THE IMPORTANCE OF TRUST IN OUTDOOR EDUCATION: EXPLORING THE RELATIONSHIP BETWEEN TRUST IN OUTDOOR LEADERS AND DEVELOPMENTAL OUTCOMES

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Recent studies have acknowledged the influence of the leader in the outdoor education process and have illuminated the need for strong interpersonal relationships between participants and leaders. Developing interpersonal trust is one among many ways that leaders can promote such positive interpersonal relationships between themselves and participants. Transdisciplinary literature suggests that trust in a leader can predict outcomes that are important to outdoor education. This study found a positive relationship between trust in outdoor leaders and the course outcomes of leadership development and outdoor skills development among students of National Outdoor Leadership School (NOLS) courses. Implications for program implementation and theory development are discussed.

Keywords: outdoor education process, outcomes, trust, outdoor leadership

Introduction

The presence of a leader is a common aspect of programmatic outdoor education experiences. In the earliest of models explaining the outdoor adventure education process, Walsh and Golins' (1976) identified the leader as an "instrumental part of the process" (p. 10). In recent years, researchers have committed increased effort, through empirical study, to understand the process of outdoor education (Ewert et al., 2000; Goldenberg, McAvoy, & Klenosky, 2005; McKenzie, 2003; Sibthorp, Furman, Paisley, Schumann, & Gookin, in press; Sibthorp, Paisley, & Gookin, 2007). Within these studies the influence of the leader has surfaced repeatedly as a salient mechanism that leads to positive course outcomes.

Qualitative studies that have asked participants to identify influential aspects of their outdoor education experiences have reported that the leader plays a major role influencing outcomes (McKenzie, 2003) and learning transfer (Sibthorp, et al, in press) here is a growing body of literature suggesting that the outdoor leader is a highly influential aspect of multiday programmatic wilderness-based experiences (Bobilya, Kalisch, McAvoy, 2005; Schumann, Paisley, Sibthorp, & Gookin, 2009; Sibthorp, Paisley, & Gookin, 2007). Further, there is new evidence suggesting that the outdoor leader's personal attributes and character are important (Hobbs & Ewert, 2008; Mudge, 2009) and are among the key variables that influence positive course outcomes (Schumann et al., 2009). It is logical to conclude from this work that the interpersonal relationships that form between participants and leaders influence course outcomes and are worthy of our attention.

There is no doubt that leader - participant relationships are complex and multidimensional. One way that outdoor leaders can strengthen their relationships with participants is through gaining participants' trust (Dirks & Ferrin, 2002; Hardin, 2002). Transdisciplinary research has demonstrated repeatedly that interpersonal trust in a leader or leadership team can influence outcomes positively (Brower, Schoorman, & Tan, 2000; Mayer & Gavin, 2005; Tan & Tan, 2000). For example, authors have reported that trust in a leader can influence cooperation, productivity, teamwork, learning, motivation, and commitment (Caldwell & Clapham, 2003; Deluga, 1995; Dirks & Ferrin, 2002; Gillespie & Mann, 2004; Mayer & Gavin, 2005; Nooteboom & Six, 2003; Rotter, 1967; Tan & Tan, 2000). Alternatively, the absence of trust in one's leader can result in undesirable outcomes (Kramer & Cook, 2004). These outcomes are obviously relevant to outdoor education and outdoor leadership. A review of this literature is available in Shooter, Paisley, and Sibthorp (2010).

Mayer, Davis, and Schoorman (1995) offered a clear, useful conceptual explanation of trust and trust development that has captured the attention of researchers and garnered empirical support (Colquitt, Scott, & LePine, 2007; Mayer & Davis, 1999). According to Mayer et al. (1995), "Trust is the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor" (p. 712). Synthesizing and integrating over 30 years of trust literature, Mayer and his colleagues clarified that trust is best thought of, not as a behavior or by an action of risk taking in relationships, which is said to be the outcome of trust, but by a psychological state identified by an attitude of willingness to be vulnerable to another party.

