



Effects of School of Life Foundation Intervention on Grade Advancement, Dropout and Attendance: A Descriptive Study

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Abstract

Across the country, schools face a multitude of challenges related to student discipline and school climate that potentially impact social and academic outcomes for students. Schools are continually changing and the demands that students face daily have increased at a rapid rate. When students are ill-equipped to face such demands, and traditional reactive approaches to discipline are employed, there is an increased likelihood that they will drop out, or will face punitive measures that do not ultimately improve behaviors (Morrissey *et al.*, 2010). Choosing to dropout of high school may cause serious repercussions for students, their communities and families. Although many interventions currently used to decrease the number of dropouts do not have strong evidence to support their effectiveness (Freeman *et al.*, 2015), several studies conducted in the past 20 years indicate that improved outcomes for students graduating high school have occurred through various interventions. School of Life (SOLF) is an intervention offered as an alternative to in school detention and suspensions. Although other dropout prevention programs have been evaluated, SOLF is a time and resource efficient method for targeting dropout and students who have participated in this intervention over the past three years have seen positive results, including higher rates of graduation (Baggaley, 2015). The purpose of the current study was to answer the following three research questions: 1. What is the effect of the SOLF on grade advancement/dropout rates? 2. What is the effect of SOLF on attendance? 3. What is the effect of SOLF on school connectedness and student motivation?



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1. Introduction

Schools across the country face a multitude of challenges related to student discipline and school climate that potentially impact social and academic outcomes for students (Kuperminc *et al.*, 2001; Roeser *et al.*, 2000). Schools are continually changing (Knitzer, 1993; Lohrmann *et al.*, 2006) and the educational and social demands that students face daily have increased at a rapid rate, which impacts their likelihood of developing problem behavior (Eccles and Midgley, 1989). When students are ill-equipped to face such demands, and traditional reactive approaches to discipline are employed, there is an increased likelihood that they will drop out, or will face punitive measures that do not ultimately improve behaviors (Morrissey *et al.*, 2010).

2. Dropout

Choosing to dropout of high school may cause serious repercussions for students, their communities and families. Since the 1980s, in which there was a call for educational reform regarding high school dropouts, the resulting effort impacted U.S high school dropout rates, which have shown a slowly declining trend (Freeman *et al.*, 2015). The overall dropout rate is 6.5 percent in the U.S (National Center for Educational Statistics, 2017), however the disparity of graduation rates among different ethnic backgrounds is evident from the data. As of 2015 the dropout rate in U.S. high schools was 5.9 percent, with the dropout rate for students who are caucasian at 4.6%, black 6.5% and Hispanic 9.2% (National Center for Educational Statistics, 2017). The impact of students who dropout of high school can be a detrimental one, and is associated with negative employment and life outcomes including needing

government assistance, living in poverty, and ending up in prison (Christle *et al.*, 2007). Students who drop out are also at higher risk for mental health issues, such as depression, and gang or criminal activity. (Freeman *et al.*, 2015; Rumberger, 1987; Swanson, 2009). Based on these issues, further research is needed in the area of dropout prevention, including specific interventions that decrease high school dropout rates and ultimately improve student outcomes post high school.

Many factors contribute to high school students making the choice to dropout that are related to the individual, families, communities, and the school (Hammond *et al.*, 2007). Students face challenges related to social and life skills that may impact the decision to engage in problem behaviors, including the inability to interact with others in an effective manner and solve problems when they arise. When students engage in frequent negative behaviors, this has the potential to impact their ability to graduate (Devine, 1996; Gottfredson *et al.*, 1993). Schools often take a reactive approach to supporting students with challenging behaviors (Sinclair *et al.*, 2005). The types of punishment that schools impose can be exclusionary, such as school suspensions, which do not teach students appropriate behaviors, nor provide learning opportunities (Skiba and Rausch, 2006). Students also miss out on completing work and engaging in learning within the classroom that cannot happen independently, such as during times of suspension or seclusion. Finding solutions that keep students in class as much as possible as well as learning appropriate strategies and skills provide a better opportunity for students to have success and stay engaged with the school environment. School connectedness and motivation are two additional factors that impact dropout and together serve as important factors for dropout prevention.

3. School Connectedness

According to Biag (2016), school connectedness refers to a student's belief that adults in their school care about their learning and about them as individuals. The perceptions that students have regarding their connection to their school has strong implications for educational success. Students who have stronger connection to their school, both with the environment and positive relationships with teachers, often achieve higher grades, have stronger classroom motivation, and higher levels of engagement in school (Niehaus *et al.*, 2012). Furthermore, when students have higher levels of bonding to school, they are less likely to be retained or dropout of high school (Catalano *et al.*, 2004).

