We propose five general categories of research or informational reporting on outdoor orientation programs that constitutes the professional literature. These categories help to determine the types of inquiry used to communicate meaning and results of outdoor orientation. Below are the descriptions of the categories:

**Type 1. Newspaper article or formal report.** These are not studies per se, but are included because they describe information about outdoor orientation programs that influence public knowledge.

**Type 2. Expert Positions:** These articles are written from the perspective of a person reflecting upon years of experience and personal observation. The ideas are composed of strategies, models, and the conceptualization of how theory and program models may connect to each other. These positions are arguments based upon ideas, but do not typically provide analysis of data. These are reflective pieces based upon experiences and information/ideas from the literature.

**Type 3. Descriptive and Survey Studies:** These studies typically use data from surveys, or program case studies. Often they utilize qualitative methods for gathering data. The purpose is to describe the state of something, or understand patterns in the field, for example asking programs what type of first aid training they provide for leaders. This information is not causal, but rather a state of the state.

**Type 4. Evaluation Studies:** These studies assess a group or program without a comparison group or utilize qualitative methods to describe in detail changes to participants or participant attitudes. They provide information that is an evaluation of changes within a group or contained within an experience.

**Type 5. Research Studies:** These studies are quantitative or mixed-method research studies that test a hypothesis with validated measures.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Type</th>
<th>Title</th>
<th>Results and Research notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sullivan, Sprunger &amp; Williams</td>
<td>1971</td>
<td>Research Study</td>
<td>Effects of college sponsored special programs on freshmen performance. Unpublished Report, Wheaton College, Wheaton.</td>
<td>This study found greater levels of academic success, number of extracurricular activities and levels of physical strength and endurance among participants in the Wilderness Orientation Program compared to other groups. The study may have been affected by internal validity threats (from Gass, 1986).</td>
</tr>
<tr>
<td>Wells</td>
<td>1975</td>
<td>Evaluation Study</td>
<td>Factors influencing change during a wilderness stress experience. Unpublished Masters Thesis, George Williams College, Downers Grove.</td>
<td>Participants on a Wilderness Orientation Program with low levels of inner control reported significant changes; those with high levels of inner control reported no changes. The study may have been affected by internal validity threats (from Gass, 1986).</td>
</tr>
<tr>
<td>Dawson</td>
<td>1976</td>
<td>Descriptive Study</td>
<td>Personality traits of participants in an experiential freshman orientation program. Unpublished Masters Thesis, Mankato State, Mankato, Minnesota.</td>
<td>Compared personality differences between participants in a Wilderness Orientation Program and non-participants. WOP participants were less outgoing and sophisticated (especially males). Did not show effects from a WOP program. (from Gass, 1986)</td>
</tr>
<tr>
<td>Stogner</td>
<td>1978</td>
<td>Research Study</td>
<td>The effects of a wilderness experience of self-concept and academic performance. Unpublished Dissertation, Virginia Polytechnic Institute and State University, Blacksburg.</td>
<td>Wilderness Orientation Program participants did not report differences in self-concept, but were significantly different from non-participants in GPA and self-satisfaction.</td>
</tr>
<tr>
<td>Hansen</td>
<td>1982</td>
<td>Research Study</td>
<td>Project Quest. <em>Journal of College Student Personnel</em>, 23, 3.</td>
<td>Wilderness Orientation Program participants experienced significantly greater levels of tolerance,</td>
</tr>
<tr>
<td></td>
<td>Author</td>
<td>Year</td>
<td>Methodology</td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>--------</td>
<td>------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>8.</td>
<td>Gass</td>
<td>1984</td>
<td>Descriptive Study</td>
<td>The value of wilderness orientation programs at colleges and universities in the United States. ERIC Digests, ED#242-471</td>
</tr>
<tr>
<td>10.</td>
<td>Gilbert</td>
<td>1984</td>
<td>Descriptive Study</td>
<td>Salisbury State College freshmen orientation program in the wilderness. <em>Journal of MAHPERD.</em></td>
</tr>
<tr>
<td>12.</td>
<td>Gass</td>
<td>1986</td>
<td>Research Study</td>
<td>The effects of a wilderness orientation program on incoming students to a university setting. Unpublished dissertation, University of Colorado, Boulder.</td>
</tr>
<tr>
<td>Position</td>
<td>Year</td>
<td>Study Type</td>
<td>Title</td>
<td>Source</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>------------</td>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>Berman &amp; Davis</td>
<td>1996</td>
<td>Descriptive Study</td>
<td>Using the wilderness to facilitate adjustment to college: An updated</td>
<td>Evaluates the conclusions of the O’Keefe (1989) study regarding the goals and structure of Wilderness program at the University of Puget Sound. Offers anecdotal evidence of the program’s effectiveness, as well as survey data from Passages participants.</td>
</tr>
</tbody>
</table>