Mayer et al's. (1995) work provided the theoretical framework for the present study by articulating an explanation for how leaders can establish trusting relationships with followers in organizational settings. A series of three outdoor leadership studies has found support for Mayer and colleagues' (1995) model and the hypothesis that leader characteristics can influence participant trust (e.g., Shooter, 2008; Shooter, Paisley, & Sibthorp, 2009; 2010). This concept of trust and model of trust development emphasizes that an individual chooses the degree to which he or she will assume an attitude of trust toward a leader in response to the leader's characteristics and the trustor's own unique, generalized propensity to trust. More specifically, ability, benevolence, and integrity are three leader characteristics identified in the research. Ability refers to a leader's capacity to accomplish tasks required of the employer/employee relationship, and to demonstrate relevant skills and competencies. Benevolence is a state of positive personal orientation toward the trustor. Integrity is a generalized leadership trait that includes aspects of moral character such as honesty, good reputation, dependability, principled behavior, and fairness to others (Mayer et al., 1995; Mayer & Norman, 2004; Shooter, 2008). While there are some variations of these definitions in the literature, the fundamental concept, that participants evaluate leaders and judge them on certain key characteristics to determine whether or not they are trustworthy, remains the same. Along with the three leader characteristics, individuals are said to rely also on generalized trait-based beliefs about the degree to which others can be trusted. Mayer and colleagues referred to this variable as "propensity to trust" (p. 715). Finally, participants may also consider the outcomes of previous interactions with the leader when making decisions of trust (Mayer et al., 1995). As an outdoor education course unfolds over time, students may draw conclusions about a leader's trustworthiness based on her or his ongoing performance as one who can or cannot be trusted.

With a verified theoretical explanation for trust development now established from both transdisciplinary literature and within an outdoor education context, an important next step in understanding the role of trust in outdoor leadership is to determine the relationship between trust in outdoor leaders and course outcomes. As cited above, transdisciplinary studies have established such relationships and have reported that trust in a leader yields positive outcomes. However, this link is yet to be explored within outdoor adventure education, and studies of trust in outdoor leadership have depended on the rationales and conclusions drawn primarily from a management context that have established the link between trust in a leader and positive outcomes (Colquitt et al., 2007; Tan & Tan, 2000). In light of the recent research that has acknowledged the centrality of the leader's influence on course outcomes and the importance of leader – participant relationships, the purpose of this study was to examine the relationship between the trust that adventure education participants reported in their outdoor leaders and their own development over the course. Specifically, we sought to determine if participants' reports of trust in their outdoor leaders could predict posttest scores in leadership and outdoor skills, while controlling for pretest scores, sex, and age in a sample of NOLS students.

Methods

NOLS remains one of the largest and most established providers of wilderness and adventure education programs in North America, and was thus considered an appropriate program in which to collect data to address this study's purpose. Data were collected from 1,034 NOLS participants between June and August of 2009. This was strictly a convenience sample of NOLS courses that ran during the summer field season and represented a wide range of NOLS courses, including adventure courses for youth, outdoor educator courses, and traditional wilderness courses. The majority of the courses were approximately 30 days in length. The course participants

were 66% male and averaged almost 21 years of age. The ages and ratio of male to female participants were spical for the population of NOLS students.

Data were collected from the participants upon course completion when they completed their course quality survey. The survey instrument included self-reports of both Leadership and Outdoor Skills, in https://postest.com/p

Data were analysed using hierarchical regression to determine if a student's trust in his/her outdoor leaders would explain additional variance in the course outcomes of leadership and outdoor skill development, while controlling for pretest levels of these skills. Participants' age and sex were also entered into the model as covariates given their roles in previous models (e.g., Sibthorp et al., 2007). The initial regression models (one for each outcome variable) included both the covariates. The second/subsequent model added the trust variable.

