A MIXED-METHOD STUDY:

EVALUATING THE EFFECTS OF COLLEGE OUTDOOR ADVENTURE

PROGRAMS ON ACADEMIC SUCCESS

A DISSERTATION

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DEDICATION

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ABSTRACT

The impact of outdoor trip participation on the student experience has been evaluated by previous research, and this study sought to determine how participating in outdoor adventure programming impacts student academic success and social integration. This research study utilized a mixed method approach to measure how outdoor trip participation impacted student academic success and social integration. The quantitative portion of this study measured first year students' academic success as determined by GPA, academic persistence, and graduation rate as compared with peers. The qualitative aspect of this study utilized focus groups to understand how outdoor trip participation impacted the social integration of students.

A total of 17 first year students were included in the quantitative portion of this study. The qualitative aspect of this research study utilized the responses from 20 past outdoor trip participants throughout four focus groups conducted in February 2011.

The quantitative aspect of this research study produced no statistically significant results of the impact of student outdoor trip participation on academic success. Although positive results were seen in first year students being more likely to graduate and having higher GPA's than their non-participatory peers, these findings cannot be distinguished as statistically significant. The qualitative portion of this research study produced extensive data on the impact of outdoor trip participation and student social integration, specifically in the area of Individual Outcomes. The most common aspects of Individual Outcomes as reported by trip participants were in the categories of Developing Friendships, Interest in Outdoors, Approach to Life, Environmental Awareness, Personal Development, Physical Fitness, and Focus. Other impacts of outdoor trip participation as determined

from this study include reports of Group Outcomes, Issues/Challenges, and Trip

Attributes. The vast majority of outcomes experienced from outdoor trip participation

were positive, indicating a wide variety of ways in which outdoor trip participation can

positively impact the social integration of student participants.

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CHAPTER 1

INTRODUCTION

Outdoor adventure programs are organized group outings focused on a recreation activity in an outdoor setting that provide people with the opportunity to meet others, socialize, and possibly learn a new skill. Outdoor programs also foster the development of individuals and their quality of life within their institution, community, or branch of the military (Webb, 2000). Outdoor adventure programs provide an opportunity for growth and development for individuals or groups through experiences that include elements of adventure, uncertainty, risk, and interaction with the natural environment. It is these elements that help shape the experience, the activity, and ultimately the group.

Colleges and universities strive to integrate first-year students into their campuses, both academically and socially, as a way to better retain students. This integration is being achieved through college programs like wilderness orientation programs, campus recreation facilities, freshman seminar courses, fraternities and sororities, and other involvement opportunities on campus. Previous research within outdoor adventure programming has found that participation in wilderness orientation programs is associated with higher levels of academic success and student persistence in undergraduate students (Gass, Garvey, & Sugerman, 2003), friendship formation (Devlin, 1996; Wolfe & Kay, 2011), and opportunities to build a sense of community (O'Keefe, 1989). Similar increases in academic success and student persistence have been found when researching student involvement with campus recreation facilities (Huesman, Brown, Lee, Kellogg, 2007). This study aims to build upon these research studies by examining the effects of college outdoor adventure program participation on academic

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success and student persistence. While student integration into an academic or social community can be achieved through a variety of sources and programs, Vincent Tinto (1988) argues that social interactions are important experiences that help integrate students into college life. This research study strives to determine how social interaction from outdoor adventure programs impacts student integration, persistence, and academic success.

<div align="center">Statement of Problem</div>

Student applications and enrollment in colleges and universities has greatly increased in recent years. Over the ten-year period from 2002 to 2012, the University of Minnesota's (UMN) selectivity has increased dramatically. The UMN received nearly 40,000 applications in 2012 for a freshman class of approximately 5,300. This is up from 15,000 in 2002 for a similarly sized freshman class (National Center for Education Statistics, 2012). Despite the level of increasing competition to be admitted to the University, many of the enrolled students still fail to graduate. About 58% of full-time, first time students attending a 4-year institution graduate at the same institution within 6-years (National Center for Education Statistics, 2012). Of those students who fail to complete a bachelor's degree, more than 25% depart at the end of their first year and over 75% will never return after dropping out (Adelman, 2004; Tinto, 1993). In addition to overall graduation trends, students of color experience lower rates of graduation than their non-minority peers (The Education Trust, 2004), making the continued rise of minority student enrollment a particularly relevant concern for overall student persistence. Also, because student persistence impacts the development of human potential, educational equity, and institutional accountability, student persistence

continues to be a great challenge in our higher education system (Braxton & Hirschy, 2004). Student persistence is most at risk between the first and second year of college, and higher education institutions strive to improve first-to-second year persistence (Barefoot, 2004). Many institutions retain students well, with over 85% of students graduating in four years or less. Examples of these institutions include the University of Notre Dame, Princeton University, Yale University, Duke University, Harvard University, University of Chicago, University of Virginia, and Northwestern University. In contrast, 41% of students at the UMN graduate in four years and 66% graduate in six years (National Center for Education Statistics, 2009). With a low graduation rate in comparison to many other research institutions, the UMN is actively pursuing opportunities and programs to improve student persistence and graduation rates.

Need for Study

This study strives to provide a better understanding of the academic outcomes of students who participate in college outdoor adventure programs. To date, no studies have evaluated outdoor adventure programming effects on academic success, despite research that indicates the positive personal outcomes associated with internal development, external development, and group development (Hattie, Marsh, Neill, & Richards, 1997; Goldenberg, McAvoy, & Klenosky, 2005; Martin & Leberman, 2005; Paxton & McAvoy, 2000). This research can contribute to a better understanding of outdoor adventure programs by evaluating outcomes associated with participation and the impact on student persistence and academic success.

Purpose of Study

The purpose of this study is to understand the effects of participation in outdoor adventure programs on academic success as measured by grade point average (GPA), persistence, and graduation rates for students at a large public institution. Outdoor adventure programs may assist institutions in increasing retention and graduation rates by improving student integration, leading to student persistence and success. The use of Vincent Tinto's theory of student departure provides the framework for this study. A review of the current literature regarding academic performance and outdoor recreation participation will identify a set of explanatory variables.

Research Questions

The following six research questions will guide this study:

1. Does participation in college outdoor adventure programs have a positive impact on academic performance (GPA) of first year college students?

2. Is there a relationship between participating in outdoor adventure programs during a student's first year and academic persistence (returning for second year)?

3. Is there a relationship between participating in outdoor adventure programs during a student's first year and the likelihood of graduating from the institution?

4. What effect does participation in an outdoor adventure program have on social integration of students?

5. What effect does participation in outdoor adventure programs have on students' sense of community within an institution?

Limitations

The likelihood of self-selection bias in the study is possible. The participants in this study were students who voluntarily participated in a UMN outdoor program.

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Students registered for a trip through the UMN's Center for Outdoor Adventure (COA) on their own, and paid anywhere between sixty-five and five-hundred dollars to go on a multi-day trip. The study tried to alleviate some of the self-selection by electronically comparing students with similar characteristics. Unfortunately, there may be unobserved characteristics of those students who participate in COA trips versus those who do not that may affect the outcome of interest. This causal inference could be related to demographic, socio-economic conditions, or other characteristics related to participation in recreation. Another limitation to the study is the lack of generalizability of the results among other large public institutions. The research focused on a single group of students from a large public institution. Therefore, the results of this study may not represent the impact of outdoor adventure programs on students at other institutions.

Definition of Terms

Academic Success: college students who continue in their educational path and graduate within a measured period of time. Graduation rates are often measured in four, five and six year time periods.

Campus Recreation Facility: an on-campus recreational facility comprised of court sports, fitness centers, swimming pools, climbing walls, running/walking tracks, and multi-purpose spaces, or any combination of the above. These facilities offer a wide range of daily programs and usually house fitness court sports, intramural sports, sport clubs, and outdoor adventure programs.

Departure: a student decision to not reenroll or not complete their intended academic program once initially enrolled in an institution (Tinto, 1993).

First-Year Student: students who are enrolled in their first-year of courses at an institution.

Group Cohesion: a bond or unity within a group and the degree to which members work together (Wilson, 2005).

Outdoor Adventure Trip: an extra-curricular activity in the form of an outdoor excursion conducted with the intention of exposing students to new activities in a wilderness setting. It is cooperative in nature, meaning the group works together each day with setting up camp, cooking, and cleaning. Group size is generally between 6-10 students with two trained student trip leaders facilitating the trip. The activities range from backpacking, canoeing, rock climbing, skiing, and snowshoeing. Trips are usually two to seven days in length, and the fee per person is $65-$500 depending upon the trip.

Retention: a student decision to return for the following semester of courses.

Sense of Community: a feeling an individual has about belonging to a group and involves the strength of the attachment people feel for the community or group (Halamova, 2001).

Social Integration: involvement with college peers and faculty or integration into a social group that shares common interests or recreational or social activities. Weiss (1974) finds integration into a social group a human need. When students are integrated into their academic communities, their attachment with an institution increases (Tinto, 1993).

Student Identification Card: a personal student identification card at the UMN – Twin Cities which includes a photo, name, and seven-digit ID number.

Wilderness: an area of land that is not easily accessible or frequently used by motorized vehicles, in which opportunities exist for recreation, and past and current human activities cause little impact to the land (Driver, Nash, & Haas, 1987).

Wilderness Orientation Program: an orientation program using wilderness as a tool to introduce students to their new college environment.

CHAPTER 2

LITERATURE REVIEW

The purpose of this section is to provide an overview of the literature pertaining to the student departure model, outdoor adventure programming, recreational sports facilities, and the link with academic success. It will examine the theory of student departure, and focus on the importance of student retention. Outdoor adventure programs, wilderness orientation programs, and campus recreation facilities will be defined, and the accompanying research will be reviewed as they relate to academic performance. A general overview of social integration will be discussed and how it contributes to academic success.

Student Departure and Retention

College student retention has been widely studied and continues to be the focus of many research efforts within higher education. Policy makers across the United States are using retention and graduation rates as indicators of performance for many colleges and universities. For this reason, many colleges and universities are being held accountable for retention and academic success and have begun to better integrate first-year students into their campuses, both academically and socially. Retention rates are consistently below desired levels at four-year, public research institutions, with 23% of first year students not returning for their second year (ACT, 2012). Furthermore, only 50% of college students graduate, which is widely viewed as a failure, of the student, the institution, or the entire educational system (DesJardins, Ahlburg, & McCall, 1999).

This study relies on Vincent Tinto's (1988) model of student departure from a college or university (Appendix A). The theory of student departure is focused on the academic and social integration of college students into higher educational institutions. According to Tinto, involvement in certain behaviors influences whether or not students become successfully incorporated into the fabric of the institution's social and academic systems.

The theory suggests that high levels of integration into the social and academic life of an institution lead to a greater commitment to the institution (Tinto, 1975). Students' social interaction, allows the opportunity to confirm or reevaluate a students' initial goals and commitments to college. Students who lack sufficient interaction with others on campus or have negative experiences may decide to depart the university. But by engaging students academically and socially with faculty, staff, and peers, students are more likely to persist and succeed in college (Tinto, 2012). Tinto suggests that the social affiliations provide social and emotional support, and help with increasing involvement in educational setting, (Tinto, 2012).

It has been shown that grades are an extrinsic form of reward and students who are academically integrated have a higher grade point average (Tinto, 1975). Many studies looking at student persistence have found that academic persistence is positively associated to grades (Astin, 1997; Bennett, 2003). These studies concluded that high grade attainment contributes to the ability to persist, while lower grades hinder persistence. This is further supported by the research being done within the UMN. First-term academic indicators have been shown to be important factors in predicting future academic success (Radcliffe, Huesman, & Kellogg, 2006a & 2006b). Institutional

interventions which promote integration into both realms, academic and social, could be effective in increasing persistence.

A number of studies have shown that students' demographic and pre-college characteristics such as gender, high school GPA, and ACT/SAT scores are significant predictors of a student's ability to persist to graduation (Perkhounkova, Noble, & McLaughlin, 2006, Radcliffe et al., 2006a & 2006b; Ishitani & Snider, 2006; Ishitani, 2003; Tinto, 1975). Although these are characteristics that are associated with success, student departure is an outcome that is part of a longitudinal process between the student and the institution. The student needs to feel a sense of belonging or a part of the campus community from both an academic and social process. These two processes are seen as complimentary but independent of one another, by which students adjust to the institution. Tinto proposes that having high levels of academic and social integration will lead to an overall greater commitment to the institution and lead to the goal of graduation (Tinto, 1975).

