Statement of Knowledge Paper: Outdoor Orientation Programs

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The State of Knowledge of Outdoor Orientation Programs: Current Practices, Research, and Theory

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Abstract
Outdoor orientation programs represent a prominent area of experiential education with over 25,000 participants annually. More than 191 outdoor orientation programs currently operate in the United States and Canada. The research examining outdoor orientation programs consists of 25 peer-reviewed published studies and 11 dissertations. A new theory explaining the success of these programs has emerged based on research and the belief that students experience a special sense of belongingness promoted by social dynamics found in these programs.

Keywords
adventure orientation, college orientation, outdoor orientation, and wilderness orientation

Introduction
Outdoor orientation programs use adventure experiences, such as backpacking and wilderness travel, to aid students in their transition to college. These programs are typically defined by the size of the group (i.e., students typically work in small groups of 15 or less) and the activity of camping (at least 1 night) away from the campus (Bell, Holmes, & Williams, 2010). These transition processes are typically achieved by helping students develop constructive social support systems as well as by providing them with feelings of belonging, trust, and connection to a group of peers (Bell, 2005a,

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Although the timing and scheduling of orientation programs are diverse, the goals are quite similar. Programs exist to facilitate an effective transition of students into the academic atmosphere of the college or university (Smith & Brackin, 1993), but the length and design of such programs are as varied and diverse as the institutions leading them. Outdoor orientation programs are one phenomenon currently found at more than 191 colleges in the United States. These programs exist to meet the goals of orientation and assist students to integrate effectively in the college culture.

Outdoor Orientation Programs

Outdoor orientation programs can be characterized as an orientation or pre-orientation experience comprised of three factors: (a) Students are placed in small groups of 15 or fewer individuals; (b) students spend at least 1 night camping away from campus; and (c) the program includes one or more adventure experiences (e.g., hiking, rock climbing, canoeing, ropes course). These programs have led to the development of both service-based programs and camp-based orientation programs, both of which are similar to outdoor orientation programs in that they occur in novel environments, use small groups, present challenging activities aimed at developing group support, and focus on the transfer of lessons from the adventure to the participants' broader life (Gass & Seaman, 2012; Priest & Gass, 2005). These programs are useful in meeting students’ desires for a more engaging and developmental college experience.

The first outdoor orientation programs began at Dartmouth College in 1935, but it was not until Prescott College’s program in 1968 that outdoor orientations began to grow on campuses. Although this form of orientation program has primarily been a U.S. college phenomenon, outdoor orientation programs have recently begun to appear in high schools (Essex freshmen to take hike, 2009) and in Canada (Lathrop, O’Connell, & Howard, 2012; O’Connell, 2011).

Outdoor orientation programs represent a highly engaging and time intensive method of orientation. They are growing in number at a time when scholars such as Kuh, Kinzie, Schuh, and Whitt (2010) are calling for Documenting Effective Educational Practices (DEEP) learning initiatives in higher education because, “What students do in college counts more for what they learn and whether they will persist in college than who they are or even where they go to college” (p. 8). Effective orientation programs are particularly important for first-generation students (Pascarella & Terenzini, 2005). Research also shows that commuting students and those who take online courses have more academic success when they have a physical sense of place on campus (Pascarella & Terenzini, 2005). Outdoor orientation programs may help resolve some of the growing needs for engaging learning experiences that help vulnerable students transition into college life.

A Census of Outdoor Orientation Programs

Common peer practices of outdoor orientation programs have been identified in four studies (Bell et al., 2010; Berman & Davis-Berman, 1996; Galloway, 2000; Gass, 1984). These studies have been a source of information and support for outdoor
Table 1. A Comparison of Outdoor Orientation Program Averages 2006 to 2012.

