (1943). In school settings, students want to belong. Students with disabilities, just like any other student on campus, have the innate feeling of wanting to fit in. Fitting in is not just being included in class, but feeling accepted by the school community.

Since adolescents spend a majority of their young years at a school, a school is thought of as a community that offers students opportunities to fulfill the need to belong (Chhuon & Wallace, 2014). Especially for students with disabilities, having the support and care of the school community can be beneficial. Research has shown that when teachers learn about the interests and backgrounds of their students, students feel a sense of acceptance and belonging to the school community (Chhuon & Wallace, 2014). If students feel supported by their teachers they feel a sense of care and belonging for school (Rose & Shevlin, 2017). With the focus of the

school community, it is important for teachers and students to be supportive of each other. This bilateral care and support given by teachers, staff, and students can increase a positive school community (Chhuon & Wallace, 2014). Together teachers and students can help build and support a positive school environment for all to thrive.

Positive feelings of school connectedness are related to the social skills that are built and promoted in the school setting (Caldarella and Merrell, 1997; Gresham et al., 2001). Little, Swangler, and Akin-Little (2017), define social skills as specific behaviors that involve various aspects of social interactions and communications with others in a social context. Social skills are an important life skill in an ever growing society. The research of Ross and colleagues (2010), shows how the lack of adequate social skills can lead to higher instances of depression. In a high school setting, it may be a possibility that negative feelings of school connectedness and a lack of positive peer interactions may also be a precursor of depression. The link between school connectedness and depression shows the importance of implementing social skills interventions, especially for students with disabilities, as a means to increase positive feelings of school connectedness. The focus of a social skills intervention should be multifaceted in the fact that the interventions is focused on developing individual skills and strategies that can in turn boost positive feelings of school connectedness (Ross et al., 2010).

Social Skills Interventions

In the field of special education there has been an emphasis on teaching social skills to students with disabilities at all grade levels (Caldarella & Merrell, 1997; Forgan & Jones, 2002; Gresham et al., 2001). The ability to interact successfully with peers and adults has become one of the most important aspects of student development (Gresham et al., 2001). A students' social competence incorporates many skills including: gaining acceptance, maintaining and establishing

relationships and friendships, and terminating negative relationships (Gresham et al., 2001). In the field of special education, social competence is even more important because of the fact that inclusion into mainstream classes, and chances to integrate with grade level peers may not exist in the entire school day. In particular, there are some students with disabilities (i.e., those that will earn a certificate of completion and not a diploma), that are in the special education class and environment for upwards of 60% of their school day. Most students on this educational path, do not have many opportunities for inclusion into general education and focus more on social and vocational skill building. With this, most students with disabilities on this path will transition to the work force or a vocational program right out of high school (Blackorby & Wagner, 1996); thus, the emphasis of social competence becomes a high priority.

Since the incorporation of IDEA, social skills have become a large part of the special education curriculum (Caldarella & Merrell, 1997; Forgan & Jones, 2002). One of the main goals for special education teachers is to coordinate and prepare activities for students that help assist with post-secondary transitions. Settings for students with disabilities beyond high school include: classrooms, communities, and the workforce (Rehfeldt, Clark, & Lee, 2012). Since there are several settings that can be outside of a students' comfort zone, it is the job of the Individualized Education Program (IEP) team (e.g., Case Carrier, Teachers, Staff, Principals, Parents, Student) to include specific social activities and targeted behaviors into the daily curriculum. One of the most popular interventions used is the Social Skills Training (SST), which is designed to improve specific targeted social behavior deficits in students with disabilities (Gresham et al., 2001). Gresham and colleagues (2001) indicated that the SST has been well developed and implemented; however, the intervention did not produce long-term changes.

Previous studies have produced inconclusive results regarding SST (Gresham et al., 2001); therefore, recent studies have focused on improving the implementation of the intervention and achieving long-term results (Forgan & Jones, 2002; Laugeson, Bates, Ellingsen, Sanderson, and Tucci, 2014). Caldarella and Merrell (1997) used previous research, and a compilation of previous studies in order to create a taxonomy that includes five various skills including: self-management skills, academic skills, peer relation skills, compliance skills, and assertion skills. With this taxonomy of skills presented, Caldarella and Merrell (1997) suggest that further research studies on SSTs must include those five targeted skills.

