

AN ABSTRACT OF THE THESIS OF

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The purpose of this study was to investigate what effect, if any, an outdoor orientation program conducted at a comprehensive public institution in the Northwest school had on first-year students' self-efficacy relative to success in their first year of college, measured as academic and social integration. A random sample of students who registered for the raft/hike option of the FOOTsteps program and a random sample of students not registered for FOOTsteps or for the university's orientation class were sent surveys through campus mail. These surveys asked them to rate their confidence in completing tasks associated with academic and social integration into the college setting. While no statistically significant difference between the groups was found, time was a significant factor in increasing efficacy expectations for both groups. Additionally, the study looked to see if there were any differential effects of the treatment program on participants' self-efficacy depending on the participants' prior outdoor adventure experience. Again, no statistically significant differences were found. Despite these insignificant statistical results, it was found through focus groups and participant journals that the outdoor orientation program aided in the participants ability to develop social connections and make friends, thus moderating the anxiety of the beginning of college.

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Effects of an Outdoor Orientation Program on Self-Efficacy Relative to First-Year
Student Success

by
Tricia Anne Dailey Seifert

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Tricia Anne Dailey Seifert, Author

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Effects of an Outdoor Orientation Program on Self-Efficacy Relative to First-Year Student Success

Introduction

Historical Perspectives

General Orientation & Outdoor Programs

The focus on first-year programs in higher education is not a new phenomenon. As early as 1968, the Hazen Foundation established the Committee on the Student in Higher Education with the charge to craft recommendations to improve the college experience for students and society. The committee concluded that universities should not view the student's first year solely in terms of retention but as a time to foster learning and development. The committee's recommendation was bolstered by research published by Arthur Chickering the following year. According to Chickering (1969), new students grow in personal learning and development as they encounter and experience the college environment. Over the next ten years, a significant emphasis was placed on understanding what factors contributed to student persistence and voluntary withdrawal (Astin, 1972; Bean, 1980; Spady, 1970; Tinto, 1975). Later, in 1984, the National Institute of Education's report, "Involvement in Learning: Realizing the Potential of American Higher Education," suggested that universities front-load resources to first and second year students as a means to increase learning and thus, encourage persistence (NIA, 1984). Learning and student development, as a means to facilitate persistence, have long been the hallmarks of the first-year experience.

Before these committees and reports were commissioned and their recommendations published, universities already understood to some extent the importance of providing a program to help orient its new students. The first known orientation program was at Boston University in 1888 (Gass, 1987). The focus then was on the adjustment and retention of new students through the domains of intellectual, moral, identity, and interpersonal development (Gass, 1987). While more than a century has passed, the basic goal of orientation is much the same. Pascarella, Terenzini, & Wolfle (1986) found the “general purpose underlying most orientation programs is to facilitate the student’s successful integration into a new and unfamiliar academic and social setting” (p. 156). Supported by a volume of research that has found retention rates increase when students are assisted in the adjustment to college (Anderson, 1985; Gordon & Grites, 1984; Dale, 1995; Pascarella & Terenzini, 1983; Pascarella & Terenzini, 1991; Pascarella, Terenzini, & Wolfle, 1986; Twale, 1989; Weissman, 1996), one is hard pressed in today’s higher education environment to find a college or university that does not hold some form of orientation for its students (Bedford & Durkee, 1989).

Outdoor (or wilderness) orientation programs also have played a historical role in aiding students’ transition to college. Outdoor orientation programs have been defined as a program that involves experience with the outdoor environment that has as its goals: to ease transition, increase retention, and facilitate student development (Burns, 1997; Davis-Berman & Berman, 1996; Gass, 1987; O’Keefe, 1989; Stremba, 1989). Dartmouth College began this practice in 1935 (Gass, 1987). In 1968, Prescott College followed suit with its wilderness orientation program as an extension of the

college's experiential learning philosophy. At the time of Galloway's research in 1999, ninety-two colleges and universities had outdoor orientation programs. This is an increase from the thirty-four outdoor orientation programs surveyed by Gass in 1983. Clearly, an increasing number of colleges and universities have found the outdoor classroom provides a unique environment to orient its students and aid in their transition to the institution.

Fall Outdoor Orientation Trips (FOOTsteps) Program

The FOOTsteps program was started in the fall of 1997 to assist students in their transition to Oregon State University. FOOTsteps trips range in length from one to four days and vary greatly in type of activity and difficulty. There are one-day whale watching excursions, an overnight raft/hike trip, a four-day backpacking expedition, and a four-day rock-climbing trip. Faculty and peer leaders, with technical help from the Outdoor Recreation Center staff, lead the trips. The trips provide students an opportunity for interaction within a small group to address academic and personal issues associated with college life. The primary goal of FOOTsteps is to assist new students in making a positive transition to the institution and to provide new students with the tools necessary to be successful at OSU (Burns, 1997). This goal is to be accomplished by:

- (a) Helping students build a sense of community and support systems with other students, faculty, and administrators.
- (b) Supporting students in taking risks physically, socially, and emotionally, thus extending their personal limits so they are more willing and confident in embracing the challenges of their

academic experience. (c) Assisting students to overcome anxiety about the newness of college life since the anxiety interferes with academic success and retention (Burns, 1997).

Given the stated objectives, the goal of FOOTsteps at OSU has an implied intention of increasing self-efficacy for those who participate. Self-efficacy is a term coined by Albert Bandura (1977) to describe, “the belief in one’s capabilities to organize and execute the sources of action required to manage prospective situations”. Hence, this study focuses on what effects, if any, the raft/hike section of the FOOTsteps program has on students’ perceived self-efficacy relative to areas characteristic of first-year student success.

Rationale for Study

There are a number of programs that utilize engaging in adventure as the mechanism for personal development. Most programs of this nature claim great gains for their clients (Gass, 1985). However, according to Simon Priest (1999), “adventure programming has failed to create a unique body of knowledge” (p. 309). Additionally, while the use of outdoor orientation programs has grown dramatically, research into the effectiveness of these programs has been limited by either issues of internal or external validity or has focused solely as program descriptions (O’Keefe, 1989). Many in this field have echoed the call for increased research in the area of outdoor orientation programs (Davis-Berman & Berman, 1996; Gass & Kerr, 1986; Sloan Devlin, 1996).

The adventure research that does exist tends to focus on outcomes of students who participated in trips lasting several days or longer (Brown, 1998; Gass, 1987; Gillett, Thomas, Skok, & McLaughlin, 1991; Miller, 2001; Parks, 1997; Paxton & McAvoy, 1998; Sibthorp, 2000; Sloan Devlin, 1996; Stremba & Clemetson, 1994). Relatively little research has been carried out looking at the outcomes of those engaged in a short outdoor adventure experience. Short is defined as an adventure program that is two days or less in duration (Anderson, Anderson, & Young, 2000; Ewert & Hollenhorst, 1989). This study addresses the void in the literature by focusing on the effects of a short (two day, one night) raft/hike outdoor orientation trip on students' self-efficacy relative academic and social integration and hence, first-year student success.

Theoretical Framework of Study

Tinto's Theory of Student Persistence

The theoretical framework for this study centered on the work of primarily two researchers, Vincent Tinto and Albert Bandura. Vincent Tinto (1975), heavily utilized Durkheim's theory of suicide in crafting his original theoretical model of dropout behavior in higher education. Durkheim held that suicide "is more likely to occur when individuals are insufficiently integrated into the fabric of the society" (Tinto, 1975, p. 91). Spady (1970) drew parallels from the broader society to the society present in institutions of higher education. He posited that if individuals are insufficiently integrated into the culture of the college their act of dropping out from that social system was analogous to suicide in the wider society. Tinto used this latter

concept to more fully explore on what levels a student must integrate into the college social system so to persist.

Tinto described two domains in which integration into the college environment is paramount. Academic integration is defined as the degree to which the individual fits into the academic system of the college or university in terms of grade performance, intellectual growth, and relationships with faculty members. Social integration is defined as the degree to which the individual fits into the social fabric of the college or university in terms of peer friendships and extracurricular activities (Tinto, 1975).

Given individual characteristics, prior experiences, and commitments, the model argues that it is the individual's integration into the academic and social systems of the college that most directly relates to his continuance in that college. Given prior levels of goal and institutional commitment, it is the person's normative and structural integration into the academic and social systems that lead to new levels of commitment. Other things being equal, the higher the degree of integration of the individual into the college systems, the greater will be his [sic.] commitment to the specific institution and to the goal of college completion (Tinto, 1975, p. 96).

While Tinto includes a number of other factors in his model, it is the level of integration that has the largest effect on persistence.

Tinto continued to refine his model over the next decade, later drawing from the work of Arnold Van Gennep (1960), a Dutch anthropologist. Van Gennep posited there are three stages in the rites of passage into adulthood. The first stage, separation,

involved the separation of the individual from his or her past associations. This separation is marked by a steady decline in interactions with members of the past. The second stage, transition, is the time in which the individual begins to interact with members of the new group in which membership is desired. The final stage, incorporation, involves the acceptance of new patterns of interactions with others in the new group and the demonstration of one's commitment to participant membership.

Tinto (1987; 1988) used these stages as a means to describe the passages engaged by students in becoming a part of the college or university environment. He denoted separation as involving the students' departure from past associations (hometown, family, and friends). Depending largely on the value placed on higher education within the home community, separation may be quite difficult or an expected course in the student's life. Transition is characterized as the time when the student has yet to acquire the norms and behaviors appropriate for integration into the new college community. Thus, the student is neither strongly bonded to the past nor firmly tied to the future. This lack of grounding can be particularly challenging for students and can be a time when their commitment to persist is the most wavering (Lamont, 1979; Ross, 1979). Transition into the college or university environment can be a protracted period of time or as short as an orientation program depending on the individual student. Incorporation, referred to as "integration" by Tinto (1987; 1988), depends on the individual but is achieved when students fully assume the new patterns of interaction associated with being a college student. These patterns are primarily transmitted through social interactions with student and faculty alike. In order for a

student to be fully integrated, integration relative to the academic and social domains must be realized (Tinto, 1987; 1988).

As stated before, Tinto (1975) theorized that those who integrate into the academic and social life of the university persist at that institution at greater rates than those whose integration is lower. Tinto's model has been tested by a number of researchers in the field and has been found to be a reasonable predictor in explaining persistence/voluntary withdrawal decisions (Getzlaf, Sedlacek, Kearney, & Blackwell, 1984; Grosset, 1991; Pascarella & Terenzini, 1986). Moreover, Pascarella & Terenzini (1983) found the model to have reasonable predictive power in explaining the variance in first-year persistence/voluntary withdrawal decisions.

Because the first year of college has been shown to be the time of greatest attrition (Cutrona, 1982; Daubman, Williams, Johnson, & Crump, 1985; Louis & Potter, 1986; Noel, Levitz, & Saluri, 1985), it was logical to connect first-year student success, persistence, with greater levels of long-term student persistence. The current study used Tinto's domains of academic and social integration as the factors contributing to first-year success, persistence. The other theoretical foundation for this study was Bandura's theory of self-efficacy.

Bandura's Theory of Self-Efficacy

Albert Bandura (1977) advanced a theory of self-efficacy that defined self-efficacy as the belief in one's capabilities to organize and execute the sources of action required to manage prospective situations. The theory of self-efficacy is, in essence, a cognitively based theory of motivation. Bandura posited that self-efficacy is based on

information one gains through internal and external sources. Perceived levels of self-efficacy influences a person's attempts of mastering something new through choice, effort, and persistence (Bandura, 1977).

Self-efficacy is impacted internally from three dimensions: magnitude, strength, and generality. Magnitude refers to the person's perception of a task's difficulty. Those with expectations for success over a wide level of task difficulty have higher levels of self-efficacy than those whose success expectations cover a narrow range of difficulty. Strength refers to how long a person will hold onto expectations for success despite contrary information (i.e. previous attempts resulting in failure). Those with greater strength (persistence) have higher levels of self-efficacy. Finally, generality refers to the degree of different situations that one expects to be successful in mastering. Those who generalize success over a wide range of situations have higher levels of self-efficacy than those who generalize success to a limited range of situations (Bandura, 1977).

According to Bandura (1977), self-efficacy is also affected by external factors. These factors include performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal. Performance accomplishments refer to a person's past experiences of success or failure relative to a specific situation. The impact on self-efficacy depends largely on the timing and circumstance of the success or failure. Performance accomplishments are one of the most stable contributing factors to increased self-efficacy as it deals with the specific individual's own experiences. Self-efficacy incorporates prior experience into the self-belief system and then uses this knowledge to achieve future tasks. Self-efficacy has been found, for better or for

worse, to be quite resilient such that those with low efficacy expectations at first often hold their performance accomplishment in provisional status. Only after successive positive outcomes do they gain an increased ability to predict and manage potential threats, which contributes to a robust sense of increased self-efficacy (Bandura, 1997).

Vicarious experiences additionally provide meaningful information that lead to increased levels of self-efficacy. By observing another person engage in mastery attempts without experiencing negative consequences, self-efficacy levels within the individual observing increase. Vicarious experience modeling has been found by Bandura to be less stable than performance accomplishment. It is most effective in increasing levels of self-efficacy when the two actors are similar. For example, when a person is watching someone, who possesses the same level of experience as the observer, master a new skill, the observer's efficacy expectation of successfully mastering the skill increases.

Verbal persuasion also increases efficacy expectations of an individual. Verbal encouragement that one can do something has long been a staple in the coaching and teaching environments. However, when verbal persuasion ends in a failed attempt, then efficacy expectations are detrimentally effected. The consequence of this has negative repercussions on two levels. "To raise by persuasion expectation of personal competence without arranging conditions to facilitate effective performance will most likely lead to failures that discredit the persuaders and further undermine the recipients' perceived self-efficacy" (Bandura, 1977, p. 198). Therefore, verbal

persuasion is best used when the individual's attempt is almost certain to result in success.

Finally, emotional arousal has been found to have an effect on efficacy levels. Stressful and taxing situations, depending on the circumstances, may provide opportunities to increase personal efficacy, particularly if the individual successfully negotiates his way through the situation. However, when high arousal triggers fear reactions, these fear-provoking thoughts, focused on the individual's ineptitude, can bring about levels of anxiety that debilitate performance and have a negative effect on self-efficacy. Thus, when arousal levels reached the point of anxiety, efficacy levels generally diminish as the person assesses personal vulnerability and stress (Bandura, 1977).

The emotional arousal facet of self-efficacy has found support in other theories as well. Shanahan & Mortimer (1996) and Nadler & Luckner (1992) discuss the role psychosocial stressors can play in creating a significant learning environment. They assert that stress can lead to efficacious experience, which increases a person's sense of competence that in turn increases efficacy expectations. Stremba & Clemetson (1994) and Sibthorp (2000) found this model of using destabilizing experiences contributed positively to student development. The outdoor environment, by its inherent nature of unpredictability, tends to manifest these destabilizing experiences. Because of this, the outdoor environment is frequently selected as the site for an orientation program. Many programs in Davis-Berman and Berman's study (1996) cited the wilderness as the chosen environment because it represents a foreign, unique

environment that would help to facilitate growth in students. Burns (1997) also cited the challenging nature of the wilderness as the ideal learning environment.

