Illuminare:
A Student Journal in
Recreation, Parks, and Leisure Studies

Research Brief

Student Adjustment to College: Examining the Impact of an Outdoor Orientation Program

Timothy Posey
Eddie Hill
Edwin Gómez
Mike McFall
Shea Humenik
Dakota Clifford

Old Dominion University

Online Publication Date: April 20th, 2015

Publication details, instructions for authors, and subscription information can be found at http://scholarworks.iu.edu/journals/index.php/illuminare/

Illuminare: A Student Journal in Recreation, Parks, and Leisure Studies
Volume 13, Issue 1, pages 53-62, 2015
ISSN: 2158-9070 online
Indiana University, Department of Recreation, Park, and Tourism Studies

Student Adjustment to College: Examining the Impact of an Outdoor Orientation Program

Timothy Posey
Park, Recreation, and Tourism Studies
Old Dominion University

Eddie Hill
Park, Recreation, and Tourism Studies
Old Dominion University

Edwin Gómez
Park, Recreation, and Tourism Studies
Old Dominion University

Mike McFall
Park, Recreation, and Tourism Studies
Outdoor Adventures
Old Dominion

Shea Humenik
Park, Recreation, and Tourism Studies
Old Dominion

Dakota Clifford
Engineering
Old Dominion University

Abstract

This pilot study examined the impact of an outdoor orientation program (First Ascent) on participants' level of transference, resilience, well-being and transition to college. Pre and posttest instruments were administered during a four-day college outdoor orientation program, as well as an open-ended series of questions. Nonparametric tests revealed significant differences from the pre- and posttest of the measures on skill transference and resiliency. Additional, individual items from each questionnaire were examined.

Keywords: Outdoor orientation programs, resiliency, transfer, well-being, adjustment to college

Address Correspondence to: Eddie Hill, Old Dominion University, Park, Recreation, and Tourism Studies, 2019 Student Recreation Center, Norfolk, VA 23529 U.S.A., Email: ehill@odu.edu

A student's first year in college is often described as life-changing and transformative. This first year is also one of the most tumultuous periods of adjustment in adulthood (Baker & Siryk, 1984; Fox, Zakely, Morris & Jundt, 1993). Outdoor orientation programs may alleviate this period of difficult adjustment. Outdoor orientation programs are designed to facilitate students' transition to college life and aid in their success (Kuh, Kinzie, Schuh, & Whitt, 2010). This pilot study explores the impact of an outdoor orientation program on student transition to a university setting.

Review of Literature

Some of the documented benefits that students experience as a result of participating in outdoor orientation programs include a sense of belonging at the institution and increased perceived social support (Bell, 2006). Additional research suggests increased academic success, a positive effect on social skills (Bell, 2006; Gass, Garvey & Sugerman, 2003), and greater adjustment to college life (Brown, 1998). Other measured outcomes include the development of a more realistic view of social norms on campus in regard to improved self-confidence and increased appreciation of outdoor activities (Propst & Koesler, 1998).

The first college orientation program was created at Boston University in 1888 (Gass, Garvey & Sugerman, 2003); however, the utilization of freshman orientation programs did not become popular until the 1970s and 1980s (Boundreau & Kromrey, 1994). During this time, researchers became interested in the effectiveness of such programs. A 1980s study found greater retention rates for freshmen orientation participants, when compared to non-participants (Schwitzer, McGovern, & Robbins, 1991). Furthermore, research has shown that outdoor orientation programs offer significant physiological and mental health benefits. For example, Shellman and Hill (2012) reported significant gains in psychological resilience, social resilience, and emotional well-being. Other benefits include greater cardiovascular fitness and general health (Driver, Brown & Peterson, 1991), reduction of stress and depression (Ewert & Kessler, 1996), and enhancement of the subjective areas of resilience and well-being (Shellman & Hill, 2012; Wagnild & Young, 1993).

Outdoor orientation programs enhance participant experiences and have been described as life-altering and transformative (Sibthorp, Furman, Paisley & Gookin, 2009). Luckner and Nadler (1997) explored the impact of outdoor education as it applies to being successful in other areas of life (i.e., skill transference). Sibthorp et al. (2009) posited that transferred learning from outdoor programs can be organized into four categories: (a) self-systems (b) group-dynamics and development (c) personal values (d) technical skills. Although many orientation programs are structured, some research has supported the benefits of providing participants with a choice of activity (Hill & Sibthorp, 2006; Ramsing & Sibthorp, 2008). Thus, the purpose of this pilot study was to determine the impact of a university outdoor orientation program on participants' perceived level of transferable skills, resilience, well-being, and adjustment to college.