Given the implications suggested by Caldarella and Merrell (1997), a meta-analysis of various SSTs showed minimal effectiveness on students with disabilities. Laugeson and colleagues (2014) reviewed previous research on social skills interventions and decided that there is no single program that can effectively improve the social skills of students with disabilities. With the inconclusive results, Laugeson and colleagues (2014) decided to create their own program that could be readily used in an everyday school setting. The program created is *The Program for the Education and Enrichment of Relational Skills* (PEERS). The PEERS program is a daily 30-minute activity that is delivered 5 days a week for a 14-week semester (Laugeson et al., 2014). With the implementation of the PEERS program in a school setting, Laugeson and colleagues (2014) found that the program was effective in improving specific targeted social behaviors. The program benefited both teachers and students and allowed school personnel to assist and engage in the students learning process (Laugeson et al., 2014). The PEERS program afforded opportunities for campus involvement and allowed students to practice social skills in everyday social settings.

Prior to the success of the PEERS program, the use of adventure activities had been used to help promote social skills in students with disabilities. Adventure activities are an intervention that has been around for fifteen years and includes various kinesthetic and tactile activities performed in small groups (Forgan & Jones, 2002). The intervention, Project Adventure, uses experimental adventure games, problem-solving activities, and activities that build team and trust (Forgan & Jones, 2002). Project Adventure is designed to teach general social behaviors using a scaffolding method of teacher modeling, guided practice with praise, and eventually fading of support. Furthermore, the activities are designed to fit any educational setting and can be used in grades K-12.

Through experimentation, researchers have found that when teachers consistently use various adventure activities in the classroom to teach social skills with students with disabilities, a decrease in inappropriate behaviors and an increase in problem solving skills were shown (Forgan & Jones, 2002). By learning valuable social skills, students with disabilities can learn how to easily transition into the general education classroom and environment. In order to be effective members of the general education environment, students with disabilities have to decrease inappropriate behaviors and increase problem solving and teamwork skills (Rose & Shevlin, 2017). Given all of the research, there has yet to be a single study that has examined social skills interventions and the impact on students' feelings of school connectedness.

Given the success of some social skills programs, there still has yet to be a significant finding that suggests a particular social skills intervention can drastically improve a students' feelings of school connectedness. Kavale and Mostert's (2004) research suggests that a social skills intervention program has potential in building targeted skills, yet further research is necessary in order to resolve specific issues. Kavale and Mostert (2004) suggest that further

research must be done to determine: the duration of the training, specific assessment instruments, a diverse program, contextual variables, and interventions for various groups of students. Further research must not rebuild or reinvent the process, but instead refine, revise, and revisit previous successful studies (Kavale & Mostert, 2004). Future researchers must be cognizant of: the intensity and duration of the intervention, a reliable and valid measure must be used, and targeted skills must be identified (Kavale & Mostert, 2004). Thus, it is imperative that researchers seek to determine whether the use of a social skills curriculum in schools can boost feelings of school connectedness.

Purpose of Current Study

Previous research shows that teaching and implementing social skills in school, could potentially boost students with disabilities feelings toward school connectedness (Bond et al., 2007; Caldarella & Merrell, 1997; Chhuon & Wallace, 2014; Eccels & Roeser, 2010; Forgan & Jones, 2002; Gresham et al., 2001; Kavale & Mostert, 2004; Laugeson et al., 2014; Rose & Shevlin, 2017; Ross et al., 2010). Since school connectedness is correlated to success in school, measuring a student's feelings towards school can potentially provide a researcher with data on how a student feels academically, socially, and mentally. Given the amount of studies previously conducted, there are few studies that have explored school connectedness specifically for students with mild to moderate disabilities; thus, it is unknown if these students will report more positive feelings of school connectedness after immersing in a social skills intervention. This study will explore if participating in a social skills intervention can help boost positive feelings of school connectedness in high school students with mild to moderate disabilities.

Methods

Research Question

The research question for this study is: Can participating in an adventure activities social skills curriculum help high school students with mild to moderate disabilities improve their feelings of school connectedness?

Hypothesis

I hypothesize that participating in an adventure activities social skills curriculum will increase high school students with mild to moderate disabilities feelings towards school connectedness. This hypothesis is based on findings from a study by Forgan and Jones (2002), that implemented adventure activities and found that these activities can improve students' self-concept (i.e., a believe a person holds about himself or herself), while teaching valuable skills that promote lifelong success.

Research Design

The research design used in this study was a quantitative, quasi-experimental pretest-posttest study with nonequivalent groups. A treatment and control group were used. The treatment group consisted of 15 9th-12th grade high school students ranging in age from 14-18; these students each participated in an adventure activity three times a week for four weeks during the regular school day. The control group consisted of 15 separate but similar 9th-12th grade high school students ranging in age from 14-17; these students did not receive any interventions. Each group, treatment and control, took the pretest survey measure (Psychological Sense of School Membership Scale [PSSM]) created by Goodenow (1993), which measures each students' feelings of school connectedness. After completion of the three per week for four-week

intervention, the same PSSM (Goodenow, 1993) survey on feelings of school connectedness was administered as a posttest to both groups, treatment and control.