As stated earlier, the transition to the college or university environment requires students to manage a variety of situations that are foreign to them. Given that self-efficacy is the belief in one's capabilities to organize and execute the sources of action required to manage prospective situations (Bandura, 1977), this study connects individual's efficacy expectations to tasks associated with either the academic or social domain of integration. Students who exhibit greater self-efficacy expectations relative to these domains are expected to persist at greater levels than those who have lower efficacy expectations. The belief posited is that self-efficacy is related to individuals' ability to maintain situations that aid in academic and social integration. Those with higher self-efficacy will integrate more fully, leading to higher levels of persistence and first-year student success.

Statement of Problem

This study focused its attention on the following question: Does the outdoor orientation program at a comprehensive public institution in the Northwest have any effect on students' self-efficacy relative to academic and social integration as a function of student persistence and first-year student success?

Hypotheses

With regard to the stated problem, this study hypothesized that students who have participated in the raft/hike section of the outdoor orientation program

(FOOTsteps treatment) will have greater levels of self-efficacy relative to first-year student success than the control group. Additionally, students who have had limited or no prior outdoor adventure experience will experience greater gains in their levels of self-efficacy relative to first-year student success than those raft/hike FOOTsteps participants who have had moderate to high levels of prior outdoor adventure experience.

Limitations of the Study

There were a number of initial limitations to this study. The first limitation was that samples could not be randomly assigned. Students chose to register to participate in the FOOTsteps treatment based on their personal interest. Due to the inability of random assignment, the study was quasi-experimental (Campbell & Stanley, 1963). Given the quasi-experimental nature of the study, only inferences to the population participating were made. Additionally, this study was conducted using a modified Dillman protocol (Dillman, 1978). It is preferred that mail surveys be preceded by a letter of introduction to the invited random sample of participants stating that in the next week a survey will be sent and that their participation is requested. However, the original protocol for this study called for the surveys to be distributed to the sample in person by trained research volunteers (Appendix A). Those who volunteered to distribute the survey were fewer than anticipated. Hence, the mail protocol was enacted (Appendix B). Thus, there was not time for a letter of introduction to be sent to the sample and the pre-test surveys were sent directly to the sample's on-campus mailboxes. Due to the nature of mail surveys and the absence of

the introduction letter, the return rate was highly variable between groups as students chose whether or not they wanted to participate in the study.

Review of Literature

Strength Dimension: Another Term for "Persistence"

As cited earlier, this study drew significantly from the theoretical underpinnings of Albert Bandura's theory of self-efficacy (1977) and the concepts of academic and social integration from Vincent Tinto's (1975) model of dropout behavior. The strength dimension of the internal factors of self-efficacy bears a great resemblance to what is termed "persistence" in the higher education literature, specifically by Tinto (1987) who asserted persistence was the actions of those who "stick it out" (p.444) regardless of the conditions they encountered during college. All students face some challenges during their college career. Those who persist through to graduation are believed to be the ones who have the strength to weather the storms of failure. In this way, first-year student success and its connection to overall college persistence are related to Bandura's strength dimension.

Integration has been inextricably linked to the strength dimension or persistence. Pascarella & Terenzini (1983) found students' levels of integration affected persistence both directly and indirectly. Interestingly, it was also found that gender had an effect on what domain more reasonably predicted persistence. Pascarella & Terenzini (1983) found that social integration had a stronger direct effect on first-year persistence than academic integration for females while academic integration had a stronger direct effect on first-year persistence for males. Moreover,

Pascarella, Terenzini, & Wolfle (1986) found that “the orientation experience impacted freshman persistence largely by facilitating a student’s initial ability to cope with a new set of social challenges in an unfamiliar environment” (p. 170). This suggested that experiences, orientation or others, which seek to increase students’ self-efficacy expectations, aid them in effectively managing new situations and thus, increase their persistence in college.

Generality Dimension and Transfer of Learning

It is evident that the strength dimension, persistence, played an important theoretical role in this study. Another of Bandura’s internal self-efficacy factors was of additional interest in this study. The generality dimension of self-efficacy has been the focus of much research in the adventure education arena (Bauska & Phibbs, 1989; Brody, Hatfield, & Spalding, 1988; Curtis, 1994; Galloway, 1999; Gass, 1985; Gass & Kerr, 1986; Gass, 1987; Gillett, Thomas, Skok, & McLaughlin, 1991; McGowan, 1986; Miller, 2001; Park, 1997; Paxton & McAvoy, 1998; Priest & Gass, 1997; Sibthorp, 2000; Stremba, 1989; Stremba & Clemetson, 1994; Twale, 1989).

Generality refers to the wide range of situations to which a person extends one’s efficacy expectations. A larger range of situations is indicative of a person with higher levels of self-efficacy. This is analogous to the concept of the “transfer of learning” often discussed in adventure program literature in general and specifically in outdoor orientation research. Transfer of learning “represents the integration of learning from the adventure program into the participant’s real life” (Priest & Gass,

1997, p. 174) and has been further defined as “the effect that a particular experience has on future learning experiences” (Gass, 1985, p. 18).

Many outdoor orientation programs state one of their goals is for students to “transfer skills and ideas from the wilderness setting to the school setting” (Curtis, 1994, p. 59). Transfer has been delineated into three separate types: specific, non-specific, and metaphoric (Bruner, 1960). Specific transfer refers to the process in which tasks are highly similar to those already performed and one skill set can be transferred from one task to another. For example, the hand and rope skills used in belaying a person climbing a rock face are similar to the skills used in rappelling down a rock face. Non-specific transfer refers to the transfer of generalizable principles or attitudes from situation to situation. An example of this would be newly learned techniques of how to trust other people while on a backpacking trip are later employed when meeting new people at school. Metaphoric transfer refers to the transfer of similar underlying principles from one learning experience to another that is symbolically similar. An example often used holds that climbing a mountain is a lot like persisting in college; there are ups and downs but the view from the top (of the mountain or the diploma stage) is remarkable.

Bacon (1983) provided much advancement on the concept of metaphoric transfer and found the key factor that determines if experiences were metaphoric was the level of isomorphism between the metaphoric situation and the real-life situation (Gass, 1985). As the strength between parallels increased and the connections between the two learning environments were clearer, the metaphor tended to be

stronger. Thus, the likelihood that the person was able to transfer the experience was greater (Priest & Gass, 1997).

Facilitators in adventure programming have long proposed that participants were able to transfer learning from the adventure to other areas of their life (Gass, 1985). However, the absence of a sound and accepted theoretical construct weakened the validity of this claim. McGowan (1986) found the value of experiential programs directly linked to the theoretical legitimacy in the generality dimension of Bandura's (1977) theory of self-efficacy. Bandura's theory has been increasingly used to study the effectiveness of outdoor adventure programs (Brody, Hatfield, & Spalding, 1988; Paxton & McAvoy, 1998; Probst & Koesler, 1998).

Inconclusive Findings

The relationship between increased levels of self-efficacy and adventure programs has not yielded consistent results. Brody et.al. (1988) investigated the generality dimension of Bandura's theory. The researchers were interested in how levels of self-efficacy would be generalized from one high adventure activity to another as well as to everyday stressful situations like speaking in a group or coping with test anxiety. This was an experience that was short in duration. In their study, they found that self-efficacy levels were enhanced after the rappelling experience and that these levels were generalized (transferred) to the other high-risk activities of rock climbing and scuba diving. However, this generalization was not transferred to the everyday potential stressful activities discussed in the study. Thus, in this study, self-

efficacy levels were generalized in terms of specific transfer but not in the case of non-specific transfer.

Paxton and McAvoy (1998) also used Bandura's theory as a framework but found results that supported the concept of generality. The purpose of the study was to determine the effect of a 21-day adventure program on participants' self-efficacy immediately after the adventure program and whether the increased self-efficacy was transferred to their everyday lives. This study used the multiple time testing model as defined by Campbell and Stanley (1963). The levels of self-efficacy at every testing time were statistically significantly higher for the treatment group than the control group at the $p = .01$ significance level (Paxton & McAvoy, 1998).

In a longitudinal qualitative study, Miller (2001) took participants on a 35-day river trip. Three years later those participants wrote in a journal for a month reflecting on what had stayed with them from their trip. Final interviews were completed in 1999. The purpose of the study was to analyze what societal lessons learned on the trip were transferred to the home environment. Judging from the journal entries provided by participants, the areas of generality in terms of metaphoric and non-specific transfer were present. One student shared precisely how the experience transferred into his life, "(I)f I could portage through mud, I could do anything" (p. 28); and "I tried to take everything from trip and apply it to my life, because when I was on trip I felt I was a better person" (p. 29). It is apparent that the experience of the participants had an effect on increasing their levels of self-efficacy with regards to the generality dimension.

Brown (1998) focused on comparing how students in one of three orientation programs adjusted to the university environment. The orientation programs were a traditional class style orientation format, an alternative orientation program in which students were able to pursue an interest (Habitat for Humanity, cultural diversity, Eastern Shore ecology, and many others) while completing freshman orientation, or an outdoor orientation option which was ten day immersion outdoor program of the students choice. Students were administered the College Transition Questionnaire (Baker & Siryk, 1989) prior to the orientation program and the Student Adaptation to College Questionnaire (Baker & Siryk) after the orientation program. In general, the outdoor orientation program participants had higher adjustment scores and perceived their experience to be more beneficial than the other groups. However, when controlled for pre-treatment adjustment levels, no significant differences between groups were found.

In 1987, Gass examined the effects of a wilderness orientation program designed to reduce attrition and to assist in development of first-year students. Participants were in three categories: the Summer Fireside Experience program (a five-day wilderness orientation), Freshman Camp (four-day session at a residential camp), and a control group. All groups completed the Student Developmental Task Inventory (SDTI-2) (Winston, Prince, & Miller, 1982). Those who participated in the wilderness orientation showed statistically significant higher rates of retention after two semesters in college as well as greater development in the areas of developing interpersonal relationships (Freshman Camp and control group) and developing autonomy (Freshman Camp).

The University of Puget Sound has a unique program called Preludes, Passages, and Perspectives. This outdoor orientation program is not “in addition to” or “instead of” a more traditional orientation. Passages (the 3-day outdoor orientation) is an integral component of the orientation. All students participate in the outdoor orientation program although students self-select whether they participate in a base camp experience or a backcountry expedition. A student reflected on his experience, “(Passages) tested me as a whole; coming here alone and leaving with a bus load – me vs. the wilderness and I won. I felt like I have the guts to face anything in school” (Stremba & Clemetsen, 1994, p. 4).

In a report by Russell Parks (1997), a participant from the outdoor orientation program at Miami University echoed a similar sentiment.

Out trip is finally over, or is it? Is this trip a precept to the rest of our existence? The challenges that we encountered on the rock were just sneak peeks into the future. The way people engage the obstacles explain a person’s attitude toward their life. Students come to college to change themselves into the people they want to be. The Devil’s Lake experience has become somewhat of a metaphorical yardstick of where we are in our life. (Adam – group journal in Parks, 1997, p. 79).

While the data from these two programs were more in the form of program assessment, it appeared from the narrative data that students’ self-efficacy increased, particularly as it applied students’ ability to transfer the learning or the generality dimension of self-efficacy.

The college environment includes a large range of situations, many of which are social in nature. A central tenet to the definition of an outdoor orientation program used in this study was “to ease transition.” A large percentage of transition stress for first-year students is managing new social situations. The outdoor orientation programs surveyed by O’Keefe (1989) and Galloway (1999), all listed having fun and developing a positive interaction with peers as key components. The social dimension to the outdoor orientation program is one that cannot be overlooked or underestimated in its importance.

Sloan Devlin (1996) researched the longitudinal effects of a four-day optional outdoor orientation program on students’ adjustment to college. The outdoor orientation participants and a control group were administered the Environmental Preference Questionnaire (Kaplan, 1977) on four occasions along with questions which inquired about satisfaction with college life, friendships, and personal traits. At the end of the first year, significantly more program participants indicated their three closest friends were also on the outdoor orientation program. Two of the three top reasons cited for the program being helpful were: “had a head start on meeting other college students” and “was a good way to make friends” (Sloan Devlin, 1996, p. 328). At the end of the senior year, significantly more program participants indicated their closest campus friend was also a program participant than those seniors who did not participate in the program. While program participants experienced some short-term advantages with regard to adjustment, the most lasting effect of participation was the formation of friendships. Given the long-term impact of the social interaction at the

outdoor orientation and its ability to aid in easing transition, clearly the social dimension was an important factor in the program's ability to attain set goals.

Similarly, Pascarella, Terenzini, & Wolfle (1986), in their testing of Tinto's model (1975) found that an orientation program had only a small direct influence on persistence but contributed significantly to positive effects on social integration and commitment to the institution attended. These latter variables had the largest direct effects on freshman year persistence of all variables employed in the model. This suggests that social integration, especially for female students (Pascarella & Terenzini, 1983), is a significant factor in first-year persistence and thus first-year student success.

Duration of Program

As discussed briefly earlier, the duration of an adventure program of an outdoor orientation program varied greatly. The average length of a program in O'Keefe's (1989) study was five to six days with some as short as three days and others in the backcountry up to a month. Of the ninety-two programs surveyed by Galloway (1999), programs lasting three, five, and six days occurred most frequently. Additionally, researchers have not conclusively deemed what is considered a "short" program. Davis-Berman & Berman (1996) stated the majority of the orientation programs in their sample of sixty-four were "short" with the sample mean being 7.8 days. Anderson, Anderson, & Young (2000) found weekend (two day) programs to be "short". They based their definition on the research conducted by Ewert & Hollenhorst (1989) in which they used weekend programs in their study. In the

present study, the weekend timeframe of two days as advanced by Anderson, Anderson, & Young (2000) and Ewert & Hollenhorst (1989) has been used to support the operationalization of the FOOTsteps orientation program as short.

It has been demonstrated throughout that there were studies on adventure and outdoor orientation programs of varying lengths with conflicting results. This was an area in which many opinions exist. Russell Parks (1997) spoke in favor of multiple-day programs, citing the success of the Miami Bound (Miami University in Ohio), "It has been our experience that programs providing the greatest impact for incoming students have been the multiple-day, backcountry, experience because they provide more opportunities for group and individual dynamics to occur" (p. 79). However, Simpson (1985) declared that perhaps quality of the experience is a larger factor on the effect than duration. He stated:

If the determination of values is a series of singular unique events, then perhaps the special quality of wilderness would be one such unique event. Just as the sight of a struggling, dying sparrow might leave a lasting impression on the young boy who needlessly shot it, so might a personal contact with wilderness hold a powerful memory in the mind of a person on a wilderness trip. (p. 27)

If a singular moment could have this kind of impact on one's values, could it not have an equal effect on a student's development? Pascarella, Terenzini, & Wolfle (1986) strongly asserted that "the findings of (their) study suggest the possibility that even a short-term orientation experience may positively influence student persistence" (p. 172). The focus of this study was to ascertain if a short program, like the raft/hike

section of the FOOTsteps program, had any effect on participant's self-efficacy relative to academic and social integration, a measure of first-year success.