<table>
<thead>
<tr>
<th>Variable</th>
<th>2006 Averages</th>
<th>2012 Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year program started</td>
<td>1993</td>
<td>1997</td>
</tr>
<tr>
<td>Length of program</td>
<td>5.6 days</td>
<td>5.5 days</td>
</tr>
<tr>
<td>Number of leaders</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Cost per day</td>
<td>$51.00</td>
<td>$76.48</td>
</tr>
<tr>
<td>Cost per program</td>
<td>$291</td>
<td>$317.89</td>
</tr>
<tr>
<td>Number of participants per program</td>
<td>108</td>
<td>121.43</td>
</tr>
<tr>
<td>Hours of leader training</td>
<td>111</td>
<td>93</td>
</tr>
<tr>
<td>Leaders are unpaid</td>
<td>50%</td>
<td>35.4%</td>
</tr>
<tr>
<td>Travel is greater than one mile from a road/trailhead or from access to definitive medical care</td>
<td>89%</td>
<td>98.3%</td>
</tr>
<tr>
<td>Does not provide college credit for program participation</td>
<td>79%</td>
<td>67%</td>
</tr>
<tr>
<td>Trip leaders carry cell phones</td>
<td>78%</td>
<td>97%</td>
</tr>
</tbody>
</table>

orientation programs, serving as an additional way to share state of knowledge information across programs and connect program directors with each other.

The study conducted by Bell et al. (2010) identified over 300 colleges in the United States as possibly having outdoor orientation programs and eliminated over 1,500 campuses without a program. Follow-up procedures verified 191 outdoor orientation programs. These programs were surveyed regarding program length, costs, levels of training, and risk management issues. This census found that the numbers of colleges implementing outdoor orientation programs are increasing. Program length is relatively unchanged, but daily costs have grown due to increases in first aid training, operational supplies (e.g., equipment, food, transportation, permits), and in paying college student leaders. Increases in professionalism were demonstrated by increases in first aid training, wilderness medical training, and risk management committee meetings, along with the increased number of programs with physicians signing off on medical protocols.

This study also provided several interesting risk management findings. For example, accidents and evacuations inversely correlated with program costs, length, and age of program, for example, as the daily cost of the program increased, the incidence of evacuation decreased ($r = -0.15$). The most established (longest running) programs had the lowest rates of evacuation ($r = -0.38$). The six outdoor orientation programs accredited by the Association for Experiential Education (AEE) possessed an evacuation rate of 0.00068 ($n = 6$), which is nearly half of the overall evacuation rate for all combined programs (see Table 1).

Overview of Research

The first known documented study of outdoor orientation programs was an unpublished report in 1971. To date, there have been 11 dissertations written on the topic and 25 peer-reviewed research articles. The first peer-reviewed published study on outdoor orientation programs was “The effects of a wilderness orientation program on college students” in the Journal of Experiential Education (JEE; Gass, 1987). The JEE has been the leader in publishing this research, accounting for 12 of the 25 published peer-reviewed studies. Of these studies, three have been an overview or census of existing outdoor orientation programs. Five other articles have focused on issues across all programs, including issues of (a) conference attendance patterns of outdoor orientation program directors (Bell, 2009), (b) critical concerns for outdoor orientation programs (Bell, Holmes, Vigneault, & Williams, 2008), (c) descriptive analyses of wilderness orientation (Fears & Denke, 2001), (d) examining why programs discontinue (Bell & Vaillancourt, 2011), and (e) summarizing the research on wilderness orientation programs for the AEE (Bell & Gass, 2012). The remainder of the 18 peer-reviewed studies included 16 with quantitative or mixed methods designs (measuring at least one dependent variable or DV). Table 2 below highlights the findings from the key DVs measured in the published research studies as comparison data. Table 3 lists the common themes found in the six qualitative or mixed method studies.

A review of this research illustrates a number of positive impacts on the student participants on outdoor orientation programs. Table 2 lists three outcome variables important to all campuses: increased GPA, increased retention, and increased levels of student development. These variables are important markers of success. GPA represents higher levels of learning; the higher retention variable represents proper adjustment, support, and fit of the students; and the student development variable represents the growth of the student as a person. These variables are an important part of the overall mission of residential colleges hosting outdoor orientation programs and are considered measures of student success.

The other variables are conceptualized as mediating variables. These variables may increase or decrease, but are valued by their influence on outcomes such as GPA, retention, and student development. In the outdoor orientation literature, more than 20 mediating variables have been studied, represented in Table 2. In context of this research, it is important to note the positive regard participants have for outdoor orientation programs—students rate outdoor orientation as an important positive experience.