Independent variable. The independent variable for this study consisted of using various adventure activities designed by Orlick (2006). Adventure activities are activities that teach students conflict resolution, social skills, and teamwork (Forgan & Jones, 2002). Adventure activities are cooperative games that include a kinesthetic or tactile requirement. Adventure activities were created to allow students to use a variety of cooperative skills in small groups and teams; each activity allows each individual student to participate and helps build a student's value and confidence (Orlick, 2006). The treatment group used a variety of adventure activities with general education peers for three times a week for four weeks. Each activity occurred either inside the classroom or within the high school campus.

Dependent variable. The dependent variable in this study was the students' feelings of school connectedness. According to the Center for Disease Control (CDC; 2009), school connectedness is defined as, the belief by students that the school community, (including adults and other students) have a genuine care and belief in the students' learning as well as in the student themselves. For this study, the students' feelings of school connectedness were measured by the scores students reported on the PSSM scale (Goodenow, 1993).

Setting & Participants

This study occurred in a public high school located in Central California consisting of approximately 1,124 students and 59 teachers (SARC, 2016). The school is 84.8% Latino, 10.9% White, 1.2% Filipino, 1% Two or More Races, 0.6% None Reported, 0.5% Asian, 0.4% Native Hawaiian or Pacific Islander 0.3% American Indian or Alaska Native, and 0.3% Black or African American (SARC, 2016). About 80.5% of students at the school are socioeconomically

disadvantaged (SARC, 2016). Within this public high school, there are approximately 129 or 9.06% of students with special needs ranging from mild to severe disabilities (SARC, 2016).

The participants of the study consisted of 24 males and 6 females all with varying Individualized Education Plan (IEP) eligibilities (Autism Spectrum Disorder [ASD]), Specific Learning Disability (SLD), Intellectual Disability (ID), Other Health Impairment (OHI), Emotional Disturbance (ED), and Speech and Language (SL). All participants were enrolled in either an Essentials Science class or Tutorial Support class. Pretest and posttest administration and debrief sessions with students occurred in each of the two classrooms. Convenience sampling was used for the treatment group because the researcher was the academic teacher for each of the 15 students. Purposeful sampling was used for the control group because they matched characteristics of the treatment group by also being students with a disability.

Treatment group. The treatment group consisted of 15 students aging from 14-18 years. Thirteen students were male (86%) and two students were female (14%). Seven students were Latino/a (46%), four students were White (26%), three students were two or more Races (20%), and one student was Asian (8%). The group consisted of 15 (100%) students with an IEP; all students are classified as students with disabilities. The treatment group consisted of students enrolled in an Essentials course (Special Day Class [SDC]) in at least one out of six periods in the day. This class is only for students with disabilities; those students will not earn a diploma, but a certificate upon completion of high school coursework. Each student can take up to four academic courses with the SDC teacher. All students require additional support, modified curriculum, and a more restrictive setting in order to access academics.

Control group. The control group consisted of 15 students aging from 14-18 years. Eleven students were male (74%) and four students were female (26%). Eleven students were

Latino/a (73%), two students were White (13%), one student was African American (7%), and one student was Asian (7%). The group consisted of 15 (100%) students with an IEP; all students are classified as students with disabilities. Each of the 15 students were students enrolled in inclusive settings; meaning they would each earn a diploma upon graduation. Each student took one tutorial support class a day and the rest in inclusive general education settings.

Measures

To measure students' feelings of school connectedness, the pretest and posttest survey questions were taken from the PSSM questionnaire (Goodenow, 1993). The PSSM was developed by Goodenow (1993), and was tested on students from three urban and suburban schools prior to finalized scale settings and publishing of validity and reliability.

The PSSM developed by Goodenow (1993) uses an 18-item questionnaire that measures a students' connectedness by asking them to circle corresponding numbers on a 1-5 point Likert scale (*1 = Not at all true; 5 = Completely true*). Questions include various parts of school connectedness and also include reversed or negatively worded items (Goodenow, 1993). Sample questions included: "I feel like a part of my school," "I am included in lots of activities at my school," "I feel different from most other students at my school," or "I wish I were in a different school" (see Appendix A). Responses were recorded according to each students' own perception of the statement. Each response was scored, added to the total, and divided by 18 to yield an average score of school connectedness.