Overview of types of Wilderness Orientation Program models. Surveyed 22 programs. Proposed three major models used by Wilderness Orientation Program’s across the United States. Found programs were equally offered by large and small institutions, over half of the programs served less than 50 students a year, most operate just prior to the start of the semester, and average length is 6-7 days.

A longitudinal analysis on the effectiveness of the Wilderness Orientation Program studied in Gass’ (1986) study found program participants to have a significantly greater retention rate than a control group and a group participating in an alternative orientation program at 12 months time, but only significantly greater than the control group at 42 months.

An explanation of the basic issues and concerns in planning and developing a wilderness orientation program. Addresses goals, staffing, staff training, equipment, logistical planning, participant screening, risk management, insurance, and funding.

A brief overview of research on wilderness orientation programs, followed by a discussion on the effectiveness of the “Orientation in the Wilderness” program, started in 1983 at Salisbury State University.
<table>
<thead>
<tr>
<th>Reference</th>
<th>Year</th>
<th>Type</th>
<th>Description</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berman</td>
<td></td>
<td></td>
<td>description of wilderness orientation programs. <em>Journal of Experiential Education</em>, 19(1), 22-28.</td>
<td>Orientation Program s. Found that a typical program operated at a private school, had unpaid, student leaders, and focused on easing social development and interaction among incoming first-years.</td>
</tr>
<tr>
<td>20. Brown</td>
<td>1996</td>
<td>Research Study</td>
<td>Assessment of anticipated and actual college adjustment in freshman-oriented students. Unpublished dissertation, University of Maryland, College Park.</td>
<td>Found that students who participated in an outdoor orientation program adjusted better to college life and had higher retention rates than students who participated in classroom orientation programs or other alternative orientation programs. The study did not control for selection bias.</td>
</tr>
<tr>
<td>21. Devlin</td>
<td>1996</td>
<td>Research Study</td>
<td>Survival skills training during freshman orientation; Its role in college adjustment. <em>Journal of College Student Development</em>, 37(3), 324-334.</td>
<td>Wilderness Orientation Program participants reported a significant difference in friendship formation at the end of four years compared to a control group. Students in Wilderness Orientation Program self-selected, but the control group was randomly assigned; both groups were matched according to demographic variables.</td>
</tr>
<tr>
<td>Parks</td>
<td>1997</td>
<td>Expert Position</td>
<td>Miami Bound: Issues in Transition. <em>Aventuras en Mexico: Proceedings of the International Conference on Outdoor Recreation &amp; Education</em>.</td>
<td>Describes Miami of Ohio’s outdoor orientation program, Miami-Bound, which had been running since 1995. Claims that the program is effective in easing the transition to a higher education setting. Uses student journals and focus groups as evidence.</td>
</tr>
<tr>
<td>Curtis</td>
<td>1999</td>
<td>Expert Position</td>