4. Theories of Motivation

According to Khalkhali *et al.* (2013), research on high school dropout indicates that a relationship exists between a students' decision to drop out of school and motivation. Student motivation includes the following characteristics; attainment skills, choice-making, decision-making, problem solving, self-management, goal-setting, self-efficacy and self-knowledge (Wehmeyer and Schwartz, 1997; Zhang and Law, 2005). Many studies exist in the literature that focus on a motivational theory that has been applied in educational settings called self-determination theory (SDT) (Deci and Ryan, 2000; Vallerand *et al.*, 1997). This theory focuses on an individual being the locus of causality of his or her behavior that exists on a continuum of self-regulation (Alvernini and Lucidi, 2011). SDT has typically been applied to students with disabilities and focuses on increasing students' interest in learning, and building confidence in their own capabilities in an educational setting. It has also been used as a framework to discern the motivational influences of students' intentions to dropout of school (Khalkhali *et al.*, 2013). According to a longitudinal study conducted by Vallerand *et al.* (1997), students who chose to drop out of school showed lower levels of self-determined motivation and decreased levels of motivation towards school activities than peers who continued in school. Together school connectedness and motivation are two vital factors that should be addressed by dropout interventions.

5. Dropout Interventions

Although many dropout prevention programs do not have strong evidence to support their effectiveness (Freeman *et al.*, 2015), several studies conducted in the past 20 years indicate that improved outcomes for students graduating high school have occurred through various interventions. For example, one study conducted by Cho *et al.* (2005), focused on the effects of a peer group intervention and results indicated improved graduation rates as well as having other positive outcomes. The study examined the effectiveness of a prevention program called Reconnecting Youth. Students were grouped in classes of 10-12 students, led by a teacher, for a full-semester course that focused on providing a supportive peer group.

Several other studies have analyzed the effects of a high school intervention called Check and Connect, which is an intervention provided to students who are at-risk for dropping out due to disengagement with school. The intervention provides students at-risk for dropping out with an adult mentor who checks in with the student and then connects them to interventions and resources for problem-solving, building skills and enhancing competence. The research conducted indicates that high school students have responded positively (i.e., increases in grades, decreases in rates of dropout) to Check and Connect as a dropout prevention intervention (Alvarez and Anderson-Ketchmark, 2010; Cheney *et al.*, 2009; Cheney *et al.*, 2010; Maynard *et al.*, 2014; McDaniel *et al.*, 2016; Sinclair *et al.*, 1998). Another study analyzed the relationship between an interpersonal skills training program called PREPaRE for high school students and dropout. Students received small-group, targeted instruction in the area of social skills from a trained instructor (Bergeron *et al.*, 2013). Results from this study indicated that students who were taught the appropriate social skills to interact with peers and the community were much more likely to have future success and have a higher likelihood of graduating from high school.

6. School of Life

The School of Life Foundation (SOLF) intervention is a dropout prevention curriculum based on the “Learn to School Your Toughest Opponent” workbook (Rolfe, 2014). The intervention is provided to students who are deemed to be at-risk for dropping out based on several risk factors including: absenteeism/tardiness, low academics or off-track to graduate, and behavioral issues. Students are selected to participate for four weeks in two-hour sessions that focus on teaching basic social and life skills. The intervention targets 9 different “A’s” that have been associated with higher graduation rates and are encompassed within two important research constructs related to dropping out: school connectedness and student motivation. Some examples of A’s that are tied to these components are Aim, Associate, and Action. These three A’s focus on student-related variables to dropping out and during the intervention students learn skills such as setting goals (aim), choosing more appropriate peers, (association) and taking actions that will increase student performance both in the classroom and in their daily life.

When students engage in sustained problem behavior in schools (e.g., acquire office discipline referrals), SOLF is offered as an alternative to in school detention and suspensions. Although other dropout prevention programs have been evaluated, many are time intensive and expensive to implement. SOLF is a time and resource efficient method for targeting dropout and evaluation data indicate students who have participated in this intervention over the past three years have seen positive results, including higher rates of graduation (Baggaley, 2015). The purpose of the current study was to answer the following three research questions: 1. What is the effect of the SOLF on grade advancement/dropout rates? 2. What is the effect of SOLF on attendance? 3. What is the effect of SOLF on school connectedness and student motivation?

7. Method

7.1. Participants

7.1.1. Schools

The participants in this study were from four schools located in three urban school districts in the western United States. The project director began working with one school in 2011 by having community members, trained by SOLF, offer the intervention during after school hours. The following year, two more schools in the same district asked the project director to provide the training and intervention materials for their school. This continued to grow and other districts then became interested, thus the project director met with them and the new districts recommended schools that they believed had a population of students who would benefit from the intervention. After the schools’ administration indicated interest in participating in the intervention, the project director coordinated with principals and school staff to organize the different session dates that would occur throughout the school year.