Results

Prior to running the hypothesis tests, basic descriptive statistics were examined (See Table 1). Trust scores, both retrospective pretest scores, and both posttest scores were coded from -30 to 30. Age ranged from a low of 13 to a high of 88 years. The overall reported levels of trust were rather high (M = 24.30, SD = 8.72). However, the variable still varied enough to run the analyses. Several transformations were considered given the non-normal distribution of trust, but the negligible model improvements did not warrant the additional challenges of interpreting the transformed data.

The first hierarchical regression model tested the relation between trust and leadership post-course, and controlled for leadership pre-course, participant age, and participant sex. Table 2 displays that, as expected, the first model was significant and both the pretest ($\beta = .71, p < .001$), age ($\beta = -.10, p < .001$; older students learned less)¹ and sex ($\beta = .06, p < .01$; females reported higher scores) explained a significant (p < .001) amount of the variance in the posttest. When trust ($\beta = .27, p < .001$) was added to the model, the explained variance in the post course leadership score increased significantly (p < .001) from adjusted $R^2 = .48$ to adjusted $R^2 = .55$. This indicates that the trust score predicted approximately 7% unique variance in the posttest leadership score.

Table 1
Descriptive Statistics for Outcome and Predictor Variables

	N	Minimum	Maximum	Mean	Standard Deviation
Leadership Pre Course	1049	-30	30	9.07	10.47
Leadership Post Course	1049	-30	30	18.70	10.93
Outdoor Skills Pre Course	1049	-30	30	-2.36	13.43
Outdoor Skills Post Course	1049	-30	30	18.89	10.98
Trust	1049	-30	30	24.30	8.72
Age	1044	13	88	20.86	6.44
Sex	1039				
Valid N (listwise)	1034				1010

The second hierarchical regression model tested the relation between trust and outdoor skills post-course, and controlled for outdoor skills pre-course, participant age, and participant sex. Table 2 displays that, as expected, the first model was significant, but only the pretest (β = .19, p < .001) explained a significant (p < .001) amount of the variance in the posttest. When trust (β = .34, p < .001) was added to the model, the explained variance in the post-course outdoor skills score increased significantly (p < .001) from adjusted R^2 = .03 to adjusted R^2 = .15. This indicates that the trust score predicted approximately 12% unique variance in the posttest outdoor skills score.

Table 2 Summary of Hierarchical Regression Analysis for Variables Predicting Post-course Leadership (n = 1034)

<u>Variable</u>	B	SE	В	t	n	
Model 1			1.0000			
Constant	15.14	.85		17.87	.000	
Leadership (pre-course)	.74	.02	.71	30.83	.000	
Age	18	.04	10	-4.46	.000	
Sex	1.50	.51	.06	2.87	.004	
Model 2						
Constant	7.26	1.01		7.25	.000	
Leadership (pre-course)	.70	.02	.67	30.70	.000	
Age	17	.04	10	- 4.69	.000	
Sex	.80	.48	.04	1.68	.093	
Trust	.35	.03	.27	12.76	.000	

Note: $R^2 = .48$ for model 1; $R^2 = .55$ for model 2

Table 3 Summary of Hierarchical Regression Analysis for Variables Predicting Post-course Outdoor Skills (n = 1034)

Variable	B	SE	β	t	n	
Model 1					P	
Constant	2.11	.18		17.08	.000	¥
Outdoor Skills (pre-course)	.15	.03	.19	5.96	.000	
Age	05	.05	03	-1.02	.311	
Sex	.79	.76	.03	1.11	.270	
Model 2				-		
Constant	10.89	1.39		7.24	.000	
Outdoor skills (pre-course)	.16	.02	.20	6.80	.000	
Age	07	.05	04	-1.49	.136	8
Sex	.001	.68	.00	.01	.999	
Trust	.440	.04	.34	11.80	.000	