Critique of the Literature

Nearly all adventure programs as well as outdoor orientation programs operated based on self-selection. Because of this, random sampling was not a part of the employed methodology of any of the studies cited. In addition to this, adventure programs and most outdoor orientation programs were guided by the "challenge-by-choice" philosophy (Priest, 1999) wherein subjects voluntarily participated not only in the program but also in the activities therein. Additionally, many of the studies cited had a fairly small sample size. Often, groups within that sample are unequal requiring non-parametric statistics (distribution free) to be used that lack the statistical power of parametric statistics. For this reason, the results from any one study should not be generalized beyond the group studied.

Summary of the Literature

The literature suggested there is a need for more research to be conducted in the field of adventure programming, specifically as it relates to outdoor orientation programs (Davis-Berman & Berman, 1996; Galloway, 1999; Gass & Kerr, 1986; O'Keefe, 1989; Priest, 1999). Past research has documented that there is clearly a link between integration and persistence, viewed similar to the strength dimension of self-efficacy (Getzlaf, Sedlacek, Kearney, & Blackwell, 1984; Grosset, 1991; Pascarella & Terenzini, 1983; Pascarella, Terenzini, & Wolfle, 1986). While research has been

done to ascertain the transfer of learning, the generality dimension of self-efficacy, the research has not been conclusive (Brody et. al., 1988; Brown, 1998; Gass & Kerr, 1986; Gass, 1987; Gillett et.al., 1991; Miller, 2001; Paxton & McAvoy, 1998; Priest, 1999b; Sibthorp, 2000; Sloan-Devlin, 1996; Stremba, 1989; Stremba & Clemetson, 1994). The studies that demonstrated the strongest results in support of increased self-efficacy levels on the generality dimension were three or more days in length (Brown, 1998; Gass, 1987; Gillett et.al., 1991; Miller, 2001; Park, 1997; Paxton & McAvoy, 1998; Sibthorp, 2000; Sloan-Devlin, 1996; Stremba & Clemetson, 1994). However, others have argued that short programs can yield positive results (Pascarella, Terenzini, & Wolfle, 1986; Simpson, 1985). It was on this point that the present research adds to the literature.

The present study was not groundbreaking in its scope of interest. A number of the aforementioned studies have been interested in the relationship between adventure programs, specifically outdoor orientation programs, self-efficacy, and first-year student success. However, none has looked at this relationship in a program two days in duration. The present study sheds light on if a short outdoor orientation program can have an effect on students' self-efficacy levels relative to areas of integration associated with student success.

Reflection

As a researcher, I bring to this study a unique perspective. Prior to beginning my masters in College Student Services Administration, I worked for many years as an outdoor educator. This role was flexible and encompassed educating a variety of

ages and abilities. From encouraging an overweight adult advisor to trust his crew of youth to help him over a wall on a challenge course to supporting high school students in pushing their comfort level through a section of technical mountain biking trail, I have witnessed the impact adventure programs can have on people's self-efficacy. After a positive experience, even if it was preceded by a minor setback, the people with whom I have worked seem to have increased levels of confidence in their abilities to conquer new and often unrelated challenges. To me, this was evidence of some sort of transfer of learning, what Bandura (1977) termed the generality dimension of self-efficacy.

I poignantly remember a crew of male youth and leaders who came to the challenge course I facilitated, struggling with communication and the ability to work as a team. Most prominent, however, was the rising contention between the youth and the adults regarding leadership of the crew. After three hours of problem-solving on the challenge course, I noticed that there seemed to be a growing thread of respect for differing opinions and the willingness to listen to a variety of problem-solving strategies. I was hopeful that this crew would continue their trek and have a wonderful experience; employing some of the learning they had gained on the challenge course. Due to the nature of my work at the time, I often did not know what ever happened to those crews after they departed from my camp. But in the case of this crew, I did. About five days later, I received a note written on the back of a Pop-Tart box that detailed how the crew used the problem-solving skills gained from the challenge course during the rest of their trek. They stood in a circle and listened to all

ideas before coming to a consensus decision as to the best trail to take, the way to best cross a river, or the merits of taking a side hike and getting into camp later.

Something clearly happened during their challenge course experience. I believe it was an effect of their increased levels of self-efficacy transferring to other areas of their life. The nature of the transfer was debatable. Some might say that this was an example of specific transfer in that they were using problem-solving skills in very similar areas of life. Perhaps if the learning of respect for different ideas was carried over into these youths' lives at school, others might argue this was an example of non-specific transfer. I, myself, am not certain of the type of transfer that took place. What I do know is that something very special happened.

I would not be so compelled to conduct this research if the previous example was the only time while as an outdoor educator I noticed this type of increased level of self-efficacy being generalized to other areas. The reality is that this seemed to occur more often than not. Because of my experience, the FOOTsteps orientation program at OSU fascinated me. I was curious to see if the individual growth and transfer that I personally witnessed take place on the challenge course and had heard similar stories from my outdoor educator colleagues would also become evident within the more structured parameters of research.

I have never been an "all or nothing" kind of person. Thus, I found picking one methodological approach for this study to be constraining. I understood the challenge that this might present in that I was aware of the ongoing debate between purists from both the quantitative and qualitative research paradigms. Still, I believed, like others that this was a false dichotomy (Onwuegbuzie, 2000). In many of the

scientific fields, the two research paradigms co-exist in a state of methodological pluralism quite peacefully. As noted by Sechrest and Sidani (1985), the vehemently contested debate on the merits between the paradigms is situated solely in the social and behavioral sciences.

I realized that many view research paradigms and methodologies as part of a continuum. This continuum runs from purists to situationalists to pragmatists (Onwuegbuzie, 2000). On one end of the continuum, purists posit that the paradigms represent fundamentally different ontologic, epistemologic, and axiologic assumptions about the nature of research and hence, must be treated as dichotomous domains (Onwuegbuzie; Tashakkori & Teddlie, 1998). Situationalists maintain the dichotomous view but hold that both methods have value and thus the research questions at hand must determine the appropriate approach (Onwuegbuzie). At the other end of the continuum, pragmatists believe that quantitative methods are not purely positivist in nature nor are qualitative methods necessarily interpretivist (Cook & Reichardt, 1979; Onwuegbuzie; Sieber, 1973). Given this belief, pragmatists, recognizing that both research approaches have strengths and weaknesses, advocate integrating both methods in a single study to better understand social phenomena (Creswell, 1995; Onwuegbuzie; Sieber).

As a budding researcher, I was greatly relieved to know there were others like me, pragmatists, conducting research. I believed that I would be able to gain a greater understanding of what effects, if any, the FOOTsteps experience had on participants' self-efficacy relative to academic and social integration if I used both a survey to yield numerical data for statistical analysis and focus groups and journals yielding narrative

data for thematic analysis. Both methods of data collection were used to test the previously stated research hypotheses.

Quantitative Methodology

The general design of this study was a repeated measures design with two data collections: pre-tests were distributed prior to participants departing on the raft/hike sections of the FOOTsteps trip, September 21, 2002; post-tests were distributed on an as-received basis during the first week of fall term for both groups. Oregon State University's Institutional Review Board approved the protocol for this study in Fall 2002.

Research Sample and Procedures

In early September, 2002, the researcher received a list of all first-year Oregon State University students who registered for FOOTsteps raft/hike option (treatment) and lived in on-campus housing. Additionally, a list of all first-year Oregon State University students who did not register for Academic Learning Services 111 (Odyssey, the eight week orientation course) or Academic Learning Services 112 (FOOTsteps/Odyssey, the eight week orientation course preceded by the outdoor orientation trip) and who lived in on-campus housing was received. This latter list comprised the control population. These lists only included those students who were over the age of 18 and were classified by the university as a traditional-aged student. A simple random sample of 143 students was selected from each group to receive

surveys. With the support of University Housing and Dining Services, on-campus housing addresses for the sample were obtained.

An informed consent document in addition to the pre-test survey was sent to sample members on September 21, 2002. The informed consent document provided the sample members with the lead researchers contact information if they had any questions or concerns regarding the survey. The informed consent document detailed that this study had a pre-test and a post-test component and that the sample member would be receiving the post-test survey the following week. Additionally, the survey instructed the sample member to return the survey in the self-addressed envelope provided. Sample members were offered a free scoop of ice cream from an on-campus provider for completing both surveys.

Of the 143 surveys sent to both groups, 34 pre-test surveys were returned from the treatment group (23.8% return rate); 15 pre-test surveys were returned from the control group (10.5% return rate). As the pre-test surveys were received, the post-test surveys were sent. The post-test survey had a return deadline of October 7, 2002. 19 post-test surveys were returned from the treatment group (13.3% usable responses, computed from the original number of treatment sample members who received the surveys). 11 post-test surveys were returned from the control group (7.7% usable responses, computed from the original number of control group sample members who received the surveys). Of the treatment group, 100% of the usable responses were female. While female students outnumbered male students on the raft/hike section of the FOOTsteps experience (Oregon State University, Outdoor Recreation Center, 2002), this number is not representative of all treatment participants. Of the control

group usable responses, seven were male and four were female. This over represents men in the 2002 first-year class at OSU. Men constitute roughly 52% of the class (Oregon State University, Office of Budget and Planning, 2002).

Research Instrument

The instrument used in this study was locally designed and followed Albert Bandura's Guide for Constructing Self-Efficacy Scales (Bandura, 2001). Given that there is no all-purpose measure of perceived self-efficacy, the items on the scale were narrowly designed to accurately reflect the construct, academic and social integration. Study participants were presented with items portraying different levels and kinds of task demands and asked to rate the strength of their belief in their current ability to execute the tasks in question. According to Bandura (2001), people usually avoid extreme positions on a scale, rendering a scale with only a few response points to be less sensitive and less reliable. To correct for this, a 100-point scale, ranging in 10-unit intervals from 0% ("Very Uncertain"); through intermediate degrees of assurance, 50% ("Somewhat Certain"); to high assurance, 100% ("Very Certain") was used. The scale created for this study was in accordance with the recommendations in the Bandura (2001) guide.

The items used to measure the constructs of this study, academic and social integration, were crafted by utilizing specific areas mentioned in Tinto's (1975) groundbreaking work. Hence, questions that dealt with academic success (grade performance) and establishing a relationship with faculty were included in the academic scale. Additionally, establishing a few close friendships and joining student

organizations were included in the social scale. Other items were added to provide greater depth to the scales, including two items that specifically measured the strength dimension of self-efficacy (see Appendix C, Appendix D).

The following items comprised the academic integration scale: ask for help with school challenges, follow through with personal goals, complete college-level assignments on time, try again if you have already failed once at something, visit a teacher in his/her office, study with peers, try again if you have already failed twice at something, articulate and support your point of view on an issue, manage time, and be academically successful. The following items were included in the social integration scale: follow through with personal goals, meet new people in social situations, confront roommate whose behavior or actions are disturbing you, try again if you have already failed once at something, join a student organization, establish a few close friendships before the end of fall term, ask for help with personal/relationship issues, try again if you have already failed twice at something, get a leadership position in a student organization, articulate and support your point of view on an issue, participate in new activities, and manage time. It was held that five items contribute to both academic and social integration. The items that were used in configuring both scales were as follows: follow through with goals, try again if already failed once at something, try again if already failed twice at something, articulate point of view on an issue, and manage time.

Mean scores were calculated for total integration (mean of all scale items), academic integration (mean of all academic scale items), and social integration (mean of all social scale items). Means from pre-test to post-test were compared between the

treatment group and control group as well as between treatment participants with moderate prior outdoor experience and high prior outdoor experience.

While construct validation is an ongoing process, face validity of the constructs was verified on two levels. As stated previously, a number of the scale items came directly from Tinto's (1975) work. It was believed that items that were garnered directly from the original work would maintain the highest levels of face validity in the constructs. Also, the items used to measure academic and social integration were reviewed by professionals in the field who coordinate institutional efforts to orient students socially and academically to the people and resources at Oregon State University. In this regard, care was taken to use only vocabulary that incoming students would be familiar. For example, one item asked about visiting a teacher in his/her office rather than visit faculty during office hours. This was also in agreement with the recommendations set forth in Bandura's guide (2001).

Pilot Study and Reliability

The survey was piloted with a group of resident assistants from Oregon State University. Resident assistants were given the survey during their training in early September, 2002. There were three days between the reliability test and re-test. Seventy usable responses made up the pilot group. The reliability coefficients of internal consistency are displayed in Table 1.

Table 1

Reliability Coefficients of Sub-scales and Total Scale

Scale type	Cronbach's alpha
Academic integration test	.8573
Academic integration re-test	.8360
Social integration test	.8890
Social integration re-test	.8875
Total integration test	.9137
Total integration re-test	.9074

The internal reliability between of the scales between the time of the pre-test and post-test was figured using Pearson's r . All scales were found to be reliable between the pre-test and the post-test. The scale with the highest correlation between the pre-test and the post-test was the social integration scale, Pearson's $r = .58, p = .01$ (two-tailed). The correlation between the academic scale from the pre-test to the post-test was Pearson's $r = .55, p = .01$ (two-tailed). Finally, the total integration scale (all items) also had a significant correlation, Pearson's $r = .54, p = .01$ (two-tailed).

