Journal of Outdoor Recreation, Education, and Leadership 2020, Vol. 12, No. 3, pp. 322–332
https://doi.org/10.18666/JOREL-2020-V12-I3-10207

Teachers' Perspectives of Students' Social and Emotional Changes During an Adventure-Based Program

Ann Gillard
Gillard Evaluation Consulting, Northampton, MA, United States

Abstract

Many schools aim to provide social and emotional learning (SEL) opportunities for students. SEL is important for positive youth development. However, it remains unclear how SEL skills might be influenced by adventure education in school settings. This study used a mixed-methods design to explore potential changes in teachers' perceptions of students' SEL during an adventure-based SEL program. Twenty-two fifth- and seventh-grade teachers completed questionnaires about their students three times a year for 3 years. Findings suggest an intentional adventure-based program aiming to build SEL skills can have modest influences on students' awareness of and prosocial behaviors toward themselves, others, and the collective. However, considering the school context, SEL can be limited by some students' struggles with self-regulation and awareness of others, and the negative behaviors of a few students can disproportionately affect the whole class. Implications include using adventure education approaches and activities that are responsive to dynamic situations in school settings.

KEYWORDS: social and emotional learning; adventure-based program; mixed methods; teachers

Thank you to EOL staff members Jim Grout, Ryan McCormick, Anne Louise Wagner, Stephanie Globus-Hoenich, Sam Copland, and Beth Buoro, and to the Keene, New Hampshire, School District students, faculty, and administration.

In the past two decades, much research has focused on social and emotional learning for students (e.g., Collaborative for Academic, Social, and Emotional Learning [CASEL]; Durlak et al., 2010; Greenberg et al., 2003). Social and emotional learning (SEL) is the process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (CASEL, n.d.-b). Further, much research has identified enhancement of SEL as an important outcome connected with participation in adventure-based activities in school settings (Cooley et al., 2016; Gibbons et al., 2018; Moore McBride et al., 2016). However, more information is needed about the potential opportunities of adventure-based SEL programs in school settings.

Teaching social and emotional skills through activities in adventure and challenge education is a longtime tenet of adventure programs (Carlson et al., 2019; Cooley et al., 2016; Hattie et al., 1997). The development of social and emotional skills is a key task of youth development, and these are important skills to have for higher education, the workforce, and community engagement (CASEL, n.d.-a). One study of SEL skills found that college students in a 3-day outdoor-based adventure program in a national park expressed the SEL competencies of relationship skills and social awareness, as well as friendship and mindfulness (Stuhr et al., 2017). Many adventure-focused activities and interventions have similar desired outcomes for students, especially concerning building students' personal and social skills.

Beyond adventure education and in the school setting, teachers are increasingly endorsing SEL and using a variety of strategies to increase SEL skills in their students (Hamilton et al., 2019). In K–12 education, a major meta-analysis found that 3.5 years after the last intervention, the academic performance of students exposed to SEL programs was an average 13 percentile points higher than that of their non-SEL peers (Taylor et al., 2017). Another study found that compared to controls, SEL student participants demonstrated significantly improved social and emotional skills, attitudes, behavior, and academic performance reflecting an 11-percentile-point gain in academic achievement (Durlak et al., 2011). These studies and others have led the Aspen Institute's National Commission on Social, Emotional, and Academic Development (2018; an international, nonpartisan think tank that examined school policy) to recommend that K–12 schools (a) change instruction to teach social, emotional, and cognitive skills and (b) embed these skills in academics and in schoolwide practices (p. 44). Indeed, research on challenge courses have found that such programs provide a unique learning experience that can be modified for the school setting (Schary et al., 2018).

However, it remains unclear how social and emotional skills might be influenced by adventure education in a school setting. Including information about the perspectives of teachers can add to the understanding of SEL in adventure-based programs. The purpose of this study was to explore potential changes in teachers' perceptions of their students' social and emotional skills during an adventure-based SEL program.

