

# **Retention Effects of an Outdoor Orientation Program at a Midwestern University**

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## **Abstract**

Outdoor orientation programs are not a new idea. They date back to programs at Dartmouth College in 1935. Since then, these programs have continued to expand to now include over 191 programs at private and public institutions. The effects of these programs, including developing emotional autonomy, mature relationships with peers, a sense of place, and social support, have also been well researched. Beyond student development, the benefits for the university, including improved retention and persistence of first-year students participating in the programs, have also been well established. This paper seeks to add to the established research pattern of the effectiveness of these programs while examining the structure of one such program and its possible contributions to the retention success of its students. Results for the retention of students engaged in the outdoor orientation program for first to second year ranged from a low improvement of 11.9% over university retention rates to a high improvement of 16.3%. For retention across all years, results ranged from 3.9% to 20.9% improvement over university retention. Structural components of the course that research has shown to support its effectiveness included the combination of a weeklong outdoor experience with a formal semester-long classroom course, as well as the inclusion of professional staff/faculty on each experience to increase student support during the return to campus.

**KEYWORDS:** wilderness orientation; outdoor orientation; retention

Concern for retention of students at the university level has led to significant research on strategies to retain them (DeNicco, Harrington, & Fogg, 2015; Laskey & Hetzel, 2011; Tinto, 1993, 2010; Turner & Thompson, 2014). Within the realm of outdoor recreation, the focus has been on the use of the outdoor orientation program and its effects on the retention of participating students (Bell, 2012; Gass, 1987, 1990; Hill, Nolan, & Scrogin, 2010; Quinn, 2016). Most often, this retention is connected to the many positive impacts that have been associated to these experiences through research, such as positive emotional development, creating mature and sustainable relationships, development of an associated sense of place with the university, and creating a strong network of social support within close friend groups (Austin, Martin, Mittelstaedt, Schanning, & Ogle, 2009; Bell, 2006a, 2006b; Gass, 1999; Vlamis, Bell, & Gass, 2011). Several studies have shown significant increases in student retention and persistence through participation in an outdoor orientation program and have continued to support the benefits of outdoor orientation programs (Bell & Chang, 2017; Hill et al., 2010; Michael, Morris-Dueer, & Reichert, 2017; Quinn, 2016; Wolfe & Kay, 2011). These results have included a greater than 5% improvement on retention rates through participation, in Michael et al.'s (2017) research involving over 3,800 student participants, as well as a 37% increase in retention likelihood over a control group in Bell and Chang's (2017) research.

This paper examines the retention and persistence effects of an outdoor orientation program at a large rural Midwestern state university to determine if the effectiveness of these programs, and their structure, is consistent in such an environment and to continue to add to the body of literature supporting the effectiveness of such programs.

## Program Description

The program in this study comes from a larger Midwestern university that predominantly serves a rural population with some denser urban centers within an hour drive of the campus. The students participating in the outdoor orientation program, called the Freshman Wilderness Experience or FWE, self-select into the program through an application process administered by the university recreation department's outdoor program. The program consists of an 8-day canoeing or backpacking experience combined with a 3-credit course during the fall semester in which all students are enrolled.

The field-based portion of the course happens during the summer prior to the students' arrival on campus for their first semester. During this portion of the FWE, students are placed into six groups. Each group consists of seven first-year students, two upperclassmen, and one faculty or administrative staff member. This group of 10 participates in the 8-day activity together. During the experience, the upperclassmen or the faculty/staff member lead educational sessions each day, students journal in an FWE-provided notebook containing prompts, and students interact in daily camp activities such as cooking, fire-building, or service projects. At the conclusion of the experience, students are presented with a figure eight knot tied from thin colored cord to represent completion of the experience. All students share the same color of cord each year, which helps differentiate between cohorts.

Once the fall semester begins, all the students join again in a college seminar course that focuses on critical thinking, writing, and creative development. Students work separately and in groups on projects that utilize experiences from the field-based portion of the course.

In late fall, the students are given the opportunity to apply and be interviewed for leadership positions in the following year's FWE program. Typically, six to eight students and two alternates are selected. These students then participate in a training program during the spring semester to prepare them for leadership during the summer program.

This study aimed to determine if participation in the FWE had any effect on the retention rates of students, and then, if so, to examine if any aspects of the program could be identified as factors in that retention rate change.