In order to assist with the implementation of the questionnaire, the researcher provided a practice questionnaire and a guided practice lesson in order to ensure students were prepared for the actual questionnaire. The researcher reworded the Likert scaled numbers to fit the scales that were practiced in the classroom (*1 = Strongly Disagree; 5 = Strongly Agree*). When originally

tested with the wording used from the PSSM, students had a difficult time reading and responding using the suggested scale from Goodenow (1993). The researcher then tested items with the reworded Likert scale (*1 = Strongly Disagree; 5 = Strongly Agree*) and found students could relate easier to each question and responded without clarification or support. As the participants in this study all had disabilities, it was agreed upon by the researchers that the reworded items would be used to ensure understanding of items by each participant. Each item was assessed in order to ensure they were at the independent reading levels of all students. Additionally, the teacher and the instructional assistants were available to provide clarification during administration of the pretest and posttest.

Validity. Validity of the PSSM, was determined by English teachers rating the social standing of each of their students with peers (Goodenow, 1993). Goodenow (1993) hypothesized that students with higher ratings of social standing would have higher connectedness scores. By using post-hoc Scheffe tests, Goodenow (1993) confirmed the predictions and thus, ensured validity across demographics.

Reliability. Reliability for the PSSM was analyzed separately for each of the samples collected from suburban and urban areas (Goodenow, 1993). Cronbach's alpha was used to confirm acceptable reliability in the PSSM scores, in both suburban and urban schools; with suburban samples earning a score of .88 and urban schools earning a score of .80 (Goodenow, 1993). Each score from the suburban and urban samples indicated high levels of stability and test-retest reliability.

Intervention

The intervention consisted of various classroom activities surrounding adventure activities. Adventure activities are activities that teach students conflict resolution, social skills,

and teamwork (Forgan & Jones, 2002). Adventure activities are cooperative games that include a kinesthetic or tactile requirement. Each activity was used three times a week for a four-week period. With the help of a few Peer Assisted Learner's (PAL's), students of the treatment group participated in various adventure activities with a PAL or two. PAL's are general education students that are enrolled in classes as assistants to students with special needs; each PAL has expressed interest in the field of teaching and the course was developed to help prepare those learners for working with students with disabilities. Activities were chosen by the researcher from the 150 activities provided in the book *Cooperative Games and Sports, Joyful Activities for Everyone* (Orlick, 2006). Most of the activities designed by Orlick (2006) are kinesthetic or tactile and require participants to get up and move. An example of an activity is the Togeth-Air Ball, which students pair up in teams and try to keep the ball in the air without letting it hit the floor (volleyball) and scores are kept (Orlick, 2006). Participating in these games will help promote social skills and in turn may boost students' feelings towards school connectedness (Forgan & Jones, 2002).

Procedures

The procedures and data collection methods are as follows. The adventure activities intervention lasted over the course of four weeks. Given the amount of time to conduct the study and the use of the PAL's, the intervention for the control group was limited to a four-week program. The control group, which consisted of similar age level peers, did not receive the intervention, and did not participate in the adventure activities.

In the first day of the study, all 30 participants from the study completed the 18 question PSSM survey as a pretest. Then, four weeks later, the same PSSM survey (Goodenow, 1993) was administered to the same 30 participants. No other data was collected during the study.

Fidelity. In order to ensure fidelity of the intervention, the researcher was the only facilitator of the instruction component of the adventure activities. Students, PAL's, and Instructional Assistants were asked to not share out any information about the study outside of the 30-minute intervention time. Participants of the treatment and control group were not informed of the purpose of the study regarding school connectedness; the PAL's were also not informed. Participants of the treatment group were under the impression that the adventure activities were a part of their weekly instruction. Each 30-minute adventure activity was held in the allotted time frame. The intervention did not continue after the four-week period. Further, fidelity was ensured by each of the Instructional Assistants in the classroom, by monitoring and observing the treatment group. Also, the principal, who was informed of the study, came in to monitor and observe both the treatment and control groups. A checklist was created with dates of observation for either control or treatment group to ensure that 20% of the sessions were seen by an independent observer (see Appendix B).

Ethical Considerations

Ethical considerations were observed for this study. The adventure activities intervention was not harmful for any of the participants or PAL's involved. There were no threats to emotional or social risks and bodily threats or harm were not significant. All of the adventure activities took place in the safety of a classroom or outside under the supervision of one teacher and two instructional assistants. Outside activities took place 20 feet away from the classroom in a safe grassy area. Students were not asked to participate in the adventure activities outside of their normal school day.