Three of the four high schools included in this study were mid-range in size and had a population ranging from 1,200 to 1,700 students. The fourth school was larger and had a student population of around 2,200 students. A large percentage of the student population in all four participating schools were Caucasian. See Table 1 for school demographics.

7.1.2. Students

School administration teams identified at-risk students, in grades 9-12 based on the following risk factors: being off-track to graduate or having perpetual absences, tardies, or displaying other behavioral concerns (e.g., office discipline referrals, detentions). The study included 112 participants, 56 of whom were female and 56 males. The students in the study included 55% Caucasian, 17% Hispanic, 6% Asian/Pacific Islander, 3.5% African American, less than 1% American Indian or Alaskan, and 12% listing “other.” Students participated in order to earn graduation credits or based on recommendation from the school administration. Participation in the SOLF intervention was voluntary.

7.2. Measures

7.2.1. Intervention Fidelity

To ensure fidelity of the SOLF intervention, a few steps were to taken. Outside observers were trained in utilizing an instrument that was created to analyze fidelity of implementation. The intervention fidelity tool was created based on the components from the SOLF Trainers’ Guide and had questions that aligned with the lesson plan provided to the trainer for that particular session. The observer used a Likert-type scale to analyze each area of the intervention to agree whether or not the components were implemented. The scale ranged from 0-2 (0 = implemented few or no components, 1 = implemented some components, 2 = implemented all components). Interobserver agreement (IOA) was then calculated on the percentage of agreed upon components of implementation per session.

7.2.2. Off-Track to Grade Advancement/Graduation

The primary dependent measure of the study was the effect of the SOLF intervention on student grade advancement and graduation during the 2016-2017 school year. Among the four schools, the definition of off-track for grade advancement or graduation was defined by three criteria: (1) failing a class required for graduation; (2) insufficient credits for graduation; and/or (3) lacking citizenship credits. The last criteria of citizenship encompassed several contributing factors that could decrease a student’s grade, which included number of absences, tardies,

problem behaviors or not following school rules, and disrespecting staff or school authority. It should be noted that not all students who participated in SOLF intervention were considered off track for grade advancement or graduation. Some students were identified as at risk based on absences, tardies or other behavioral data but these incidents had not affected their citizenship grades prior to entry into the intervention.

7.2.3. Attendance/Tardies

Number of days absent were summed both prior to and following implementation of the SOLF. All attendance data were converted to a percentage of days absent or tardy relative to the total number of days enrolled prior to the intervention and after the intervention. The number of days pre and post intervention was 45, except for the spring session because there were not enough school days to calculate 45 days post-intervention, which averaged at 10 days.

7.2.4. SOLF Opening/Closing Survey

The SOLF Opening/Closing Survey (Baggaley, 2015) was used to assess student attitudes about school, life and participation in the intervention. Students were asked to fill out the survey prior to starting the intervention and immediately after ending the intervention. The questions corresponded to the concepts taught in the SOLF intervention including: appreciation, assistance to others, attitude about life, goal-setting, associations with others, alignment of goals, actions, avoiding problem peers or life-choices, adapting, and perceptions around graduation and attendance. The students answered questions based on Likert-type scales which asked students to rate the extent to which each item is true (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Other questions had varying levels of the Likert-type scale. For example, students were asked to rank their current level of happiness on a scale of 0-100. They were also asked how often they say thank you, with responses ranging from never to frequently. To provide a link between factors which contribute to drop out, the researchers combined question to create two factors: Motivation and Connectedness. After identifying questions related to each of the factors, composite scores were created for motivation and connectedness by multiplying scores from the respective questions together. Due to the ordinal nature of the data, multiplication was used to maintain the students level of endorsement or agreement with the question. The final question of the survey asked students to rate (i.e., 0-5 scale with 5 = highest rating) the extent to which they felt the trainers were effective in delivering the content.

7.3. Procedure

Students were identified as candidates for the SOLF intervention based on the risk factors described in the participant section. Once students were identified, school staff (e.g., school counselor or vice principal) met with the students and explained the purpose of the intervention and gained consent for participation. Once consent was obtained, students were asked to complete the SOLF Opening Survey and sign an agreement that they were committed to participating in the intervention.