In addition to the predictors of student persistence discussed above, additional research has highlighted individual qualities of students that have shown higher levels of persistence in higher education. Sparkman, Maulding, & Roberts (2012) found that students demonstrating the qualities of empathy, social responsibility, and impulse control were more likely to persist in their education. Self-efficacy, or a student's perception of their ability to achieve goals, has been found to be positively related to higher persistence in students returning the following semester, in addition to their ability to maintain a higher GPA (Vuong, Brown-Welty, & Tratz, 2010). Understanding the individual qualities of students that align with higher levels of student persistence further

assists the institution by creating education settings and programs that can maximize student persistence.

Student retention and persistence are widely researched and debated goals in higher education, and much has been written about the positive ways to effectively retain students. Upon a review of the available literature and research on student departure models, Tinto's (1975) interactionalist model focuses on student persistence related to the interconnectedness of academic and social integration of college students. Despite the plethora of theoretical responses to Tinto's theory, his remains the first to lay out a conceptual framework of student development and integration, and is still a primary model used today. Tinto's theory of student departure suggests that high levels of integration into the social and academic life of an institution lead to a greater commitment to the institution (Tinto, 1975). Central to the model is the concept of integration and the patterns of interaction between student and other members of an academic institution. This is especially critical in the first year of college and the stages of transition that occur during that time (Tinto, 2006).

To develop this model of social integration positively influencing student departure, Tinto leveraged an earlier theory by Van Gennep of life transition (Van Gennep, 1960). Van Gennep (1960) believed that, in order to effectively integrate into one's next stage of life, a three step process of separation, transition, and incorporation must occur. Tinto utilized this theory of life transition to develop his theory of social integration and student departure.

Tinto (1988) discussed the three stages of student departure in higher education. The first stage of separation requires students to separate themselves from their past

communities, whether the high school community or physical community. The next stage of transition occurs after separation in which students have yet to fully establish themselves in their new community and adopt the patterns of their new environment. Finally, incorporation occurs when students have shed the norms of their past communities and adopted norms of their new college community. At this stage, student persistence is not yet guaranteed because integration into the new institution is necessary to influence student departure. Utilizing this model of life transition, Tinto was able to more fully define the role of integration and how it can influence student departure within higher education (Metz, 2004-2005).

Tinto distinguished between social integration and academic integration in his theory of student departure. Social integration can come in many forms in a college setting. Activities such as joining groups and clubs, extracurricular activities, exercise and recreation, and interacting with faculty can all influence the degree to which students are integrated into their college environment. Academic integration, however, is the more formal side of the educational experience and involves the more traditional responsibilities of a student, including attending class, doing homework, taking tests, and making academic progress. Tinto (1987) distinguished between social and academic integration domains of the institution, suggesting the students can be integrated into one domain and not necessarily the other. Utilizing his review of social and academic integration, Tinto believes that both types of integration influence student departure and persistence. Although Tinto (1987) does not argue that absence of one type of integration will necessarily lead to student departure, some level of both social and academic integration are essential to student persistence.

Social Integration

Social integration has been theorized by Vincent Tinto to be a key contributor to student persistence at an institution (Tinto, 1975). High levels of integration into the social life of an institution can lead to a greater commitment to the institution. Braxton, Sullivan, & Johnson (1997) have studied social and academic integration. They have not found a strong link between persistence and academic integration. However, they have found support for social integration as a strong predictor of persistence. They have suggested that increasing social integration leads to a greater commitment to an institution, thus increasing the likelihood that the student will persist and graduate (Braxton, et al., 1997).

Social integration is an important component of Tinto's student departure model. When a student feels integrated into the campus community, or into the social fabric of their institution, they are more likely to continue taking courses, and graduate (Tinto, 1975). It has been recommended that faculty, advisers, and student affairs administrators encourage student involvement on the campus (Astin, 1999). Other student experiences that have shown higher levels of social interaction on campus are faculty support and peer support (Morrow & Ackermann, 2012). Additionally, students participating in freshman seminar courses experienced higher levels of sense of community within their academic institution (Hendel, 2007). These elements of social integration are thought to be especially important early in a student's college experience (Tinto, 1988). Therefore, colleges are encouraging students to become more involved in social activities during their first and second years of college. In addition to the examples already discussed, other opportunities for student involvement and social integration can emerge from

membership in fraternities or sororities, student activities, campus clubs memberships, or recreation experiences. Focusing on the experiences of social integration and student persistence emerging from recreation experiences will be the focus of the rest of this literature review, with emphasis on student usage of campus recreation facilities, outdoor adventure programs, and wilderness orientation programs.

Campus Recreation Facilities

Campus recreation facilities (CRF) have been an integral part of the out-of-classroom experience of students in colleges and universities in the United States for over a century. Typically they include court sports, swimming pools, climbing walls, multi-purpose rooms, and fitness equipment. These facilities offer opportunities for students to engage in a wide range of sport and fitness activities.

Most institutions provide a wide variety of programs and activities through aquatics, intramural sports, outdoor adventure programs, informal sports, sport clubs, and fitness programs (Lindsey & Sessoms, 2006). All of these programs began through student interest and developed with the help of campus administrators, who recognized their importance and value to the institutional environment. CRF's include physical activity offered to undergraduate and graduate students in the interest of participation, fitness, social interaction, and learning.

The physical and mental health outcomes of physical activity experienced by students utilizing CRF's have been widely studied (Bouchard, Shepard, Stephens, Sutton, & McPherson, 1990). Social integration among users is a key characteristic of CRF's due to the specific programs and activities, as well as the design elements of the facility (Huesman, Brown, Lee, Kellogg, & Radcliffe, 2007; Huesman, Brown, Lee, Kellogg, &

Radcliffe, 2009). Furthermore, students participating in CRF's reported higher levels of sense of belonging within their university community (Henchy, 2011; Miller, 2011). With research demonstrating how participation in CRF's can build a sense of community among users, it is also important to understand how CRF usage can impact student success and persistence.

Similar to outdoor adventure programming and wilderness orientation programming, there is still very little research on the academic benefits of participation in a CRF. Only a few studies have specifically examined the relationship between CRF usage and academic success.

Belch, Gebel, & Mass (2001) compared counts of CRF usage of three cohorts of 11,076 first year students against institutional records in order to compare GPA and persistence among CRF users. The study reported higher GPA's among CRF users and higher rates of persistence among CRF users, except for Asian American students. In a qualitative study, which interviewed eight students about their CRF usage, feelings of community, and academic persistence, (Hall, 2006) reported that usage of campus recreation facilities and programs directly influenced student persistence in school. Feelings of community, social interaction, and affiliation with the institution were the contributors to academic persistence.

In two separate studies of the impact of CRF on students, by Haines 2001 and Lindsey and Sessoms, 2006 both found a positive correlation between CRF usage and academic performance. Students reported responses to the following survey question, "In deciding to continue at your institution, how important was the availability of a recreation facility to you?" Haines (2001) reported that 75 percent of males and 62 percent of

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females responded "somewhat important" or "very important" to the question. Researchers, (Lindsey & Sessoms, 2006) reported a combined response of 37 percent for males and females.

Similarly, in a recent study at the UMN, actual CRF visits were counted to quantify use (Huesman et al., 2007). Researchers looked at a first year cohort from fall semester 2001, consisting of 5,211 students, and were able to show that CRF usage, while controlling for other important academic, socio-economic, and social fit factors, does have a positive correlation with academic success (Huesman et al., 2007). Additionally, a predictive model of CRF usage during one semester, found increased levels of 5-year graduation rates and first-year student persistence rates, when a student visits a CRF approximately 25 times or more during a semester (Huesman et al., 2009).

The previous studies offer additional support that the use of CRF's promote social integration and increases the likelihood of academic persistence. In each study, other than the Belch et al. and Huesman et al. studies, the researcher's methodology relied on self-reporting, convenience sampling, and participant perceptions of the importance of CRF. Only the Huesman et al. and Belch et al. studies actually used CRF visit counts to quantify use.

<center>Outdoor Adventure Programs</center>

Outdoor adventure programs have long been studied by researchers to evaluate the outcomes experienced by program participants. Through this evaluation of recent research from 1997 to present day, an exploration of individual outcomes on self-concept, personal development, and interaction with one's environment and group outcomes of group development and cohesiveness will be provided.

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Outdoor adventure programs in the United States began at Dartmouth College in 1911. According to research by the Association of Outdoor Recreation and Education (AORE) there are currently 900 Outdoor Recreation Programs. These consist of 500 College/University programs, 300 military programs, and 100 community programs. Over 64% follow the Structure/Safety/Training (S/S/T) or "Common Adventure" model (Webb, 2000). College outdoor programs using this model are supported and directed by an institution, and are managed by 1-2 employees. These employees oversee a group of student trip leaders who plan/facilitate the trip. The trips are cooperative in nature with the group helping out with daily tasks and making certain decisions.

The typical college outdoor adventure program is typically co-curricular in nature and is usually not a degree granting program. Participants voluntarily register for a trip, and group sizes are relatively small, ranging in sizes from 6-10. The emphasis is on working together as a group and meeting the challenges of the day or activity. The program may require some mastery of certain skills to meet physical and/or mental challenges the group may face. Often no experience is necessary. The generally accepted goals are personal growth, skill development, excitement and stimulation, challenge, group participation and cooperation, and understanding of one's relationship with the natural environment (Cinnamon & Riola, 1991).

Individual Outcomes

A review of outdoor adventure programs reveals many benefits associated with interpersonal skill development for individual participants of these programs (Hattie, Marsh, Neill, & Richards 1997). These individual outcomes have been widely researched and can emerge from a variety of outdoor adventure programs. The following

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are individual outcomes of adventure programs such as campus recreation programs, commercial recreation programs, non-profit programs, and therapeutic recreation programs.

Self-Concept Outcomes: Self-concept is a multi-dimensional construct that includes multiple aspects of an individual's evaluation of themselves and is more complex than self-esteem (Garst, Scheider, and Baker, 2001). Self-concept includes cognitive behavior and a perception of one's effectiveness. Self-concept has also been described as how individuals think, feel, and behave (Garst et al., 2001). Hattie et al. (2007) conducted a meta-analysis on the outcomes of outdoor adventure programming on participants. Upon their review of the available research, they determined that outdoor adventure participation produced the greatest effects on participants in the area of self-regulation. They determined that outdoor adventure participation resulted in higher levels of self-regulation through the measurement of seven outcomes of the individual. Based on their analysis of the research, benefits for outdoor adventure participants included increased independence, confidence, self-efficacy, self-understanding, assertiveness, internal locus of control, and decision making (Hattie et al., 1997). These outcomes demonstrate higher levels of personal responsibility and self-regulation for outdoor adventure participants and those effects are preserved after program completion.

Participant self-concept has also experienced positive outcomes from outdoor adventure participation in the areas of self-awareness and self-confidence. Paxton and McAvoy (2000) found lasting impacts on Outward Bound program participants' attitudes of themselves and their connection to the wilderness setting. Participants expressed increased feelings of competence, acceptance of failure as a learning opportunity, and

personal control. Confidence gained through participation in the outdoor adventure

program was later applied to the participants daily lives, demonstrating lasting effects of

their participation (Paxton and McAvoy, 2000). The increases in self- awareness and

self-confidence were also transferred to participants' daily lives with reports of increased

levels of self-trust, belief in participant's selves, and confidence in their personal abilities

(Paxton and McAvoy, 2000). Self-awareness and self-confidence are components of

self-concept that can influence positive individual outcomes through participation in

outdoor adventure programs.

An additional study from Outward Bound participants found increased levels of

self-awareness and self-confidence. Martin and Leberman (2005) evaluated students

participating in an Outward Bound experience made up of a variety of courses and

challenges as part of the program. The researchers found increases in self- awareness and

self-confidence among participants, led by physical activities that took them out of their

comfort zone (high ropes course), but their learning came from group interaction.