Participants of the treatment group missed approximately 60 minutes of instruction a week; however, the researcher believed this loss of instructional time was not enough to warrant

issues of ethics. The teacher is also the researcher and the adventure activities were written into the lesson for each of the three days of the week. The participants of the treatment group are also using a modified curriculum and modified state standards. The PSSM (Goodenow, 1993), was used as a pretest and posttest survey, and ethical considerations were considered given some of the items may trigger negative reactions or emotions. The research was available to debrief any student that was have a negative reaction or emotion. Additionally, any student that faced any of these issues would not be asked to continue the survey. The researcher cleared the adventure activities with the site administrator and director of special education; both of whom agreed with the activities as a means of instruction.

Validity threats. Steps were considered and taken in order to reduce threats to validity of the study. Convenience samples were used for this study, and both treatment and control group were chosen as demographics were very similar. The treatment and control groups do differ in the fact that the treatment group is on a different education path than the control. Given the nature of this study and need for adequate participation, the control group had to be students with disabilities as well. The treatment group has 15 students and no more participants could be sourced at the school to be the control. Therefore, sampling was not considered a true validity threat for this study. Further, for the measure, the researcher used a practice questionnaire prior to implementation to model and guide the instruction of completing the questionnaire. Therefore, the researcher was able to ensure that all students could accurately self-report their levels of school connectedness. Finally, when it came to the adventure activities, participation was voluntary; therefore, no students were introduced to harm during the study.

Data Analyses

All data were entered into the Statistical Package for the Social Sciences® (SPSS®) for Windows, version 24.0.0 (SPSS, 2016). No names or identifying information were included in the data analysis. Before analyses were conducted all data were cleaned to ensure no outliers were present (Dimitrov, 2012). One participant was removed from the data file due to missing the posttest to due out of school suspension. After cleaning the data, the final sample size was 14 participants in the treatment group and 15 in the control group. Independent (control and treatment groups) and paired (pretest and posttest) sample t-tests were conducted to determine the significant difference in feelings of school connectedness between the means scores on the PSSM scale (Goodenow, 1993). Further, before interpreting the analytical output, Levene's Homogeneity of Variance was examined to see if the assumption of equivalence had been violated (Levene, 1960). If Levene's Homogeneity of Variance was not violated (i.e., the variances were equal across groups), data were interpreted for the assumption of equivalence; however, if the variances were not equal across groups the corrected output was used for interpretation.

Results

Two independent samples t-tests were conducted on the whole sample ($n = 29$) for both pre and post assessment scores. Results for the pretest were calculated to find the mean ($M = 3.24$) and standard deviation ($SD = .35$) for the control group, and the mean ($M = 3.20$) and standard deviation ($SD = .88$) for the treatment group. Levene's Homogeneity of Variance was not violated ($p > .05$), meaning the variance between groups was not statistically different and no correction was needed, and the t-test showed non-significant differences between the mean scores on the pretests between the two groups $t(27) = -.16, p > .05$. This data shows that there is

no significant statistical difference between both groups and both groups can be compared without hesitation (see Table 1).

Results for the posttest were calculated to find the mean ($M = 3.27$) and standard deviation ($SD = .51$) for the control group, and the mean ($M = 3.25$) and standard deviation ($SD = .57$) for the treatment group. Levene's Homogeneity of Variance was not violated ($p > .05$), meaning the variance between groups was not statistically different and no correction was needed, and the t-test showed non-significant differences between the mean scores on the pretests between the two groups $t(27) = -.12, p > .05$. Final analysis of data indicates that there is not a significant difference on the posttest between control and treatment groups (see Table 1). Statistical findings do not support the original hypothesis that participating in an adventure activities social skills curriculum will increase high school students with mild to moderate disabilities feelings towards school connectedness.

Table 1

Results of Independent Samples T-Tests

	Mean	SD
Pre Test		
Control	3.24	.35
Treatment	3.20	.88
Post Test		
Control	3.27	.51
Treatment	3.25	.57

Note. SD = Standard Deviation.

After determining the differences of pre and post assessment scores between groups, two paired t-tests were run for both groups (i.e., control and treatment) to determine if participants' mean scores from pre to post tests were significantly different within each group (See Table 2). Results for each group were as follows: control group, $t(14) = -.28, p > .05$; treatment group, $t(13) = -.34, p > .05$. Analysis of data shows that both control and treatment groups both did not demonstrate statistically significant results from pre to post test. Further, a negative t-value for both control and treatment groups signifies an increase in scores from pre to post test. This displays that both groups demonstrated a slight increase in overall average scores. Overall, the findings from this study do not support the original hypothesis that participating in an adventure activities social skills curriculum will increase high school students with mild to moderate disabilities feelings towards school connectedness.