The SOLF is an 8-hour intervention, implemented during after school hours, across 4 weeks, with each session lasting two hours. The individual sessions are delivered by two trainers, one male, one female who have received 14 hours of training and coaching on how to implement the intervention. Trainers are required to observe and participate in a live SOLF class (8 hours) and in addition receive 6 hours of train-the-trainer classroom instruction which involves a detailed run through of the intervention, best practices in presenting material, time tips and expectations for standardized (scripted) delivery of the content. Trainers are either community members and/or teachers in the school who have expressed interest in delivering the SOLF content.

The SOLF intervention is extensively scripted and includes prompts for trainers on how to facilitate discussion. The content is delivered via Powerpoint, videos and didactic instruction with a large portion of student participation, including answering questions and participating in group discussions. To get the most out of the intervention, the students are encouraged to answer questions, share stories and ideas, and to engage with the trainers and other student participants. At the end of each session, students are assigned short homework assignments to provide practice applying content covered.

The goal of the intervention is to target factors directly linked to students being at risk for dropping out, and nine "A's" are covered across the first 3 weeks which include: 1) Appreciate, 2) Assist, 3) Attitude, 4) Aim, 5) Align, 6) Action, 7) Associate, 8) Avoid, and 9) Adapt.

During week 1 of the SOLF intervention, the trainers introduce the program to the students, remind them of the agreements they signed and talk about expectations, including 100% attendance to achieve credit for the course, and expectations for actively participating during the sessions. Each student receives a copy of the SOLF handbook titled "*Learn to School Your Toughest Component*", which includes reading to be completed for homework and a section for students to complete their answers to homework questions. During Week 1 the following A's are discussed: Appreciate, Assist, and Attitude. For Appreciate, students are taught how to be grateful for their friends, family and other things they have in their life. The homework for this session involves having students write a thank you letter to someone special in their lives. For Assist, students are taught the importance of helping others, and their homework is to provide an act of service to someone else over the course of the week. The last "A" covered is Attitude, which includes information on the importance of a positive attitude to shape daily experiences and interactions. Students are provided homework involving looking in the mirror daily and determining their attitude for the day.

Week 2 of the SOLF covers the following: Aim, Align and Action. For Aim, students are taught the importance of goal setting for long-term success, and are given the formula SMART (specific, measurable, appropriate, realistic

and timetable) to provide guidance in writing effective goals. The homework related to AIM involves students writing both short and long-term goals (e.g., goals related to self, family or school) using the SMART goals framework, and are asked to work on one of the short-term goals for the week. For Align, students are taught the importance of organization and its relation to success in life. Their homework for the week is to determine which organization system works best for them and to organize a simple space in their life such as a closet, locker or binder. The final “A” covered during Week 3 is Action and students are taught the importance of taking action to achieve goals in life in contrast with procrastination. Homework for the week involves taking action on one thing in which they have been procrastinating (e.g., completing homework packets, making up missed assignments, etc.).

Week 3 trainers cover Associate, Avoid, and Adapt. For Associate, students are taught the importance of human connection and making friends. The homework for the week requires students to meet and get to know someone new over the course of the week. For Avoid, students are taught to avoid people, places, and things that are not helping them reach their long and short-term goals. They are also asked to reflect on whether their current friends are supporting their goals. The homework for the week involves identifying the factors in their lives that should be avoided in order to accomplish their goals. For Adapt, students are taught the importance of being flexible, going with the flow and seeing challenges as opportunities. For Adapt they are taught about commitment, challenge and change which means when working on attaining goals one must commit, be ready to face any changes that arise and be open to and flexible to change course if needed in order to obtain goals. The homework for the week involves students converting a challenge into an opportunity, and sharing the experience with a teacher, other student or mentor. Homework for the week also involves creating their presentation for the final course. Information on the presentation is provided below.

Week 4 of the intervention involves the student choosing one of the nine “A’s” that affected them the most and developing a presentation of some sort around that theme. Students are allowed to use any medium they want to express how they were affected by the content including writing poems, songs, creating art or Powerpoint presentations. Students are required to speak or perform for at least 4 minutes. During Week 3, the trainers provide models of sample presentations by choosing an A that is important to them, and providing a 4-7 minute presentation of why it is important.

At the end of the Week 4 session, students are asked to complete the closing survey using either Chromebooks or the school’s computer lab. The goal is to have 100% completion of closing surveys, which is why it is included in the final course session. Students receive a certificate of course completion and are encouraged to continue working on the skills learned in the course.

8. Results

8.1. Fidelity of Implementation

Fidelity of implementation was gathered across the four schools over two sessions (winter and spring) for a total of 32 sessions. Fidelity results are included in Table 2. Overall fidelity ranged from 83-91% of implementation. Interobserver (IOA) was collected for 28% of the total SOLF sessions held during the winter and spring of the 2016-2017 school year. The average IOA across all sessions ranged from 93-100%.