The theoretical foundation of this study was framed by the relational developmental systems (RDS) metatheory. According to RDS, every young person has the potential to positively change by aligning specific individual strengths and contextual resources that can optimize their life paths, and doing so can promote personal thriving and social contribution (Lerner, 2019; Overton, 2013). RDS suggests that young people have great potential for plasticity in their development and are affected by systematic changes arising through mutually influential relations between the individual and the multiple, integrated levels of the dynamic developmental system (Lerner et al., 2019; Perlman, 2015). Certainly, plasticity varies across developmental levels wherein the period of adolescence carries a second influx of growth and change in the brain following that of infancy and early childhood (Guyer et al., 2018). Guyer et al. (2018) suggested that such changes are unique to challenges and goals that are salient for a respective developmental period and that brain-based changes interface with environmental factors from youths' broader

ecology or at an individual level. In this study involving students in early adolescence, teachers and other peers were assumed to reflect their immediate educational system and to be the primary relationships that might influence students' SEL in school settings.

Method

Setting

The Edge of Leadership (EOL) program is an adventure learning program embedded in a traditional public school district in the Northeastern United States, in operation since 2013 and primarily funded by a local foundation. At the time of this study, EOL staff worked with 22 fifth- and seventh-grade classes (around 20 students in each class) to develop empowering leadership skills through the cultivation of students' social and emotional skills. EOL's program theory is that if students develop social and emotional skills, then they can better problem solve, think critically, and collaborate, which results in improved student leadership within their schools and communities. EOL conceptualizes leadership as a combination of awareness of and prosocial behaviors toward self, others, and the collective and leadership reflects the principles of SEL as portrayed by CASEL. EOL chose the school setting because school is a familiar setting for students and offers opportunities to put learning into action immediately.

The EOL program is grounded in adventure concepts, particularly choice theory (Glasser, 1997) and the experiential learning cycle (Kolb, 2014). Related to transformational leadership (e.g., Bass & Riggio, 2006; Sivanathan et al., 2004), choice theory suggests that warm, nurturing, and noncoercive relationships are necessary for students to learn and thrive. Individuals achieve responsible behavior when they attempt to satisfy their own needs without depriving others of the same opportunity. As Kolb (2014) suggested, people learn best through experience and underlying structures embedded in learning processes can be used to support deep learning. The integration of choice theory and the experiential learning cycle is part of the foundation of the EOL approach.

New EOL staff were trained by observing and coleading sessions. EOL staff spent the school year in schools and facilitated 42- to 90-min sessions with students once a month. The teachers considered these sessions to be a "special" part of the school day, like music or physical education. Before the first day of school each year, EOL prepared teachers with training about EOL foundations and themes while building teachers' abilities to continue the lessons between EOL sessions. Prior to each school visit, EOL staff discussed with each teacher the goals of the teachers for SEL and group functioning in their class, identifying strengths and opportunities for growth of their students. Teachers provided to EOL staff information about their students and group dynamics before each session but were not involved in the planning. During sessions, teachers were asked to participate in the activities within their own personal limits, keeping in mind power dynamics. After demonstrating EOL practices during their visit (e.g., allowing space for students to solve problems on their own without teachers' direct involvement, framing problem-solving steps, asking reflection questions), EOL staff debriefed strategies with teachers. EOL staff also provided ongoing coaching between sessions through calls, emails, and school visits with teachers. Reflection in the classes involved discussions during or at the end of the session. Teachers also commonly conducted reflection through writing assignments. Data on the fidelity of teacher implementation of EOL practices were not collected.

The EOL staff facilitated experiences for each student in Grades 5 and 7, reflecting 25 to 30 hours of program exposure each year in 22 classes, including two off-site challenge course experiences and monthly in-school sessions throughout the school year. School visits by EOL involved various aspects of the EOL pedagogical framework. Major components of the framework included being growth-oriented, offering opportunities for role modeling, going slow, and

providing students freedom. However, the EOL curriculum did not link to the school curriculum. Examples of adventure-based activities included handshake mingle, toss-a-name, steal the chicken, pipeline, and traditional low ropes course elements such as TP shuffle or whale watch. High ropes course elements included Burma bridge, caterpillar, islands, and other activities. Activities were flexible and responsive based on previous experiences with each class and stated teacher goals. The EOL facilitators provided many opportunities for reflection during and after each activity and centered debriefing experiences around SEL, in alignment with common adventure-based and experiential learning techniques.

Procedures and Participants

A questionnaire (available by contacting the author) was administered online to teachers three times per year during each of the 3 school years covered by this study. The questionnaire asked all 22 teachers of fifth- and seventh-grade students receiving EOL programming to report on their observations of their students as a whole over the previous month. Teachers did not advance grades with their students and EOL did not serve sixth-grade classes at the time of this study. I compared responses across three time points (fall, winter, and spring) to better understand the effectiveness of the EOL interventions in the school setting over the school year. The teachers contributing responses remained largely the same each year, although a couple of teachers did not complete every survey at every time point. Responses were not anonymous, which allowed for tracking individual teachers across the school year so EOL could provide targeted support. This study reflects 22 teachers observing 430 students in Grades 5 and 7 served by EOL during the study.