Table 2

Results of Paired T-Tests

	Mean	SD
Control		
Pre	3.24	.35
Post	3.27	.51
Treatment		
Pre	3.20	.88
Post	3.25	.57

Note. SD = Standard Deviation.

Discussion

Students with mild to moderate disabilities oftentimes have difficulties using appropriate social skills to interact with same aged peers. According to California Children's Report Card (2014) and Gresham and colleagues (2001), the seclusion of students with disabilities in general education settings minimizes the window students have to build, engage, and maintain positive peer relationships at school; which in turn can lead to negative feelings of school connectedness. In order to improve feelings of school connectedness, previous research focused on teaching and implementing social skills in school (Bond et al., 2007; Caldarella & Merrell, 1997; Chhuon & Wallace, 2014; Eccles & Roeser, 2010; Forgan & Jones, 2002; Gresham et al., 2001; Kavale & Mostert, 2004; Laugeson et al., 2014; Rose & Shevlin, 2017; Ross et al., 2010).

The purpose of this study was to determine if participating in an adventure activities social skills curriculum three times a week for four weeks would help high school students with mild to moderate disabilities increase their feelings of school connectedness. The study focused on 14 students of the treatment group that would participate in various social skills building activities and 15 students in the control group that did not receive any treatment. Prior to collection of data, intervention, and analysis, it was hypothesized that by participating in an adventure activities social skills curriculum, participants of the treatment group would increase their feelings towards school connectedness; based on summed and averaged scores of the self-reported 18 item PSSM questionnaire (Goodenow, 1993).

Previous research suggested that the use of a social skills curriculum in the classroom was shown to decrease inappropriate behaviors and increase problem solving skills (Forgan & Jones, 2002). Since school connectedness was correlated to positive relationships in school,

building, maintaining, and engaging in those relationships at various times in the day with general education peers, by using social skills activities was shown to be beneficial. Participants of the treatment group, gradually began to become accustomed to engaging in conversations and working in groups with general education peers. Towards the end of the 12 intervention sessions, the treatment group began to feel more comfortable and willing to participate.

Overall results of the PSSM (Goodenow, 1993) measure indicated no significant gains of the treatment group. Although the intervention was administered for a short amount of time (12 sessions over four weeks), data shows that most scores averaged closer to the mean (0.05 increase for the treatment group of average scores on the PSSM). This shows that even though the intervention was short, some gains were produced. However, these results do not produce enough evidence to show that the social skills interventions positively changed student feelings of school connectedness in a statistically significant way.

Since the results of the data do not provide enough evidence to spark a change, other factors of the research may have produced unexpected results. Given the amount of studies previously conducted, there were few studies that explored school connectedness with such a specific group (i.e., students with mild to moderate disabilities). Consequently, that specific group of participants is also very unique when compared to other students with disabilities. Additionally, the intervention was very limited when compared to other studies (Forgan & Jones, 2002; Laugeson et al., 2014). Most of the previous studies suggested using a semester or entire school year. Additionally, the interventions used in this study were varied and unique. Activities chosen by the researcher were from the book *Cooperative Games and Sports, Joyful Activities for Everyone*, which contains more than 150 activities (Orlick, 2006). Each activity used was different and randomized at each session. These activities were primarily kinesthetic or tactile,

which may not have been preferred by some of the participants. Given the results of this study, specific limitations may have interfered with its overall findings.

Limitations

Within this study, there may have been several limitations that could have promoted the researcher's rejection of the hypothesis. First, the design of the intervention itself was one major limitation. Previous studies that used a social skills intervention were conducted over longer periods of time. For example, the PEERS program developed by Laugeson and colleagues (2014) is meant to be used 5 times a week for a 14-week semester. Due to school breaks and limitations of the school day, this study was limited to a four-week duration, which is not long enough to produce lasting results. If compared to a typical academic curriculum, a social skills curriculum would in fact have to last at least an entire semester in order to be completely exhaustive.

Second, the participant groups used in this study were chosen to be similar to each other and to represent a very specific group of individuals; a group that has not been researched extensively. In addition, convenience sampling was also used due to the time restraints and the availability of participants. Further, the researcher worked in a school setting directly with the group of participants that were studied. Participants of the treatment group represented a group of very diverse and unique individuals. Further data on these individuals would be important to include in future studies.