Figure 1

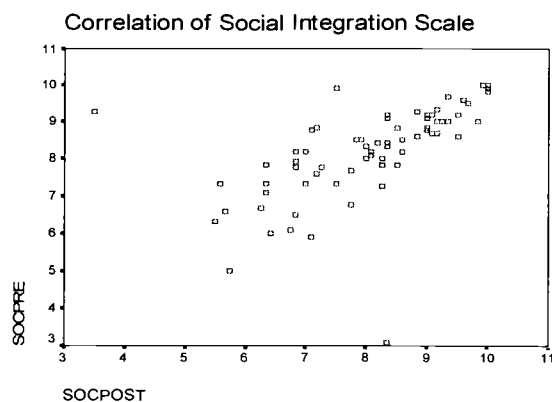


Figure 2

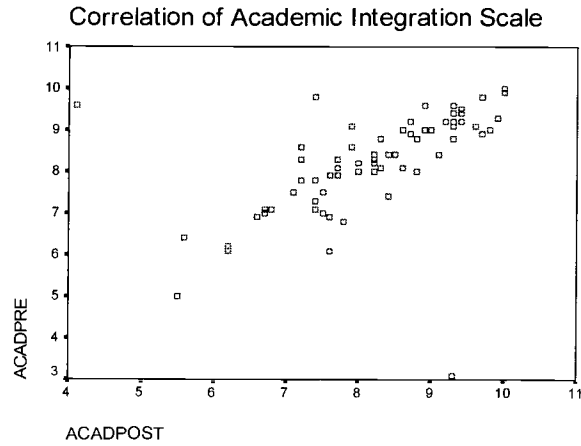
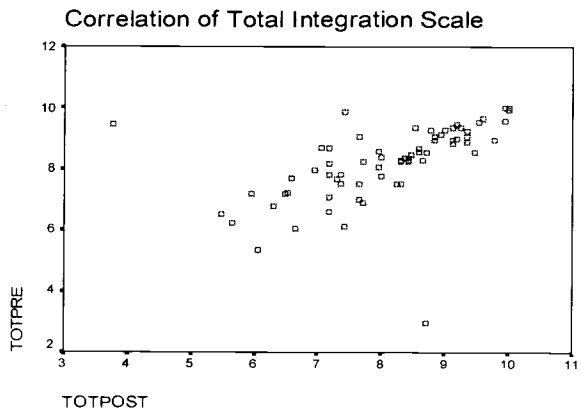


Figure 3



Data Collection

As stated before, the actual study with the treatment and control groups took place in late September, 2002 and concluded in early October, 2002. Each survey was pre-numbered. Each member of the sample had a unique identification number that was known only to the lead researcher. The pre-test surveys were placed in the sample members' on-campus mailboxes with a self-addressed envelope for returning to the researcher. Given the nature of on-campus mail delivery and the backlog during the

first days of school, some responses were not received until the middle of the first week of school. Upon receiving a completed survey, the researcher sent the post-test survey through on-campus mail. This process delayed the timely completion of the surveys. Some of the completed surveys were received after the stated deadline due to this delay. For the purpose of this study, late surveys were marked as such but included in the data analysis. Those who completed both surveys received a thank you letter along with two coupons for a free scoop of ice cream from an on-campus provider from the lead researcher in mid-October, 2002.

Treatment of Data

In addition to looking at what effect, if any, the treatment had on the treatment group versus the control group, this study was also interested to see if the treatment had differential effects on those participating. Namely, this study was interested to know if the treatment affected those with little to no outdoor adventure experience differently than those with moderate to high outdoor adventure experience. Treatment group participants were asked on their survey to share their how many times they had been on an outdoor adventure experience. Outdoor adventure experience was operationalized as any outdoor experience in which the participant felt challenged. There were five categories of response: never, one to three times, four to six times, seven to ten times, and more than 10 times. Of the 19 usable responses, no participant marked that they had no outdoor adventure experience. Due to the low response rate, the remaining categories were collapsed to yield a transformed variable of outdoor experience. These transformed categories were moderate outdoor experience (one to

three times and four to six times) and high outdoor experience (seven to ten times and more than ten times).

The data was coded and entered by the lead researcher. The data was analyzed using Statistical Package for the Social Sciences (SPSS) 11.0. One response from the control group marked 100% confidence on every task in both the pre-test and post-test surveys. After reviewing the data and discussing the outlier implications with the lead researcher's minor professor, this participant was withdrawn from the analysis. The analysis presented below is the data from 19 treatment group participants and 10 control group participants.

A mixed factor ANOVA design was employed to assess the effect, if any, of the treatment on students' self-efficacy relative to academic and social integration as it is a predictor of first-year persistence and thus, success. The between-subjects factor was participation with the instrument being completed two times. Additionally, a mixed factor ANOVA design was employed to assess the differential effect, if any, of the treatment on participants with different outdoor adventure experience levels. The between-subjects factor was the prior experience level of the participants. All subjects completed the surveys twice.

Quantitative Results

The focus of the study was to see if participation in the raft/hike section (two day, one night) of the FOOTsteps program had any effect on participants' self-efficacy relative to academic and social integration. Additionally, the study was interested in if

the treatment had any differential effects on participants based on the participants' prior outdoor adventure experience.

Integration by Participation

Table 2

<u>Mean Score (Standard Error) of Total Integration by Participation</u>			
<u>Participation</u>	<u>Pre-test</u>	<u>Post-test</u>	<u>Group Avg.</u>
Treatment group	7.53 (.31)	8.09 (.35)	7.81 (.32)
Control group	7.24 (.43)	7.73 (.46)	7.48 (.44)
<u>Time Avg.*</u>	<u>7.38 (.26)</u>	<u>7.91 (.30)</u>	

* $p < .001$

Looking at the analysis of total integration scores by participation, the assumptions for using ANOVA parametric statistics were met (*Box's M* = .79, $p = .87$; *Levene's Test F* pre-test = 1.22, $p = .28$; *Levene's Test F* post-test = .44, $p = .51$). As can be noted in Table 2, total integration by participation did not yield a significant main effect for participation. Additionally, there was not a significant interaction effect between participation and time on reported total integration scores. However, the main effect of time was significant, $F(1,27) = 12.89, p = .001$. Sample members reported a mean total integration score of 7.38 (.26) on the pre-test and a mean total integration score of 7.91 (.30) on the post-test. Thus, all sample members, irrespective of group membership, reported a highly significant increase in their total integration score between the pre-test and post-test.

The assumptions for using ANOVA parametric statistics for analyzing academic integration scores by participation were met (*Box's M* = .26, $p = .97$;

Levene's Test F pre- test = .001, $p = .97$; *Levene's Test F* post-test = .35, $p = .51$).

As can be noted in Table 3, the score on the academic integration scale did not yield a significant main effect for participation. Additionally, there was not a significant interaction effect between participation and time on academic integration scores.

However, the main effect of time was significant, $F(1,27) = 7.49$, $p = .011$.

Regardless of participation, sample members reported a significant increase in their academic integration score between the pre-test and post-test. Sample members reported a mean academic integration score of 7.64 (.24) on the pre-test and a mean academic integration score of 8.10 (.27) on the post-test.

Table 3

Mean Score (Standard Error) of Academic Integration by Participation

Participation	Pre-test	Post-test	Group Avg.
Treatment group	7.72 (.28)	8.25 (.32)	7.98 (.28)
Control group	7.57 (.38)	7.96 (.44)	7.77 (.37)
Time Avg.*	7.64 (.24)	8.10 (.27)	

* $p < .05$

The assumptions for using ANOVA parametric statistics for analyzing social integration scores by participation were met (*Box's M* = .65, $p = .90$; *Levene's Test F* pre- test = 1.24, $p = .28$; *Levene's Test F* post-test = .45, $p = .51$). Table 4 displays that the social integration score did not yield a significant main effect for participation. Again, there was not a significant interaction effect between participation and time with respect to social integration score. Yet, the main effect of time was significant, $F(1,27) = 23.74$, $p < .001$. Sample members reported a mean social integration score

of 7.16 (.28) on the pre-test and a mean social integration score of 7.78 (.32) on the post-test. It appeared that without consideration of participation, sample members reported a significant increase in their social integration score between the pre-test and post-test.

Table 4

Mean Score (Standard Error) of Social Integration by Participation

Participation	Pre-test	Post-test	Group Avg.
Treatment group	7.33 (.33)	7.98 (.38)	7.66 (.35)
Control group	6.99 (.46)	7.58 (.52)	7.29 (.48)
Time Avg.*	7.16 (.28)	7.78 (.32)	

* $p < .001$

Participation did not have any effect on sample members' total, academic, or social integration. However, it was interesting to note, that the mean increase of social integration scores was slightly higher for both groups than academic integration scores, $M_{\text{soc.pre}} = 7.16 (.28)$, $M_{\text{soc.post}} = 7.78 (.32)$ compared to $M_{\text{acad.pre}} = 7.64 (.24)$, $M_{\text{acad.post}} = 8.10 (.27)$.

In looking at what differential effects, if any, resulted from the treatment group's prior outdoor adventure experience on total integration scores, the assumptions for using ANOVA parametric were met (*Box's M* = 7.04, $p = .11$; *Levene's Test F* pre-test = 1.26, $p = .28$; *Levene's Test F* post-test = .17, $p = .68$). Noting Table 5, the main effect of total integration score by outdoor adventure experience was found to be not significant. This was also true for the interaction effect between outdoor adventure experience and time as applied to total integration

scores. However, the main effect of time on total integration scores was significant, $F(1,17) = 9.87, p = .006$. All treatment participants, regardless of prior experience, reported an increase in total integration scores, pre-test $M = 7.52 (.35)$; post-test $M = 8.12 (.39)$.

Integration by Prior Outdoor Adventure Experience

Table 5

<u>Mean Score (Standard Error) of Total Integration by Outdoor Adventure Experience</u>			
<u>Experience level</u>	<u>Pre-test</u>	<u>Post-test</u>	<u>Group Avg.</u>
Moderate experience	7.50 (.55)	8.24 (.61)	7.87 (.56)
High experience	7.55 (.42)	8.01 (.47)	7.78 (.43)
<u>Time Avg.*</u>	<u>7.52 (.35)</u>	<u>8.12 (.39)</u>	

* $p < .01$

The assumptions for using ANOVA parametric statistics were satisfied (*Box's* $M = 8.66, p = .06$; *Levene's Test F* pre-test = 3.29, $p = .09$; *Levene's Test F* post-test = 1.42, $p = .25$) for the comparison of academic integration scores by prior outdoor experience. Taking notice of Table 6, the main effect of academic integration scores by outdoor adventure experience was found to not be significant. Also, the interaction effect of prior outdoor adventure experience and time on academic integration scores was also found to be insignificant. Still, the main effect of time with respect to academic integration scores was found to be significant, $F(1,17) = 7.69, p = .013$. This result demonstrated that, over time, all treatment participants, regardless of prior outdoor experience level, reported an increase in academic integration scores, pre-test $M = 7.70 (.29)$; post-test $M = 8.29 (.34)$.

Table 6

Mean Score (Standard Error) of Academic Integration by Outdoor Adventure Experience

<u>Experience level</u>	<u>Pre-test</u>	<u>Post-test</u>	<u>Group Avg.</u>
Moderate experience	7.64 (.46)	8.44 (.54)	8.04 (.47)
High experience	7.76 (.35)	8.13 (.41)	7.95 (.36)
<u>Time Avg.*</u>	<u>7.70 (.29)</u>	<u>8.29 (.34)</u>	

* $p < .05$

Table 7

Mean Score (Standard Error) of Social Integration by Outdoor Adventure Experience

<u>Experience level</u>	<u>Pre-test</u>	<u>Post-test</u>	<u>Group Avg.</u>
Moderate experience	7.27 (.58)	8.12 (.66)	7.70 (.61)
High experience	7.36 (.44)	7.90 (.50)	7.63 (.46)
<u>Time Avg.*</u>	<u>7.32 (.36)</u>	<u>8.01 (.41)</u>	

* $p < .001$

Again, the assumptions for using ANOVA parametric statistics were satisfied (*Box's M* = 4.18, $p = .31$; *Levene's Test F* pre-test = .32, $p = .58$; *Levene's Test F* post-test = .01, $p = .92$) for the comparison of social integration scores by prior outdoor experience. As in the other analyses, the main effect of scores on the social integration scale by outdoor adventure experience was not significant. Also, the interaction effect of prior outdoor adventure experience and time on social integration scores was also found to be insignificant. However, the main effect of time was found to be highly significant, $F(1,17) = 18.07, p = .001$. Looking at Table 7, it can be noted all treatment participants, regardless of prior outdoor adventure experience,

reported an increase in social integration scores, pre-test $M = 7.32 (.36)$; post-test $M = 8.01 (.41)$.

Prior outdoor experience did not seem to have any statistically significant differential effect on sample members' total, academic, or social integration.

However, it was interesting to note, there was a larger mean increase between the pre-test and post-test scores on social integration than the scores on academic integration, $M_{\text{soc. pre}} = 7.317 (.364)$, $M_{\text{soc. post}} = 8.011 (.413)$ compared to $M_{\text{acad. pre}} = 7.701 (.289)$, $M_{\text{acad. post}} = 8.288 (.339)$.

The quantitative results clearly demonstrated that participation in the raft/hike section of the FOOTsteps program did not have any significant effect on students' self-efficacy relative to academic and social integration, measures of first-year success and persistence. All students, regardless of participation in the treatment, experienced increased self-efficacy over time. Additionally, prior outdoor experience did not have any effect on students' self-efficacy levels. All treatment participants experienced increased self-efficacy relative to academic and social integration as measured by the scales in this study.

Qualitative Methods

To improve the reliability of the study, I chose to limit the qualitative data collection to only those students who had completed both surveys. I believed this additional data collection with the same group of students would produce the soundest interpretation of all of the data. Additionally, it provided those who had chosen to participate in the study the opportunity to personally share their insights. There are

clear limitations to this manner of obtaining additional data. The low number of returned surveys, by their very nature, limited the number of people to invite to participate further in the study. However, I believed this provided the most stable method to analyze and discuss both the statistical data and its connections to the narrative data.

I understood that a number of methods existed for obtaining narrative data. Bogdan and Biklen (1982) defined an interview as “a purposeful conversation usually between two people (but sometimes involving more that is directed by one in order to get information” (p.135). Noting this, I found the combination of group interviews, herein called ‘focus groups,’ and journals would gather the narrative information necessary to begin making meaning of the FOOTsteps experience. Given the time limits of this study, these methods seemed to be the most beneficial option that would garner the most thorough and spontaneous data.

In addition to the focus group data collection, I believed it was important for the participants to already begin thinking about first-year student success and the effect of their FOOTsteps experience prior to the focus group meeting. It was believed that previous cognitive stimulation on this subject would yield richer discussion during the focus group. I requested all participants to journal on five questions before the focus group and to bring their responses to the meeting.

The questions were developed by the researcher and were piloted in consultation with an experienced qualitative researcher. After several drafts, a final set of questions was forwarded to the Institutional Review Board (Appendix F). These questions were accompanied by the proposed amended protocol for the additional

narrative data collection (Appendix B, letters v.- gg.). The questions were designed to first elicit responses from the participants with regard to their definition of success in college and then to gauge their confidence level in their abilities to be successful given their definition before they arrived on campus. The questions continued by asking if the participants' confidence level relative to their ability to be successful had changed since arriving on campus and if so what had led to the change. Turning to the effect of the FOOTsteps experience, the questions asked specifically if FOOTsteps had any affect on the participants' confidence level and what, if anything, the participants' learned from being a part of the FOOTsteps experience. The final question additionally asked if anything learned from the FOOTsteps experience translated into other areas of life, such as personal relationships, school, or work.

As stated earlier, only those who completed both surveys were invited to participate in the focus groups. Given that the response rates varied between FOOTsteps participants and the control group, the researcher intended to conduct two focus groups with the FOOTsteps participants and one focus group with the control group. The invitation was extended by a phone call to the potential participants in early November 2002 at their residence hall room (Appendix G). It was explained that the focus group would be roughly one hour in duration with snacks provided and that participants would be asked to share their definitions of college success and their experiences regarding the FOOTsteps trip. It was also explained that participants in the focus groups were strongly encouraged to journal on five questions to be provided by the researcher. Finally, it was discussed that with the consent of the participant the journal would become the property of the researcher. Fourteen potential participants

confirmed their intent to participate and were sent the five questions on which to journal by either e-mail or campus mail. Some potential participants were not able to attend the focus groups due to class conflicts. Those who were not able to attend were offered the opportunity to complete the journal assignments and send their responses to the researcher.