The types of variables increasing in Table 2 are mostly social. The sub-factors driving significant results include improved connections with peers (Bell, 2012); social adjustment (Bobilya, Akey, & Mitchell, 2011; Brown, 1998); interpersonal relationships (Gass, 1987); friendship formation (Astin, Martin, Mittelstaedt, Schanning, & Ogle, 2009; Austin et al., 2010; Devlin, 1996); social support (Bell, 2006); sense of strong social support network, attachment, sense of fitting in (Astin et al., 2009); and task leadership (Frauman & Warywold, 2009). These factors account for nine of the significant results in the 16 quantitative/mixed method studies. The power of peer connections has been well documented in the higher education literature: “The student’s peer group is the single most potent source of influence on growth and development during the undergraduate years” (Astin, 1993, p. 398, quoted in Staebuck, 2013). The social structure of an outdoor orientation is important for student development.
<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>College retention</td>
<td>No attrition in either group. Statistically significant retention rate, approaching statistical significance (p = .009). Higher retention rates: significantly higher GPA’s (3.1% first semester, 4.9% second semester). Non-significant retention rates: significantly higher GPA’s after 1 year.</td>
</tr>
<tr>
<td>Student Adjustment to College (SACO)</td>
<td>Student Development: Task inventory (SDI-T)</td>
</tr>
<tr>
<td>Satisfaction with orientation</td>
<td>Satisfaction with: orientation</td>
</tr>
<tr>
<td>Friendship formation</td>
<td>Close friends on campus</td>
</tr>
</tbody>
</table>

**Table 2. The Variety of Dependent Variables From Quantitative Research Studies of Outdoor Orientation.**

<table>
<thead>
<tr>
<th>Researcher(s)</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snogher, 1978</td>
<td>Increased number of friendships</td>
</tr>
<tr>
<td>Gass, 1997</td>
<td>Increased social support levels</td>
</tr>
<tr>
<td>Gass, 1997</td>
<td>Increased self-efficacy</td>
</tr>
<tr>
<td>Viani, Bell &amp; Goss, 2011</td>
<td>Increased self-efficacy</td>
</tr>
<tr>
<td>Pierce, 2002</td>
<td>Mixed results with self-efficacy</td>
</tr>
<tr>
<td>Viani, Bell &amp; Goss, 2011</td>
<td>Mixed results with self-efficacy</td>
</tr>
<tr>
<td>Brown, 1989</td>
<td>Increased social support levels</td>
</tr>
<tr>
<td>Bell, 2005</td>
<td>Increased self-efficacy</td>
</tr>
<tr>
<td>Devin, 1996</td>
<td>Increased self-efficacy</td>
</tr>
</tbody>
</table>

**Table 2. Continued.**

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social support (Campus Focused Social Provisions Scale)</td>
<td>Sense of community and sense of place questionaire</td>
</tr>
<tr>
<td>Students' greatest fears</td>
<td>Self-concept and sense of place questionaire</td>
</tr>
<tr>
<td>Self-efficacy measured by the Perceived Competence of Functioning Inventory (PFI)</td>
<td>Life Effectiveness Questionnaire (LEQ)</td>
</tr>
<tr>
<td>Outdoor Recreation Self-Efficacy Scale (ORSE)</td>
<td>Self-Efficacy Scale (SES)</td>
</tr>
<tr>
<td>Sense of place and social benefits</td>
<td>Sense of place and social benefits</td>
</tr>
<tr>
<td>First-Year Retention Survey (FYIS)</td>
<td>Connection to program attributes (meaning-end)</td>
</tr>
<tr>
<td>Perception of value</td>
<td>Perception of value</td>
</tr>
<tr>
<td>Environmental Preference Questionnaire</td>
<td>Environmental Preference Questionnaire</td>
</tr>
</tbody>
</table>
Current research on the psychological variables includes the development of self-efficacy (Jones & Hinton, 2007), self-concept (Stogner, 1978), and self-satisfaction (Stogner, 1978), and these psychological variables generally have weaker results than the social variables, such as sense of community (Austin et al., 2010) and connections with peers (Bell, 2012).

One study compared a college curriculum offered in different venues (a classroom compared with an outdoor orientation) and reported large effect sizes on two variables, improved knowledge of wellness ($\eta^2_p = .095$) and improved connection with peers ($\eta^2_p = .083$; Bell, 2012). In a follow-up investigation, it was determined that the large effects sizes were due to the social situation (e.g., feelings of interpersonal trust) leading to personal discussions (Bell & Holmes, 2011). The high effect sizes for the variable “Wellness” for example were believed to increase because high trust levels encouraged students to speak honestly about fears of drinking and unhealthy behaviors in college. The group response was reported as commitments to help keep each group member safe and healthy.