Methods

The First Ascent Program is a specially designed Freshman Orientation Program at a Mid-Atlantic university that aims to assist incoming freshman and transfer students in their adjustment to college. Participants have the option to participate in one of two 4-day First Ascent trips: a backpacking trip in Shenandoah National Park (SNP) in Virginia, or a surf trip to Ocracoke Island in North Carolina. SNP is a 200,000-acre national park with over 500 miles of trails, including a 100-mile stretch of the Appalachian Trail, and lies along the Blue Ridge Mountains. Its geography provides visitors with the opportunity to hike through beautiful wilderness terrain, explore waterfalls, and climb impressive rock faces.

The Cape Hatteras National Seashore (CHNS) runs 70 miles along North Carolina's Outer Banks from Whalebone Junction to Ocracoke Island. The shifting shoals around CHNS are littered with the bones of some 2,000 wrecked ships—the reason the area is called "The Graveyard of the Atlantic." CHNS is a water-sports paradise, with small villages separated by miles of undeveloped, unspoiled beaches, which are protected from commercial growth. CHNS is one of the East Coast's top recreation destinations, with plenty of surfing, sailing, fishing, and scuba diving. During their stay, students camped at Ocracoke Island Campground in Ocracoke, NC. The campground is at the southern edge of CHNS.

Programming

Assisting incoming freshman and transfer students in their adjustment to college life was accomplished through the facilitation of a unique outdoor adventure experience that encourages students to try new activities outside of their comfort zone, while on an outdoor trip with other students. The transition from high school to college can be a particularly dynamic and challenging time for students. As a result, the First Ascent Program intends to ease the stress associated with such significant change by helping students to develop connections, feel welcomed at the university community, understand more about university life, and develop confidence in themselves and their abilities. It is the goal of the First Ascent Program to engage every student as completely as possible and ensure that they feel like they are part of a team and the university community. Because students are outside of their comfort zone and have taken a some risk in signing up for the program, they are more willing to challenge themselves and engage others. The goal of the First Ascent experience, combined with the major life transition they are making from high school to college, is to assist participants in opening up and experiencing the trip in a very unique and powerful way.

This effort was further guided by the use of a specific and consistent set of programming throughout the trip that facilitated the group towards a shared set of outcomes and understandings. The outcomes were accomplished through a series of initiatives that the trip leaders and mentors facilitated to guide the group towards a collaborative understanding. Trips were offered twice and occur during the months of July-August 2014. The program was specifically designed for incoming college freshmen and offered as an alternative to more traditional orientation programs. Although the programming took place in two different settings, both offered outdoor recreation and education experiences, direct support from a university faculty mentor on the trip, reflective sessions regarding the first year of college, socialization, and the option to meet new incoming students.

Trip Leader Role

The trip leader ensured the safety of all participants on the trip, while also engaging the participants, facilitating a welcoming community that fosters development and growth, and teaching the skills necessary to succeed on a trip. Additionally, the trip leader introduces students to the university, addresses their concerns regarding their first year in college, and encourages them to build strong connections with other participants to make them feel more “at home” during their first year at the university. In short, trip leaders serve as mentors.

The trip leaders develop a friend-type relationship with participants, but it is important they maintain a semblance of professionalism, inherent in the trip leaders’ role as peer mentors. Given the trip leaders’ senior university student status, the goal is for the new students in the outdoor experience to model the behavior and attitudes towards the university after the trip leaders. The trip leaders are the primary representatives of the university on the trip and model the values of the university. Finally, it was important that trip leaders

have an innate understanding of the program and its intended outcomes. It was solely their responsibility to execute this part of the program and tailor it as needed to ensure the participants all take away the intended message.

The Faculty Mentor Role

The faculty (or staff) mentor's role is to serve as a positive role model for the students on the trip, help answer questions the students may have about the university, and provide a unique perspective different from that of the trip leaders. The faculty mentor augments the trip leaders while on the trip, but keeps in mind that his or her role is not one of direct leadership. The mentor is encouraged to (a) lead by example and provide support to the trip leaders, (b) participate in or assist in facilitating discussions and activities, (c) serve as a positive role model to students, (d) provide a unique point of view on the transition from high school to college, (e) discuss tips and strategies for college success, and (f) help students feel understood.