It was important to note that roughly eighty percent of the 286 participating in the raft/hike option of the FOOTsteps program were first-year female students. With regard to the treatment focus groups, all six of those who chose to participate were female students. Two treatment focus groups of three participants were conducted. All but one of the women were first-time, first-year college students. One participant was an out-of-state student; one was from a rural small town. The remainder of the participants was from urban or suburban areas of Oregon. One woman, who did not attend the focus group, e-mailed her responses to the journal questions.

A focus group meeting was scheduled for the control group participants who had completed the two surveys. Unfortunately, no one from the control sample attended. However, one set of journal responses was submitted though e-mail from a male student in the control group. Due to this low response rate and in an effort to draw reliable interpretations, the analysis of the narrative data focused solely on the data provided by the FOOTsteps group.

The focus groups were conducted in mid-November, during the sixth week of the fall term. I felt that this would provide enough time for the participants to reflect and make meaning of their FOOTsteps experience relative to their confidence levels regarding college success. The desired tone of the focus group was one that

engendered a spirit of conversation and lively dialogue. I found it was important in the focus group to create a space in which participants could ask questions of each other, add statements that were sparked from someone else's thoughts, and make meaning of their own experience in the context of others' perspectives. For this reason, the focus group meetings were held in the student union on-campus rather than in a classroom. I believed it was important for the participants to feel comfortable in the space. Therefore, it was determined that space in a student-run union seemed to be more inclined to rendering this conversational feeling of dialogue than an academically-focused classroom. The rooms used were meeting rooms with a standard table and chairs but also had overstuffed furniture and a coffee table in one area of the room. This smaller, more intimate setting with the overstuffed furniture was where the focus groups were conducted.

After the participants arrived, each individual introduced herself, hometown, and major. Cookies were provided as snacks and the informed consent documents were distributed. The researcher allowed the participants to read the consent document (Appendix H) and ask any questions they had. The participants understood that they were free to leave the focus group at any time without penalty. Regardless of their participation during the focus group, participants received two coupons for a free scoop of ice cream at the local campus ice cream outlet. Ice cream and cookies served as the only incentive for participation in the focus groups. The informed consent documents were then collected and the researcher introduced the note taker.

The note taker was a second year master's student in the College Student Services Administration program. She had completed the Institutional Review

Board's required training for human subjects' research. She was also familiar with the subject of an outdoor orientation program, as she had served as a co-facilitator of one of the raft/hike sections of the program with the lead researcher. The note taker was introduced to all participants. She shared she would be taking thorough notes of the conversation to be used in the data analysis. Since the focus group meetings were not audio or videotaped, the role of the note taker was of great importance.

The focus group began with a light icebreaker called "Mindreader." The participants were asked to read the mind of the person sitting next to them and share their guess as to why the person completed the First-Year Student Success survey. As the participants did not know one another, having been on different sections of the raft/hike FOOTsteps program, this helped participants become comfortable talking to one another. This aided significantly in setting the tone for a casual conversation.

Narrative data collected for analysis included the researcher's notebook, the journal responses of participants, and the notes from the focus groups prepared by the note taker. The narrative data collected from the journal responses and the focus group meeting notes were first coded by the researcher with a paired identification number given to both the journal and the statements shared by the individual during the focus group. These were denoted by the following citation format: (journal response, Participant 1) and (focus group, Participant 1). After coding, I analyzed the data using the approach proposed by Ely, Anzul, Friedman, Garner, and McCormack Steinmetz (1991). In their work, they suggested that categories serve the function to help researchers broadly approach making meaning from the data. I used questions from the journal assignment and the focus groups to serve as the foundation for

creating categories. Hence, I identified the definition of success in college, pre-college confidence level, confidence level post-FOOTsteps, and learning from FOOTsteps experience as categories for analysis. From these categories, I began to search the data to identify possible themes. A theme is defined as “a statement of meaning that (1) runs through all or most of the pertinent data, or (2) one in the minority that carries heavy emotional or factual impact” (Ely et. al., 1991). After much analysis of the journals and transcripts of the focus group meetings, more focused themes that illustrated the earlier categories began to emerge. These four themes were then connected to the raw narrative data as verification that the theme was logically derived. Finally, the most poignant verbatim narratives were selected to illustrate the theme.

Qualitative Results

Theme 1. “Success in College” – a Multifaceted Definition

The participants in this part of the study shared many times that success was not a pre-set list of things to accomplish before one graduated. There was a much more multi-faceted sense of what the college experience would bring and hence how success should be defined. What emerged from the focus groups and the journals from those participating was that success had sub-themes or different dimensions that have been categorized as the academic/learning dimension, a personal growth dimension, and a social networking dimension.

Academic/Learning Dimension: More Than Just Grades and Graduation

There was no doubt that the students participating in this part of the study believed success in college was closely related to what takes place in the classroom. Four participants in their journals and one during the focus group articulated this belief. Earning good grades was without a doubt an indicator of success as defined by these participants. Two participants shared in their journals that success was getting good grades and still another wrote earning grades that reflected her effort would be a measure of success. Beyond the evaluation of grades, there was a strong thread that implied the process of learning was an important facet of success. One participant wrote she saw success as getting the most out of classes by absorbing the knowledge. Two participants in their journals drew the connection between academic course work and applying that learning to career and life in the future. Finally, graduation, the end goal by which college persistence is measured, figured prominently in the definition of success. "To be successful means to graduate with a degree and grow and learn from your experiences," wrote Participant 4 in her journal. One student indicated in her journal that success was graduating and moving onto a career within her chosen major. Gaining the most intellectually from the college experience, as designated by a diploma or newfound knowledge, was an important facet of success.

Personal Growth Dimension: An Opportunity to Chart One's Own Unique Path

The academic/learning dimension was powerfully linked to the personal growth dimension. While students wanted to grow from their learning experiences, they did not see those experiences solely taking place in the classroom. All participants, either through their journals or during the focus group, remarked that they

saw success in college as being linked to their developing independence and figuring out a path for their life. One participant viewed success as coming out a “more well rounded person” (journal response, Participant 5) and viewed college as a time when the “decisions you make now help you deal with things . . . they will be the way you deal with it in the future.” (focus group, Participant 5). Participant 1 shared in her journal that she viewed success as “finding out who I am and what makes me unique learning to accept and perhaps like the things that I don’t like about myself at this stage.” Clearly, it appeared that college is a time for self-discovery: learning about one’s self, making decisions based on one’s own values, and forging one’s own path. Much of the personal growth dimension has implications in the academic/learning dimension as well. A student who grows from experiences and is successful at setting and following through on goals may find success not only personally but also academically.

Social Networking Dimension: Meeting and Making Friends

Students do not often get to choose where they attend high school. More often than not, it is a function of where their parents have chosen for the family to reside. For those who live in the same area for the majority of their school years, friends from kindergarten are often friends in high school even though personalities can change significantly. College is the time when students can truly choose with whom they want to build friendships.

The ability to socially network based on one’s own personality, not past affiliations, was an important facet of college success. Participants in the study

defined success in college in terms of one's ability to meet new people and make new friends. One participant wrote, "(S)uccess is making progress and gaining confidence in social settings" (journal response, Participant 7). Another student addressed the opportunity that college provides to make friends on a totally different premise than in high school. "I want to make friends with whom I am completely comfortable, among whom I can just be myself and be liked for who I am" (journal response, Participant 1). The ability to network socially and to develop those friendships was a significant facet of college success.

It is important to note that while all participants shared some sense of this multifaceted approach to success in college, two participants stated that they saw college as a means to an end. Some of the statements shared were "I want to be done fast. I want to take 17 or more credits a term to get out into the real world. . . . I don't want to be here forever," (focus group, Participant 5) as well as "(e)verything is preparation for something else. I am really anxious to do something else," (focus group, Participant 6). I believe that it is critical in understanding the positions of these participants that they are all unique individuals and bring a different focus to bear on defining college success.

Theme 2. Pre-college Confidence: Depends Largely on Dimension

With respect to their definitions of college success, most of the participants, prior to beginning college, felt confident in their abilities to be successful. However, just as there were individual differences relative to the definition of success, there were also individual differences relative to the participants' confidence levels of being

successful. The concerns of confidence were, not surprisingly, centered on the facets that defined success: specifically, academic/learning and personal growth.

It was recognized that college classes would be more difficult than high school. While some participants had the opportunity to take college courses, others had not. One participant shared that she knew college would be pretty challenging, not a huge jump though. Still, she continued that she “was academically a little scared” (focus group, Participant 3). The participant from a more rural area stated, “I was scared. There were only a few college prep classes available at my high school. I didn’t feel like I could make it. It was hard” (focus group, Participant 4). Concern ran from this end of the continuum to the other end of complete confidence. “I also have no problem . . . succeeding academically,” wrote Participant 7 in her journal.

Just as some participants experienced uncertainty relative to the academic course work, some were more concerned about being on their own. “A week has been the longest time I was ever away from home so I was a little bit nervous but looking forward to it,” shared Participant 2 during the focus group. Still another was concerned about getting lost on campus, literally. “I have a bad sense of direction – I get lost all the time,” stated Participant 1 during the focus group. Personal growth and forging one’s own path can be simultaneously exhilarating, frightening, and at times, frustrating. One participant shared her challenge in maintaining her self-confidence as it related to developing her independence from her parents.

I knew I wanted to come to school and do well. In the residence hall, as a first-year student, I needed someone to talk to. I needed to vent. I need my space.

My mom puts me on a guilt trip, and then I feel less confident. My mom

wants me home and I want to be here – to learn and do what I want to do.

(focus group, Participant 6)

Personal growth does not happen in one fell swoop. It often takes place in leaps and bounds, calling on one's efficacy expectations to effectively manage a new situation. I found it was this nature of personal growth that the focus group participants alluded to in their definition of college success.

Theme 3. FOOTsteps: Gaining Self-Confidence with Social Networking

I found it interesting that in the question looking at participants' self-confidence prior to coming to college, only one of the participants mentioned their lack of self-confidence as it pertained to social networking. "Personally and academically, I was confident. But socially, I had to work on that" (focus group, Participant 5). This is of particular interest in that when asked what effect FOOTsteps had on their self-confidence level, all but one participant stated that FOOTsteps improved their self-confidence in terms of making friends. Several participants in journals and during the focus groups echoed the following statement:

FOOTsteps increased my confidence level in terms that it helped me make friends incredibly fast. By going on a two-day trip you totally bond with people in your Odyssey class. This helped with my confidence level because before school had even started, I had many friends. (journal response, Participant 7)

Participant 4 described in her journal how FOOTsteps helped her to make the social connections that she desired, “(F)OOTsteps helped me make friends to which I could share my experiences with and feel at home.” Other participants described how FOOTsteps helped them connect with many people. “Most of my connections here come from someone I met initially in FOOTsteps” (journal response, Participant 5). “Our class really bonded and it is nice to see familiar faces in classes and around campus” (journal response, Participant 2). “We bonded in the van and then got out and ran through a grass meadow with deer, rocks, butterflies – like in the *Sound of Music*. That is when we became friends” (focus group, Participant 6).

Moreover, it seemed that for at least one of the participants, FOOTsteps served to move her out of her comfort zone and take risks. In her journal, Participant 1 commented on how the FOOTsteps experience encouraged her to take risks. “I think that FOOTsteps is where I first began to go out of my comfort zone as far as making the first move when meeting new people goes” (journal response, Participant 1). She continued this thought during the focus group. “It was a risk, putting myself out and taking the first move. Odyssey gave me an opportunity to start the conversations, small talk. No one rejected me and they seemed to keep wanting to talk to me” (focus group, Participant 1). This is of particular importance in that this is the participant who, during the focus group, shared she was naturally shy and nervous about meeting new people.

Theme 4. Social Connections and Skills Transfer to Everyday Life

Recognizing that there is a qualitative difference for each participant between what has been transferred from the FOOTsteps experience to other areas of life, there

still remains an underlying similarity. Social connections, knowing that one is not alone in this journey called 'college,' and dealing with different types of people were areas solidly represented in the data.

Participant 2 wrote in her journal that the biggest thing she got out of FOOTsteps "was knowing there was a group of people that I could go to if I was having a problem or just needed to talk to someone" (journal response, Participant 2). Another student in her journal nearly identically echoed this sentiment. "FOOTsteps helped me realize that I was not alone and that other people need my help as I need theirs" (journal response, Participant 4). Participant 6, through her writing, shared she learned that there is always someone to talk to if she needs it and that this translated to her personal and academic life as well. While none of the above statements specifically limit the social connections from FOOTsteps to other students, one participant clearly extended the social connections from FOOTsteps to the peer leaders and faculty who were involved with the program. "I have a network of resources, both peers and faculty, who I can go to if I ever need help" (journal response, Participant 7). It appeared that these social connections, developed through FOOTsteps, aided these students in their integration into the college environment.

Beyond integration and its link to first-year student success, these students voiced that FOOTsteps helped them focus their attention on how they deal with people. The learning of "how to deal with many different types of people" (journal response, Participant 7) was reiterated by several other participants. While it was a common theme, the manner of dealing with different people took on decidedly different tones depending on the participant. One participant shared that she learned

that “(p)eople aren’t always considerate. It (FOOTsteps) gives you more patience instead of storming over to someone that is loud. It helps you with working in a group better – making sure that people don’t just get away with things” (focus group, Participant 1). One participant, who was on FOOTsteps with a high school friend, learned how to handle a conflicting inter-personal situation. “I am learning to take a step back and not take responsibility for someone else. You can go make your own friends. I want to make friends” (focus group, Participant 5). She continued in her journal, “I learned how to be encouraging when others are having a hard time as well as when to stop trying to fix everything” (journal response, Participant 5). While for some these skills were not new, FOOTsteps reinforced established skill bases. For others, it was an opportunity to try out some new behaviors prior to the school year.

For one participant, in particular, further developing people skills to be transferred to other areas of life required a great deal of risk. The story of this young woman was a powerful story of how increased levels of self-efficacy generalize to other important areas.

I guess from FOOTsteps I learned that going out of your comfort zone can be very beneficial to helping you find out more about yourself and can make life more interesting regardless of how uncomfortable it may be at the time. This can translate into to other areas of my life because now I am more willing to take risks and try things I never wanted to try before. This will help me learn and succeed in school and in regular life with friends and my career later in life. (journal response, Participant 1)

When I asked participants to draw a metaphor from their experience, there was some uncertainty as to what I was referring. Drawing parallels between the outdoor “classroom” and college did not seem to be something that they had done while on the trip. Yet, many seemed to be able to create a symbolic metaphor. Participant 2 told of her group’s experience in having to set up a tent that did not seem to have all of the necessary poles. She likened it to schoolwork. It might not seem to fit but one needs to just keep plugging away at it. Eventually, all the poles will find their proper places. The question always remains, though, “Do I keep trying or not?” (focus group, Participant 2). Another student had an interesting experience in that half of her group was lost in the woods. From this experience, she realized that the old adage, “always be prepared” could be applied to all aspects of life. She also noted that it is also important to know how to make the best of a situation when you are not so prepared (journal response, Participant 3). I believed that these symbolic metaphors drawn by the participants could be a way for them to maintain the transfer or the generality of the experience to their lives as college students.