## Method

A quantitative analysis of enrollment data was the basis for this study. Most of the results were derived from participant retention data developed by the program director of the FWE through institutional data access and from university retention data provided by the Office of Institutional Research at the university. In total, 177 students over 5 years were included in this study. All freshman students were presented with the information regarding the program through freshman visit days, registration days, and e-mails sent by Admissions. Those who chose to participate filled out the registration form and submitted it to confirm their enrollment in the program. The students were broken up into cohorts based on their year of participation in the study, and their enrollment status was tracked for at least two but up to four years. These data were paired with the representative data from the overall university numbers for the same incoming freshman class (Bowling Green State University, Office of Institutional Research, 2016). The researcher organized the data and calculated simple descriptive statistics to show relationships between the percentage of retention between each year for students participating in FWE and general university students.

## Results

Results from the study show large differences in the percentages of retained students from first to second year for students participating in FWE compared to the general university population. This percentage difference was noticeable in the final four cohorts measured. Cohort 2 saw 11.9% higher retention than the university, Cohort 3, 15.7%; Cohort 4, 16.3%; and Cohort 5, 12.4%.

The increased retention rates of students also continued beyond the second year in the data from this study. In Year 3, Cohort 3 saw a 20.9% retention increase, and in Year 4, Cohort 1 recorded a 3.9% increase over the general university populations. Table 1 shows a summary of the data from the study. Within the table, the reader will note missing data from Years 2 and 3 from Cohort 1, Year 4 for Cohort 3, and Years 3 and 4 for Cohorts 4 and 5. The collection of this data began at the conclusion of the fourth year of Cohort 1 and concluded prior to the third and fourth years for Cohorts 3 and 4. The year of data for Cohort 5 was provided independently of the first data collection. Table 2 shows the differences in the retention rates between those enrolled in the program and the university control rates.

**Table 1**

*Retention Rates of Student in FWE Versus General University Retention*

Year	Cohort 1		Cohort 2		Cohort 3		Cohort 4		Cohort 5	
	FWE	Univ.	FWE	Univ.	FWE	Univ.	FWE	Univ.	FWE	Univ.
Year 1										
N	21	3079	40	3145	41	3865	35	3809	40	3591
Year 2										
N			34	2298	36	2787	30	2648	33	2518
% Ret.			85.0	73.1	87.8	72.1	85.7	69.4	82.5	70.1
Year 3										
N			34	2094	34	2398				
% Ret.			85.0	66.6	82.9	62.0				
Year 4										
N	14	1934	26	1881						
% Ret	66.7	62.8	65.0	59.8						

Note. FWE = freshman wilderness experience; Univ. = university.

**Table 2***Percentage Retention Rate Differences of Students in FWE Versus General University Retention*

Year	Cohort 1 %	Cohort 2 %	Cohort 3 %	Cohort 4 %	Cohort 5 %
Year 1	–	–	–	–	–
Year 2		11.9	15.7	16.3	12.4
Year 3		18.4	20.9		
Year 4	3.9	5.2			

## Discussion

Within this study, the researcher found convincing differences between the retention rates of students who had participated in the FWE compared to the retention rates of the general university population for that year. The range of 11.9–15.7% increased retention for first to second year, giving a strong argument for the importance of such programs to the overall retention of university students. The differences from a first year low of 3.9% to a fourth year high of 20.9% show a positive influence over a student's college career. The stronger retention could be due to several unique factors attributed to FWEs. Two of the most significant factors that may play a role in these results are the course structure and staffing. Previous studies have supported the inclusion of these as positive aspects affecting the outcomes of students involved in outdoor orientation programs (Graunke & Woosley, 2005; Reason, Terenzini, & Domingo, 2006; Wolfe & Kay, 2011).