Based on conversations with and input from EOL staff and the EOL program theory, 26 questionnaire items that centered on three areas of intended social and emotional change in participants' SEL-related attitudes, skills, and behaviors regarding "Self," "Others," and "Collective" were created. However, for the purposes of this study, all 26 items were combined into one omnibus SEL score for some analyses. All questions had a stem of "Over the past month and when given the opportunity, my students. . . ." Questions included the stem and an outcome such as "shared leadership roles," "were aware of how their feelings and behaviors impacted others," and "expressed themselves as individuals." Response options included 1 = *never*, 2 = *rarely*, 3 = *occasionally*, 4 = *frequently*, 5 = *very frequently*, and not applicable. "Not applicable" responses were dropped from the analyses. Open-ended questions asked teachers to comment on their previous answers and describe challenges they faced with their classes. Qualitative data were included in this study for context for the quantitative results.

Data Analysis

I analyzed quantitative data using the Friedman test in IBM SPSS 25. I selected the Friedman test because the data set was small and met the four assumptions that one group was measured three times, that all or nearly all teachers provided data, that the dependent variable was ordinal, and that the data were not normally distributed (Laerd Statistics, 2019). Friedman tests were applied to each of the three years of the study: 2015–2016, 2016–2017, and 2017–2018. Additionally, specific items in the scale were analyzed for frequency of improvements from fall to spring of each year. The item-specific analysis provided EOL staff with specific areas to target throughout each school year.

I analyzed qualitative data using thematic analysis (Braun & Clarke, 2006) to generate themes and find common patterns across the written responses of the teachers regarding challenges in their classes. Initial codes were generated from a summary of the entirety of teachers' open-ended responses commenting on their multiple choice answers and describing challenges in their classes. All data relevant to each potential theme were collated. During analysis, an

additional theme of "improvement" emerged from the spring data. Challenge- and improvement- related themes were reviewed and a thematic map of the analysis generated. The themes were then defined and named by member checking with EOL staff. The final phase involved writing the results, although copious note-making occurred throughout all phases of analysis.

Results

Teachers had favorable attitudes toward the EOL program and reported moderate improvements in their students' SEL throughout each school year, based on results of quantitative data analyses. Results from qualitative data analyses suggested that teachers perceived students' improvements to be tempered by issues of self-regulation and awareness of others and by one or a few students having negative influence on the whole group.

Quantitative Results

There were statistically significant increases in teacher perceptions of students' SEL from winter 2015 to spring 2016 (Year 1), from fall to spring in 2016–2017 and 2017–2018 (Year 2), and from fall 2017 to winter 2018 (Year 3).

Year 1

There was a statistically significant difference in teachers' perceptions of students' SEL depending on time of the school year, $\chi^2(2) = 12.133$, $p = 0.002$. Post hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. Median leadership scores for fall, winter, and spring 2015–2016 were 3.19 (3 to 3.3; $n = 21$), 3.15 (2.92 to 3.41; $n = 21$), and 3.63 (3.37 to 3.78; $n = 19$), respectively. There were no significant differences between fall and winter ($Z = -.986$, $p = 0.324$) or between fall and spring ($Z = -2.296$, $p = 0.022$). However, there was a slight statistically significant increase in teachers' perceptions of students' SEL from winter to spring ($Z = -2.391$, $p = 0.017$).

Year 2

There was a statistically significant difference in teachers' perceptions of students' SEL depending on time of the school year, $\chi^2(2) = 6.000$, $p = 0.05$. Post hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. Median leadership scores for fall, winter, and spring 2016–2017 were 2.94 (2.65 to 3.08; $n = 22$), 3.23 (2.92 to 3.46; $n = 20$), and 3.24 (3.11 to 3.47; $n = 22$), respectively. There were no significant differences between fall and winter ($Z = -2.110$, $p = 0.035$) or between winter and spring ($Z = -.187$, $p = 0.852$). However, there was a statistically significant increase in teachers' perceptions of students' SEL from fall to spring ($Z = -3.059$, $p = 0.002$).