Given that one of the reasons cited for using the outdoor environment is that it can provide for a unique, potentially destabilizing, experience which will help students take risks, I asked the participants what they thought about the challenge of FOOTsteps. They found it overwhelmingly to be not challenging at least not physically. “I was not physically challenged at all. The rapids were a joke,” stated Participant 6 during the focus group. Another shared she was disappointed with the hike. Yet, while there was an absence of the physical challenge, many felt challenged by the social networking aspect of getting to know new people and make friends.

Participant 1 commented during the focus group that physically she was not really challenged “but getting to know a bunch of new people fast and getting along with everyone.” While the physical demands were not challenging, Participant 6 shared during the focus group, “I was afraid that I wouldn’t make friends.” One participant said that making the first move was not easy. “I had trouble getting started. Little groups started to form; eventually, we were all together” (focus group, Participant 2). Feeling comfortable in a new environment and making friends was clearly the largest challenge for these participants.

I asked if they felt there would be any benefit in making the trip more physically challenging. Both focus groups recognized that they were able to get to know people and really talk because of the fact that it was not as physically demanding. “My hike was long and flat so we could talk more; I liked that. If it was really hard we would not have been able to talk” (focus group, Participant 3). This sentiment was echoed by Participant 6 in the focus group, “(I)t would not be beneficial if it was harder and [you were] more worried about getting up a hill instead of talking and stuff” (focus group). Another participant approached the challenge from the perspective of access. “You would have to be careful about making it more of a physical challenge; you would have to cater to lesser-abled people” (focus group, Participant 1).

The social aspect of getting to know new people in an environment away from the anxiety of beginning college was most appreciated by the participants. “It was a fun way to start the whole freshman thing. First experience was a trip – it was a great way to start things off” (focus group, Participant 3). Still another found that it gave

her a sense of assurance. “[It was] reassurance for me to get settled in my dorm room and out for a few days so that it wasn’t a big deal to come back (focus group, Participant 2). Above all, it appeared that the participants found FOOTsteps to be “a really valuable experience” (focus group, Participant 6).

It became apparent that FOOTsteps aided these participants measurably in at least one of the facets defining success. From the data, FOOTsteps was integral in helping the participants connect with other first-year students and begin the process of establishing friendships. The impact of FOOTsteps on other areas of success (academic and personal) was less obvious. It seems, however, that developing relationships with staff and faculty may have positive implications on utilizing existing resources in terms of the other areas of success. In general, FOOTsteps was a “break from the anxiety that was going to come” (focus group, Participant 1) and provided participants with the opportunity to learn some new people skills or at the very least further hone those they already had.

Discussion

This study has benefited immensely by its inclusion of both quantitative and qualitative research methodologies. The original research question asked if there was a difference between those participating in the FOOTsteps raft/hike treatment and those who did not regarding self-efficacy relative to domains of integration characteristic of first-year student success. The statistical data yielded results that convincingly demonstrated there was not a difference. These results did not square with the treatment participants' experiences the researcher viewed while facilitating

one of the FOOTsteps trips and from other past experiences. Thus, a deeper analysis was undertaken to make meaning of what occurred on the FOOTsteps trip. The qualitative analysis sought to understand in what way the FOOTsteps experience affected participants' self-efficacy relative to academic and social integration. The combination of these methodologies yielded results that contradicted one another, leading to further questions regarding the effectiveness of outdoor orientation programs' ability to increase self-efficacy on the domains characteristic of first-year student success.

Quantitative Findings

Participation on Self-efficacy Relative to Integration Scales

The quantitative analysis demonstrated that the raft/hike FOOTsteps treatment did not have a statistically significant effect on the self-efficacy levels relative to academic and social integration. Time, however, was a significant factor in all domains of integration: total, academic, and social. It was important to note though that the change in the means over time was particularly small. While time was found to be statistically significant, it may have little practical significance. Additionally, the statistically significant increase in mean scores on the academic and social integration scales over time may be the result of maturation on the part of all participants. It is feasible that all participants desired to demonstrate improvement between the pre-test and the post-test, hence the increase in mean scores. All of these factors made correctly interpreting the time effect to be a challenge. This study has chosen to interpret the time results as being valid statistically significant results.

It is not believed that one gains self-efficacy in areas relative to student success simply by being present on a college campus. If this were the case, there would not be a problem with attrition of students. However, time, in its effect on this study, may be a function of what was happening on campus between the pre-test and post-test periods. As stated before, the FOOTsteps program is in "in addition to" the on-campus orientation program in which all students who arrive before classes begin have the opportunity to participate. It was likely all sample members (treatment and control group) participated in at least one or more of the scheduled activities that focused on topics such as how to use the library efficiently, academic integrity, approaching professors, and getting to know the other students on the residence hall floor. Thus, from the time of the pre-test to the post-test, potentially all sample members had engaged with staff, faculty, and/or peers in the areas characteristic of student success. This lent two challenges to the study's data analysis. The control group did not receive the treatment, yet their experience was not truly controlled. Moreover, the on-campus orientation program made attributing any changes in self-efficacy levels to the FOOTsteps treatment very difficult. This confounded the analysis of the time variable. The increases in mean scores for all participants suggested it is possible that the on-campus orientation may have had some impact on increasing the self-efficacy levels relative to academic and social integration for all sample members.

While the above statement cannot be fully substantiated by the data presented in this study in that the study lacked a control group that truly had no opportunity of receiving any orientation program, it is possible that a result of this nature could have

implications to the greater orientation literature. This could have potentially demonstrated that even in an on-campus orientation program that is short in duration, these sample members' self-efficacy expectations increased across the domains most indicative of first-year student success, academic and social integration. This is an area ripe for further research. In times when demonstrating the effectiveness of a program is paramount to its maintaining funding, a statistically significant result indicating increased self-efficacy in academic and social integration may be useful in justifying the effectiveness of resource expenditures.

Regardless, the statistical data yielded from this study convincingly demonstrated that the FOOTsteps experience had no statistically significant effect relative to academic and social integration for the treatment participants. This is of grave importance in that there are opportunity costs in maintaining the treatment program. Given the statistical data yielded in this study, this could cause those who fund such programs to rethink their resource allocations. Moreover, if the goal is to truly provide opportunities for students to integrate into the campus community on both academic and social levels then it is imperative that the most effective and efficient treatment be enacted.

There are a couple of postulates to explain why no effect was found between participation in the treatment and increased self-efficacy relative to academic and social integration. First, while Bandura theorizes that self-efficacy has a generality dimension, he cautions in creating self-efficacy scales that there is no all-purpose measure of self-efficacy (Bandura, 2001). This seems to suggest that there is some limit as to how broadly self-efficacy in one area can be generalized to other areas. It is

plausible that any self-efficacy gained from the outdoor orientation experience could not be transferred into self-efficacy relating to academic or social integration. Perhaps there is too great of disparity between the treatment and its desired outcome areas. Secondly, if one were to believe that the self-efficacy gained from the outdoor orientation experience could be generalized to academic and social integration, it is possible that the treatment needs to be longer in duration. The raft/hike section of FOOTsteps is only two days and one night. It is plausible that the treatment may yield the desired effect but not in such a short time frame.

Prior Experience on Self-efficacy Relative to Integration Scales

The level of prior outdoor adventure experience did not have a statistically significant effect on self-efficacy relative to any of the integration scales. Thus, there was not a differential in self-efficacy levels due to how much experience one had previously had in an outdoor adventure experience. The underlying basis to the research hypothesis was that those with higher levels of prior experience would have already had one or more destabilizing experience(s) in an outdoor environment and thus the learning from the FOOTsteps destabilization would be less. Given the fact that none of the participants who participated in the focus group portion of the study felt physically challenged by the experience, FOOTsteps did not provide the destabilizing environment of which outdoor adventure programs often claim to provide. This could explain why all treatment participants experienced similar levels of increased self-efficacy.

Time, however, was a significant factor on effecting self-efficacy levels relative to both domains of integration. Again, it was important to note the change in the means over time was small. While time was found to be statistically significant, it may have little practical significance. Additionally, the statistically significant increase in mean scores on the academic and social integration scales over time may be the result of maturation on the part of all treatment participants. It is plausible that all treatment participants desired to demonstrate gains between the pre-test and the post-test. All of these factors made correctly interpreting the time effect to be a challenge. This study interpreted the time results as being valid statistically significant results.

The time results suggested that all treatment participants benefited to some degree from the treatment. It was difficult to ascertain that the increased levels of self-efficacy were solely due to the treatment because of the confounding effect that the on-campus orientation program might have had on reported self-efficacy levels at the time of the post-test. Also, it is possible that treatment participants, through the friendships that they built while on FOOTsteps, may have continued to socialize with those friends after the treatment. Because there was a time lag between the completion of the treatment and the post-test, this could account for some of the increase in post-test social integration scores. Again, this confounds the interpretation in that the friendships were founded as part of the treatment but the gains cannot be ascribed solely to the treatment's effects. Regardless, the time variable yielded significant increases in self-efficacy relative to the academic and social integration domains in all the treatment group participants.

It is important to note, in general, that the quantitative portion of this study lacked power. Power is the ability to correctly reject the null hypothesis. For this study, the null hypotheses were that the FOOTsteps treatment would have no effect on participants' self-efficacy levels relative to academic and social integration and additionally that prior outdoor experience would have no effect on treatment participants' self-efficacy levels relative to academic and social integration. Power is a function of reliability of instrument and sample size. While the instrument in this study appeared to be reliable, the sample size for both the treatment and the control group was quite small. Due to the lack of power present in this study, there was little certainty that this study would be able to detect a difference if it indeed existed.

Qualitative Findings

As stated earlier, some of the statistical findings conflicted with the narrative data that was gathered as part of the qualitative study. While there was little, if any, narrative data to support that FOOTsteps had a marked effect on increasing treatment participants self-efficacy relative to academic integration, most of the narrative data strongly suggested that FOOTsteps had an effect on self-efficacy relative to social integration.

Participants in the focus groups shared very little how the FOOTsteps experience had affected them in academic arenas. They described at length, however, the effect FOOTsteps had on their ability to develop social networking skills and make friends. This finding lent support to Sloan Devlin's 1996 study. The outdoor orientation, in that study, had its most lasting effect on social networking and helping

participants to develop friendships. Moreover, the stories of the FOOTsteps experiences and how the participants integrated socially with others on the trip were important. The participants defined college success in terms of building social connections and thus these social experiences from the trip have intrinsic links to the participants' personal definitions of college success.

It was of interest that the all-female focus groups spoke nearly exclusively about how FOOTsteps affected them on a social level. This finding is supported by other research. Namely, Pascarella & Terenzini (1983) found that an orientation program had a greater effect on self-efficacy levels relative to social integration than academic integration for women. This finding was completely corroborated by the narrative data collected from the all-female focus group participants. The focus groups made many references as to how FOOTsteps aided them in establishing friendships and building networks. They continued by sharing that these social connections were beneficial when they returned to school. This finding, again, suggested that the major benefit received by FOOTsteps participants was increased efficacy expectations related to the social domain.

The Strength of Mixed Methods Research

The real strength of mixed methodological research is that it allows the researcher to explore across a greater breadth, to ask additional questions, and to uncover any possible inconsistencies in the data. Mixed methods research recognizes that shortcomings exist in both quantitative and qualitative methodologies and seeks to overcome these shortcomings by utilizing the different methodologies in concert with

one another. Quantitative research, when lacking power, often fails to detect an effect even if one exists. Conversely, a large sample can demonstrate statistically significant results that lack practical significance. On the other hand, qualitative research is criticized for researcher bias and lack of applied criteria to address issues of internal validity.

There is much energy and attention focused on the differences between quantitative and qualitative methodologies. However, relatively little attention is given to their similarities. As stated by Sechrest and Sidani (1995), both methodologies "describe their data, construct explanatory arguments from their data, and speculate about why the outcomes they observed happened as they did" (p.78). From these similar processes, meaning is derived. Meaning is the result of the interpretation of data, whether numbers or words represent that data (Onwuegbuzie, 2000). Additionally, theory plays a central role in both paradigms. Again, the concept of the research continuum must be asserted. Whereas qualitative research views initiating theory or building theory as a primary purpose, quantitative research has as its main objectives theory testing and theory modification. These differences of the role of theory underscore how necessary one research paradigm is for the other. There is an intrinsic interdependence that exists. Only when both paradigms are embraced and used in concert with one another as supportive building blocks can a complete understanding of social phenomena be attained (Newman & Benz, 1998).

Mixed methodologies within the same inquiry allow for deeper understanding of a dataset and a richer level of meaning to emerge from the social phenomena studied (Onwuegbuzie, 2000). According to Greene, Caracelli, and Graham (1989),

there are five broad purposes of mixed-methodological studies: triangulation (seeking corroborating results from different methods within one study), complementarity (seeking elaboration, further illustration, and clarification of the results from one method with the results of the other method), development (using results from one method to inform the other methods approach to the subject), initiation (uncovering paradoxes and contradictions that lead to a re-framing of the research question), and expansion (seeking to expand the depth and range of inquiry by using different methods for the inquiry components).

It was the intention of this study to bring together these methodologies in an attempt to make meaning of the outdoor orientation program and its effects, if any. This study was guided by the purposes of mixed methodological studies, namely triangulation and initiation. The conflicting results that this study yielded may serve as a catalyst to further study programs of this nature. A quantitative study with adequate power coupled with narrative data, providing deeper meaning, has the ability to contribute to our understanding of the impact of outdoor orientation programs and to the greater orientation and adventure program literature.

Limitations and Further Recommendations

As stated before, there were several sets of limitations in this study. There were limitations due to the very nature of quasi-experimental research. There were limitations as functions of the “challenge by choice” philosophy employed in this type of outdoor orientation program. Because students self-selected to register for the treatment and could do so nearly to the point of departing on the trip, there were

limitations in selecting a true random sample. These limitations clearly played a role in the data that was collected. Moreover, the single-institution and single-year sample of the study is a significant limitation. However, two additional limitations contributed most importantly to the data and its analysis. First, the sample was extraordinarily small. Finally, the sample members rated themselves quite high in perceived self-efficacy on the pre-test.