Although this study has demonstrated increased levels of self-awareness and self-

confidence on the part of outdoor adventure program participants, one should utilize

caution in interpreting these results to influence program design because of the small

sample size used in this study.

Another small study conducted on outdoor adventure programs found many

positive outcomes for individual students. These outcomes included higher sense of self-

definition, extension of self, freedom, authenticity, relaxation, and connection to nature

(Deringer, 2012). Although this study included a very small sample size of students

participating in outdoor adventure programs (N=10), findings of this research are consistent with other findings of increased levels of self-concept.

Self-efficacy is another element of self-concept that has experienced positive outcomes for participants of outdoor adventure programs. Research has found significant increases in self-efficacy for outdoor adventure programs participants (Paxton & McAvoy, 2000). Other research found that participants in a 30 day National Outdoor Leadership School (NOLS) program experienced increased levels of self-efficacy at the conclusion of the program, in comparison to their pre-program level (Propst & Koesler, 1998). Furthermore, increased levels of self-efficacy of participants of the NOLS program were experienced a year after the program concluded. Evidence of increased self-efficacy was dependent on different program components for male and female participants. Male participants' increased self-efficacy seemed to stem from immediate feedback while on the trip, while female increases in self-efficacy were more reliant on the feedback received being positive in nature. The presence of a strong mentor on the trip was also more positively influential for female participants than male. Despite these differences, however, the overall increased levels of self-efficacy by the NOLS program participants were significant and led to sustained levels of improved self-concept for participants.

Self-perception is another element of the self-concept construct and involves how an individual perceives their participation in their environment and their effectiveness within that environment. In a mixed-methods study by Garst, et al. (2001), inner-city adolescents participated in a three-day outdoor adventure experience and demonstrated improved levels of self-perception through higher levels of social acceptance and

improved behavior after participation. Four months later, some evidence remained of improved levels of behavior and conduct. A variety of explanations emerged from this study regarding how participation in the outdoor adventure programs resulted in increased levels of self-perception. Garst et al. (2001) describe the program structure, intensity, and challenge as important components influencing participants' higher levels of self- perception. Small work groups increased the interdependence of the participants and seemed to yield higher levels of personal responsibility. Furthermore, greater emphasis was placed on the needs of the group rather than those of individual participants, leading to increases in social acceptance through higher tolerance of inter-group differences from pretest to posttest (Garst et al., 2001). Although this specific study included youth participants, the impact of outdoor adventure participation produced positive outcomes of self- perception in these participants and may provide a framework for additional research on the impact on self-concept.

Similar to increased levels of self-perception discussed above, participants' sense of personal empowerment also increased with participation in outdoor adventure programs. Participants in Outward Bound outdoor trips experienced increased levels of personal empowerment after participating in an outdoor trip, when compared with students of similar ages who were enrolled in a general education course and did not participate in a similar trip (Shellman & Ewert, 2010). Furthermore, research has found that participation in outdoor adventure programs fostered the perception of ownership of the trip for participants and greater sense of responsibility, increasing levels of perceived personal development (Sibthorp, Paisley & Gookin, 2007). Similar research also found higher levels of autonomy and outdoor skill attainment, likely emerging from the need of

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participants to rely on their own skills, and not that of their instructors, while

participating in a NOLS course (Sibthrop, Paisley, Gookin, & Furman, 2008).   This

research demonstrates that participation in outdoor adventure programs can impact higher

levels of empowerment, autonomy, and personal development.

Self-concept is a personal construct that can be challenging to define, yet can be

influenced by a variety of personal attributes of program participants. Through the study

of available research, a variety of aspects of self-concept have been positively impacted

through participation in outdoor adventure programs, including self-regulation, self-

efficacy, self-awareness and confidence, and self-perception.

Personal Development Outcomes: Beyond the development of self-concept,

outdoor adventure program participants have experienced positive personal growth along

with their participation. Areas of personal development effected through that

participation has been explored through research in the areas of spiritual development,

personal growth, and physical fitness of the participants.

Spiritual development of program participants has been shown to be positively

influenced by participation in outdoor adventure programs. In a mixed-methods study by

Bobilya, Akey, and Mitchell (2011), new students who participated in a spiritually-

focused college wilderness orientation program experienced four areas of growth from

their experience. As intended by the program design, participants experienced increase

spiritual development, in addition to sense of community, personal competence, and

sense of stewardship (Bobilya et al., 2011). Program design yielded these results by

decreasing distraction for new college students and encouraging regular reflection. The

benefits of outdoor adventure participation evidenced from this study appear limited in scope but could also have wider scale impact on the student transition into college. Personal learning is another aspect of personal development found to be impacted by individual's participation in outdoor adventure programs. Research by Goldenberg, McAvoy, and Klenosky (2005) of an Outward Bound experience resulted in a variety of areas of personal participant growth, in addition to increased ability to develop relationships with others, knowledge and awareness, and self-determination. This research further supports previous findings of outdoor adventure program participation influencing higher levels of self-concept as found by Hattie et al. (1997). Digging deeper in the personal growth outcomes produced increased levels of personal abilities, new opportunities for program participants, and problem solving as reported by program participants (Goldenberg et al., 2005). This same study reported increased physical activity levels of program participants. This research has demonstrated a variety of areas through which participation in outdoor adventure programs can influence personal growth of participants.

External Interaction Outcomes: Beyond the positive influences on personal self-concept development and personal growth emerging from participation in outdoor adventure programs, additional outcomes have emerged from the research demonstrating positive effects on participants' interaction with the environment around them. Areas of external involvement growth as experienced by program participants include resilience with adversarial circumstances, environmental attitudes, stewardship, and sense of community.

Resilience is an important aspect of the human condition and its interaction with the external environment in which one lives. When faced with the adversarial events presented by life, one's ability to recover from, look beyond, and move past those events can lead to greater personal well-being (Ewert & Yoshino, 2008). A preliminary study of an adventure-based trip with college students found that students who participated in an adventure program reported slightly higher levels of resilience after participating in the program. This study also found that participation in adventure programs did not present a significantly different influence on resiliency across participants with or without experience, indicating that all participants can benefit positively from an adventure program to increase levels of resiliency (Ewert & Yoshino, 2008). Although research in this area is very limited, resiliency is said to be similar to other psychological characteristics such as hardiness, mental toughness, and optimism (Ewert & Yoshino, 2008). This study presents findings that may be able to be applied to other areas of mental improvement as influenced by participation in outdoor adventure programs.

Outdoor adventure participation can also influence participants' environmental outlook, but some research has found different results. Yoshino's (2005) study of participants on a short-term adventure trip of five days and a long-term trip of three weeks found that the two groups of participants experienced different levels of change in their environmental attitudes after the trip. For example, the participants on the short term trip reported increased environmental attitudes while the participants on the three week trip reported decreased environmental attitudes (Yoshino, 2005).

Another study by Ewert, Place, and Sibthorp (2005) found evidence that environmental attitudes are largely developed in childhood and can be influenced by

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outdoor recreational activities, exposure to media events, and witnessing negative

environmental events. This study indicates that exposure to outdoor recreation activities

could positively influence program participants' environmental views but also seems to

indicate that other factors exist in developing those attitudes. In this study, Ewert et al.

(2005) discovered that environmental attitudes often are developed early in life,

indicating that the opportunity for the development of more positive environmental

attitudes through participation in outdoor adventure programs may be limited due to the

established views from participants early in life.

Further lack of significant results on outdoor adventure participants'

environmental attitudes were discussed by Berns and Simpson (2009). After reviewing

30 years of research on environmental attitudes, Berns and Simpson (2009) concluded

that participants' recreation activity level does not necessarily predict their environmental

attitudes. Conversely, a person's environmental thinking does not necessarily indicate

their outdoor recreation activity level (Berns & Simpson, 2009).

In addition to outdoor adventure program participation influencing participants'

views on the environment around them, research has found that participation may also

indicate lower levels of delinquency among youth. A meta–analysis conducted by

Wilson and Lipsey (2000) found many of the same outcomes of outdoor adventure

participation as has previously been discussed: increased self-confidence, self-esteem,

and internalized self-regulation. This meta–analysis then found that, based on these

increases in self-concept, participants are less likely to continue with inappropriate or

illegal behavior (Wilson & Lipsey, 2000). In addition, this meta–analysis found that,

based on group experiences and challenges, participants went on to develop pro–social

interpersonal skills that transfer to participants' lives outside of the program. In these examples, outdoor adventure participation has been found to influence self-concept, decreased levels of delinquency, and increased social behavior in at–risk youth.

Throughout this discussion of individual outcomes from participation in outdoor adventure programs, the research has presented a common theme of self-improvement of participants in these programs. By improving participant self-concept, personal development, and interaction with their greater environment, outdoor adventure programs have influenced a more positive sense of overall wellness of their participants.

Group Outcomes

Extensive research has been conducted on the individual impacts on participants of outdoor adventure programs, and much of that research has been discussed here. One area of outdoor adventure program outcomes that has more limited research is that of group outcomes, specifically in the areas of group development, group cohesion, social interactions with others, and family functioning. Wilderness settings provide an environment in which groups have the opportunity to work together as a small team, challenge one another in a new direction, and stretch his or her mindset in the process. From this opportunity, group development can occur.

Group Development Outcomes: Outdoor adventure programs have influenced the extent to which members of groups participating in programs identify themselves with their group. Much of the research on group outcomes of adventure program participation has demonstrated similar effects to those of individual, such as Hattie et al's., findings of increased levels on self-awareness and self-fulfillment (Hattie et al., 1997). Another study by Fielding and Hogg (1997) of Outward Bound participants found that, after

experiencing a group trip in the wilderness, participants experienced increased identification with their group. Goldenberg, et al. (2005) further support this with their findings that developing relationships and working together as a team in a wilderness setting was reported regularly by participants of an outdoor adventure experience.

A meta–analysis by Ewert and McAvoy (2000) has also found that outdoor adventure experiences can have lasting impact on participants' lives, consistent with previous studies. Outdoor adventure programs have influenced members of groups to experience increased group identity, group trust, and ability to take risks within the group. Group dynamics are often influenced by these outdoor adventure programs, initiating lasting positive effects by members of the group through the group development that has occurred (Ewert & McAvoy, 2000).

Beyond identification with the whole of the group, outdoor adventure participation has been found to positively influence overall relationships with others. Holman and McAvoy (2005) conducted research of a wilderness adventure trip with participants of mixed ability levels, including persons with and without disabilities. This research found that such participation influenced a better understanding of persons with disabilities and differences and also influenced participant's greater respect for and trust in others. A variety of program components were found to influence group members in these ways, including interaction with other group members, group leadership, and interacting in the wilderness (Holman & McAvoy, 2005).   In addition to outdoor adventure participation positively impacting group identification and respect for others, research has also found that participation in outdoor adventure trips may influence higher levels of participant's sense of community. This heightened sense of community by

group members may be related to leadership style of the group, physical challenges, sense of place, and group activities (Breunig, O'Connell, Todd, Young, Anderson, & Anderson, 2008).   Additional research found that contributing factors of preparing trip meals together, debriefing activities, trip challenges, and group-oriented activities influenced higher levels of participants' sense of community (Bruenig, O'Connell, Todd, Anderson & Young, 2010).

  Group Cohesion Outcomes: Group identification and sense of community have been demonstrated as outcomes of group participation in outdoor adventure programs. Similarly, additional research has found that group cohesion may also emerge from outdoor adventure participation. Research conducted by Glass and Benshoff (2002) found that, after participating in a one-day challenge course, participants' sense of group cohesion increased. Furthermore, Goldenberg et al. (2005) found that relationships developed through an Outward Bound course increased participant's ability to work with others, leading to higher levels of teamwork among outdoor adventure participants. Participants also reported improved relationships with others through the constructs of communicating with others, building relationships with others, working as a team, and cooperating with others, all essential components of a cohesive group. Another research study involving outdoor recreation and group cohesiveness focused on a family group's cohesiveness and their outdoor recreation participation. West and Merriam (2009) found that outdoor recreation activity helps to maintain and slightly improve family cohesiveness. Although this study should be applied cautiously to family cohesiveness, these researchers did find that participation in summer outdoor activities positively influenced family cohesiveness the next fall. Overall, the research on group cohesiveness

as influenced by participation in outdoor adventure programs and activities is rather limited, but a few elements of group development opportunities emerge.