Year 3

There was a statistically significant difference in teachers' perceptions of students' SEL depending on time of the school year, $\chi^2(2) = 13.528$, $p = 0.001$. Post hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < 0.017$. Median leadership scores for fall, winter, and spring 2017–2018 were 3.07 (2.85 to 3.48; $n = 21$), 3.22 (3 to 3.59; $n = 19$), and 3.3 (3.08 to 3.59; $n = 21$), respectively. There were no significant differences between winter and spring ($Z = -1.967$, $p = 0.049$). However, there were statistically significant increases in teachers' perceptions of students' SEL from fall to winter ($Z = -2.726$, $p = 0.006$) and from fall to spring ($Z = -2.765$, $p = 0.006$).

Item-Specific Improvements

Over each of the 3 years, some items showed consistent improvement from fall to spring. These items included teachers' perceptions that their students increased in the following areas over each school year:

- challenged themselves to go beyond their comfort zones
- were aware that they have a voice
- expressed themselves as individuals
- were aware of how others take risks
- were aware that they can be a leader
- identified what leadership looks like

Conversely, some items started and remained low, according to teachers. These items included the following:

- reached out to partner with people with whom they normally would not partner
- put others' needs ahead of their own

Finally, some areas did not show much change for students in each of the years of the study. These areas included the following:

- enjoyed academic learning and approached it enthusiastically
- related to teachers in positive ways
- worked independently
- cooperated with peers without prompting
- applied new behaviors to help the group succeed
- established and sustained relationships
- regulated their own behaviors

Qualitative Results

Analysis of themes for each data collection point revealed areas of common concern for teachers (Table 1). The two or three most common themes for each season combined over 3 years are included in Tables 1 and 2. Specifically, teachers perceived that students struggled with self-regulation and awareness of others and that the negative behaviors of a few students disproportionately affected the whole class. To a lesser extent, teachers also reported that students also seemed to struggle with listening and disrespectful behaviors. Teachers mentioned structural components including larger class sizes and the inclusion of several students with high needs in classes. However, analyses also revealed several positive student changes perceived by teachers (Figure 2).

Discussion

The purpose of this mixed-methods study was to explore potential changes in teachers' perceptions of their students' social and emotional skills. Analyses of quantitative and qualitative data suggested that the EOL program had modest influences on teachers' perceptions of students' awareness of and prosocial behaviors toward themselves, others, and the collective. However, considering the school context, SEL can be limited by some students' struggles with self-regulation and awareness of others, and the behaviors of a few can negatively affect the whole class. Still, the EOL adventure education program appeared to build students' SEL skills and improve class functioning.

Table 1
Challenge-Related Themes for Three Data Collection Points Each Season for 3 Years

Season	Themes	Example quotes from different teachers
Fall	Awareness of others (16 comments) Self-regulation (13 comments)	"They have a very difficult time realizing that their constant chatting and inability to sustain attention for a longer period of time affects everyone." "Focus and self-control are two of our biggest challenges. Shifting a focus from 'me' to 'us' thinking is another big challenge."
Winter	Self-regulation (14 comments) Awareness of others (12 comments) One or a few have negative influence on whole group (11 comments)	"The students in my class are very focused on themselves (their ideas and desires), versus being aware of needs or goals of the whole class/group." "Most of our students seem fairly uncomfortable working with others outside of their immediate circle of friends. While we have kind students, they don't readily recognize the needs of others and don't generally show empathy or advocacy for one another."
Spring	Awareness of others (17 comments) One or a few have negative influence on whole group (15 comments)	"Students seem to be way more focused on themselves and things happening to them than how their behaviors impact others. While this is somewhat developmentally appropriate, how do we find a way to teach them to be mindful and aware of their actions and their impact on the group as a whole?" "Pervasive struggle to recognize acceptable limits of behavior and talking. Many students with difficulty in self-control."

Building social and emotional skills is vital in the development of young people as they prepare to become fully functioning and engaged adults in society (Pittman et al., 2003). Many classes were affected by the negative behaviors of a few who struggled with self-regulation. Teachers and other youth leaders should be concerned about fostering students' self-regulation because internal self-regulation is a central asset in general healthy functioning among youth (Gestsdottir et al., 2017). Further, self-regulation has been found to be highly related and mutually reinforces school engagement (Stefansson et al., 2018).