One of the limitations of the protocol was that there was not an opportunity to call and encourage a larger response rate for the pre-test treatment participants. Many of the treatment sample members received the pre-test at most two days before they were scheduled to depart for the trip. This made efforts to increase the return rate challenging. In addition, because calls were not made to the treatment group sample, it was determined that it would be outside of research parameters to then call the control group sample members. Given that only 29 participants' data were used in this analysis, this should be viewed as a pilot study. The restrictive time frame for the instrument dissemination and its subsequent low return rate is a clear limitation to this study. The low return rate has important implications in that it affected the quantitative study's power. Because this study lacked power, it made correctly rejecting or accepting the null hypothesis extremely difficult. While the study's results have merit, they cannot be, nor should they be, generalized beyond the sample.

The other significant limitation to the current study was that the sample members, treatment and control, began the study with quite high efficacy expectations on both the academic and social integration scales. This demonstrated that the sample members who chose to participate in the study were most likely those who had the

highest self-efficacy expectations of all first-year students. This was an unavoidable consequence of the enacted protocol. Because participation in the study was completely voluntary, it was not surprising that the sample members who chose to participate were on the high end of the scale at the time of the pre-test. It is believed that high achieving students, upon their initial arrival on campus, would be the ones most willing to take part in a graduate student's research project. However, because of the sample's composition, this most likely skewed the results.

There were also limitations to the qualitative process engaged in this study. Lincoln & Guba (1985) suggested 15 criteria to serve as a foundation to evaluate the quality of qualitative research in a way that is similar to the threats of validity advanced in quantitative research. This study is limited by its lack of prolonged on-site engagement and member checking. While the researcher was a facilitator for the FOOTsteps raft/hike program, the focus groups were a one-time interaction. There was not an opportunity to see if the effects found by the qualitative study were maintained over time. Additionally, the researcher did not engage in member checking. Member checking is a practice of sharing the themes identified by the researcher with those who participated in the narrative data collection. Member checking serves as a means of verifying that the themes identified by the researcher were logically derived and were representative of the data presented by the participants. Due to time constraints, this process was not utilized in this study. Hence, the qualitative results were the interpretation of the researcher and checked only in a nominal fashion with the focus group note taker.

Despite its limitations, a small pilot study can be a useful place to begin when researching programmatic interventions at an institutional level (Pascarella, 1986). The conceptualization of what changes the proposed treatment will make in the student has been articulated. These are an increase in levels of self-efficacy relative to academic and social integration. This provides an opportunity, therefore, for an expanded study to take place. An expanded study, if using mail surveys, should follow the Dillman (1978) protocol closely so to maximize the response rate. The survey used has an extraordinarily high reliability coefficient that suggests it would be useful in measuring academic and social integration with a larger sample size. Further studies could conduct a similar quasi-experimental, repeated measures design to verify if this hypothesis is supported. An expanded study could also track the sample for several years to see percentages of institutional persistence between the two groups.

The outdoor orientation program could be further studied beyond an expanded version of the amended current protocol. The literature suggests that transfer of learning is most effective when it is consciously facilitated (Gass, 1985; Gass & Kerr, 1986). Outdoor orientation research would benefit greatly from conducting a study that links different facilitation styles to the generality dimension of self-efficacy relative to academic and social integration. By more intentionally creating programs to facilitate the generality dimension of self-efficacy, colleges and universities may find an increase and stronger positive outcomes for their efforts.

Conclusion

This study presented the effects an outdoor orientation program had on sample members' self-efficacy levels relative to academic and social integration, indicators of first-year persistence and success. While no statistically significant difference between the groups was found, time was a significant factor in increasing efficacy expectations for both groups. Additionally, the study looked to see if there were any differential effects of the treatment program on participants' self-efficacy depending on the participants' prior outdoor adventure experience. Again, no statistically significant differences were found. Despite these insignificant statistical results, it was found through focus groups and participant journals that the outdoor orientation program aided in the participants ability to develop social connections and make friends, thus moderating the anxiety of the beginning of college.

There were clear limitations to this study, most prominently, the small sample size and the high self-efficacy levels of the sample at the time of the pre-test. Still, the instrument used appeared to have application beyond this study. With strong face validity and high reliability coefficients within the scales, there is much potential for using it to gauge academic and social integration in other programmatic settings. This study sets the stage for an expanded project looking at the effectiveness of institutional programs and services to facilitate academic and social integration of students into the college environment and its connection to long-term institutional persistence.

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APPENDICES

APPENDIX A

APPLICATION FOR APPROVAL OF THE OSU INSTITUTIONAL
REVIEW BOARD (IRB) FOR THE PROTECTION OF HUMAN SUBJECTS**Principal Investigator:** Jessica White **E-mail:** Jessica.White@orst.edu**Department:** School of Education – College Student Services Administration**Phone:** 7-8576**Project Title:** FOOTsteps wilderness orientation: Effects on self-efficacy relative to first-year student success**Present or Proposed Source of Funding:** None**Type of Project:** Student Thesis

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Type of Review Requested: ExemptSigned: _____ Date: _____
Principal Investigator**1. A brief description of the significance of this project.**

The focus of this study is to explore the effect that the FOOTsteps wilderness orientation program has on OSU students' self-efficacy relative to first-year student success. The FOOTsteps program exists at OSU to assist new students in making a positive transition to the institution and to provide them with the tools necessary to be successful (L. Burns, personal communication, November 25, 1997). Many of the wilderness orientation programs described in the literature exist to accomplish these same goals (Davis-Berman & Berman, 1996; Galloway, 1999; Gass, 1987; O'Keefe, 1989; Stremba, 1989; Stremba & Clemetsen, 1994). Like other outdoor adventure experiences, wilderness orientation programs claim that they help students transfer the tools that led to success in the wilderness experience to being successful in college. However, claims of this transfer have not conclusively been proven (Brody, Hatfield, & Spalding, 1988; Bramwell, Forrester, Houle, Larocque, Villeneuve, & Priest, 1997; Gass, 1987; Paxton & McAvoy, 1998; Sibthorp, 2000). The proposed study seeks to use the FOOTsteps program to see if it has any effect on students' self-efficacy as

related to first-year student success. Results of this study may affirm the claim of transfer as it relates to efficacy expectations with regard to student success or may provide new insights into areas where the FOOTsteps program coordinators could effectively fine tune the program so to accomplish this goal of transfer.

2. *A description of the methods and procedures to be used during this research topic. Outline the sequence of events involving human subjects.*

120 student participants will be invited to take part in two surveys: a pre-test and post-test survey during the 2002 fall term. The first survey will be administered September 20 – September 25, 2002. The second survey will be administered during the first week of classes. The surveys are the same, aside from differing verb tense in the demographic questions, and take approximately ten minutes to complete.

- a. A sample list of all possible participants will be generated by Jackie Balzer, Co-Director of the Student Orientation and Retention office. All students on the list will be at least 18 years of age. This list will consist of names of students in each of two categories: students and their on-campus housing assignments who have registered to participate in the raft/hike option of the FOOTsteps program and students and their on-campus housing assignments who have not registered to participate in either Academic Learning Services (ALS) 111 (Odyssey) or ALS 112 (FOOTsteps Odyssey).
- b. From this list, the researcher will randomly sample sixty students from each of the categories for a total of 120 possible participants.
- c. The researcher will maintain the random sample list.
- d. Sub-lists based on on-campus housing assignment will be distributed to research staff to facilitate contact with potential research participants. The twelve research staff members will be either graduate students in the College Student Services Administration program or professional and para-professional staff from University Housing and Dining Services.
- e. During housing check-in, September 20 – September 25, 2002, potential research participants will be visited in their residence hall room by a trained research staff member. All research staff members will have completed the CITI training modules prior to data collection and have their record of completion on file with the Institutional Review Board office. The potential student participant will be invited to participate in the study. (Please see Appendix A for conversation script). They will be asked to review the informed consent document and sign if they decide to participate in the study. Cindy Empey, Director of Residential Life, has approved the collection of data in the residence halls.
- f. The research staff will answer any questions that they might have. The research staff member will instruct the participant to place the survey in the envelope provided and seal the envelope when s/he is finished. The research staff member will then inform the participant that s/he will be back in 15 minutes to collect the survey.

- g. Upon returning, the research staff member will thank the student for agreeing to participate in the study and remind them that s/he will be returning during the first week of academic classes (September 30 – October 4, 2002) to administer the follow-up survey.
- h. The research staff member will return all envelopes to the researcher.
- i. During the first week of academic classes, the research staff member will visit the participant in his/her residence hall room to administer the survey. (Please see Appendix B for conversation script).
- j. They will answer any questions that the participant might have. Again they will instruct the participant to place the survey in the envelope provided and seal the envelope when the participant is finished. The research staff member will then inform the participant that s/he will be back in 15 minutes to collect the survey.
- k. Upon returning, the research staff member will thank the student for agreeing to participate in the study and present them with a coupon for a free ice cream cone at EBGBs in Marketplace West Dining Center on the campus of Oregon State University.
- l. The research staff member will return all envelopes to the researcher.

The researcher will use quantitative methods of statistical analysis to analyze the data.

3. *A description of the benefits (if any) and/or risks to the subjects involved in this research.*

Participants will have the opportunity to reflect on their feelings of confidence on a variety of factors related to first-year student success. A potential risk is that students may find that they are not confident about a number of factors related to first-year student success. This may result in unintended anxiety. Participants will be provided with the contact information for the Student Orientation and Retention office if they have any questions or concerns regarding first-year student success at Oregon State University.

4. *A description of the subject population, including number of subjects, subject characteristics, and method of selection.*

The subject population for this study will be first-year, first-time students at Oregon State University. They will likely range in age from 18-21 years of age. A list of all possible participants will be generated by Jackie Balzer, Co-Director of the Student Orientation and Retention office. This list will contain the names of students who fall into two categories: students and their on-campus housing assignments who have registered to participate in the raft/hike option of the FOOTsteps program and students and their on-campus housing assignments who have not registered to participate in either Academic Learning Services (ALS) 111 (Odyssey) or ALS 112 (FOOTsteps Odyssey). From this list, the researcher will randomly sample sixty students from each of the categories for a total of 120 possible participants.

5. *A copy of the informed consent document* Attached

6. *A description of the methods by which informed consent will be obtained.*

Because the pre-test and post-test surveys are slightly different, participants in this study will individually receive and be asked to complete an informed consent document prior to completing each survey. A member of the research staff will be available when the document is distributed to answer any questions.

7. *A description of the method in which anonymity or confidentiality of the subjects will be maintained.*

Participants will be asked to provide for survey-matching purposes their student I.D. number. Surveys will be housed with the researcher and viewed only by herself, the primary investigator, and her minor professor (quantitative research consultant). The surveys will be destroyed immediately after the Graduate School accepts the thesis.

8. *A copy of any questionnaire, survey, or testing instrument (etc.) to be used in this project.* Attached

9. *Information regarding any other approvals which have been or will be obtained (e.g. school districts, hospitals, cooperating institutions).* Not applicable

APPENDIX B

APPLICATION FOR APPROVAL OF THE OSU INSTITUTIONAL
REVIEW BOARD (IRB) FOR THE PROTECTION OF HUMAN SUBJECTS**Principal Investigator:** Jessica White **E-mail:** Jessica.White@orst.edu**Department:** School of Education – College Student Services Administration**Phone:** 7-8576**Project Title:** FOOTsteps wilderness orientation: Effects on self-efficacy relative to first-year student success**Present or Proposed Source of Funding:** None**Type of Project:** Student Thesis

Student's name:	Tricia Seifert
Student's mailing address:	P.O. Box 223 Amity, OR 97101
Student's e-mail:	Tricia.Seifert@oregonstate.edu
Student's phone:	737-6346

Type of Review Requested: ExemptSigned: _____ Date: _____
Principal Investigator**1. *A brief description of the significance of this project.***

The focus of this study is to explore the effect that the FOOTsteps wilderness orientation program has on OSU students' self-efficacy relative to first-year student success. The FOOTsteps program exists at OSU to assist new students in making a positive transition to the institution and to provide them with the tools necessary to be successful (L. Burns, personal communication, November 25, 1997). Many of the wilderness orientation programs described in the literature exist to accomplish these same goals (Davis-Berman & Berman, 1996; Galloway, 1999; Gass, 1987; O'Keefe, 1989; Stremba, 1989; Stremba & Clemetsen, 1994). Like other outdoor adventure experiences, wilderness orientation programs claim that they help students transfer the tools that led to success in the wilderness experience to being successful in college. However, claims of this transfer have not conclusively been proven (Brody, Hatfield, & Spalding, 1988; Bramwell, Forrester, Houle, Larocque, Villeneuve, & Priest, 1997; Gass, 1987; Paxton & McAvoy, 1998; Sibthorp, 2000). The proposed study seeks to use the FOOTsteps program to see if it has any effect on students' self-efficacy as

related to first-year student success. Results of this study may affirm the claim of transfer as it relates to efficacy expectations with regard to student success or may provide new insights into areas where the FOOTsteps program coordinators could effectively fine tune the program so to accomplish this goal of transfer.

2. *A description of the methods and procedures to be used during this research topic. Outline the sequence of events involving human subjects.*

320 student participants will be invited to take part in two surveys: a pre-test and post-test survey during the 2002 fall term. The first survey will be administered September 21 – September 29, 2002. The second survey will be administered during the first week of classes, September 30 – October 6, 2002. The surveys are the same, aside from differing verb tense in the demographic questions, and take approximately ten minutes to complete.

- m. A sample list of all possible participants will be generated by Jackie Balzer, Co-Director of the Student Orientation and Retention office. All students on the list will be at least 18 years of age. This list will consist of names of students in each of two categories: students who have registered to participate in the raft/hike option of the FOOTsteps program and students who have not registered to participate in either Academic Learning Services (ALS) 111 (Odyssey) or ALS 112 (FOOTsteps Odyssey).
- n. From this list, the researcher will census sample 160 students from the FOOTsteps raft/hike program and randomly sample 160 students from the non-ALS 111/112 list for a total of 320 possible participants. Increasing the sample size is critical as it aids in the likelihood of the return survey numbers being statistically significant.
- o. The researcher will maintain the random sample list.
- p. With the support of University Housing and Dining Services, the researcher will obtain the on-campus housing addresses for the sample and mail the pre-test survey on September 21, 2002.
- q. The informed consent letter will invite selected students to participate in the study. They will be asked to review the informed consent document, keeping a copy for their reference and sign the second copy attached to the pre-test survey. Cindy Empey, Director of Residential Life, has approved the collection of data in the residence halls.
- r. The researcher will be available to answer any questions that the participant might have by phone or by e-mail.
- s. The instructions at the end of the survey will direct the participant to place the survey in the self-addressed envelope provided and send it through campus mail to the researcher.
- t. On September 30, 2002, the researcher will mail the post-test survey to all participants who completed the pre-test survey. The post-test survey will be due by Oct. 7, 2002.

- u. During the week of October 7 – October 11, 2002, a thank you letter along with a coupon for a free scoop of ice cream from EBGBs in Marketplace West will be mailed to those participants who completed both surveys.

The researcher will use quantitative methods of statistical analysis to analyze the data.