Note: $R^2 = .03$ for model 1; $R^2 = .15$ for model 2

Discussion

Trust in a leader has predicted positive outcomes across organizational contexts (e.g., Mayer & Gavin, 2005; Rotter, 1967; Tan & Tan, 2000), and many of those outcomes assessed in transdisciplinary literature are highly relevant to outdoor leadership. However, the question of whether or not the same would hold true in a purely outdoor leadership context remained unanswered as there are differences between the type of leadership that occurs in management settings and leadership in outdoor education settings. The present study relied upon a well established framework for studying interpersonal trust in organizational contexts (e.g., Mayer et al., 1995) and found a positive relationship among the course outcomes of leadership development and outdoor skills development. Further, the addition of trust within hierarchical regression models yielded larger effect sizes, indicating that trust in outdoor leaders may support the attainment of those course outcomes. Finally, it is important to recognize that pretest, age, and sex covariates were related as expected based on theory and previous research (Paisley et al., 2008; Sibthorp et al., 2007). Including these participant level predictors, as well as perceived trust, the present study contributes both to the building of "program specific theory" (Sibthorp et al., 2007, p. 2) and contributes to more comprehensive explanations of the processes and mechanisms of outdoor adventure education.

This study highlights two important points for discussion. First, measuring trust in the NOLS instructor teams provided a simple description of the degree to which participants trusted their instructors. This was a beneficial addition to an established course quality assessment tool because it provided feedback regarding the effectiveness of the leaders to establish trust between themselves and participants. Given that the research findings, both present and past, suggest that trusting relationships between leaders and followers influence outcomes positively, this study allowed the organization to assess the effectiveness of one mechanism (the leader – participant relationship) that appears to be important within the outdoor education process. Second, measuring trust in the instructor teams allowed the researchers to explore the relationships among participants' trust in the outdoor leaders and course outcomes. This was important both conceptually and practically because previous studies of trust in outdoor leadership have relied upon studies from outside the outdoor education context to offer empirical support for this relationship (Colquitt et al., 2007; Tan & Tan, 2000).

Based upon previous research and theory, leader characteristics of integrity, benevolence, and ability can promote conditions of interpersonal trust in a variety of organizational settings (e.g., Mayer et al, 1995; Shooter et al., 2010). Integrity can be recognized in aspects of moral character such as honesty, holding a good reputation, dependability, principled behavior, and fairness to others. Benevolence may be characterized by a state of positive personal orientation toward each individual student and may be recognized when a leader demonstrates her or his genuine investment in each student having a positive experience. Ability in outdoor leadership is often considered a combination of technical and interpersonal stills (Shooter, Paisley, & Sibthorp, 2009). Instructors who actively exhibit behaviors that program participants interpret to be a) honest, b) in the students' best interest, and c) competent for the given setting, should be able to foster greater trust between themselves and their students (Shooter, 2008). This study has taken this previous research a step further by providing evidence that fostering trusting relationships between students and outdoor leaders appears to aid in student learning and growth during experiences in the outdoors.

If we understand that trust is important to foster between outdoor leaders and students, then staff training opportunities could be specifically designed to highlight the importance and practice of building strong relationships with participants through conscious displays of leaders' abilities and positive character. We focus here on aspects of the leader's character and trust development because, while abilities and skills are commonly and explicitly addressed through hiring and training of staff and are often central to program implementation, characteristics such as integrity and benevolence are often considered trait level aspects of an instructor's character and may receive less attention. Alternatively, we suggest that character be viewed as an aggregate of traits and states. Traits and states are generally a continuum rather than a dichotomy, but the extremes are used here as exemplars. Character traits are generally a staff screening issue: some staff training may make slight improvements in character traits, but by definition traits are fairly static. Character states may be supported to

a greater level by staff training, but are primarily influenced by organizational culture. This study indicates a potential need to further address the character aspects of field staff through a combination of screening, training, and positioning these characteristics within the organizational culture.