Finally, within the studies' participants, lies a wide variety of demographic information. Each and every student is in a different age range and academic year. Next, each participant has a variety of identified disabilities and needs. No two students are equally the same. Given the varying disabilities, came a multitude of participation in each activity. For instance, some

students were not as willing to participate in activities that required them to use kinesthetic or tactile skills. Also, given the unique disabilities of each individual, some participants had a difficult time interacting with general education students. Comparably, the use of various general education students, male and female, made some of the participants feel uncomfortable or intimidated because they were not familiar or accustomed to working with individuals their age. Further, overall commitment and motivation for completing each exercise was unique to each student. Some participants felt a connection and were motivated by each social skills activity. While others, had a difficult time connecting and bonding with individuals out of their general comfort zone. The varying aspects and factors of this study may have set a precedence for a rejected hypothesis.

Future Studies

Given the results of this study, future studies should look to: increase the sample size, increase the duration of the intervention, utilize social skills activities that include technology, and potentially utilize a cohort of students in a longitudinal study to research them throughout their high school career. Given these suggestions, the sample size of the study was drastically smaller than those used in previous research. The utilization limited participants can potentially hinder further researchers from being able to determine any significant findings. With this being said, since the mean scores of both the control and treatment groups increased over the four-week period, future studies need to focus on allotting more time to complete the given intervention. For example, Laugeson and colleagues (2014) used the PEEERS intervention 5 times a week for a 14-week semester, which equates to 60 sessions. Comparably, this study used only 12 intervention sessions over a four-week period. Increasing the 12 sessions frame by five times, can potentially produce more significant findings in future studies.

Within the intervention phase, each session included an activity that was either tactile or kinesthetic. Future studies should include the same, yet also consider using activities that appeal to 21st century learners. Computer based team games may inspire students to participate more in the intervention phase. Finally, the potential use of a longitudinal study that focuses on a cohort of freshmen students with disabilities may be an alternative method to the one used. Following a group of students and tracking their change over a four-year period, may be more beneficial than simply taking a snapshot of their progress during those four years.

Within the four weeks of this study, both treatment and control groups showed minimal progress (0.03 increase in the mean for the control group and 0.05 increase for the treatment group). Given this small increase in average scores, further studies should expand on these findings and explore how a social skills intervention can be used in a high school setting with students with mild to moderate disabilities. Since previous research showed that teaching and implementing social skills in school, could potentially boost students with disabilities feelings toward school connectedness (Bond et al., 2007; Caldarella & Merrell, 1997; Chhuon & Wallace, 2014; Eccles & Roeser, 2010; Forgan & Jones, 2002; Gresham et al., 2001; Kavale & Mostert, 2004; Laugeson et al., 2014; Rose & Shevlin, 2017; Ross et al., 2010), further research must follow the same path. Given that school connectedness has been correlated to success in school, further in depth research on this topic, can have the potential of providing lifelong findings that can in turn lead to the utilization of a generalized social skills curriculum in special education classes.

References

- Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., & Patton, G. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. *Journal of Adolescent Health, 40*(4), 357.e9-357.e18. doi:10.1016/j.jadohealth.2006.10.013
- Blackorby, J., & Wagner, M. (1996). Longitudinal postschool outcomes of youth with disabilities: Findings from the national longitudinal transition study. *Exceptional Children, 62*(5), 399-413.
- Caldarella, P., & Merrell, K. W. (1997). Common dimensions of social skills of children and adolescents: A taxonomy of positive behaviors. *School Psychology Review, 26*(2), 264-278.
- California's Children's Report Card (2014). School Climate & Discipline.
Retrieved from <https://www.childrennow.org/>
- Center for Disease Control (CDC) (2009). Fostering School Connectedness.
Retrieved from
https://www.cdc.gov/healthyyouth/protective/pdf/connectedness_administrators.pdf
- Chhuon, V., & Wallace, T. L. (2010). Creating connectedness through being known. *Youth & Society, 46*(3), 379-401. doi:10.1177/0044118x11436188
- Child Trends Databank (2015). Databank indicator. *High school dropout rates*. Retrieved from <https://www.childtrends.org/?indicators=high-school-dropout-rates>
- Dimitrov, D.M. (2012). *Statistical methods for validation of assessment scale data in counseling and related fields*. Alexandria VA: American Counseling Association.
- Eccles, J.S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence.