8.2. Off-Track to Grade Advancement/Graduation

Of the 113 students who participated in the School of Life Program for Winter and Spring, 55 students (49.5%) were considered by their schools as off track for grade advancement or graduation. Of the 49.5% who were considered off track, 85.5% (47 students) went on to advance or graduate following implementation of the School of Life Intervention, while 7.3% did not advance or graduate (with the remaining students moving schools) this percentage is significant when compared to the state’s overall dropout rate of 11%. Figure 1 provides a summary of the percentage of students who were off track and went on to graduate following SOLF implementation.

8.3. Attendance/Tardies

A paired samples t-test was conducted to evaluate the impact of the SOLF intervention on student’s overall number of days absent. There was a statistically significant decrease in number of days absent from prior to the intervention ($M=4.80$, $SD=5.41$) to after the intervention ($M=3.26$, $SD=3.78$), $t(107)=3.3$, $p<.01$ (two-tailed). The mean decrease in number of days absent was 1.5 with a 95% confidence interval ranging from 0.65 to 2.4. The eta squared statistic (.09) indicated a small effect size.

An additional paired samples t-test was conducted to evaluate the impact of the intervention on student’s total number of tardies. There was a statistically significant decrease in the number of tardies from prior to the intervention ($M=11.16$, $SD=8.36$) to following the intervention ($M=5.19$, $SD=7.19$), $t(105)=6.13$, $p<.001$ (two-tailed). The mean difference in number of tardies was 5.97 with a 95% confidence interval that ranged from 4.04 to 7.91. The effect size (eta squared) of 0.26 was small.

A final paired samples t-test was conducted to evaluate the impact of SOLF for the specific subgroup of students who were identified as Off Track prior to the intervention. There was a statistically significant decrease, $t(49)=2.292$, $p<.05$ (two-tailed) decrease in the number of days absent. The mean decrease in number of days absent was 1.59 with a 95% confidence interval ranging from 0.2 to 2.98. The eta squared statistic (.10) indicated a small effect size. Additionally, there was a statistically significant decrease in the number of tardies from prior to the intervention to following the intervention, $t(48)=4.21$, $p<.001$ (two-tailed). The mean difference in number of tardies was 6.76 with a 95% confidence interval that ranged from 3.52 to 9.98. The effect size (eta squared) of 0.27 was small.

8.4. School of Life Opening/Closing Survey

Due to the ordinal nature of the composite variables two Wilcoxon Signed Rank Tests were conducted to determine the impact of SOLF on connectedness and motivation. The first test revealed a statistically significant increase in connectedness following participation in the School of Life program, $z=-5.3$, $p<.001$, with a small effect size ($r=.35$). The second Wilcoxon Signed Rank Test was run to determine the impact of SOLF on student's motivation. The test revealed a statistically significant increase in student motivation following participation in School of Life, $z=-3.9$, $p<.001$, with a small effect size ($r=.26$). Student evaluation of the extent to which trainers delivered content effectively is presented in Table 3. Overall, mean ratings across trainers ranged 4.74-4.97 as rated on a 5-point scale.

9. Discussion

The SOLF after school intervention is a time efficient, cost effective method for targeting students who are at-risk for dropping out. Such an intervention is valuable to the field given the increasing rates of dropout and limited time and money to implement interventions. Currently funded by donations from foundations to the School of Life Foundation (a 503c), the cost per student receiving the intervention is approximately \$200. It should be noted that it's estimated that even one dropout costs the economy approximately \$250,000 over his/her lifetime (Belfield and Levin, 2009) a drastic increase from the \$200 needed for this intervention. The nine A's targeted by the intervention have been linked to key variables related to dropout. As with any intervention, fidelity of implementation is key to document the extent to which the intervention led to the outcomes. In this descriptive study, the SOLF intervention was implemented with high fidelity (i.e., > 93%) and these fidelity scores were corroborated with high interobserver agreement. The high fidelity of implementation is likely due to the scripted nature of the intervention, which supports quality of delivery, along with adequate training procedures (Carroll *et al.*, 2007) in place to support the co-trainers implementing the intervention.

Prevention programs involve multiple avenues to access the intervention and multiple methods to determine "risk status." In terms of students being at-risk for dropping out, in this study several variables were taken into account including students receiving a failing grade in a course required for graduation, citizenship grades and problem behavior. Prior to the intervention, almost half of the students included in the study were rated as off-track to graduate or advance a grade by their school administration. Following implementation of the SOLF intervention, 85.5% of those rated off track went on to advance a grade or graduate from high school.