Organizational culture and a recognizable inter-organizational character education program can promote and support leader character. Leming (1993) stated that, "Character develops within a social web or environment" (p. 66). This means staff training needs to be used in combination with organizational culture to support character states like integrity and benevolence. In practice, this looks like the direct action of program directors routinely investing in promoting positive organizational culture by authentically supporting a quality experience for students, and staff training that does the same. This helps create a climate where the social norms are clear, consistent, locally owned, and supported by the social environment; four factors that, according to Leming, are critical to effective character education.

Leming's (1993) four factors are attributes of effective character education, rather than a formula. that can be implemented within organizations to promote leader character development. Social norms can be clarified by a program's mission statement and related documents that outline the organizational values to explain the broad context of why the program does what it does. If outdoor organizations wish to foster trusting relationships between staff and participants, these values must be clearly and explicitly articulated to staff, modeled in administrative practices, and valued by staff members who adopt such values for themselves. Through consistency these norms can be supported at all levels and in most situations. Inconsistent or ambivalent support will thwart efforts to instill desirable character level values, such as benevolence, across an outdoor program. Creating the norms through an empowering process, ideally where stakeholders are involved with scoping as well as the actual process, will establish local ownership. For example, consider an open process involving management, office staff, field staff, and participants, in which all stakeholders are given a voice. Practically speaking, this may occur in the form of well-designed needs assessments, intentional field practices, and collaborative planning processes (Jordan, DeGraff, & DeGraff, 2005). If these stakeholders are involved in improving integrity across all phases of the organization, it will influence how participants experience integrity within the program. Alternately, a poorly run process, for example one run without integrity or benevolence, can appear biased and may do more harm than good because of the poor character it demonstrates. Last, support by the social environment can establish conditions in which it becomes socially desirable to display the specific behavior. If most of the instructional staff are thinking, talking, and acting in ways that preserve a program's core values (e.g., integrity), then it is much more difficult for an individual staff member to overtly oppose core values because of the overt social pressure to conform. This, essentially, turns character education into a social marketing campaign (Sterling, 2001). In an extreme case, this may mean that some people who do not share the program's ethos may choose not to participate in the organization or its programs because of ethical dissonance. However, the telos of character education is to develop an organization that supports strong character at all levels. Therefore, if an organization wants to instill an ethos of trust, it must endeavor beyond traditional venues of staff screening and training to think and respond holistically.

In addition to the business and management literature cited above, the helping professions have also focused on the role of the "leader" or in this case, counselors' characteristics and behaviors, as centrally important and highly influential in effecting positive outcomes. In fact, the client - counselor relationship is reportedly among the most influential variables in successful counseling relationships (Glauser & Bozarth, 2001). One specific contribution from humanistic psychology is the person-centered approach that was practiced and promoted by Carl Rogers (Capuzzi & Gross, 2003; Kirschenbaum & Jourdan, 2005). Rogers maintained that valuing the client through displays of respect (unconditional positive regard), genuineness, and empathetic understanding were fundamental conditions to establish in counseling relationships (Capuzzi & Gross, 2003; Glauser & Bozarth, 2001; Kirschenbaum & Jourdan, 2005). Adopting a similar person-centered approach in outdoor leadership practices may also serve to foster trust and communicate the type of leader character identified in the present study.

Limitations of this study include the use of self reports, the idiosyncratic nature of NOLS courses, NOLS's use of a 35-day Instructor Course to screen staff, the use of a convenience sample, and the unaccounted for variance due to the nested structure inherent in these data. The relationship among trust in a leader and outcome variables that are relevant to different models of outdoor programs is yet to be determined. The current study analyzed data from only one outdoor adventure education program. This program has staff with a higher average age and experience level than many outdoor programs, which may have increased their perceived trustworthiness in students' eyes. The advanced ability and experience of these outdoor leaders may be a noteworthy limitation because this study does not include outdoor leaders who are inexperienced or early in their careers. This may be a partial explanation for why the measure of trust, while used in prior outdoor leadership studies (e.g., Shooter, 2008), did not exhibit as much variance as it had previously. In hind-sight, this is not surprising, as the initial application was based upon vignettes where outdoor leaders could be given characteristics that made them appear less trustworthy. The prevalence of actual instructors with these characteristics (e.g., low technical ability) in real outdoor education settings may be limited.