Wilderness Orientation Programs

Many institutions are utilizing outdoor adventure programs as ways to introduce new students to college life through the use of wilderness orientation programs (WOP). These programs are designed to provide an effective transitional experience for entering first-year students at an institution and have produced many of the same results of outdoor adventure participation as previously discussed, with a few additional student outcomes. They aim to ease the transition, reduce attrition, and to promote pro-social goals such as cooperation, teamwork, and building positive and healthy relationships (Gass, 1987; Galloway, 1999). The first WOP in the United States began in 1935 at Dartmouth College, and it was not until 1968 that a second program began at Prescott College. In 2010, over 160 WOP existed at four-year academic institutions across the United States (Bell, Holmes & Williams, 2010).

Gass, Garvey, and Sugarman (2003) studied new student wilderness orientation programs at the University of New Hampshire (UNH) over a 17 year period to determine the short–term and long–term effects of student participation in these programs. Initially, students reported greater personal development after participating in these programs by challenging their beliefs about themselves and others. Students reported altered views of themselves, others, and the world through participating in the wilderness orientation program. Longer term, students reported maintaining relationships through their college careers with contacts established through the wilderness orientation program. Many of

those contacts were also sustained after their college experience had ended, in some cases up to 17 years later (Gass et al., 2003).

In addition to outdoor adventure participation having lasting effects on the personal lives and relationships of program participants, effects have also been found on participants educational paths and long-term life decisions (Gass et al., 2003). For example, some program participants reported considering new educational majors after their wilderness orientation experience. Others reported altered decision making processes after participation, specifically surrounding the selection of peers with whom students chose to spend their free and social time. Furthermore, Gass et al. (2003) found that students participating in the wilderness orientation programs experienced higher levels of academic success through GPA's, greater retention of first-year students than non-participants, and higher levels of student involvement during their college careers.

Although these previous studies are excellent in-depth research worthy of review, it must be noted that the results of the UNH study may not be generalizable to different institutions because of limited external validity. Another study at Hartwick College used the same instrumentation as the UNH study and, found significant differences in scores on the student development task indicator between groups (Vlamis, Bell, &Gass, 2011). This may be related to unique or different program goals. It could also be caused by researchers being so invested in the positive effects of wilderness orientation programs that their findings result from a confirmation bias. The researchers may see the programming as more effective than it actually is.

Other research compared orientation programs without wilderness components to those studied by Gass, et al (2003). Bell (2006) found that participants in wilderness

orientation programs reported high levels of social provisions in the areas of attachment, social integration, re-assertion of worth/competence, reliable alliance/tangible support, guidance, and opportunity for nurturance. Bell (2006) also evaluated students' social provisions for those participating in pre-season athletics activities and community service programs and found no significant differences between the social provisions of these students and those participating in wilderness orientation programs. Although his research does not indicate that wilderness orientation programs are better than other pre-orientation experiences, Bell did determine that students who participated in some pre-orientation experience reported higher levels of social provisions than those who had not.

Research on WOP has also found positive outcomes for individuals who participate in these programs. Devlin (1996) measured the level of friendship formation between participants and a randomly selected control group. Participants in the WOP reported higher levels of friendship formation directly after the trip, and four years later compared to the control group. Other research found that students participating in WOPs experienced increased social benefits through friendships made with other participants and more positive transitions to college (Lien & Goldenberg, 2012). Additional research has shown a variety of positive outcomes from participate in WOPs, including commitment to student's academic institution through the social interaction on the WOP (Wolfe & Kay, 2011).   Furthermore, participation in WOP has also shown increased levels of participant social benefits, including sense of personal place, or their identity, awareness, or personal attachment (Austin, Martin, Mittelstaedt, Schanning, & Ogle, 2009). This research provides clear examples of the role social integration or sense of belonging can play for a student participating in WOP.

In a study by Ward and Hobbs (2006), researchers investigated the extent that participants' social, physical, and personal/emotional fears changed on a short–term college adventure experience from a large Midwestern university. Results from this study confirm earlier research about perceptions of fear of program participants while participating on rock climbing, mountain biking, white water rafting, or backpacking trips. Individual's perception of fear was found to change over the course of an outdoor adventure experience.

After reviewing the literature regarding individual, group, and student outcomes, many positive individual and group development outcomes exist from participation in outdoor adventure trips. Building upon these outcomes, if students who participate in outdoor adventure programs have higher levels of personal growth and integration, they may also experience greater student success. Given that higher education institutions are increasingly focused on graduation rates, evaluating the factors that can impact student persistence and success is particularly relevant in order to help institutions maximize student graduation rates. This research seeks to contribute to what we know about maximizing graduation rates by measuring student success through persistence and academic success of outdoor adventure participants.

CHAPTER 3

METHODOLOGY

The stated purpose of this study is to understand the effects of participation in outdoor adventure programs on academic success as measured by grade point average (GPA), persistence, and graduation rates for students at a large public institution. In order to gain a more comprehensive understanding of this research problem, and in effort to increase the potential credibility of the results, a mixed methods research design was used in this study.

This chapter provides a description of the methods used in this research study, and will cover the setting of the study, sample used, participant information, data collection procedures, instruments, key variables in the study, and methods of data analysis. This study will utilize a mixed-method approach, in which both quantitative and qualitative methods are used to provide a more comprehensive understanding of study participants. By using both quantitative and qualitative methods, a researcher can use the strengths of one method to compensate for the weaknesses in another, thereby increasing the potential for reliability and validity in the study (Johnson & Onwuegbuzie, 2004). Furthermore, a mixed-methods study can add insights and understanding to a research study that may otherwise be missed when utilizing only one method (Johnson & Onwuegbuzie, 2004).

Quantitative research utilizes numerical data that can be statistically analyzed to test theories and examine relationships among variables (Creswell, 2009). Much debate exists about the advantages and disadvantages of quantitative research methods. First, quantitative research is a highly generalizable approach to research when the data is based on a random sample and a sample that is sufficiently large. Quantitative research

also produces a high level of reliability due to the control of extraneous variables within the studies. Also, the researcher is external from the participants being studied, and that detachment further increases the validity of a study. The researcher is also able to create a research environment that eliminates the possibility of confounding variables, allowing for a more credible assessment of cause and effect relationships (Johnson & Onwuegbuzie, 2004).

Quantitative research methods also present an opportunity for fast and precise data collection and analysis, especially when statistical software is used. Finally, quantitative research is also able to be replicated when necessary and is more beneficial when researching large numbers of study subjects. In contrast, qualitative research can take on the researcher's viewpoint in explanation. The quantitative perspective may not accommodate individual differences in study subjects. For this reason, the natural science research model may not work as well when studying the social world.

Qualitative research design explores the meaning individuals or groups give to a social or human problem, or the perspective those parties have on their social world (Creswell, 2009). Researchers are primarily concerned with the changing nature of reality created through the human experience, and the emphasis is on investigating how that reality is constructed and negotiated (Palys, 1992). Qualitative research traces its roots on the paradigm of constructivism, in which people and their behavior cannot be understood without understanding how they think (Guba & Lincoln, 1994). Qualitative research is somewhat new within the research world, judging by the fact that most research methodology textbooks did not cover qualitative thoroughly until the 1990's (Onwuegbuzie & Leech, 2005). Qualitative research is often used as a research method

by those who feel that objectivity and value-free science is difficult to achieve, thereby making the scientific model of quantitative research outdated (Hedrick, 1994).

Qualitative research is an approach used as a vehicle for studying the empirical world from the perspective of participants instead of from the researcher (Carr, 1994). Qualitative research can help to explain the psychological dimensions of human behavior, which is difficult to represent numerically. Utilizing the hermeneutic dialect, qualitative research is concerned with the interpretation of human action, in contrast with quantitative research's approach to explain human action (Bryman, 2004). This method tends to be more open-ended, utilizing unstructured interviews, focus groups, thick description, or observation recording using open-ended questions.

Similar to quantitative research, qualitative methods are the subject of much debate regarding the advantages and disadvantages of its methodology. Qualitative research is able to provide a more rich and holistic understanding of study participants by the researcher being able to see through the eyes of the study subjects (Bryman, 2004). Qualitative research can also explain more psychological dimensions of human behavior, which is difficult to represent numerically. Furthermore, the natural setting associated with qualitative research allows for fewer controlling factors, presenting less of a threat to the external validity of the study. Qualitative studies are also more beneficial when looking at a smaller number of cases in depth or trying to describe a complex phenomenon like self-efficacy, self-esteem, or student engagement (Johnson & Onwuegbuzie, 2004).

Disadvantages of qualitative research also widely exist. The relationship that exists between the researcher and study participants in qualitative research can distort or

bias the results because the researchers must get close to the participants in order to understand the social reality that exists, ultimately challenging reliability (Eisner & Penshkin, 1990). Also, because of the researcher's influence over the study, it can be difficult to generalize the results of a qualitative study across other settings (Firestone, 1987). Finally, qualitative research methods can be time consuming, and it can be more difficult to test hypotheses and theories using these methods (Johnson & Onwuegbuzie, 2004).

The mixed-method approach combines or mixes the elements of quantitative and qualitative research techniques for the broad purpose of understanding a single study (Creswell, 2009). These methods allow for the complete development of research and for the expansion of scope and completeness in a research study. Mixed-methods research utilizes the pragmatic paradigm by not committing to any one philosophy or reality, and it presents a world view that arises from actions, situations, and consequences (Tashakkori and Teddlie, 1998). Instead of focusing on specific methods to approach a research study, mixed-methods research emphasizes the problem to be examined and employs both qualitative and quantitative methods to provide the best understanding of the research problem (Rossman and Wilson, 1985).

The mixed-method approach has many advantages. First, using the mixed-method approach may increase the reliability and validity of the study results. By using both quantitative and qualitative methods, a researcher can use the strengths of one method to compensate for the weaknesses in another, thereby increasing the potential for reliability and validity in the study (Johnson & Onwuegbuzie, 2004). Also, a mixed-

method study can add insights and understanding to a research study that may otherwise be missed when utilizing only one method (Johnson & Onwuegbuzie, 2004).

Mixed-method studies also present a variety of disadvantages to the research process. First, because of the complexity of using two approaches, a mixed – methods study can be difficult for one researcher to complete, forcing the use of a team of researchers (Johnson & Onwuegbuzie, 2004). This can lead to a research study becoming more time consuming and costly. Also, a mixed-methods approach can lend itself to finding conflicting study results, which can be difficult to explain. The researcher in a mixed-methods study must also learn two approaches and then learn how to mix them appropriately. Finally, the mixed-methods approach has inherent challenges due to its newer uses within the centuries of academic research. Some methodological research purists argue that one should always work with either qualitative or quantitative approach, making it difficult for mixed-methods approaches to be considered a credible method in academic and scientific research (Johnson & Onwuegbuzie, 2004).

<center>Setting</center>

This study was conducted at the University of Minnesota Twin Cities campus (UMN) during the academic year of 2010-2011. The UMN is a large, public research university set in the Minneapolis/St. Paul metropolitan area. Due to this location, the UMN student population experiences a university setting that is an integral part of the urban environment in which it is set.

As of fall 2012, the UMN consisted of 30,375 undergraduate students and 13,124 graduate students located within a metro area of approximately three million residents (University Plan, Performance, and Accountability Report, 2013). Undergraduate

admission to the University is becoming more competitive with each passing year, as is evident from decreasing rates of admission for student applicants at the undergraduate level. For example, in the spring of 2012 more than 37,000 students applied to the UMN, for a freshman class of 5,345 (UMN, Office of Admissions website). This admission rate is approximately 15-20% of applicants, and is similar to other large public universities in the Midwest (University of Wisconsin-Madison, University of Illinois-Urbana/Champaign, and University of Iowa.)