<td>College wilderness orientation programs for the new millennium (conference presentation). Rochester: Association for Experiential Education.</td>
<td>Proposes that the modern college campus is concerned with different types of goals; academic, connection to college, environmental stewardship, personal growth, service, social skills, and university (retention, for example). Claims that Wilderness Orientation Programs have more success meeting these goals than other types of programs.</td>
</tr>
<tr>
<td>Wardwell</td>
<td>1999</td>
<td>Research Study</td>
<td>The Effects of the Outdoor Action Frosh Trip on Freshmen’s Adaptation to Princeton University. Unpublished</td>
<td>Studied self-other discrepancies at Princeton, found Wilderness Orientation Program participants developed more realistic views of social norms on</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>26. Galloway</strong></td>
<td><strong>2000</strong></td>
<td>Descriptive Study</td>
<td>Review of Wilderness Orientation Program programs. Found that programs vary in their goals and assessment techniques. Most programs focus on social goal and use discussion, both informal and formal, with leaders and participants ad their main form of self-assessment.</td>
<td></td>
</tr>
<tr>
<td><strong>27. Fears &amp; Denke</strong></td>
<td><strong>2001</strong></td>
<td>Expert Position</td>
<td>Overview of the goals, format, issues, and benefits of wilderness orientation programs.</td>
<td></td>
</tr>
<tr>
<td><strong>28. Kafsky</strong></td>
<td><strong>2001</strong></td>
<td>Research Study</td>
<td>Students on Wilderness Orientation Program scored significantly higher on scores of self-interest (social skills development) than a control group directly after the program. Differences between groups were insignificant at a 6-8 week follow-up measure. Study was conducted on one campus with low sample sizes.</td>
<td></td>
</tr>
<tr>
<td><strong>29. Tontz</strong></td>
<td><strong>2001</strong> (estimated)</td>
<td>Expert Position</td>
<td>Explains how wilderness orientation programs aid in fostering Chickering’s seven vectors of development in first-years.</td>
<td></td>
</tr>
<tr>
<td><strong>30. Farmer</strong></td>
<td><strong>2002</strong></td>
<td>Research Study</td>
<td>Compared matched pairs of students on a Wilderness Orientation Program with a control group to assess academic performance and social adjustment, no significant differences were found in GPA between groups, although the Wilderness Orientation Program group reported greater adjustment based on the development of a strong group of colleagues that aided their transition to college. No control for selection bias.</td>
<td></td>
</tr>
<tr>
<td><strong>31. NAME CHANGE</strong></td>
<td><strong>2002</strong></td>
<td></td>
<td>THE GROUP FORMALLY KNOWN AS THE WILDERNESS ORIENTATION PROGRAM SYMPOSIUM CHANGES NAME TO THE OUTDOOR ORIENTATION PROGRAM</td>
<td></td>
</tr>
</tbody>
</table>
SYMPOSIUM OR OOPS at the 30th Annual AEE Conference Saint Paul, Minnesota, November, 2002. This change was to be avoid the insensitivity to the term WOP (a historical term that was derogatory to US Immigrants). Researchers and professionals at the meeting decided to call programs “outdoor orientation programs (OOPs)” or refer to programs by the full name Wilderness Orientation Programs.