Still, teachers were able to move past some students' difficulties with self-regulation and teachers attributed changes in their teaching practices to EOL, especially regarding framing of concepts and stepping back to let students work out things on their own more often. A slight shift occurred each year in teacher responses to items, moving from *rarely* to *occasionally* and from *occasionally* to *frequently*. Some items in the winter and spring of some years reflected strong change, likely because of intentional programming from EOL upon staff seeing areas of concern in the fall or winter, respectively. Intentional programming toward specific youth outcomes has been shown to be effective in other studies (Martins et al., 2017; McAuliffe-Fogarty et al., 2007; Roark et al., 2012; Roark et al., 2014).

For the items that did not change much each year of the study, it appears that academic-specific shifts were not as influenced by EOL as other areas were. However, teachers typically rated these areas higher than other areas (i.e., students exhibited these behaviors more frequently than other behaviors). Certainly, the other student increases teachers reported likely have a

Table 2
Improvement-Related Themes Perceived by Teachers in Spring of Each Year

Year	Example quotations
2016	"I did see growth in my class from the Fall. I think they were more willing to take on the leadership role, but also to step back and let someone else be a leader if it looked like they knew what to do." "The end of the school year is always challenging, but I think my students were better behaved than previous groups, due in part to [EOL] lessons." "Feeling good about pairing/grouping people to get more interaction within the classroom to promote communication."
2017	"We try to do more reflecting on what we have worked on with EOL." "I think the EOL program ties nicely to some of the themes we are trying to build in our classroom such as being a community of learners and encouraging independence." "The brainstorm and reflection sessions have been very helpful and insightful."
2018	"Recently though during a class [meeting] some have finally found their voice to be able to stand up for themselves and others." "What helps me is to keep bringing the characteristics of the leadership during the school day and use it as a goal and to reflect from it. We have a buddy class with a second grade and they are taking leadership in facilitating activities that we do and be a mentor for the second graders! Really good things happening during this time!" "Thank you for a great year—there were challenging behaviors, but the overall group has shown improvement."

ripple effect into academic outcomes, but this study did not specifically measure those potential mechanisms of change. Other research has found that SEL programs can have clearer positive academic outcomes for students (Durlak et al., 2011; Taylor et al., 2017).

Beyond building academic skills, thinking beyond the self to thinking about others can certainly be a difficult developmental task, one that can be addressed through adventure education. Engaging in structured opportunities to practice leadership in a group can support SEL (Cooley et al., 2016). Further, programs designed to promote youth civic and social responsibility have been shown to have important developmental implications (Lerner et al., 2005; Lerner et al., 2014). Although this study did not explore specific community-related changes related to EOL, it appears that the improvement of SEL skills could set the stage for community service and improvements by students.

Other programs aiming to address SEL through adventure education can learn from the findings in this study. Specifically, the EOL model of working closely with teachers in schools to use adventure education to promote SEL holds promise for replication. Implications for the field include the use of adventure education principles, practices, and activities that are responsive to emerging and dynamic situations in school settings, close collaboration with teachers, and intentionality about the potential long-term outcomes of SEL.

Limitations and Future Research

Other limitations of this study exist. Although the data are informative for this study, findings should not be considered generalizable to a larger context and do not demonstrate causality. Students' improved awareness and behaviors could be attributed to maturation or familiarity effects throughout the school year, rather than the EOL intervention. This study did not include

direct data about students' behavioral issues or what strategies teachers used to address issues with their classes. Future studies would benefit from a control group by which to measure potential intervention effects or from reviewing school-wide indicators such as disciplinary referrals or attendance records before and after the intervention. Future research could also include other methods to triangulate the data such as student self-reports or formal structured observations by teachers or outside evaluators.

More information about the extent and frequency of profound behavior issues for some students is needed, especially related to self-regulation and awareness of others. Although some variation can be attributed to students' developmental levels, variations might also relate to societal changes in communities and families. Future research could explore if EOL works better for some demographic groups than others, such as along the lines of gender, class, ability, race, or ethnicity. School-related issues such as the influence of larger class sizes, teacher education and training, and school climate could also affect findings and would be important to include in future research. Finally, sociopolitical issues could be considered, such as the potential influences of fear of school shootings on students' social and emotional well-being, opiate use, public school funding cuts, shifts in political leadership, and other distal factors. Integrating these social factors into adventure intervention research would be a complex undertaking. Moreover, study findings need to be contextualized for the potential power and influence of SEL-focused adventure education in school-based settings to be better understood.