The change in the competitive nature of the University is occurring along with significant transition of the entire University system on the Twin Cities campus. In recent years, the UMN has attempted to raise the stature of the University by becoming one of the top three public research institutions in the United States. Many changes resulted from the steps to achieve this goal, including the closing of failing colleges within the university, combining similar programs, and increasing the campaign for research oriented projects. At the same time that the University was becoming more research-focused, it has also become more academically competitive. For example, the General College no longer exists to help transitioning students who are academically underprepared or from a lower socio-economic status. Admissions rates and student characteristics have become more competitive over the past ten years. In the fall of 2012, 44% of the students enrolled graduated in the top 10% of their high school class and obtained an average ACT score of 27.7. This was compared to fall of 2006 when, 34% of the students enrolled graduated in the top 10% of their high school class and obtained an average ACT score of 25.2 (University Plan, Performance, and Accountability Report, 2013). Academic units were operating leaner, by offering faculty incentives for early

retirement, utilizing adjunct faculty members, and offering courses that did not overlap in content.

Graduation rates of UMN students have been historically low when compared to other large, public institutions nationwide. In 2013, the 4-year graduation rate at the UMN was reported as 50%, as compared to University of Michigan – Ann Arbor (73%), University of California – Berkeley (71%), University of California – Los Angeles (71%), University of Illinois – Urbana/Champaign (69%), Pennsylvania State University – University Park (65%) (University Plan, Performance, and Accountability Report, 2013). Based on this comparison, it is clear the UMN four year graduation rate is noticeably lower than other universities in a comparison group.

The six-year graduation rates demonstrate a similar trend, with the UMN at 73%, as compared to University of Michigan – Ann Arbor (90%), University of California – Berkeley (91%), University of California – Los Angeles (92%), University of Illinois – Urbana/Champaign (84%), Pennsylvania State University – University Park (86%) (University Plan, Performance, and Accountability Report, 2013).

When comparing these graduation rates, it is very clear that UMN is far lower than other universities in its peer group. Due to this disparity, graduation rates and retention at the UMN has become increasingly important. Consequently, the university has implemented changes to improve graduation rates. For example, in fall 2002, the University implemented a policy that undergraduate students carry 13 semester credit hours for fall and spring semester to be considered full-time. Prior to that, the university considered 12 semester credits to be full-time, in line with most other large, public universities. The University also implemented Welcome Week in the fall of 2008 and

free tuition credits beyond 12 semester credits. Welcome Week serves to build a campus body better connected to the University and provides an opportunity for students to connect socially. The free tuition credits benefit students who chose to take more than 12 credits, which in turn may lead to higher four-year graduation rates.

Sample

The population of interest for this study is 834 UMN students who participated in outdoor recreation activities through the Center for Outdoor Adventure (COA) on-campus between 2002 and 2010. The total students per year included: 2002 ($N=34$), 2003 ($N=125$), 2004 ($N=105$), 2005 ($N=126$), 2006 ($N=77$), 2007 ($N=100$), 2008 ($N=99$), 2009 ($N=94$), 2010 ($N=77$). This sample consisted of traditional and non-traditional students, first-year students, and students native to the United States and international students. Students were also required to be of at least 18 years of age in order to participate. While COA also welcomes non-students on their trips, those participants were eliminated from this sample, in order to have student population representation.

Quantitative Participants

By utilizing the outdoor adventure trip database and the cohort database that was developed by the Office of Institutional Research (OIR) at the UMN, the goal was to identify which of the first-year students participated in an outdoor adventure trip during their freshman year. Both databases were cross-referenced, and 17 students were identified as participants who met two requirements; 1) participation in one or more COA trip of at least two days in duration, and 2) participation during their first or second semester at the institution. (Surprisingly, analysis revealed only about 2% of all trip participants are first-year students). It is believed that participation in a trip of at least

two days or more, where students prepare meals, participate in activities together, and experience challenges will have a much stronger impact on social integration (Bruenig, O'Connell, Todd, Anderson, & Yong, 2010). During a multi-day trip students spend more time socially together, work cooperatively in preparing meals and setting up camp, and research has shown will have a more powerful wilderness experience. The specific research questions that guided this phase of study are:

RQ1 - Does participation in college outdoor adventure programs have a positive impact on academic performance (GPA) of first-year college students?

RQ2 - Is there a relationship between participating in outdoor adventure programs during a student's first year and academic persistence (returning for second year)?

RQ3 - Is there a relationship between participating in outdoor adventure programs during a student's first year and the likelihood of graduating from the institution?

<div align="center">Qualitative Participants</div>

In order to get a comprehensive look at the effects of outdoor program participation on social integration and sense of belonging, and personal effects of participation, four focus group sessions were conducted in February 2011. An email was sent out to the COA listserv asking past trip participants to participate in a study. Twenty students attended the four focus group sessions and met the two requirements; 1) participation in one or more COA trips of at least two days in duration, and 2) participation as a UMN student enrolled with 6-credits or more during 2002-2010. The specific research questions that guided this phase of study are:

RQ4 - What effect does participation in an outdoor adventure program have on social integration of students?

RQ5 - What effect does participation in outdoor adventure programs have on students'
sense of community within an institution?

Data Collection

There were two methods of data collection for this study. The first method used
quantitative data from a cohort database within the Office of Institutional Research (OIR)
at the UMN and an outdoor adventure trip database from 2002-2010 from the Center for
Outdoor Adventure at the UMN. When students sign up for these trips, they complete a
registration form which includes their student ID number and relevant trip information.
Respondents were identified using those ID numbers. These student ID numbers were
also used to identify the trip in which the student participated.

Given the quantitative interest in academic success related to GPA, persistence,
and graduation of first-year students, this study utilized a pooled cross-sectional analysis
design. More specifically, the date utilized for the purpose of this analysis included first-
time, full-time students who were enrolled between Fall 2002-2004 (N=15,317).
Seventeen outdoor adventure trip participants were identified from three cohorts as first-
year, full-time students. It should be noted that analysis revealed discrepancies in the size
of cohorts when compared to official enrollment statistics. Five hundred forty eight first-
year students were missing from the database OIR developed for this study. Subsequent
analysis by OIR found no systematic reason for their exclusion, and therefore assumed to
be missing randomly. Additionally, it should be noted that 96% of the total first-year,
full-time student population from Fall 2002-2004 was used (N=15,317).

The tools used to analyze the sample included a Microsoft Excel document used
to compile the participant student ID numbers and trips in which they participated. The

year, academic year, and semester of their participation was also recorded in this

document. In a partnership with the Office of Institutional Research (OIR) at the UMN,

this information was given to OIR to determine demographic information, year in school,

academic progress, grade-point-average, and graduation rates of the students in the

sample.

The second approach utilized four separate focus group sessions, consisting of a

total of (20) participants. These sessions averaged 3-8 participants per session, and lasted

60 to 90 minutes in length. Focus groups promote social interaction among group

participants, and in this case seem to be the best form of data collection among the

various qualitative techniques, since it draws upon participants' attitudes, feelings,

values, beliefs, experiences, and reactions which may not be feasible using individual

interviews, observation, or surveys (Kuh, Schuh, & Whitt, 1991). The discussion and

personal feedback from each focus group session was tape-recorded, transcribed, and

coded. The moderator was in charge of directing the discussion, keeping the

conversation going, and taking notes. The assistant moderator managed the tape

recorder, took comprehensive notes, and managed the room environment and any

interruptions.

<div align="center">Focus Groups</div>

In order to gain qualitative data about the effects of participation in outdoor

adventure programs, four focus groups were conducted to explore past participants'

experiences of sense of community, group cohesion, and social integration resulting from

their outdoor experience. Four focus groups were conducted in February 2011. The

focus group sessions were conducted on the UMN campus, in a conference room in

Cooke Hall. Students were contacted via an email sent on February 9, 2011 through an internal listserv of the Center for Outdoor Adventure.   Participants in the focus group sessions received breakfast, lunch or dinner depending upon the time of day. As a way to keep the focus group comfortable and informal, participants could obtain additional food, or a beverage within the conference room.

Past trip participants were asked to offer answers and suggestions to the following questions (see Appendix B): (1) Describe the outdoor activities (if any) you participated in as a child or with your family; (2) Why did you choose to participate in a COA trip; (3) Describe the most memorable part of your COA trip; (4) Describe the interaction among the participant group on your COA trip; (5) What specifically impacted (positively or negatively) how your group interacted with each other; (6) What factors do you think lead to a sense of belonging on a COA trip; (7) How did your sense of belonging change (if at all) at the University after participating in a COA trip; (8) What role (if any) has participating in a COA trip played in your academic success at the U of MN; (9) What role (if any) has participating in a COA trip played in your decision to continue your education at the U of MN; (10)What (if any) long term effects have you experienced from participating in a COA trip; (11) How did your participation in the COA trip change your purpose in life. At the conclusion, participants were thanked again for their participation in the study. All participants received a 15% discount coupon at Midwest Mountaineering (a local outdoor retailer), and one free equipment rental from COA.

Focus groups were facilitated by this researcher as the moderator and an assistant, and the audio from each discussion was recorded. While the moderator was mediating the focus group, the assistant was taking notes of the discussion and the interaction

among the group. The focus group discussion and feedback was recorded, transcribed, coded, and included in the final analysis.

Key Variables

This study analyzed data that was collected by the Center for Outdoor Adventure and the Office of Institutional Research (OIR). Student identification numbers were used to compare full-time, degree seeking students that had participated on a COA trip and their academic achievement and persistence at the UMN. The dependent variables for this study assessed student success in college. Specifically, three measures of success were utilized: first-year GPA, first-year retention, and graduation from the University of Minnesota. These variables were measured by students graduating from the University, and students continuing to take classes (enrolling in credits from first to second year). The sole independent variable or predictor variable for this study included student participation in a COA trip within the first or second semester at the UMN. Including this variable helped to determine if participating in an outdoor trip had an effect on retention or graduation rates.

This study also included several other academic performance characteristics that are tracked by the OIR and have been shown to have an effect on academic success (Huesman et al., 2007). These additional performance variables included student characteristics related to (1) demographic background, (2) academic background, (3) first semester performance, (4) financial aid, and (5) social integration.

1. Demographic Background: Gender, Asian, Under Represented Minority, Out-of-State, Reciprocal Tuition State
2. Academic Background: Composite ACT Score, First Generation, First Choice College, AP Credits, Remedial Course Taken

3. First Semester Performance: Course Completion, C Count, D Count, W Count
4. Financial Aid: Pell Grant
5. Social Integration: On-Campus Housing

These variables were selected because they have been used in previous studies and have shown to have an influence on retention and academic success. Pre-college variables such as family socio-economic status, high school GPA, and ACT/SAT score have been shown to indicate increases in academic persistence. For example, Radcliffe, Huesman, and Kellogg (2006a & 2006b) found that scoring one deviation below the mean on the ACT, lowered the probability of a student being retained after 30 credits to 81%.

Ethnicity and gender also play a role in the student experience and persistence. As an example, research has shown that white male persistence can be attributed to positive family status, grades, and degree aspiration, whereas white female students need to feel a connection with peers, the institution, and degree or courses (Stocker, Pascarella, & Wolfe, 1988). In a study by Gallicki and McEwen (1989), minority students dropped out of college at a higher rate than non-minority counterparts. Because of these differences in factors that influence student persistence, controlling for gender and race was important in this study.

First-term academic indicators, such as GPA are also important factors related to finishing college (Radcliffe, Huesman, & Kellogg, 2006a & 2006b). According to Tinto (1975), grades are an extrinsic form of reward and can lead to continued participation in college. Additionally, many studies have shown that on-campus housing and on-campus employment can demonstrate positive effects related to the undergraduate experience. Residence halls and on-campus employment provide opportunities for interactions with

peers and faculty members, which have been shown to lead to increases in social integration and involvement within the university community (Pascarella & Terenzini, 1991). Astin (1977) found that living in residential halls during the first-year can contribute to academic success.

<div align="center">Data Analysis Procedures</div>

Two models were performed for this study. An ordinary least squares regression model and a logistic regression model, or logit model, were used to assess the continuous variables that represent the likelihood of the outcomes measured in this study including GPA, persistence, and graduation. The logit model can be used for prediction, in this case predicting second-year return rate and graduation from the UMN-TC of students who participated in COA trips. In logistic regression, the dependent variable is generally binary and takes on the value of 0 or 1. In this case, second-year return and graduation within five years are "yes" or "no", so the categories are coded as 0 or 1. This research will utilize participation in a COA trip, in addition to the other independent variables that have exhibited an impact to student persistence and academic success from previous research. The logistic regression model will then determine the relationship between the independent variables and the dependent variables (Radcliffe, Huesman, & Kellogg, 2006a & 2006b).