First, the typical outdoor orientation lasts between 4 and 7 days and is usually self-contained (Bell, Holmes, & Williams, 2010). The FWE was an 8-day program coupled with a semester-long class. This has the potential to engage the students in social and emotional development not only during the summer experiential program, but also during the fall course, continuing the impact of the experience. Through the coursework, in-class projects, and dedicated interaction time, students are provided many more opportunities to build the strong social support structures that are attributed to college retention (DeNicco et al., 2015; Tinto, 1999, 2010). Research by Tinto (1999, 2010) supports the reasoning why this structure could effectively increase retention rates in participating students. He determined that integration of academic and social behavior positively affects the retention of a student. The use of the outdoor experience (social) combined with the classroom-based course (academic) can lead to increased engagement, resulting in higher retention. Tinto (1999, 2010) additionally determined that student retention is influenced by the expectations leveraged toward the first-year student. For a student choosing to participate in a weeklong outdoor orientation program, the expectations for that student during their first semester could be low, assuming once the experience has concluded that no additional work is necessary. But, for this program, the addition of the academic course during their first semester strongly increases the academic expectations of the student by allowing them to transfer their learning in the outdoor experience into critical thinking assignments.

Second, the typical outdoor orientation is run by a professional, but the experiences are staffed by students (Bell et al., 2010). In this program, however, every trip has a professional staff or faculty member on it, allowing students a direct connection with an authority figure on campus and professional who can possibly leverage connections to help the students with issues they may face. This added connection could assist students through difficult times in their first semester when they would not feel comfortable approaching a student leader. This concept has been supported by researchers who have examined the effects of full-time faculty on the retention rates of students (Campbell & Campbell, 1997; Shelton, 2003). They determined that

students who were exposed to more faculty support were more likely to persist through the completion of an academic program than those students who were not. Such was the reasoning for including the professional staff/faculty member on the outdoor experiences of the FWE. This program structure, which includes imbedded faculty/staff support, is another aspect that supports the strong retention rates of participating students in this program compared to the university as a whole.

## Limitations

Several limitations should be noted about this study. The first limitation of this study, and of many that examine similar data from outdoor orientation programs, is selection bias in the sample (Frauman & Waryold, 2009; Wolfe & Kay, 2011). Many students who have an interest in outdoor recreation may choose to self-select into such an outdoor orientation program as they begin their college career. To mitigate this bias, the researcher included a control group made up of the entire class-level population so that each cohort had a broad representation of students for comparison. In addition, further study of the reasoning behind a student's self-selection into such a program could help to alleviate this bias for future research studies. Students who choose to sign up may have other traits in common that could lead to increased retention, such as socio-economic status, race, gender, or test scores (DeNicco et al., 2015). Those demographics were not examined in this study. The second is the generalizability of the data to other universities. This study was conducted at a single rural Midwestern university, and the conditions for such a program could differ in other locales. Third, the data from which to draw conclusions was limited. While the enrollment of 177 students represents the entire participation over 5 years of this program, it only represents 1% of the first-year student population over that time, and selection bias cannot be ruled out. A similar study that had similar positive results regarding retention rate results controlled for selection bias (Bell & Chang, 2017) while controlling for multiple factors such as gender, race, and financial aid. Bell and Chang (2017) examined the various models of creating control groups in situations like the one in this study and their study shows that the end results from this study align with those in similar studies that utilized a control for the selection bias (Bell & Chang, 2017).

In this study, the results may not be transferable to the general campus population with such a small sample size and without controls for selection bias. Finally, many factors have been determined to influence student retention and persistence (Tinto, 1993, 2010). These include student engagement, social support, and relationship building, and while these may be affected by participation in an outdoor orientation program, this study did not evaluate those factors.

## Conclusion and Recommendations

Outdoor orientation programs have been shown to significantly affect the experience of first-year university students (Austin et al., 2009; Bell, 2006a, 2006b, 2012; Gass, 1987, 1990; Hill, Nolan, & Scrogin, 2010; Quinn, 2016; Vlamis et al., 2011). Within the scope of a large Midwestern state university, this study found an outdoor orientation program to have a similar effect, specifically on the retention of students. While these data showed retention increases of up to 16.3% in the first year through participation in an outdoor orientation program and increases up to 20.9% during the 4-year process, the research on this topic needs to continue to be expanded. Previous research has supported particular academic structures as support for student retention, but future research needs to examine the effectiveness of those structures in outdoor-based programming and their effect on retention. Though the use of the academic course and professional faculty/staff in the FWE align with research practices to increase retention, research has not been conducted on their effectiveness in an outdoor orientation setting. In addition, due to the often self-selecting nature of such programs, future research needs to

establish if the general experience is associated with the increased retention or if a connection can be established between other factors such as demographics, length of experience, or staffing.

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