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Type</th>
<th>Title</th>
<th>Activities</th>
<th>Participants</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oravecz</td>
<td>2002</td>
<td>Evaluation Study</td>
<td>The use of outdoor experiential education in higher education: An investigation of factors in wilderness orientation programs that influence student adjustment—a descriptive analysis. Unpublished Dissertation, Florida State University, Tallahassee.</td>
<td>Compared Wilderness Orientation Program participants at three institutions. Found Wilderness Orientation Program effect on grades, retention, and extracurricular involvement to be insignificant on quantitative measure, but reported positive impacts on qualitative assessments for adjustment to college, establishing meaningful relationships, development of self confidence and retention into the sophomore year. No control for selection bias.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pierce</td>
<td>2002</td>
<td>Research Study</td>
<td>The effects of an adventure orientation program on the developmental tasks of college freshmen. Unpublished Dissertation, Oklahoma State University, Stillwater.</td>
<td>Compared four different types of wilderness orientation programs based upon different activities (rock climbing, backpacking, rope course and mixed trip) and found no significant differences between groups. Participants were randomly selected into the four conditions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vlamis</td>
<td>2002</td>
<td>Research Study</td>
<td>The effects of an adventure orientation program on incoming first year students. Unpublished Master’s Thesis, University of New Hampshire, Durham.</td>
<td>Assessed group of students in an adventure orientation program (use of initiatives and challenge course elements) and found no statistical differences in attrition/retention or GPA, but did find significant differences between groups in student development measures of emotional autonomy, instrumental autonomy, and appropriate educational plans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gass, Garvey, &amp; Sugarman</td>
<td>2003</td>
<td>Evaluation Study (longitudinal)</td>
<td>The Long-Term Effects of a First-Year Student Wilderness Orientation Program. Journal of Experimental Education, 26(1), 30-40.</td>
<td>A 17 year follow-up interview to a wilderness orientation group (16 participants) at University of New Hampshire resulted in three common themes described by participants; the Wilderness Orientation Program experience challenged assumptions, built a peer friendship and support network that was sustained during and many times after college, positive impact of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Author(s)</td>
<td>Year</td>
<td>Type</td>
<td>Description</td>
<td>Source</td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----------------</td>
<td>------</td>
<td>-------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Bell</td>
<td>2004</td>
<td>Expert Position</td>
<td>Wilderness orientation programs provide an ethical alternative to hazing. <em>Esource for College Transitions</em>, The National Resource Center for The First-Year Experience and Students in Transition, 2, 3.</td>
<td>Argues that although hazing is unethical, an aspect of hazing (facing challenges) is attractive to college students. Hazing may be less about students wanting to control others, and be more about meeting a challenge. If students desire challenges, a wilderness orientation program may provide an ethical alternative.</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Bell</td>
<td>2005</td>
<td>Research Study</td>
<td>College students’ development of social support and its relationship to pre-orientation experiences. Unpublished Dissertation, University of New Hampshire, Durham.</td>
<td>Compared participants in four different pre-orientation conditions; service, pre-season athletics, outdoor, and no pre-orientation (control). Found no difference between control group and service group. Pre-season athletes reported higher social integration than control, and outdoor participants reported higher scores on six factors of social support. No controls for selection bias.</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Bell &amp; Williams</td>
<td>2006</td>
<td>Descriptive Study</td>
<td>Learning from first-year fears: An analysis of the Harvard First-Year Outdoor Program’s &quot;Fear in a Hat&quot; exercise. <em>The Journal of College Orientation and Transition, 14</em>(1), 47-61.</td>
<td>A research study looking at the reported fears from entering college first-year students to Harvard. Students report social fears as more prevalent than academic fears. Argues that orientation needs to be attend to both the institutional and academic as well as the social orientation to the university.</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Wolfe &amp; Kay</td>
<td>2007</td>
<td>Descriptive Study</td>
<td>Perceived Impact of a Wilderness Orientation Program for First-Year University Students. <em>AORE Proceedings.</em></td>
<td>By studying field notebooks &amp; post-program evaluations, the authors found that participants on a Outdoor Orientation Program experienced growth in knowledge of self, preparation for the university life, attitudes toward the university, and social relationships.</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Oldmixon</td>
<td>2007</td>
<td>Newspaper</td>
<td>The great outdoors: Campus and</td>
<td>Concludes that outdoor orientation program benefits</td>
<td></td>
</tr>
<tr>
<td>Article/Report</td>