Once the quantitative data were analyzed, content analysis was utilized to evaluate the qualitative data from the focus groups. Data collection from the focus groups produced transcripts from each, which were organized and prepared for analysis. The data were read through multiple times, which allowed data from the focus group to be categorized by key words and concepts. More specifically, the data were coded into

categories including social integration, sense of community, and group cohesion, in addition to any other themes that emerged from the focus groups. To increase reliability, a second coder was utilized to evaluate the data from the transcripts and assisted in categorizing key concepts into themes. This approach provided additional validity to the researcher's findings and assured that the analysis was not limited to one person's interpretation of the data (Neuendorf, 2002).

Once the data were transcribed, an inductive approach was utilized to identify emerging patterns and interpret the findings (Gray, 2004; Miles & Huberman, 1994). This inductive approach relied on a three step process, including finding similarities in the data, identifying patterns that exist between codes and categories, and then reevaluating the data to highlight additional associations present (Patton, 2002). These steps of coding, categorizing, and identifying patterns in the data provided a more an in-depth overview of the themes that emerged from the qualitative component of this research project.

In any research project, the researcher is responsible for ensuring that the research study is rigorous in design, includes a systematic data collection and analysis, and utilizes a neutral approach to the study (Patton, 2002). To increase the accuracy of the findings, this study utilized neutrality, transferability, and rich and thick description to convey findings. A more in-depth discussion of each is provided here.

Neutrality: By identifying the bias the researcher brings to the study, and the interpretation of the findings, the presence of neutrality increases. This self-reflection adds an honest voice to interpretation of the study findings (Creswell, 2009).

Transferability: Utilizing the approach of transferability, which is a parallel concept to generalizability in quantitative research, allows for interpretation of how one study relates to other research studies (Patton, 2002). Similar to generalizability, transferability acknowledges the limitations on the ability to make assumptions about a population from the data of a research sample.

Rich and Thick Description: In describing the data found in a research study, utilizing rich and thick description language can also add validity to the research. This helps "transport readers to the setting and gives readers an element of shared experiences" (Creswell 2009, p.191). This research study utilized rich and thick description language to capture participant reflections on their outdoor experiences, using their descriptive stories and language to capture data.

CHAPTER 4

RESULTS

This chapter summarizes the results of this study in four sections. The first

section will include an explanation of the quantitative component of this mixed-method

research study, including process, findings, and analysis. The second section will include

the descriptive characteristics of the qualitative component of the research, with an

explanation of the focus groups used to gather these data. The third section will include

the findings and data analysis from the focus group sessions by research question, while

the fourth section will compile the results and analysis from the qualitative study at a

total level. Through this data and analysis, a better understanding of the impact of

participating in outdoor adventure programs is expected.

Quantitative Analysis

Working with the Office of Institutional Research of the University of Minnesota,

this researcher sought to evaluate the extent to which students participating in outdoor

adventure programs during their first year were more likely to achieve academic success

and persist academically. Of the research questions emphasized in this study, the

quantitative analysis will provide data to answer the first three questions, which include:

1. Does participation in college outdoor adventure programs have a positive impact on academic performance (GPA) of first-year college students?

2. Is there a relationship between participating in outdoor adventure programs during a student's first year and academic persistence (returning for second year)?

3. Is there a relationship between participating in outdoor adventure programs during a student's first year and the likelihood of graduating from the institution?

This research utilizes two models to explore the impact of outdoor adventure participation. An ordinary least squares regression model and a logistic regression model, or logit model, were used to assess the continuous variables that represent the likelihood of the outcomes measured in this study including GPA, persistence, and graduation. The logit model also allows for an evaluation of a variety of other variables shown from past research to impact student success, persistence, and graduation rates. These other variables include whether or not a student is a first generation student, financial need, and gender and ethnicity. Other variables evaluated include GPA as measured by a 4.0 scale, ACT Composite Score or SAT converted score as measured on scale from 0 to 36, whether or not a student's first choice university to attend was UMN, and whether or not a student is living on campus during their first semester. Full descriptive statistics of the first-year student population are included in Table 4.1. By including the impact on the outcomes measured of these variables, a more complete view of the impact that outdoor program participation may have on student success, persistence, and graduation is afforded.

Table 4.1.

Descriptive Statistics of the First-Year Student Population 2002 to 2004 (n = 15,317)

Variables	Values	Mean	SD	Variable Description
GPA	0-4	3.00	0.75	Grade-Point Average
Enrollment	0-1	0.86	0.35	1 enrolled after first year, 0 otherwise
Degree	0-1	0.69	0.46	1 graduated, 0 otherwise
FY CRF Count	0-221	6.68	19.02	Number of first year visits to (CRF)
FY Trip	0-1	0.001	0.033	1 participated first year, 0 otherwise
On-Campus Housing	0-1	0.75	0.43	1 living on campus first semester, 0 otherwise
ACT/SAT	0-36	24.63	4.71	ACT Composite / SAT Converted
First Generation	0-1	0.33	0.47	1 first generation student, O otherwise
First Choice	0-1	0.71	0.45	1 first choice UMN college, 0 otherwise
AP Credit	0-60	3.47	7.11	Number of AP credits
Remedial Taken	0-1	0.09	0.29	1 math remedial course taken first semester, 0 otherwise
New Ratio	0-1	95.04	15.84	Ratio credits earned to attempted (first year performance)
Cs Received	0-5	0.69	0.90	Number of C grades earned first semester
Ds Received	0-4	0.12	0.38	Number of D grades earned first semester
W Count	0-6	0.13	0.49	Number of W (course withdrawals) first semester
Gender	0-1	0.58	0.50	1 Male, 0 otherwise
Asian	0-1	0.12	0.32	1 Asian, 0 otherwise
Underrepresented Minority	0-1	0.08	0.27	1 identifies as American Indian, Black, or Hispanic, 0 otherwise
Non-reciprocity	0-1	0.08	0.27	1 non-reciprocity state, 0 otherwise
Reciprocity	0-1	0.24	0.42	1 reciprocity state, 0 otherwise
Pell Grant	0-1	0.20	0.40	1 if Pell grant eligible, 0 otherwise
AY 2003	0-1	0.32	0.47	2003 first year cohort (captures anything unique)
AY 2004	0-1	0.35	0.48	2004 first year cohort (captures anything unique)

The quantitative analysis produced no significant results in the areas of student
success, academic persistence, or graduation rates for students participating in outdoor
adventure programs. Model 1 estimates the impact of outdoor adventure participation on
first-year GPA. Given the continuous nature of GPA, ordinary least square regression
analysis was utilized to produce the parameter estimated. The results in table 4.2 indicate
that the predicted effect of outdoor adventure participation on first-year GPA's was 0.020
(Standard Error =0.103). Although the results are in the expected direction (positive), a

p-value of 0.848 suggests that the results cannot be differentiated from zero. The

estimated effect indicates that outdoor trip participation is a positive impact on student

success for first-year students (GPA), but that impact is not statistically significant.

Table 4.2.

Logit Model Parameter Estimates of Academic Success Probability
of First-Year Students Participating in Outdoor Adventure Programs

Logit (Success)	B	SE B
FY CRF Count	0.001***	0
FY Trip	0.020	0.103
On-Campus Housing	0.012	0.009
ACT/SAT	0.010***	0.001
First Generation	-0.032***	0.008
First Choice	0.054***	0.008
AP Credit	0.006***	0
Remedial Taken	-0.123***	0.014
New Ratio	0.023***	0
Cs Received	-0.318***	0.004
Ds Received	-0.316***	0.009
W Count	-0.020***	0.01
Gender	0.086***	0.007
Asian	0.039***	0.011
Underrepresented Minority	0.026	0.014
Non-reciprocity	-0.014	0.013
Reciprocity	-0.012	0.008
Pell Grant	-0.006	0.009
Academic Year 2003	0.003	0.008
Academic Year 2004	-0.018*	0.009

Note. $p^* < .05$. $p^{**} < .01$. $p^{***} < .001$

Model 2 estimates the impact of outdoor adventure participation on first-year

retention. Due to the dichotomous nature of retention (0=No, 1=Yes), meaning a student

either re-enrolled the next year or did not, the logistic regression model was used. Using

the logit model to predict the likelihood of retention, the model reports the odds ratio

associated with outdoor adventure participation as 0.407. This suggests that the predicted

effect of participation in an outdoor adventure program during a student's first year is a

60% reduction in the odds of retention. In this case the standard error is large (0.267) and

the p-value is 0.170, indicating that statistically the results cannot be differentiated from

zero.

Table 4.3.

Logit Model Parameter Estimates of Probability of Retention of
First-Year Students Participating in Outdoor Adventure Programs

Logit (Success)	Odds Ratio	SE
FY CRF Count	1.012***	0.002
FY Trip	0.407	0.267
On-Campus Housing	1.541***	0.098
ACT/SAT	1.012	0.007
First Generation	0.919	0.052
First Choice	1.251***	0.073
AP Credit	1.034***	0.006
Remedial Taken	0.778**	0.07
New Ratio	1.037***	0.001
Cs Received	0.817***	0.022
Ds Received	0.652***	0.036
W Count	0.516***	0.033
Gender	0.826***	0.044
Asian	1.600***	0.145
Underrepresented Minority	1.380***	0.136
Non-reciprocity	0.647***	0.062
Reciprocity	0.604***	0.04
Pell Grant	0.95	0.065
AY 2003	0.928	0.059
AY 2004	0.870**	0.061

Note. *p*< .05. *p***< .01. *p****< .0001

Model 3 estimates the impact of participation in an outdoor adventure trip during

a student's first year and their likelihood of graduating. Again, due to the dichotomous

nature of graduation (0=No, 1=Yes), a student either graduates from the University or

does not. The model reports the odds ratio associated with outdoor adventure participation as 1.01. This suggests that students participating in an outdoor adventure program have a 1% greater chance of graduating from the University within 4 years than those who do not participate. However the standard error is quite large (0.658), which again indicates that statistically the result is indistinguishable from zero (p-value = 0.988) (Table 4.4).

Table 4.4.

Logit Model Parameter Estimates of Probability of Graduation of
First-Year Students Participating in Outdoor Adventure Programs

Logit (Success)	Odds Ratio	SE
FY CRF Count	1.009***	0.001
FY Trip	1.01	0.658
On-Campus Housing	1.419***	0.07
ACT/SAT	1.012*	0.005
First Generation	0.753***	0.032
First Choice	1.300***	0.059
AP Credit	1.034***	0.004
Remedial Taken	0.516***	0.037
New Ratio	1.032***	0.002
Cs Received	0.703***	0.015
Ds Received	0.549***	0.028
W Count	0.460***	0.027
Gender	1.101*	0.045
Asian	1.181*	0.078
Underrepresented Minority	0.914	0.069
Non-reciprocity	0.606***	0.044
Reciprocity	0.710***	0.036
Pell Grant	0.860**	0.045
AY 2003	0.998	0.049
AY 2004	0.856**	0.045

Note. p*< .05. p**< .01. p***< .0001

A likely reason for the lack of significant results found in Models 1-3, was due to the very small sample size available for this study, with an $N = 17$. This small sample size, in contrast to the large population size of 15,317 students, produced disappointing results of outdoor trip participation in student's first year of their education. However, despite the lack of significance found between first-year outdoor trip participation in the outcomes measured, a variety of other significant relationships were found supporting past research on student success, persistence, and graduation (see Tables 4.2 to 4.4).

Qualitative Analysis

A total of four focus groups were conducted in February 2011 to gather qualitative data on the impact of student participation in outdoor adventure programs. To recruit participants for the focus groups, the researcher utilized an email distribution list of 1800 students and community members who had either been involved in a COA program or expressed interest in learning about trips in the past. An email went out in February 2011, seeking participants who met the following criteria:

1. Participated in a COA trip of at least two days, including one overnight.
2. Must have been a UMN student at the time of participation in that COA trip.
3. Willing to answer questions about their experience during and after the COA trip.

Twenty-two people responded and met the above criteria, and 20 of those actually participated in a focus group. Although demographic data was not collected for those participating in the focus groups in order to provide anonymity of their responses, the gender make up appeared to be 13 female and 7 males participating. In addition, all appeared to be of a traditional college student age between 18 and 25, and many were still attending the UMN at the time of participating in this research.