Conclusion

This study explored potential changes in teachers' perceptions of their students' social and emotional skills during an adventure-based SEL program. Major findings of the study suggest that the program had modest influences on students' awareness of and prosocial behaviors toward themselves, others, and the collective and that some indicators of self-awareness consistently improved. However, teachers also reported perennial issues of self-regulation, awareness of others, and the negative behaviors of a few that affected the whole class.

Adding to the literature on SEL through adventure programs, this study used mixed methods, which allowed for contextualizing quantitative data. Additionally, delving into item-specific changes allowed for a deeper understanding of teachers' perspectives of their students' SEL. Further, the integration of SEL and adventure education in this study illustrates the potential for adventure education to promote SEL.

The development of social and emotional skills is a complex undertaking for young people, and adults in their communities are eager to support them. Adventure-based programs such as EOL hold promise for schools aiming to build students' social and emotional skills, although more research is needed to elucidate the mechanisms of change and contextualize findings within a broader community setting.

References

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Lawrence Erlbaum Associates.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Carlson, J. A., Bermúdez-Jurad, L., Qureshi, M., Shearer Ippen, A., & Hollibush, M. (2019). Analyzing research patterns in outdoor and adventure-based expressions of experiential education over time. *Journal of Outdoor Recreation, Education, and Leadership, 11*(2), 151–158. https://doi.org/10.18666/jorel-2019-v11-i2-9060

Collaborative for Academic, Social, and Emotional Learning. (n.d.-a). *SEL impact*. https://casel.org/impact/

Collaborative for Academic, Social, and Emotional Learning. (n.d.-b). *What is SEL?* https://casel.org/what-is-sel

Cooley, S. J., Burns, V. E., & Cumming, J. (2016). Using outdoor adventure education to develop students' groupwork skills: A quantitative exploration of reaction and learning. *Journal of Experiential Education, 39*(4), 329–354. https://doi.org/10.1177/1053825916668899

Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Weissberg, R. P., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405–432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Durlak, J. A., Weissberg, R. P., & Pachan, M. (2010). A meta-analysis of after-school programs that seek to promote personal and social skills in children and adolescents. *American Journal of Community Psychology, 45*(3), 294–309. https://doi.org/10.1007/s10464-010-9300-6

Gestsdottir, S., Geldhof, G. J., Lerner, J. V., & Lerner, R. M. (2017). What drives positive youth development? Assessing intentional self-regulation as a central adolescent asset. *International Journal of Developmental Sciences, 11*(3–4), 69–79. https://doi.org/10.3233/dev-160207

Gibbons, S., Ebbeck, V., Gruno, J., & Battey, G. (2018). Impact of adventure-based approaches on the self-conceptions of middle school physical education students. *Journal of Experiential Education, 41*(2), 220–232. https://doi.org/10.1177/1053825918761996

Glasser, W. (1997). "Choice theory" and student success. *Education Digest, 63*(3), 189–205.

Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist, 58(6–7),* 466–474. https://doi.org/10.1037/0003-066x.58.6-7.466

Guyer, A. E., Pérez-Edgar, K., & Crone, E. A. (2018). Opportunities for neurodevelopmental plasticity from infancy through early adulthood. *Child Development, 89*(3), 687–697. https://doi.org/10.1111/cdev.13073

Hamilton, L. S., Doss, C. J., & Steiner, E. D. (2019). *Teacher and principal perspectives on social and emotional learning in America's schools: Findings from the American educator panels. RAND Corporation.* https://www.rand.org/pubs/research_reports/RR2991.html

Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and Outward Bound: Out-of-class experiences that make a lasting difference. *Review of Educational Research, 67*(1), 43–87. https://doi.org/10.3102/00346543067001043

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development.* Pearson FT Press.

Laerd Statistics. (2019). *Friedman test in SPSS statistics.* https://statistics.laerd.com/spss-tutorials/friedman-test-using-spss-statistics.php

Lerner, R. M. (2019). Frontiers in theory-predicated research in youth development: A commentary. *Journal of Youth Development, 14*(1), 1–23. https://doi.org/10.5195/jyd.2019.739

Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., Naudeau, S., Jelicic, H., Alberts, A., Ma, L., Smith, L. M., Bobek, D. L., Richman-Raphael, D., Simpson, I., Christiansen, E. D., & von Eye, A. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth-grade adolescents: Findings from the first wave of the 4-H Study of Positive Youth Development. *The Journal of Early Adolescence, 25*(1), 17–71. https://doi.org/10.1177/0272431604272461