Curriculum. A point made in the Vlamis, Bell, and Gass’s (2011) article is that the curriculum matters. This study showed significant increases in student development, with the curriculum being important in how the outdoor orientation affects students (Vlamis et al., 2011). A different qualitative study of outdoor leaders at four different colleges resulted in 75% of student leaders at the Christian colleges reporting spiritual growth, but among the secular college programs where spiritual growth was not a goal, it was not mentioned (Starbuck, 2013). Outdoor orientation programs have many positive impacts, primarily due to the special social situation the programs created among peer groups that impacts both incoming students and student leaders. The focus of the curriculum, though, influences which positive outcomes students report.

A Theory of Outdoor Orientation

Early studies of outdoor orientation focused on the type of person who attends an outdoor orientation with non-participants. These typology studies investigated differences of inner-control (Wells, 1975), personality traits (Dawson, 1976), and self-concept (Stogner, 1978; Wetzel, 1978) and were all unpublished theses or dissertations.

Stogner (1978) and Gass (1987) extended the research by assuming that student participants were diverse in type and motivations, conducting experimental research designs with comparison groups. Stogner randomly selected participants into two conditions, and Gass matched self-selecting groups on covariates: class rank, high school GPA, and SAT scores. These studies were based on student development theories, proposing that participation in an outdoor orientation program accelerates developmental (psychological) growth. For example, Chickering and Reisser (1993) theorized that college students have seven developmental tasks to complete in a search for autonomy, providing a basis for the Gass (1987, 1990) studies. Other researchers theorized that retention is affected through mediating variables such as the development of...
The first question is based on the \textit{belongingness} hypothesis formulated by Baumeister and Leary (1995), proposing that humans have a fundamental desire for human attachment and this desire drives much of human behavior. Their study reviewed 297 psychology studies focusing on human motivation and human behavior and concluded that "human beings are fundamentally and pervasively motivated by a need to belong, a strong desire to form and maintain enduring interpersonal attachments. People seek frequent, affectively positive interactions within the context of long-term caring relationships" (p. 522). The need to belong is extremely evident in outdoor orientation program research. Students report that making connections and forming bonds are the most important aspects of the programs (Bell & Holmes, 2011). Belonging is also consistent with a communitas experience as a form of \textit{hyper-belonging} (Cacioppo and Patrick 2008) stated, "The notion that humans are inherently social creatures is no longer contestable, but what precisely this means for lives and societies is not fully appreciated either . . . we have evolved a powerful meaning making social brain" (p. 10). When students on an outdoor orientation were asked about their greatest fear in attending Harvard, fitting in socially was much more important than academic success (Bell & Williams, 2006).

Although the question “Do I belong?” is primary, it is soon followed by a second question of “How do I belong?” as a status question. Social groups typically contain status differences, but on outdoor orientations, these differences are discouraged. The use of group contracts such as “No Discount” or “Full Value” ask group members to create equal status by being willing to share basic human qualities of respect for self, others, and the group—as well as a willingness to listen and get to know others in the group. The equating of status helps to form the state of communitas mentioned earlier, and this state can provide a powerful sense of connection. What this theory proposes is that reported benefits are based on strong and immediate feelings of belonging and an ability to be authentic within a new status system where a group shares power among participants in a just and equitable manner. When this is experienced, it is invaluable to a young student in transition. The experience also explains the power of the ritual activities used by various programs. These rituals utilize symbols and activities as powerful markers of connection welcoming a student into a group.

In summary, these theories of belongingness and status idioculture offer new perspectives that can help guide curriculum and practice for highly effective outdoor orientation program experiences.

\textbf{Conclusion}

Since the beginning of its inception, orientation programs have been important to colleges in helping students engage in the academic culture of college or university. One of the more engaging applications is an outdoor, or adventure, orientation program. Such a program develops a sense of belonging among new students to a small and supportive peer group. The best outdoor orientation programs provide experiences supporting healthy peer connections that undermine status differences. Students belong best to a group where they are authentic, valued, and accepted.
Authors' Note
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