Measures

Participants in First Ascent were given four quantitative, pre-established scales (e.g., Wagnild & Young, 1993) [collapsed into one questionnaire] to measure resilience (pretest, posttest), transfer of skills (pretest, posttest), adjustment to college (posttest only), and well-being (posttest only). The 48-question pretest was administered upon students' arrival at the pre-trip meeting. The posttest contains 79 questions and was administered at the conclusion of the trip. Resilience was measured using Wagnild and Young's (1993) 25-item Resilience Scale (RS) and scored on a Likert-type scale from 1 (strongly agree) to 7 (strongly disagree). This scale has been used in previous studies to assess resilience in outdoor and adventure education program participants (Ewert & Yoshino, 2008; Neill & Dias, 2001; Shellman, 2009). Keyes's (2009) Mental Health Continuum-Short Form (MHC-SF) was used to assess participants' mental health. The MHC-SF contains 14-items measuring three domains of well-being: (a) psychological, (b) emotional, and (c) social well-being. Each item is measured on a Likert-type scale from 0 (never) to 5 (everyday). Student adjustment to college was measured using the 23-item Modified Student Adaptation to College Questionnaire (MSACQ) based on the following five areas of adjustment: (a) academic motivation, (b) personal/emotional adjustment, (c) social adjustment, (d) academic environment, and (e) institutional attachment (Gómez, Urzúa & Glass, 2014). It is scored on a Likert-type scale from 1 (doesn't apply to me at all) to 9 (applies very close to me). To measure the level of transferable skill, a 17-item survey developed by Sibthorp et al. (2009), and previously tested on National Outdoor Leadership School (NOLS) students, was administered to all program participants. The survey is based on four dimensions: (a) self-systems (b) group dynamics (c) personal values (d) technical skills. It is scored on a Likert-type scale from 1 (least important) to 10 (most important). Only pretest and posttest scores will be reported for this study, as follow-up posttest scores were not feasible due to attrition.

Results

Data were collected on two trips. Eleven participants completed the pretest and posttest. The sample was 72% female with a mean age of 20. Wilcoxon *T* tests were used to analyze any differences from the pre- and posttest of the measures on skill transference and resiliency. Additionally, effect size (r_X) will be reported using Rosenthal's (1991) *z*-score formula (p.19), and interpreted using Cohen's (1992) suggestions for small (r = .1), medium (r = .3) and large (r = .5) effects.

Due to the small *N*, psychometric properties of the transference and resilience scales were not analyzed, however, previous research supports both metrics to be within acceptable ranges for use (Shellman, 2009; 2014; Sibthorp et al., 2009). The

results indicated a statistically significant increased difference between participants' skill transference pretest and posttest scores. Skill transference levels were significantly higher at posttest (*Mdn* = 8.94) than on pretest (*Mdn* = 8.24), $T = 43$, $p = .015$, $r_{\text{Transference}} = 52$. Thus, we concluded that there is a significant change between transference of skills from pretest to posttest.

Results from the measure of resilience indicated a statistically significant increased difference between participants' resilience pretest and posttest scores. Resilience levels were significantly higher at post-test (*Mdn* = 6.72) than on pretest (*Mdn* = 6.25), $T = 57$, $p = .033$, $r_{\text{Resilience}} = 46$. Thus, we concluded that there is a significant change between resilience from pretest to posttest.

Student Adjustment and Mental Health Continuum (measure of well-being) posttest means were reported. The Student Adjustment to College Questionnaire will be administered a second time the following semester to determine impact (Gómez et al., 2014). The Mental Health Continuum is only administered as a posttest, but due to the sample size, the percentage of students "flourishing: psychologically, emotionally, and socially" could not be computed. Also, due to the small *N*, scale analyses were not performed; however, individual items from the four outcomes were looked at to identify the highest three item means for each instrument used.

Discussion

We hypothesized that students participating in the university outdoor orientation program would demonstrate significant gains, as found in other studies (Shellman & Hill, 2012). Previous studies using the MHC-SF scale demonstrated increased participant scores on all three domains of well-being: psychological, emotional, and social (Shellman & Hill, 2012). Unfortunately, our sample size did not allow for comparable analyses. Additionally, this current study focused on the impact of a 4-day program, while other studies have conducted longer programs (Bell, 2006; Kuh et al., 2010).