Each focus group lasted between 60 and 90 minutes, resulting in 5-9 pages of transcribed data per focus group. After completing all four focus groups, the researcher had generated a total of 30 pages of transcribed data. In order to organize these data, the researcher took a series of steps to condense the data into the core sentiment in each focus group participant's response. In order to ensure validity in identifying the core sentiment of each response, the researcher read through each response, underlining the core sentiment in each. Then, the transcriber of the focus group notes read through each response and agreed or identified other core sentiments in each response. All of the questions asked of the focus group participants resulted in 416 total responses.

After identifying and validating the focus group responses, the researcher sought to categorize the responses in order to determine themes in the data. This process included reading through the responses and identifying each into one of four categories: Individual Outcome, Group Outcome, Issues/Challenges, and Trip Attributes. The focus group transcriber then read through each response and category in order to ensure that the interpretation of responses and categorization was appropriate. Once the initial categories were finalized, the researcher conducted the same process within each category, highlighting sub-categories and identifying each response as either positive or negative. The focus group transcriber was again used as a second reviewer of each sub-category and positive/negative identification, to add validity to the designation of each response. This process resulted in 65 sub-categories, within the four categories of focus group responses.

Participant Background: To begin the focus groups, two questions were asked to provide background information on the experiences of participants before participating in an

outdoor trip. In Question 1 of the focus group, participants were asked to describe the

outdoor activities they had participated in as a child or with their family. Seventy three

responses were provided from the four focus groups, for an average of 3.65 responses per

research participant (Table 4.5). The reported outdoor activities were then put into

categories with similar activities, in order to determine what themes existed in the past

experience of the research participants. The most common categories reported were

camping activities (18), water activities (14), hiking (7), and padding activities (7).

Table 4.5.

Past Outdoor Experiences of Participants

Outdoor Experiences	N	%
Camping (Car Camping, Backpacking, Camper Camping)	18	25%
Water Activities (Waterskiing, Swimming, Boating, Beaches, Fishing, Sailing)	14	19%
Hiking	7	10%
Paddling Activities (Canoeing, Kayaking, Boundary Waters trips)	7	10%
Parks (National Parks, State Parks)	5	7%
Scouts/Camps (Summer Camps, Boy Scouts)	4	5%
Winter Sports (Nordic skiing, Alpine skiing)	4	5%
Other (Biking, running, school trip, outside all the time)	4	5%
Nothing	3	4%
Rock Climbing	3	4%
Cabin	2	3%
Horseback Riding	2	3%
Total Responses	73	

Of the 20 participants in the focus groups, all but three reported some past

experience with outdoor activities before participating in a trip with COA. Of the 17

participants reporting some past experience with outdoor activities, 70 total responses

were recorded for an average of 4.12 responses per participants from those with past

outdoor experience. This indicates that the large majority of participants had past

experience with some outdoor activities, and the average of those had experience with

several outdoor activities.

Once an understanding of participants' past outdoor experience was established, the researcher posed Question 2 to the focus groups. This question asked participants about their reason for signing up for an outdoor trip with COA. The focus groups generated 69 total responses, for an average of 3.45 responses per participant (Table 4.6). The most common themes were "the organized nature of the COA trip" (16), the goal of "meeting new people" (13), "wanting to have a new experience" (7), and "general recreation" (7).

Table 4.6

Participants Reasons for Participating in COA Trip

Participation Reasons	N	%
Organized Trip	16	23%
Meet New People	13	19%
New Experience	7	10%
Recreation	7	10%
Explore Area/Region	6	9%
Get Off Campus	4	6%
Recommended	3	4%
Location of Activity	3	4%
Skill Development	3	4%
Cost Effective	2	3%
Independence	2	3%
Stress Relief	2	3%
Personal Challenge	1	1%
Total	69	

The category of Organized Trip included a variety of aspects of the organization of the trips, including having a designated group of people to go with, not having to procure equipment because COA provides equipment with trip registration, and a general discomfort with planning and going on a trip independently. An example of these three elements of the Organized Trip theme came, respectively, from individual participants who said, "I didn't know anyone else to do this with," another who said, "I didn't know

how to use any of the equipment, and I didn't know any of the rules," and another who said, "I wanted to let someone else do the planning." The second largest theme that emerged from participants' reasons for participating in a COA trip was the desire to meet new people. The responses in these areas were fairly consistent, including one individual saying "It was my freshman year…I didn't know anyone," and another who said "I wanted to meet new people." As demonstrated from these two primary themes, the research participants were highly motivated to register for an outdoor trip in order to meet new people and to take advantage of the organized structure of the trip.

Trip Outcomes: Understanding the outcomes of participating in outdoor adventure trips is a primary goal of this study, specifically focusing on social integration and sense of community, as indicated by these two research questions:

What effect does participation in an outdoor adventure program have on social integration of students? , and

What effect does participation in outdoor adventure programs have on students' sense of community within an institution?

The next nine questions asked of participants in the focus groups targeted these two research questions and provided much data in these two areas. The more in-depth analysis of those responses addresses if participation in outdoor adventure programs has any impact on social integration of students and their sense of community within an institution, and if it does, to what extent.

The first question asked of focus group participants aimed at understanding the impact of their participation in an outdoor adventure program asked participants to recall the most memorable part of their outdoor trip. From the 20 participants, a total of 59

responses were generated, for an average of 2.95 per participant (Table 4.7). Those

responses were categorized into overall themes, including individual outcome, group

outcome, issues/challenges, and trip attributes. Next, those responses were segmented by

sub-categories within the primary four categories, in order to understand what

components of the trip were the most memorable. Finally, each response was coded as a

negative or positive response, focusing on the participants' perception of the experience

and not their reaction to the experience. This allowed for the researcher to evaluate

which aspects of an outdoor trip are the most memorable using different approaches to

the analysis.

Using the categories as described, the strongest theme emerging from

participants' most memorable experience from their outdoor adventure trip was an

individual outcome (24), followed by issues/challenges presented on the trip (18).

Table 4.7

Most Memorable Aspect of Outdoor Trip, by Category

Trip Aspects	N	%
Outcome – Individual	24	41%
Issues/Challenges	18	31%
Trip Attributes	12	20%
Outcome – Group	5	8%
TOTAL	59	

Next, the researcher evaluated the sub-categories within the four categories,

allowing for greater detail on the experiences that were the most memorable from

participants' outdoor adventure trips. In order to understand the most commonly found

category of Individual Outcomes, a more in-depth view of the responses and sub-

categories is needed. Beginning with the most commonly found category of Individual

Outcomes, with a total of 24 responses, the most commonly found sub-categories

included Awe of Nature (10), and a New Experience (9) (Table 4.8).

Table 4.8

Most Memorable Aspects of Outdoor Trip, of Individual Outcomes

Trip Aspects	N	%
Awe of nature	10	42%
New Experience	9	38%
Developed Friendships	2	8%
Escape from the city	1	4%
Sense of accomplishment	1	4%
Spirituality	1	4%
TOTAL	24	

Examples of the Awe of Nature sub-category included a variety of responses,

such as "Mountains", "Seeing an eagle's nest", or "Experiencing snow in the desert."

Similarly, the New Experience sub-category produced a diverse group of responses

including "Jumping into a frozen lake," "Trying to steer a canoe with no experience," and

"Winter camping…waking up in an igloo." These responses provide a better

understanding of the individual experiences that emerged as the most memorable aspects

of participants' outdoor trip experience.

Another frequently reported category of most memorable experiences on outdoor

trips was Issues/Challenges. With a total of 18 responses in this category, the most

common sub-categories found were weather (8) and unexpected events of nature (3)

(Table 4.9).

Table 4.9

Most Memorable Aspects of Outdoor Trip, of Issues/Challenges

Trip Aspects	N	%
Weather	8	44%
Unexpected Events of Nature	3	17%
Wildlife	2	11%
Change of Plans	2	11%
Challenge of the Trip	1	6%
Environment Uncertainty	1	6%
Equipment Failure	1	6%
TOTAL	18	

Of the Trip Attributes category of most memorable aspects of outdoor trips, with a total of 12 responses, the sub-categories of Food/Cooking (4), Outdoor Activity (3), and Leaders-Expertise (3) all generated a variety of responses from participants (Table 4.10). Examples of these specific responses were "Making cheesecake in the rain," "Hiking," and "Group leaders were very knowledgeable" highlight these sub-categories, respectively.

Table 4.10

Most Memorable Aspects of Outdoor Trip, of Trip Attributes

Trip Aspects	N	%
Food/Cooking	4	33%
Outdoor Activity	3	25%
Leaders-Expertise	3	25%
Leaders-Inclusive	2	17%
TOTAL	12	

The final sub-category of most memorable aspects of participants' outdoor trip experiences was Group Outcomes, with five responses. All five responses were categorized as Group Camaraderie/cohesion, and examples include "I connected with everyone on the van trip," and "The group kept our spirits up."

To further determine the extent to which the sub-categories of responses represented the most memorable aspects of the participants' experiences on their outdoor trips, the researcher combined all sub-categories to determine which aspects of their experience had been the most memorable overall. Of the 59 total responses provided by participants, the most common sub-categories were Weather and Awe of Nature, each with 10 responses, followed closely by the New Experience category with nine responses (Table 4.11).

Finally, to better understand the most memorable aspects of participants' outdoor experiences, an analysis of the positive and negative results reported is useful. Of the 59 responses, the majority were positive (41), and only 18 were negative. Interestingly, all of the 18 negative responses were mutually exclusive with the 18 responses in the Issues/Challenges category of most memorable aspects of the outdoor trip.

Table 4.11

Most Memorable Aspects of Outdoor Trip, by Sub-Category

Trip Aspects	N	%
Awe of nature	10	17%
Weather	10	17%
New Experience	9	15%
Group Camaraderie/cohesion	5	8%
Food/Cooking	4	7%
Leaders – Expertise	3	5%
Outdoor activity	3	5%
Unexpected events of Nature	3	5%
Change of Plans	2	3%
Developed Friendships	2	3%
Leaders – inclusive	2	3%
Challenge of the Trip	1	2%
Environment Uncertainty	1	2%
Equipment Failure	1	2%
Escape from the city	1	2%
Sense of accomplishment	1	2%
Spirituality	1	2%
Total	59	

Overall, the most memorable experiences of participants were reported as Individual Outcomes experienced from the outdoor trips and the Issues/Challenges that occurred on the trip. Specifically, the Individual Outcome of Awe of Nature was commonly reported with participant responses including "It rained the entire day," "[It was] really cold outside," and "Hiking during a thunderstorm." The Issues/Challenges presented by the Weather experienced on the outdoor trip was also commonly cited by participants with comments including "Seeing lightening through the trees," We woke up to animals at camp; I felt at one with nature," and "We stayed outside for two hours, just looking at the stars."

Group Interaction: The next question asked the focus group participants to describe the interaction among the group on their trip. The intention of this question was to better understand how the group participants interacted together, and if that interaction had any impact on participants' social integration or sense of community. Of the 20 participants, 80 responses were generated when describing the group interaction on their outdoor trip, for an average of four responses per participant. In order to understand the types of interaction experienced, the categories previously established, in addition to sub-categories by response, were used. Analysis of positive and negative responses to interaction from the trip group will also allow for better understanding of the role interaction with the group on an outdoor trip can play in social integration and sense of community.

As participants described the interaction among the group with whom they participated on an outdoor trip, it was not surprising that the category of responses that was cited most frequently was group outcomes with 32 responses, followed by trip

attributes with 27 responses (Table 4.12). In addition, 18 participants mentioned

individual outcomes when describing the interaction among the group on their outdoor

trip, and only three responses were in the Issues/Challenges category. In order to more

fully evaluate the responses in this area, a further description of the sub-categories is

needed.

Table 4.12

Interaction of Group, by Category

Interaction	N	%
Outcome - Group	32	40%
Trip Attributes	27	34%
Outcome - Individual	18	23%
Issues/Challenges	3	4%
TOTAL	80	

With Group Outcomes as the most commonly cited category of participants'

responses to the group interaction, a more in-depth understanding of the sub-categories

and responses is needed. Group Camaraderie/Cohesion was the most commonly cited

sub-category, with 21 responses. Examples of Group Camaraderie/Cohesion from

participants included examples such as "Everyone helping each other out," "A lot of

camaraderie among the group," and "Very close knit group." Of the 23 responses in this

category, 21 were positive reflections of the group camaraderie/cohesion experienced on

their trip, and only two were negative reflections of this interaction among their group.