While this study found a positive relationship among trust in outdoor leaders and the participant development outcomes of leadership and skill acquisition, it remains to be seen what other course outcomes might be supported by interpersonal relationships in which high trust conditions are present between participants and leaders. Future research might consider expanding the current framework used to explain trust development by taking an inductive approach. Although there is convincing evidence that trust in a leader supports positive interpersonal relationships and desirable outcomes, it remains unclear how trust interacts with other factors that might promote such relationships. Likewise, additional research is needed to explore the role of outdoor leader characteristics and character in the outdoor education process and to explore concomitant ways that leaders might support the promotion of quality interpersonal relationships with participants. Nevertheless, leader-participant trust remains a key ingredient to success in the outdoor education process.

(Endnotes)

¹This interpretation necessitated running the data without the pretest score in the model. As expected, older students reported higher overall levels of leadership. However, when the posttest scores are adjusted to accommodate pretest reports of leadership, younger students benefit more. Thus, they learn more from the experience, but report lower overall scores at both pretest (retrospective) and posttest.

References

- Bobilya, A., Kalisch, K., & McAvoy, L. (2005). An investigation of the role of the instructor in the solo experience. *Journal of Experiential Education*, 27(3), 318-321.
- Brower, H. H., Schoorman, F. D., & Tan, H. H. (2000). A model of relational leadership: The integration of trust and leader-member exchange. *Leadership Quarterly*, 11(2), 227-250.
- Caldwell, C., & Clapham, S. E. (2003). Organizational trustworthiness: An international perspective. *Journal of Business Ethics*, 47(4), 349-364.
- Capuzzi, D., & Gross, D. R. (2003). Counseling and psychotherapy: Theories and interventions (3rd ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Psychology*, 92(4), 909-927.
- Deluga, R. J. (1995). The relation between trust in the supervisor and subordinate organizational citizenship behavior. *Military Psychology*, 7(1), 1-16.
- Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology*, 87(4), 611-628.
- Ewert, A., Sibthorp, J., Sharpe, E., Meier, J., McAvoy, L., Gilbertson, K., Roberts, N., & Galloway, S. (2000).
 Components of the outdoor trip: What really happens? Coalition for Education in the Outdoors Fifth Biennial Research Symposium Proceedings. Bradford Woods, IN. January 14-16.
- Gillespie, N. A., & Mann, L. (2004). Transformational leadership and shared values: The building blocks of trust. *Journal of Managerial Psychology*, 19(6), 588-607.
- Glauser, A. S., & Bozarth, D. (2001). Person-centered counseling: The culture within. *Journal of Counseling and Development*, 79, 142-147.
- Goldenberg, M., McAvoy, L., & Klenosky, D. B. (2005). Outcomes from the components of an outward bound experience. *Journal of Experiential Education*, 28(2), 123-146.
- Hardin, R. (2002). Trust and Trustworthiness. New York: Russell Sage Foundation.
- Hobbs, W. & Ewert, A. (2008). Having the right stuff: Investigating what makes a highly effective outdoor leader [abstract]. Proceedings from the Coalition for Education in the Outdoors Ninth Biennial Research Symposium. Bradford Woods, IN.
- Jordan, D. J., DeGraff, D. G., & DeGraff, K. H. (2005). Programming for parks, recreation, and leisure services: A servant leadership approach (2nd Ed.). State College, PA: Venture.
- Kirschenbaum, H., & Jourdan, A. (2005). The current status of Carl Rogers and the person-centered approach. Psychotherapy: Theory, Research, Practice, Training, 42(1), 37-51.
- Kramer, R. M., & Cook, K. S. (2004). Trust and distrust in organizations: Dilemmas and approaches. New York: Russell Sage Foundation.
- Leming, J. S. (1993). Synthesis of research: In search of effective character education. *Educational Leadership*, 51, 3:63-71.
- Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84(10), 123-136.
- Mayer, R. C., Davis, J. H. & Schoorman, D. (1995). An integrative model of organizational trust. *The Academy of Management Review*, 20(3), 709-734.
- Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: Who minds the shop while the employees watch the boss? *Academy of Management Journal*, 48(5), 874-888.
- Mayer, R. C., & Norman, P. M. (2004). Exploring attributes of trustworthiness: A classroom exercise. *Journal of Management Education*, 28(2), 224-249.