Sample size aside, non-parametric statistics provide statistical support for significant increased skill transference and resilience from pretest to posttest. Histogram analysis of the pretest/posttest scores from the 11 participants indicated that, in both skill transference and resilience, 8 out of the 11 participants (72.7%) had higher posttest scores after participation in First Ascent. These findings supported our overall hypothesis of significant gains from participation in the university outdoor orientation program in our pilot study. According to Cohen (1992), our findings indicate medium to large effects from pretest to posttest scores on skill transference and resilience.

Individual items from each subscale showed additional promise of student improvement in transference, resilience, adjustment to college, and well-being. For example, participants reported significant gains in such items as the "ability to function effectively under difficult circumstances," which is a transfer skill that increased by over a point from pretest to posttest. Furthermore, students reported almost a point increase in participant resilience, in reference to "I can get through difficult times because I've experienced difficulty before." In addition, when asked to rate "I am pleased now about my decision to attend this college in particular," the participant mean was 8.0 on a Likert type scale from one to nine. This shows that students are excited about attending college, and more specifically, institutional attachment.

The lessons learned from the First Ascent program are the importance of leading oneself and not being afraid to ask for help. Results from this study and others support the notion that outdoor orientation programs provide students with skill transference, resilience, greater connection to the university (Bell, 2006; Gass, Garvey & Sugerman, 2003), and the skills necessary to succeed in college and after graduation (Shellman & Hill, 2012).

Table 1
Measure of transfer of skills

Top three items	Pretest *M*		Posttest *M*
Ability to take care of myself	9.09	Ability to function effectively under difficulty	9.45
Ability to work as a team member	8.81	Ability to identify my strengths and weaknesses	9.09
Ability to function effectively under difficulty	8.81	Ability to make informed and thoughtful decisions	9.09

Table 2
Measure of resilience

Top three items	Pretest *M*		Posttest *M*
I am able to depend on myself more than anyone	6.00	I have enough energy to do what I have to do	6.90
I am determined	6.00	I am friends with myself	6.81
I can usually find something to laugh about	6.00	I can get through difficult times	6.72

Table 3
Student adjustment to college

Top three items	Posttest *M*
I am pleased about my decision to attend this college	8.00
I am satisfied with the number of variety of courses available at college	7.63
My academic goals are well defined	7.54

Note. Posttest will be administered at the end of the students' first semester.

Table 4
Measure of Well-being

Top three items	Posttest *M*
Interested in life	5.63
Good at managing the responsibilities of your daily life	5.63
Confident to express your own ideas and opinions	5.54

Flourishing is a common term for university campuses, but there is debate on how best to accomplish this outcome. Although our study intended to measure this outcome, we were unable to do so due to the low sample size. Future studies should identify measures (e.g., Mental Health Continuum), and determine which are the most effective ways to address flourishing and adjustment for college students.

Limitations and Suggestions for Future Research

Clearly, our findings were limited by a small N, and limited to one university program. As such, we were unable to run psychometric properties on the scales. This study explored four dimensions as outcomes, thus the questionnaire became very long (i.e., 79-item posttest). Future studies should consider minimizing the number of constructs to be measured, as well as explore qualitative analysis. Furthermore, our study focused on domestic students transitioning from high school to university. Other university orientation programs have explored adjustment of international students and indicate positive results between leisure pursuits and the transition to a university setting (Gómez et al., 2014). Outdoor orientation programs and the role they can play in the adjustment specific to international students is an area of further exploration. Exploring student adjustment to college, retention, and investment in a specific college might impact quality of life on campus, morale, attrition, and even future donors. These are areas of great interest to college administrators. Universities across the country have interest in retention. This line of research should further explore tracking those students involved in outdoor orientation programs regarding their grades, completion of degree, and likelihood to give back to their university, and compare outdoor orientation students to their peers who did not attend the outdoor orientation program. Information from such data could assist in laying the groundwork for outdoor orientation programs to become the standard as a high-impact practice for campuses nationwide.

References

Bell, B. J. (2006). Wilderness orientation: Exploring the relationship between college preorientation programs and social support. *Journal of Experiential Education*, *29*(2), 145-167.

Boudreau, C. A., & Kromrey, J. D. (1994). *A longitudinal study of the retention and academic performance of participants in a freshmen orientation course. Journal of College Student Development, 35*, 444-449.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155-159.