Lerner, R. M., Tirrell, J. M., Dowling, E. M., Geldhof, G. J., Gestsdóttir, S., Lerner, J. V., King, P. E., Williams, K., Ireheta,G., & Sim, A. T. R. (2019). The end of the beginning: Evidence and absences studying positive youth development in a global context. *Adolescent Research Review, 4*(1), 1–14. https://doi.org/10.1007/s40894-018-0093-4

Lerner, R. M., Wang, J., Chase, P. A., Gutierrez, A. S., Harris, E. M., Rubin, R. O., & Yalin, C. (2014). Using relational developmental systems theory to link program goals, activities, and outcomes: The sample case of the 4-H Study of Positive Youth Development. *New Directions for Youth Development, 2014*(144), 17–30. https://doi.org/10.1002/yd.20110

Martins, A., Taylor, R. M., Morgan, S., & Fern, L. A. (2017). Being normal, not vulnerable: Case study of a 2-day residential programme for young adults with cancer. *BMJ Open, 7*(7), Article e015309. https://doi.org/10.1136/bmjopen-2016-015309

McAuliffe-Fogarty, A. H., Ramsing, R., & Hill, E. (2007). Medical specialty camps for youth with diabetes. *Child and Adolescent Psychiatric Clinics of North America, 16*(4), 887–908. https://doi.org/10.1016/j.chc.2007.05.006

Moore McBride, A., Chung, S., & Robertson, A. (2016). Preventing academic disengagement through a middle school–based social and emotional learning program. *Journal of Experiential Education, 39*(4), 370–385. https://doi.org/10.1177/1053825916668901

National Commission on Social, Emotional, and Academic Development. (2018). *From a nation at risk to a nation at hope: Recommendations from the National Commission on Social, Emotional, & Academic Development*. The Aspen Institute. http://nationathope.org/report-from-the-nation/

Overton, W. F. (2013). A new paradigm for developmental science: Relationism and relational-developmental systems. *Applied Developmental Science, 17*(2), 94–107. https://doi.org/10.1080/10888691.2013.778717

Perlman, D. (2015). The march to relational developmental systems-based theories: An outsider's view of the journey. *Journal of Family Theory & Review, 7*(2), 109–114. https:doi.org/10.1111/jftr.12073

Pittman, K., Irby, M., Tolman, J., Yohalem, N., & Ferber, T. (2003). *Preventing problems, promoting development, encouraging engagement.* The Forum for Youth Investment. http://dev.forumfyi.org/files/Preventing%20Problems,%20Promoting%20Development,%20Encouraging%20Engagement.pdf

Roark, M. F., Gillard, A., Evans, F., Wells, M. S., & Blauer, M. M. (2012). Effect of intentionally designed experiences on friendship skills of youth: An application of symbolic interaction theory. *Journal of Park & Recreation Administration, 30*(3), 24–36.

Roark, M. F., Gillard, A., Wells, M. S., Evans, F., & Mikami Blauer, M. (2014). Effect of intentionally designed experiences on teamwork skills among youth: An application of symbolic interaction theory. *Journal of Park & Recreation Administration, 32*(4), 82–91.

Schary, D. P., Jenny, S. E., Morrow, G. S., & Wozniak, T. (2018). Bringing challenge course activities into the classroom: Pedagogical strengths, obstacles, and recommendations. *Journal of Outdoor Recreation, Education, and Leadership, 10*(3), 238–252. https://doi.org/10.18666/jorel-2018-v10-i3-8533

Sivanathan, N., Arnold, K., Turner, N., & Barling, J. (2004). Leading well: Transformational leadership and well-being. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice (pp. 241–255).* https://doi.org/10.1002/9780470939338.ch15

Stefansson, K. K., Gestsdottir, S., Birgisdottir, F., & Lerner, R. M. (2018). School engagement and intentional self-regulation: A reciprocal relation in adolescence. *Journal of Adolescence, 64*, 23–33. https://doi.org/10.1016/j.adolescence.2018.01.005

Stuhr, P.T., Lecomte, H., & Sutherland, S. (2017). A portrait of social and emotional learning within Sequoia National Park. *Journal of Outdoor Recreation, Education, and Leadership, 9*(4), 403–424. https://doi.org/10.18666/jorel-2017-v9-i4-8128

Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development, 88*(4), 1156–1171. https://doi.org/10.1111/cdev.12864