<td>Year</td>
<td>Study Type</td>
<td>Title</td>
<td>Findings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
<td>------------</td>
<td>-------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bell, Holmes, Vigneault &amp; Williams</td>
<td>2008</td>
<td>Descriptive Study</td>
<td>Student involvement: Critical concerns of outdoor orientation programs. <em>Journal of Experiential Education</em>, 30(3), 253-257.</td>
<td>Described the state of student involvement in the leadership and management of outdoor orientation programs from a census of outdoor orientation programs in the United States. Found great variety in programs. Concluded that there should be more standardization in risk management systems and review processes across all programs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bell</td>
<td>2009</td>
<td>Descriptive Study</td>
<td>The challenges of building social capital: Conference attendance patterns of outdoor orientation program staff at four-year colleges in the United States. <em>Journal of Experiential Education</em>, 31(3).</td>
<td>Investigated professional conference attendance patterns by outdoor orientation professions. Found that programs tend to attend either outdoor education focused conference or student development focused conferences, but not both.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bobilya, Akey, &amp; Mitchell</td>
<td>2009</td>
<td>Research Study</td>
<td>Outcomes of a Spiritually Focused Wilderness Orientation Program. <em>Journal of Experiential Education</em>, 31(3), p440-443</td>
<td>Compared students who participated in a Wilderness Orientation Program and a New Student Orientation (NSO) to students who only participated in the NSO. Found that Wilderness Orientation Program participants scored higher on the Student Adaptation to College Questionnaire full scale and on three out of four subfactors. Wilderness Orientation Program participants essays also showed that Wilderness Orientation Program enhanced community and promoted spiritual development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austin, Martin</td>
<td>2009</td>
<td>Evaluative Study</td>
<td>Outdoor Orientation Program Effects: Sense of Place and Social Benefits.</td>
<td>Examined the effects of an outdoor orientation program on “sense of place” and “social benefits” at a small,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mittelstädt, Schanning, &amp; Ogle</td>
<td><em>Journal of Experiential Education</em>, 2009, 31(3), 435-439.</td>
<td>Midwestern liberal arts college. All first-year students were required to participate in an outdoor orientation trip. Program participants completed pre-test prior to their trip and post-tests immediately following the trip. Gains were seen in both categories.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47. Follanco</td>
<td>2009</td>
<td>Newspaper article First year student launch RIT career in the Adirondacks. RIT University News. Brief article describing the implementation of RIT’s Outdoor Orientation Program in the fall of 2009.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49. Framan &amp; Waryold</td>
<td>2009</td>
<td>Research Study An exploratory study of the impact of a wilderness orientation program on college student’s life effectiveness. <em>Journal of Outdoor Recreation, Education, &amp; Leadership</em>, 1(2). Compared the scores of three groups of students on the Life Effectiveness Questionnaire (LEQ) at the beginning and end of their first college semester. Two groups participated in an outdoor orientation program, the third served as a control. Found that outdoor orientation program participants scored higher on six out of the eight LEQ dimensions; time management, social competence, intellectual flexibility, task leadership, emotional control, and active initiative.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. Waryold &amp; James</td>
<td>2010</td>
<td>Evaluation Study In their Own Words: The perceived benefits of participation in the first ascent wilderness orientation program. <em>Journal of College Orientation and Transition</em>, 17(2), 40-51. Examines post-trip survey data from eight years of Appalachian State University’s First Ascent outdoor orientation program. Finds several recurring themes; interpersonal connections, intrapersonal reflection, importance of the natural world, and issues of personal welfare. Recommends that outdoor orientation be a part of a comprehensive first-year experience program.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 52. Bell, Holmes, & Williams | In press | Descriptive Study A Census of Outdoor Orientation Programs at Four-Year Colleges in the United States. *Journal of Experiential Education* A comprehensive survey of all Outdoor Orientation Programs in the U.S. Completed a census by contacting all four-year colleges and universities in the
U.S. All but four programs with an outdoor orientation program completed a survey that assessed demographics, costs, training, size, history, and activities.

| Education. | 53. Bell | In press | Research Study | Assessing the effectiveness of an adventure First-Year Experience Class. *Journal of College Student Development* | Compares students who participated in a traditional, semester-long First-Year Experience (FYE) course with students who participated in an intensive, adventure-based FYE class. Found that adventure participants reports higher scores on eight of the 15 subfactors of the First-Year Initiative survey. The largest impacts were seen on the factors “course improved connections with peers” and “course improved knowledge of wellness.” |