- v. The researcher will contact those students who completed both mail surveys by telephone (see attached phone script) to invite them to participate in a one-hour focus group.
- w. Those who state that they would like to participate will be e-mailed and mailed a set of questions on which they will be asked to reflect and journal.
- x. The researcher intends to hold three focus groups of eight to ten people. The focus groups will be divided between FOOTsteps and non-FOOTsteps participants, two focus groups of FOOTsteps participants and one focus group of non-FOOTsteps participants. This is reflective of the number of completed surveys received from the respective groups.
- y. On three separate nights during the weeks of November 4, 2002 – November 18, 2002, focus groups will be held in the Education Building on the OSU campus.
- z. Because the focus groups will not be video or audio taped, Rachel Repp will serve in the capacity of note-taker. (Her human subjects training paperwork is on file in the IRB office)
- aa. At the beginning of the session, the researcher will distribute the informed consent document and read it aloud.
- bb. She will answer any questions the participants have regarding the research and the procedures.
- cc. Those who choose to continue their participation in the study will sign the informed consent document and return it to the researcher.
- dd. Those attending the focus group will be served snacks and beverages.
- ee. The focus group will use the journaled responses as a springboard for the conversation.
- ff. Incentive coupons will be distributed to all participants.
- gg. The focus group will close with the journaled responses being collected from those participants who give permission.

The researcher will use narrative analysis to discover recurring themes in the journals and the notes taken during the focus groups.

3. *A description of the benefits (if any) and/or risks to the subjects involved in this research.*

Participants will have the opportunity to reflect on their feelings of confidence on a variety of factors related to first-year student success. A potential risk is that

students may find that they are not confident about a number of factors related to first-year student success. This may result in unintended anxiety. Participants will be provided with the contact information for the Student Orientation and Retention office if they have any questions or concerns regarding first-year student success at Oregon State University.

5. *A description of the subject population, including number of subjects, subject characteristics, and method of selection.*

The subject population for this study will be first-year, first-time students at Oregon State University. They will likely range in age from 18-21 years of age. A list of all possible participants will be generated by Jackie Balzer, Co-Director of the Student Orientation and Retention office. This list will contain the names of students who fall into two categories: students who have registered to participate in the raft/hike option of the FOOTsteps program and students who have not registered to participate in either Academic Learning Services (ALS) 111 (Odyssey) or ALS 112 (FOOTsteps Odyssey). From this list, the researcher will census sample 160 students from the FOOTsteps raft/hike program and randomly sample 160 students from the non-ALS 111/112 list for a total of 320 possible participants.

The researcher will contact those students who completed both mail surveys by telephone to invite them to participate in a one-hour focus group. If all choose to participate, the total number of participants would be 30. The researcher expects 25 focus group participants. Those who state that they would like to participate will be e-mailed and mailed a set of questions on which they will be asked to reflect and journal.

5. *A copy of the informed consent document* Attached

6. *A description of the methods by which informed consent will be obtained.*

Potential participants will receive a letter of invitation to participate in the study. This letter will also serve as the informed consent document. It will have contact information for the researcher, the primary investigator, and the OSU Institutional Review Board in the event that a participant has any questions or concerns regarding the study. The participant will be instructed to keep one copy of the document for their reference and to sign the other copy attached to the survey.

Potential participants will receive an informed consent document the night of the focus group. The researcher will distribute the informed consent document and read it aloud. She will answer any questions the participants have regarding the study or the procedures.

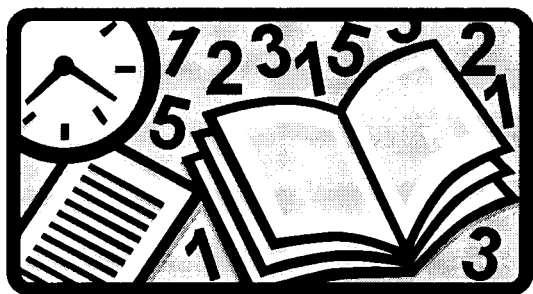
7. *A description of the method in which anonymity or confidentiality of the subjects will be maintained.*

Participants will be asked to provide for survey-matching purposes their student I.D. number. Surveys will be housed with the researcher and viewed only by herself, the primary investigator, and her minor professor (quantitative research consultant). The surveys will be destroyed immediately after the Graduate School accepts the thesis.

The researcher will ask that the participants not place their names on their journaled responses. Additionally, the researcher will change the names of any persons mentioned by name in the response text.

8. *A copy of any questionnaire, survey, or testing instrument (etc.) to be used in this project.* Attached
9. *Information regarding any other approvals which have been or will be obtained (e.g. school districts, hospitals, cooperating institutions).* Not applicable

APPENDIX C



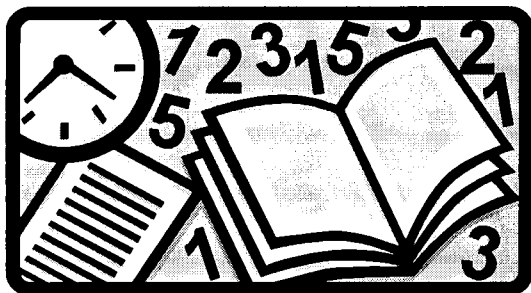
First-Year Student Success Survey

You have been selected as a potential participant in this voluntary survey. The purpose of this study is to better understand the factors that contribute to first-year student success. To accomplish this goal, we will ask you to complete two surveys: the first today and a follow-up survey sent to you during the first week of classes. Once you complete the survey, please place it in the self-addressed envelope provided and send it through campus mail. You will receive a coupon for a free scoop of ice cream at EBGBs in Marketplace West for completing the two surveys. Each survey should take about ten minutes to complete. Please be assured that your answers will be kept confidential and will be reported anonymously. Your survey will be destroyed at the conclusion of the study. You may choose not to answer specific questions. You may choose to discontinue participation in this study at any time.

Your participation in this study will help guide future orientation planning efforts by Oregon State University. This survey may cause you to think about your ability to be successful at OSU. If you would like more information on student success, please contact the Student Orientation and Retention Office in 150 Kerr Administration Building.

This study is being conducted at Oregon State University by Tricia Seifert with support from the Student Orientation and Retention office and University Housing and Dining Services. If you should have any questions about the study, procedures, or the survey, please contact the researcher by phone at 737-6346 or e-mail at Tricia.Seifert@oregonstate.edu or the primary investigator, Dr. Jessica White, at 737-8576 or e-mail at Jessica.White@orst.edu. If you have any questions about your rights as a research participant, please contact the OSU Institutional Review Board (IRB) Coordinator at 737-3437 or e-mail at IRB@oregonstate.edu.

APPENDIX D



First-Year Student Success Survey

If you are participating in the Footsteps program, please complete this survey and mail it before going on your trip. If you are not participating in Footsteps, please complete this survey and mail it by September 29, 2002.

Demographic Questions:

Please mark the box that applies to you.

1. Are you

<input type="checkbox"/> Male	<input type="checkbox"/> Female
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2. Are you planning to participate in the Footsteps program?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
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If yes, please proceed to question #3. If no, please proceed to question #6.

3. Who influenced your decision to participate in the Footsteps program?

<input type="checkbox"/> I was interested in participating	<input type="checkbox"/> I was encouraged by someone (advisor, parent/guardian)	<input type="checkbox"/> I was told by someone that I had to participate
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4. Who is the faculty/staff member leading your Footsteps trip?

Name of faculty/staff member:

For the following question, "outdoor adventure experience" refers to any outdoor experience in which you felt challenged.

5. How many times have you been on an outdoor adventure experience?

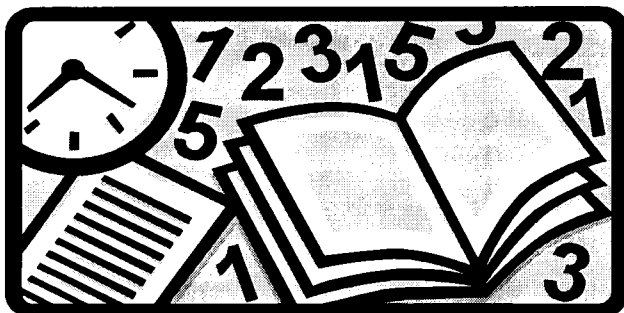
<input type="checkbox"/> Never	<input type="checkbox"/> 1-3 times	<input type="checkbox"/> 4-6 times
<input type="checkbox"/> 7-10 times	<input type="checkbox"/> more than 10 times	

6. Are you registered to take the Odyssey class?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
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Thank you for participating in this survey. Your answers will help OSU to further enhance programs and services geared towards first-year student success. Please place your survey in the self-addressed envelope provided and return it through campus mail to Tricia Seifert – 16 Memorial Union.

APPENDIX E



First-Year Student Success Survey

Please complete this survey and mail it by October 7, 2002.

Demographic Questions:

Please mark the box that applies to you.

1. Are you

<input type="checkbox"/> Male	<input type="checkbox"/> Female
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2. Did you participate in the Footsteps program?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

If yes, please proceed to question #3. If no, please proceed to question #6.

3. Who influenced your decision to participate in the Footsteps program?

<input type="checkbox"/> I was interested in participating	<input type="checkbox"/> I was encouraged by someone (advisor, parent/guardian)	<input type="checkbox"/> I was told by someone that I had to participate
--	---	--

4. Who was the faculty/staff member leading your Footsteps trip?

Name of faculty/staff member:

For the following question, "outdoor adventure experience" refers to any outdoor experience in which you felt challenged.

5. How many times have you been on an outdoor adventure experience?

<input type="checkbox"/> Never	<input type="checkbox"/> 1-3 times	<input type="checkbox"/> 4-6 times
<input type="checkbox"/> 7-10 times	<input type="checkbox"/> more than 10 times	

6. Are you registered to take the Odyssey class?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

Thank you for participating in this survey. Your answers will help OSU to further enhance programs and services geared towards first-year student success. Please place your survey in the self-addressed envelope provided and return it by October 7, 2002 through campus mail to Tricia Seifert – 16 Memorial Union.

APPENDIX F

QUESTIONS FOR JOURNAL RESPONSES

For all participants:

1. What does it mean to you to be successful in college?
2. Before you came to OSU, how confident were you in your abilities to be successful in college?
3. Now that you are in college, has your confidence level changed? What has led to your change in confidence level?

For only FOOTsteps participants:

1. Has FOOTsteps had any affect on your confidence level?
2. What, if anything, did you learn from being a part of the FOOTsteps experience? Does this translate into other areas of life (personal, school, work, etc.)?

APPENDIX G

SCRIPT FOR PHONE CONVERSATION INVITING
FOCUS GROUP PARTICIPATION

Hi (insert student's name)! My name is Tricia Seifert and I am the lead researcher in the First-Year Student Success study that you completed two surveys. Do you have a moment? I want to personally thank you for participating in this important study. Your responses will help in future planning efforts for student orientation at OSU.

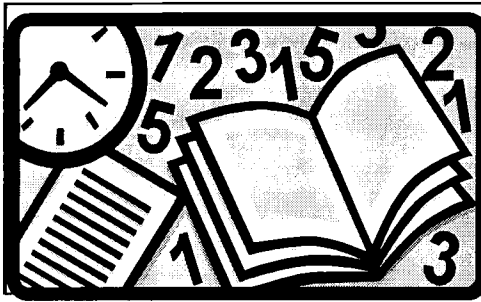
I would like to invite you to further your participation in this study by coming to share your experiences with others who also completed the surveys. There will be somewhere between seven or nine other students in this one hour group conversation. In research, we often call these group conversations focus groups. This focus group will be held (November ? or November ?) in the Memorial Union on the OSU campus. Snacks and beverages will be served and for your continued participation you will receive two coupons for a free scoop of ice cream at EBGBs in Marketplace West.

We are asking those who are interested in participating in the focus groups to reflect and journal on several questions. Your journal responses will help begin the conversation the night of the focus group. With your permission, they will also serve as material for me to draw anonymous quotes for the actual research report. I ask that you not put your name on your journal. Any names of people in the journal responses I will change so to protect the individual/s confidentiality. Do you have any questions about this?

Would you be interested in participating in the focus group? If so, what night works for you?

Thank you for your interest and I look forward to seeing you on November ?

APPENDIX H



First-Year Student Success Survey

Purpose:

This is a research study. The purpose of this study is to better understand the factors that contribute to first-year student success. Your participation in this study will help guide future orientation planning efforts by Oregon State University. The purpose of this consent form is to give you the information you will need to help you decide whether to be in this study or not. Please read the form carefully. You may ask any questions about the research, what you will be asked to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not. This process is called “informed consent”. You will be given a copy of this form for your records.

Procedures:

We are inviting you to participate in this research study because you completed both of the mail surveys that you received in the first portion of this research study. We expect twenty-five people to participate in the focus group portion of the research. Your participation in this research is completely voluntary. Your continued participation will last one additional hour. Because of the interest you expressed during our phone conversation in participating in the focus group portion of the research, we have provided you with a list of questions on which you were asked to reflect and journal. Your journal entries will help to begin the focus group’s conversation and with your permission, provide quotes for the researcher to use in the final report. At the conclusion of the one-hour focus group, your journal responses, with your permission, will become the property of the researcher. If you wish to have a copy of your journal responses, the researcher will provide you with a copy. Please be assured that your journal responses will be reported anonymously. Any names of individuals contained in your journaled responses will be changed to protect the confidentiality of the individual/s. Your journal responses will be destroyed at the conclusion of the study.

Benefits and Risks:

Participating in this focus group may cause you to think about your ability to be successful at OSU. If you would like more information on student success, please contact the Student Orientation and Retention Office in 150 Kerr Administration Building.

Voluntary Participation:

Taking part in this research study is voluntary. You may choose not to take part at all. You may choose not to answer specific questions. If you agree to participate in this study, you may stop participating at any time. If you decide not to take part, or if you stop participating at any time, your decision will not result in any penalty or loss of incentives to which you may otherwise be entitled.

Questions:

This study is being conducted at Oregon State University by Tricia Seifert with support from the Student Orientation and Retention office and University Housing and Dining Services. If you should have any questions about the study, procedures, or the focus group please contact the researcher by phone at 737-6346 or e-mail at Tricia.Seifert@oregonstate.edu or the primary investigator, Dr. Jessica White, at 737-8576 or e-mail at Jessica.White@orst.edu. If you have any questions about your rights as a research participant, please contact the OSU Institutional Review Board (IRB) Coordinator at 737-3437 or e-mail at IRB@oregonstate.edu. Please keep the top copy of this form for your reference and sign the second copy.

My signature below indicates that I have read and that I understand the procedures described above and give my informed and voluntary consent to participate in this study. I understand that I will receive a signed copy of this consent form.

Signature of participant

Printed name of participant

Date signed by participant

Participant's on-campus mailing address

RESEARCHER STATEMENT

I have discussed the above points with the participant or, where appropriate, with the participant's legally authorized representative, using a translator when necessary. It is my opinion that the participant understands the risks, benefits, and procedures involved with participation in this research study.

Signature of Researcher

Date signed by researcher