Driver, B., Brown, P., & Peterson, G. (1991). *Benefits of leisure*: State College, PA: Venture.

Ewert, A., & Kessler, W. (1996). Human health and natural ecosystems: Impacts and linkages. *Ecosystem Health, 2*(4), 271-278.

Ewert, A., & Yoshino, A. (2008, January). An initial exploration of the influence of short-term adventure-based experiences on levels of resilience (abstract). Abstracts from the Coalition for Education in the Outdoors Ninth Biennial Research Symposium, (p.18-20). Martinsville, IN.

Gambone, M. A., & Arbreton, A. J. A. (1997). Safe Havens: The contributions of youth organizations to healthy adolescent development. Philadelphia, PA: Public/Private Ventures.

Gass, M. A. (1987). The effects of a wilderness orientation program on college students. *Journal of Experiential Education*, *10*(2), 30-33.

Gass, M. A., Garvey, D. E., & Sugerman, D. A. (2003). The long-term effects of a first-year student wilderness orientation

program. *Journal of Experiential Education*, *26*(1), 34-40.

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.

Gómez, E., Urzúa, A., & Glass, C. (2014). International student adjustment to college: Social networks, acculturation, and leisure. *Journal of Park & Recreation Administration* [Special Issue on Leisure and Transition over the Lifespan], *32*(1), 7-25.

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,* 43-87.

Hill, E., & Sibthorp, J. (2006). Autonomy support at diabetes camp: a self determination theory approach to therapeutic recreation. *Therapeutic Recreation Journal*, *40*(2), 107-125.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76,* 395–402.

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62*(2)*,* 95-108.

Keyes, C. L. M. (2009). Atlanta: Brief description of the mental health continuum short form (MHC-SF). Retrieved from http://www.sociology.emory.edu/ckeyes/

Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2010). *Student success in college: Creating conditions that matter.* Hoboken, NJ: John Wiley & Sons.

Luckner, J. L., & Nadler, R. S. (1997). *Processing the experience: Strategies to enhance and generalize learning*. Dubuque, IA: Kendall/Hunt Publishing Company.

McKenzie, M. D. (2000). How are adventure education outcomes achieved? A review of the literature. *Australian Journal of Outdoor Education, 5,* 19-28.

Neill, J. T., & Dias, K. L. (2001). Adventure education and resilience: The double-edged sword. *Journal of Adventure Education and Outdoor Learning*, *1*(2), 35-42.

Propst, D. B., & Koesler, R. A. (1998). Bandura goes outdoors: Role of self-efficacy in the outdoor leadership development process. *Leisure Sciences*, *20*(4), 319-344.

Ramsing, R., & Sibthorp, J. (2008). The role of autonomy support in summer camp programs: Preparing youth for productive behaviors. *Journal of Park & Recreation Administration*, *26*(2), 61-77.

Rosenthal, R. (1991). Meta-analytic procedures for social research (2nd ed.). Newbury Park, CA: Sage.

Shellman, A. (2009). *Empowerment and resilience: A multi-method approach to understanding processes and outcomes of adventure education program experiences.* (Unpublished doctoral dissertation). Indiana University, Bloomington.

Shellman, A., Hill, E., (2012). Flourishing through resilience: Examining the impact of a college outdoor education program.

Sibthorp, J., Furman, N., Paisley, K., & Gookin, J. (2009). Long-term impacts attributed to participation in adventure education: Coalition for Education in the Outdoors Ninth Biennial Research Symposium, (pp.86-99). Bradford Woods, IN.

Schwitzer, A. M., Griffin, O. T., Ancis, J. R., & Thomas, C. R. (1999). Social adjustment experiences of African American college students. *Journal of Counseling & Development*, *77*(2), 189-197.

Schwitzer, A. M., McGovern, T. V., & Robbins, S. B. (1991). Adjustment outcomes of a freshman seminar: A utilization-focused approach. *Journal of College Student Development, 36*, 50-511.

U.S. Department of Health and Human Services. (1999). *Mental Health: A report of the Surgeon General.* Rockville, MD: Author.

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement, 1,* 165-178.

World Health Organization. (2001). *Strengthening mental health promotion.* Geneva, World Health Organization (Fact Sheet, No. 220).

Witt, P. A., & Caldwell, L. L. (2005). 10 principles of youth development. In P. A. Witt & L. L.Caldwell (Eds.), *Recreation and youth development* (pp. 3-23). State College, PA: Venture**.**