Previous research has indicated that lack of student attendance and student disengagement have been linked to students dropping out (Abar *et al.*, 2012; Rumber and Lim, 2008). Many students lack organization to attend school on time, complete assignments and engage in the daily activities of school (Alvernini and Lucidi, 2011) The SOLF intervention targets attendance by having students set goals, make commitments and become better organized to complete school work and other life tasks. There was a statistically significant reduction in tardies and absences following student's engagement in the SOLF intervention. A reduction in tardies and absences is particularly noteworthy as typically student absences tend to increase as the school year progresses and both SOLF intervention sessions took place during the second half of the school year.

Previous research has found a link between school connectedness and drop out. Students who experience school connectedness tend to have higher grades and are more likely to graduate from high school (Lonczak *et al.*, 2002; Osterman, 2000). In addition, students who have higher motivation are more likely to stay in school (Goodenow and Grady, 1993). Questions on SOLF Opening and Closing survey were combined to develop two composite measures: school connectedness and motivation. Results from this analysis show that students reported an increase in both after participating in the SOLF intervention, which indicates that the intervention impacted students in both of the areas of school connectedness and motivation. In addition, students across the four schools rated their trainers highly which also likely contributed to the outcomes found in the study.

9.1. Limitations

One of the main limitations of this descriptive study is the implementation of a pre-post quasi-experimental design with a lack of a control group. Therefore, it is unclear how outcomes would have differed for students in a study who did not receive the intervention. SOLF intervention is relatively new in terms of implementation and evaluation procedures are being refined with each implementation of the intervention. Another limitation of this study is the extent to which trainers and the SOLF content was perceived by the students who received the intervention. It's notable that the SOLF was implemented with high fidelity but the closing survey contained only one question to evaluate trainers and content. More rigorous evaluation is necessary for program refinement and improvement based on student feedback.

Another limitation with this descriptive study came from the evaluation of student progress immediately following the intervention. It's unclear if results would maintain over time related to the effects on absences, tardies and self-perception of motivation and connectedness. The number of days absent and/or tardy post-intervention was truncated for the students who received the intervention in the spring and therefore days absent/tardy were converted into percentages. As stated above, it's unclear whether the changes would have maintained over a longer period of time.

9.2. Future Research

The design implemented in this study was quasi-experimental in nature therefore future research on SOLF should employ more rigorous research designs to document the effect of the intervention on grade advancement and attendance. SOLF is implemented as an after school program for students at-risk for dropping out and can be viewed as a Tier 2, targeted intervention implemented in a multi-tiered system of behavior support. Many other interventions for students at risk such as Check and Connect (Cheney *et al.*, 2010) and Check-in, Check-out (Crone *et al.*, 2015) are implemented within a continuum of positive behavior support. Future research on the SOLF intervention should examine the extent to components of the intervention can be tied to the positive behavior supports schools implement at the universal level. That is, the A's that are taught in SOLF could be directly linked to Tier 1 school-wide behavioral expectations that have been taught to all students.

Dropout rates across the country overall have been declining (Freeman *et al.*, 2015); however, dropout rates among minorities and students with disabilities is still a cause for concern (National Center for Educational Statistics, 2017). The current study did not include a diverse enough sample to draw conclusions regarding differential effectiveness of SOLF across different ethnicities. In addition, data were not gathered on whether students included in the research had disabilities. Future research should examine differential effectiveness of SOLF across ethnicities and disability status.

Due to the numerous challenges associated with student success in schools, and the limited time and funding available for interventions, it is vital that intervention programs be effective and financially manageable. The SOLF after school intervention program meets these requirements and equips students who are at risk of not completing school with the necessary tools to succeed. Taken together with the previously mentioned limitations, this study being exploratory in nature, can serve as a building block for future research on SOLF. Given the overall complexity of student dropout and the impact it has on society and student success, research focused on effective interventions will continue to be an important endeavor.