- McKenzie, M. (2003). Beyond "The Outward Bound process:" Rethinking student learning. *Journal of Experiential Education*, 26(1), 8-23.
- Mudge, B. (2009). From the outside looking in: A study of Australian employers' perceptions of graduates from outdoor education degree programs. *Australian Journal of Outdoor Education*, 13(1), 30-38.
- Nooteboom, B., & Six, F. (Eds.) (2003). The trust process in organizations: Empirical studies of the determinants and the process of trust development. Northampton, MA: Edward Elgar.
- Paisley, K., Sibthorp, J., Gookin, J., Furman, N., Schumann, S., & McAvoy, L. (2008). Predictors of participant development though adventure education: Replication and extension of previous findings from NOLS. Research in Outdoor Education, 9, 60-74.
- Rotter, J. B. (1967). A new scale for the measurement of interpersonal trust. *Journal of Personality*, 35(4), 651-665.
- Schumann, S., Paisley, K., Sibthorp, J., & Gookin, J. (2009). Instructor influences on student learning at NOLS. Journal of Outdoor Recreation, Education, and Leadership, 1(1), 15-37.
- Shooter, W. (2008). The effect of leader attributes, situational context, and participant optimism on trust in outdoor leaders. Unpublished doctoral dissertation, University of Utah, Salt Lake City.
- Shooter, W., Paisley, K., & Sibthorp, J. (2009). The effect of leader attributes, situational context, and participant optimism on trust in outdoor leaders [Abstract]. *Journal of Experiential Education*, 31(2), 395-399.
- Shooter, W., Paisley, K., & Sibthorp, J. (2010). Trust development in outdoor leadership. *Journal of Experiential Education*, 33(3), 189-207.
- Sibthorp, J., Furman, N., Paisley, K., Schumann, S., & Gookin, J. (in press). Mechanisms of learning transfer in adventure education: Qualitative results from the NOLS transfer survey. *Journal of Experiential Education*.
- Sibthorp, J., Paisley, K. P., & Gookin, J. (2007). Exploring participant development through adventure-based programming: A model from the National Outdoor Leadership School. *Leisure Sciences*, 29(1), 1-18.
- Sibthorp, J., Paisley, K., Gookin, J., & Furman, N. (2008). The pedagogic value of student autonomy in adventure education. *Journal of Experiential Education 31*(2), 136-151.
- Sibthorp, J., Paisley, K., Gookin, J., & Ward, P. (2005). Participant development through adventure-based recreation programming: A model from the National Outdoor Leadership School (abstract). 2005 NRPA Leisure Research Symposium. (p. 11). San Antonio, TX.
- Sterling, S. (2001). Sustainable education: Re-visioning learning and change. Devon, UK: Green Books.
- Tan, H. H., & Tan, C. S. (2000). Toward the differentiation of trust in supervisor and trust in organization. Genetic, Social & General Psychology Monographs, 126(2), 241-261.
- Walsh, V., & Golins, G. (1976). The exploration of the Outward Bound process model. Denver: Colorado Outward Bound Publications.

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