- Journal of Research on Adolescence*, 21(1), 225-241.
doi:10.1111/j.1532-7795.2010.00725.x
- Forgan, J. W., & Jones, C. D. (2002). How experiential adventure activities can improve student's social skills. *TEACHING Exceptional Children*, 34(3), 52-58.
doi:10.1177/004005990203400307
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and education correlates. *Psychology in the Schools*, 30, 79-90.
- Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children*, 67(3), 331-344. doi:10.1177/001440290106700303
- IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.
- Kavale, K. A., & Mostert, M. P. (2004). Social skills interventions for individuals with learning disabilities. *Learning Disability Quarterly*, 27(1), 31-43. doi:10.2307/1593630
- Laugeson, E. A., Bates, S., Ellingsen, R., Sanderson, J., & Tucci, L. (2014). The abc's of teaching social skills to adolescents with autism spectrum disorder in the classroom: The UCLA peers program. *Journal of Autism and Developmental Disorders*, 44(9), 2244-2256. doi:10.1007/s10803-014-2108-8
- Levene, H. (1960). Robust tests for equality of variances. *Contributions to probability and statistics*, 1, 278-292.
- Little, S.G., Swangler, J., Akin-Little, A. (2017). Defining social skills. *Handbook of Social Behaviors and Skills in Children*, 12, 9-17. doi:10.1007/978-3-319-64592-6_2

- Kennedy-Moore, E. (2011). What are social skills? Retrieved from <https://www.psychologytoday.com/blog/growing-friendships/201108/what-are-social-skills>
- Maslow, A. (1943). (2016, February 04). Maslow's hierarchy of needs. Retrieved from <https://www.simplypsychology.org/maslow.html>
- Moore, C., & Gilbreath, D. (1998). Educating students with disabilities in general education classrooms: A summary of the research. *U.S. Department of Education, Office of Special Education and Rehabilitative Services*, 2-16.
- National Center for Education Statistics (2016). Status Dropout Rates. Retrieved from https://nces.ed.gov/programs/coe/indicatro_coj.asp
- National Center for Education Statistics (2016). Public High School Graduation Rates. Retrieved from https://nces.ed.gov/programs/coe/indicatro_coj.asp
- Orlick, T. (2006). Cooperative games and sports: joyful activities for everyone. Champaign, IL: Human Kinetics.
- Rehfeldt, J.D., Clark, G.M., Lee, S.W., (2012). The effects of using the transition planning inventory and a structured IEP process as a transition planning intervention on IEP meeting outcomes. *Remedial and Special Education*, 33(1), 48-58.
doi:10.1177/0741932510366038
- Rose, R., & Shevlin, M. (2017). A sense of belonging: Children's views of acceptance in "inclusive" mainstream school [Special issue]. *International Journal of Whole Schooling*, 65-80.

Ross, A. G., Shochet, I. M., & Bellair, R. (2010). The role of social skills and school connectedness in preadolescent depressive symptoms. *Journal of Clinical Child & Adolescent Psychology, 39*(2), 269-275. doi:10.1080/15374410903532692

School Accountability Report Card (2016). DataQuest. Retrieved from <https://dq.cde.ca.gov/dataquest/>

Wisconsin Education Association Council (2001). Special Education Inclusion. Retrieved from <http://weac.org/articles/specialedinc/>

Wright, P. W. (2004). Wright's Law. Retrieved from <http://www.wrightslaw.com/idea/idea.2004.all.pdf>.

Appendix A

Psychological Sense of School Membership (PSSM; Goodenow, 1993)

Circle the answer (number) for each statement that is most true for you	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree				
1. I feel like a part of my school.	1	2	3	4	5
2. People at my school notice when I am good at something.	1	2	3	4	5
3. It is hard for people like me to be accepted at my school.	1	2	3	4	5
4. Other students in my school take my opinions seriously.	1	2	3	4	5
5. Most teachers at my school are interested in me.	1	2	3	4	5
6. Sometimes I feel as if I don't belong in my school.	1	2	3	4	5
7. There is at least one teacher or adult I can talk to in my school if I have a problem.	1	2	3	4	5
8. People at my school are friendly to me.	1	2	3	4	5
9. Teachers here are not interested in people like me.	1	2	3	4	5
10. I am included in lots of activities at my school.	1	2	3	4	5
11. I am treated with as much respect as other students in school.	1	2	3	4	5
12. I feel very different from most other students at my school.	1	2	3	4	5
13. I can really be myself at my school.	1	2	3	4	5
14. Teachers at my school respect me.	1	2	3	4	5
15. People at my school know that I can do good work.	1	2	3	4	5
16. I wish I were in a different school.	1	2	3	4	5
17. I feel proud to belong to my school.	1	2	3	4	5
18. Other students at my school like me the way that I am.	1	2	3	4	5

Appendix B

Fidelity Checklist

Date	Treatment/Control	Signature/Initials
February 26 th , 2018	Control	
February 27 rd , 2018	Treatment	
March 2 nd , 2018	Treatment	
March 9 th , 2018	Treatment	
March 16 th , 2018	Treatment	
March 21 st , 2018	Treatment	
March 23 rd , 2018	Control	