References

- Abar, B., Abar, C. C., Lippold, M., Powers, C. J. and Manning, A. E. (2012). Associations between reasons to attend and late high school dropout. *Learning and Individual Differences*, 22(6): 856-61.
- Alvarez, M. E. and Anderson-Ketchmark, C. (2010). Review of an evidence-based school social work intervention, Check & connect. *Children & Schools*, 32(2): 125-27.
- Alvernini, F. and Lucidi, F. (2011). Relationship between social context, self-efficacy, motivation, academic achievement, and intention to dropout of high school, A longitudinal study. *The Journal of Educational Research*, 104(4): 241-52.
- Baggaley, J. (2015). *School of life statistical report*. Washington County School District Report.
- Belfield, C. R. and Levin, H. M. (2009). High school dropouts and the economic losses from juvenile crime in California. *California Dropout Research Project Report*, 16: 1-55. Available: <https://www.cbcse.org/publications/high-school-dropouts-and-the-economic-losses-from-juvenile-crime-in-california>
- Bergeron, J. L., Nolan, R. F., Dai, Y. and White, B. (2013). Interpersonal skills training with at-risk high school students. *National Forum of Applied Educational Research Journal*, 26(3): 1-10.
- Biag, M. (2016). A descriptive analysis of school connectedness, The views of school personnel. *Urban Education*, 51(1): 32-59.
- Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J. and balain, S. (2007). A conceptual framework for implementation fidelity. *Implementation science Published online*, 2(30): 2-40.
- Catalano, R., Haggerty, K., Oesterle, S., Fleming, C. and Hawkins, J. (2004). The importance of bonding to school for healthy development. Findings from the social development research group. *Journal of School Health*, 74(7): 252-61.
- Cheney, Stage, S. A., Hawken, L. S., Lynass, L., Mielenz, C. and Waugh, M. (2009). A 2-year outcome study of the check, connect, and expect intervention for students at risk for severe behavior problems. *Journal of Emotional and Behavioral Disorders*, 17(4): 226-43.
- Cheney, Lynass, L., Flower, A., Waugh, M., Iwaszuk, W., Mielenz, C. and Hawken, L. (2010). The check, connect, and expect program, A targeted, tier 2 intervention in the schoolwide positive behavior support model. *Preventing School Failure*, 54(3): 152-58.
- Cho, H., Hallfors, D. D. and Sanchez, V. (2005). Evaluation of a high school peer group intervention for at-risk youth. *Journal of Abnormal Child Psychology*, 33(3): 363-74.
- Christle, C. A., Jolivette, K. and Nelson, M. C. (2007). School characteristics related to high school dropout rates. *Remedial and Special Education*, 28(6): 325.
- Crone, D. A., Hawken, L. S. and Horner, R. (2015). *Building positive behavior support systems in schools, Functional behavioral assessment* 2nd edn: Guilford Press.: New York, NY.
- Deci, E. L. and Ryan, R. M. (2000). The “what” and “why” of goal pursuits: human needs and the self-determination of behavior. *Psychological Inquiry*, 11: 227-68.
- Devine, J. (1996). *Maximum security, The culture of violence in inner-city schools*. University of Chicago Press: Chicago.
- Eccles, J. S. and Midgley, C. (1989). *Stage/environment fit, Developmentally appropriate classrooms for early adolescents*. In r. E. Ames & c. Ames (eds.), *research on motivation in education*. Academic Press.: New York, NY. 3:

- Freeman, J., Simonsen, B., McCoach, B., Sugai, G., Lombardi, A. and Horner, R. (2015). An analysis of the relationship between implementation of school-wide positive behavior interventions and supports and high school dropout rates. *The High School Journal*, 98(4): 290-315.
- Goodenow, C. and Grady, K. E. (1993). The relationship of school belonging and friends' values to academic motivation among urban adolescent students. *Journal of Experimental Education*, 62(1): 60-71.
- Gottfredson, D. C., Gottfredson, G. D. and Hybl, L. G. (1993). Managing adolescent behavior, A multiyear, multischool study. *American Educational Research Journal*, 30(1): 179-215.
- Hammond, C., Linton, D., Smink, J. and Drew, S. (2007). Dropout risk factors and exemplary programs, A technical report. National dropout prevention center/network.
- Khalkhali, V., Sharifi, R. and Nikyar, A. (2013). Students' intentions to persist in, versus dropout of high school, What self-determined motivation tells us about it? *International Online Journal of Educational Sciences*, 5(2): 282-90.
- Knitzer, J. (1993). Children's mental health policy, Challenging the future. *Journal of Emotional & Behavioral Disorders*, 1(1): 8-16.
- Kuperminc, G. P., Leadbeater, B. J. and Blatt, S. J. (2001). School social climate and individual differences in vulnerability to psychopathology among middle school students. *Journal of School Psychology*, 39(2): 141-59.
- Lohrmann, S., Boggs, E. M. and Bambara, L. M. (2006). Elementary education teachers' beliefs about essential supports needed to successfully include students with developmental disabilities who engage in challenging behaviors. *Research & Practice for Persons With Severe Disabilities*, 31(2): 157-73.
- Lonczak, H. S., Abbott, R. D., Hawkins, J. D., Kosterman, R. and Catalano, R. F. (2002). Effects of the seattle social development project on sexual behavior, pregnancy, birth, And sexually transmitted disease outcomes by age 21 year. *Archives of Pediatrics & Adolescent Medicine*, 156(5): 438-47.
- Maynard, B. R., Kjellstrand, E. K. and Thompson, A. M. (2014). Effects of check and connect on attendance, behavior, and academics, A randomized effectiveness trial. *Research on Social Work Practice*, 24(3): 296-309.
- McDaniel, S. C., Houchins, D. E. and Robinson, C. (2016). The effects of check, connect, and expect on behavioral and academic growth. *Journal of Emotional and Behavioral Disorders*, 24(1): 42-53.
- Morrissey, K. L., Bohanon, H. and Fenning, P. (2010). Positive behavior support, Teaching and acknowledging expected behaviors in an urban high school. *Teaching Exceptional Children*, 42(5): 26-35.
- National Center for Educational Statistics, U. S. D. o. E. (2017). Dropout rates. Retrieved november 20, 2016, from the national center for educational statistics. Available: <https://nces.ed.gov/fastfacts/display.asp?id=16>
- Niehaus, K., Rudasill, K. M. and Rakes, C. R. (2012). A longitudinal study of school connectedness and academic outcomes across sixth grade. *Journal of School Psychology*, 50(4): 443-60.
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70(3): 323-67.
- Roeser, R. W., Eccles, J. S. and Sameroff, A. J. (2000). School as a context of early adolescents' academic and social-emotional development, A summary of research findings. *Elementary School Journal*, 100(5): 443-71.
- Rolfe, J. (2014). School of life (student edition), Learn to "school" your toughest opponent. Unpublished manual.
- Rumber, R. W. and Lim, S. A. (2008). *Why students dropout of school, A review of 25 years of research. (Santa Barbara, California Dropout Research. Project. University of California.* <http://cdrp.ucsb.edu/Dropouts/Pubs>
- Rumberger, R. W. (1987). High school dropouts, A review of issues and evidenc. *Review of Educational Research*, 57(2): 101-21.
- Sinclair, M. F., Christenson, S. L. and Thurlow, M. L. (2005). Promoting school completion of urban secondary youth with emotional or behavioral disabilities. *Exceptional Children*, 71(4): 465-82.
- Sinclair, M. F., Christenson, S. L., Evelo, D. L. and Hurley, C. M. (1998). Dropout prevention for high-risk youth with disabilities, Efficacy of a sustained school engagement procedure. *Exceptional Children*, 65(1): 7-21.
- Skiba, R. J. and Rausch, M. K. (2006). *Zero tolerance, suspension, and expulsion, Questions of equity and effectiveness. In C. M. Evertson & C. S. Weinstein (Eds.), Handbook of classroom management, Research, practice, and contemporary issues.* Erlbaum: Mahwah, NJ. 1063-92.
- Swanson, C. B. (2009). Closing the graduation gap, Educational and economic conditions in America's largest cities. Editorial projects in education.
- Vallerand, R. J., Fortier, M. S. and Guay, F. (1997). Self-determination and persistence in a real-life setting, Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology*, 72(5): 1161-76.
- Wehmeyer, M. and Schwartz, M. (1997). Self-determination and positive adult outcomes. A follow-up study of youth with mental retardation or learning disabilities. *Exceptional Children*, 63(2): 245-56.
- Zhang, D. and Law, B. H. (2005). Self-Determination as a dropout prevention strategy. *The Journal of At-Risk Issues*, 11(2): 25-31.

Table-1. School Demographics

	School 1	School 2	School 3	School 4
Total Number of Students	1,321	1,092	2,169	1,084
Free Lunch Eligible	12%	30%	37%	23%
Reduced Price Lunch Eligible	4%	7%	5%	9%
Amer/ Ind or Alaskan	0.60%	2%	0.60%	0.70%
Asian/ Pacific Islander	1%	2%	6%	2.00%
Black	0.60%	1%	2%	3%
Hispanic	4%	17%	26%	15%
White	91%	73%	59%	75%

Table-2. Fidelity

	Sessions	Week 1	Week 2	Week 3	Week 4	Overall Session Score	Raw Fidelity Score
School 1	2	12/14	10/10	12/14	6/6	40/44	91%
	3	12/14	10/10	12/14	5/6	39/44	87%
School 2	2	12/14	10/10	12/14	6/6	40/44	91%
	3	12/14	10/10	12/14	6/6	40/44	91%
School 3	2	12/14	10/10	12/14	6/6	40/44	91%
	3	12/14	10/10	12/14		34/38	89%
School 4	2	12/14	10/10	12/14	6/6	40/44	91%
	3	12/14	10/10	10/14	6/6	38/44	83%

Note. School 3 did not record data for Session 3, Week 3.

Figure-1.