The Group Outcome sub-category of Group vs. Individual is a reflection of the

participant group prioritizing the benefit or wellbeing of the group over that of

individuals on the trip, and was cited eight times during the research (Table 4.13). All 8

responses in this category, in response to the question of group interaction, were positive,

and examples include "Everyone helped each other out," and "Group had to adjust [to] their ability level," indicating the need of the group to accommodate different skill levels on the trip.

Table 4.13

Interaction of Group, by Group Outcome

Interaction	N	%
Group Camaraderie/cohesion	23	72%
Group vs. Individual	8	25%
Games/Activities	1	3%
TOTAL	32	

The Trip Attribute category included 27 responses across seven sub-categories. The most commonly cited sub-category was Interact with Different People, which includes participant responses focused on participants being part of groups that included people with whom they do not normally interact (Table 4.14). Of the seven responses in this sub-category, six were positive and included responses like "Get to know people you wouldn't ordinarily interact with," and "Talk to people you otherwise might not." The sub-category of Different Skill Levels includes the extent to which varying skill levels of individuals on the trip impacted the group interaction among the group participants. Of the five responses, all were positive and included examples such as "No one got frustrated with physical fitness differences," and "Some people took packs because I couldn't handle the weight." The sub-category of Knowing People Before the Trip also had five responses relating to Group Interaction, and reflects the impact on group interaction when two or more of the group participants were acquaintances or friends before participating in the outdoor trip. Three of the five responses were negative and included comments such as "Participants knew each other…didn't interact [with the rest

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of the group] and "[when participants] come with a friend, they tend to talk only to each other." The remaining responses in the Trip Attributes category included the sub-categories of Leaders-Inclusive, Age Differences, Leaders-Expertise, and Food/Cooking.

Table 4.14

Interaction of Group, by Trip Attribute

Interaction	N	%
Interact with Different People	7	26%
Different Skill Levels	5	19%
Knowing People Before the Trip	5	19%
Leaders - Inclusive	4	15%
Age Differences	3	11%
Leaders - Expertise	2	7%
Food/Cooking	1	4%
TOTAL	27	

When asked about the Interaction of the Group on their outdoor trip, focus group participants also cited a variety of Individual Outcomes. With a total of 18 responses, the two most frequently cited sub-categories of Individual Outcomes were Developed Friendships and Personal Development (Table 4.15). Developed Friendships is a sub-category reflective of the extent to which participants built relationships with their fellow participants on their outdoor trip. The Developed Friendships sub-category had six responses and four were positive. Positive responses in the Developed Friendships sub-category included "Still in contact with a bunch of them today," and "[I] did see some people, [we] played tennis and went to the movies." Although two of the responses in the Developed Friendship sub-category were negative, they reflected a desire to have maintained friendships with their participants, as indicated by the response of "Disappointed that I didn't make any lasting friendships."

The other common sub-category cited in the Individual Outcomes category of Group Interaction responses was Personal Development. The Personal Development sub-category included six responses, and all were positive. Examples of this sub-category of responses were "[the trip] helped me overcome my phobia of working in groups," and "[I] will now go the extra mile for others." These examples help illustrate the extent to which group interaction on outdoor trips can positively impact the individuals on the trip, in addition to positively impacting the group. Other sub-categories of Individual Outcomes cited of Group Interaction outcomes include Cultural Awareness, Motivation, Physical Fitness, and Sense of Accomplishment.

Table 4.15

Interaction of Group, by Individual Outcome

Interaction	N	%
Developed Friendships	6	33%
Personal Development	6	33%
Cultural Awareness	2	11%
Motivation	2	11%
Physical Fitness	1	6%
Sense of Accomplishment	1	6%
TOTAL	18	

The Issues/Challenges category of Group Interaction outcomes was cited 3 times, with the sub-categories of Bad Decision Making, Unexpected Events of Nature, and Injury each receiving one response (Table 4.16). All three examples were negative, and example includes the response of "[I] packed heavy food, so I had to carry two packs."

Table 4.16

Interaction of Group, by Issues/Challenges

Interaction	N	%
Bad Decision Making	1	33%
Unexpected Events of Nature	1	33%
Injury	1	33%
TOTAL	3	

When evaluating the total responses to the question of Group Interaction among focus group participants, 67 of the 80 responses were positive. With 83% of the responses of Group Interaction outcomes as positive, a reasonable question would be whether or not the vast majority of group interaction on outdoor trips is indeed positive, or if the presence of the group leads to a positive impression of interaction that could be perceived as less positive without the group.

Overall, when asked about Group Interaction outcomes on their outdoor trip, study participants cited Group Outcomes as the most common category, with Group Camaraderie/Cohesion as the most common sub-category. The second most commonly cited sub-category of responses to Group Interaction outcomes was Interacting with Different People, followed by Developed Friendships, and Personal Development. As with the majority of the responses in these sub-categories, the majority of total responses of Group Interaction outcomes were reported as positive. This data indicate that the majority of outcomes participants experience from Group Interaction on outdoor trips is positive for both the group and the individuals participating in the outdoor trip.

Group Interaction: In addition to the responses from focus group participants about the group interaction on their outdoor trip, participants were also asked about what specific elements of the trip impacted that group interaction. Forty two responses were generated

from this question, with 29 of those responses in the Trip Attribute category (Table 4.17).

The other categories generated far fewer responses: Group Outcomes with five

responses, Issues/Challenges with five responses, and Individual Outcomes generating

three responses.

Table 4.17

Impact on Interaction of Group, By Category

Impacts	N	%
Trip Attributes	29	69%
Outcome - Group	5	12%
Issues/Challenges	5	12%
Outcome - Individual	3	7%
TOTAL	42	

The Trip Attributes category of responses was by far the most commonly cited

category, when participants were asked about what specifically impacted the Group

Interaction on their outdoor trip (Table 4.18). The most commonly cited sub-category

within Trip Attributes was Leaders-Inclusive, which is a reflection of the extent to which

the trip leaders created or fostered an inclusive environment among the group. Of the 15

responses in the Leaders-Inclusive sub-category, nine were positive and six were negative

responses. Examples of the positive responses in the Leaders-Inclusive category reflect

how the leaders were able to impact the group interaction on the trip, and include

responses such as "Leaders facilitate interaction, starting conversation," and "Leaders

tried hard to integrate everyone [into the group], not just the outdoorsy [participants]."

Examples of negative responses in the Leaders-Inclusive sub-category were "The three

trip leaders were pals and kept to themselves," and "Leaders were pragmatic and bossy

and didn't interact with the group well." These responses demonstrate that trip leaders

and their approach to creating and maintaining an inclusive environment on the trip are the mostly commonly cited trip attribute impacting group interaction on outdoor trips. Also, because 40% of the responses in this sub-category were negative, it is clear that negative experiences with trip leaders and their role to maintain inclusivity on outdoor trips can be just as impactful as the positive experiences for trip participants.

The second mostly commonly cited sub-category of specific elements of outdoor trips impacting Group Interaction was Food/Cooking, with a total of six responses. This sub-category clustered responses around the impact of group food and cooking, the time spent preparing food together as a group, and the challenge of working as a group to make food decisions for the duration of the trip. Four of the six responses in the Food/Cooking sub-category were positive, and examples include "Cooking meals hugely integrated the group," and "Figuring out what to cook…compromise." Two negative responses were reported as impactful to the interaction of the group, and an example of a response in this sub-category is "Food wasn't planned out well." These responses demonstrate that the impact of cooking and food on outdoor trips can be positive or negative, depending on the experience, and do have the capacity to impact the overall group interaction on trips.

The third most commonly cited sub-category of Trip Attributes on specific components of outdoor adventure trips that impacted group interaction on outdoor trips was Leaders-Expertise. This sub-category clusters responses regarding the skills, experience, and expertise of trip leaders on outdoor trips, and the extent to which that expertise of trip leaders can impact the group interaction on an outdoor trip. Four responses were generated in this sub-category when participants were asked about what

impacted the group interaction on their trip, and all 4 responses were positive. Examples

of these responses included "Leaders were knowledgeable about the plans [for the trip],"

and "Leaders could teach us many things." These three sub-categories of Trip Attributes

demonstrate that there are a variety of elements of outdoor trips that have the capability

to impact group interaction, positively and negatively, in addition to the other sub-

categories of Interact with Different People, Physical Challenge, and Different Skill

Levels.

Table 4.18

Impact on Interaction of Group, By Trip Attributes

Impacts	N	%
Leaders-Inclusive	15	52%
Food/Cooking	6	21%
Leaders-Expertise	4	14%
Interact with Different People	2	7%
Physical Challenge	1	3%
Different skill levels	1	3%
TOTAL	29	

The Group Outcomes category also generated a variety of responses of elements

of outdoor trips that impacted group interaction on outdoor trips for study participants.

The most common sub-category within Group Outcomes was Diversity of Group, with

three responses (Table 4.19). These responses were all positive, and examples included

"[I] appreciated other's diversity of experience," and "Diversity fosters positive

interaction [among participants]."

Table 4.19

Impact on Interaction of Group, By Group Outcomes

Impacts	N	%
Diversity of Group	3	60%
Group Camaraderie/Cohesion	1	20%
Group vs. Individual	1	20%
TOTAL	5	

The Issues/Challenges category of responses also generated a few examples of elements of outdoor trips that impacted group interaction on outdoor trips for study participants (Table 4.20). The sub-category of Unexpected Events of Nature was the most common with two responses, and both were positive. An example of this sub-category was "[It] was' a structured trip, but also had surprises come up." The other sub-categories of Issues/Challenges that were impactful to group interaction for study participants were Challenges of the Trip, Injury, and Weather.

Table 4.20

Impact on Interaction of Group, By Issues/Challenges

Impacts	N	%
Unexpected Events of Nature	2	40%
Challenges of the Trip	1	20%
Injury	1	20%
Weather	1	20%
TOTAL	5	

The Individual Outcomes category of responses also generated a few responses to the question of participants about what specific elements of the trip impacted the group interaction on their outdoor trip. The individual outcomes category generated a total of 3 responses, all positive, in the sub-categories of Cultural Awareness, Developed Friendships, and Learning from Others (Table 4.21). Examples of these sub-categories

respectively, include "Others had a lot of questions about India [my home country],"
"One of the international students became one of my best friends," and "[I] compiled a
list of books to read from the group."

Table 4.21

Impact on Interaction of Group, By Individual Outcomes

Impacts	N	%
Cultural Awareness	1	33%
Developed Friendships	1	33%
Learning from Others	1	33%
TOTAL	3	

When evaluating specific elements of outdoor trips that can impact group
interaction, the data suggest that the most impactful trip component can be Leaders and
their ability to maintain an inclusive environment. Food and Cooking is also another trip
component with the potential to be very impactful to the group interaction, and both of
these have the potential to positively or negatively impact the interaction of the group on
an outdoor trip.

Individual Sense of Belonging: This research study also aimed to understand if
participation in outdoor adventure trip plays any role in students feeling a sense of
belonging to their university. Questions 6 and 7 of the focus group asked participants to
reflect on what aspects led to participants having a sense of belonging on their outdoor
trip, and then whether or not participation on that trip led to participants having a sense of
belonging to their university. Although both questions aimed to understand the sense of
belonging of students who participated in outdoor adventure trips, the questions will be
analyzed separately because the first asks about the sense of belonging on the trip, and

the second is a more broad assessment of sense of belonging after completing an outdoor adventure trip.

Focus group participants gave 40 total responses to the factors of their outdoor trip that led to a sense of belonging, for an average of two responses per focus group participant. The category of responses with the most responses was the Trip Attributes category with 16 responses, followed by the Group Outcomes category with 15 responses (Table 4.22). Fewer Individual Outcomes (6) were cited as leading to a sense of belonging, and Issues/ Challenges resulted in the fewest responses with a total of three.

Table 4.22

Factors Leading to a Sense of Belonging, By Category

Factors	N	%
Trip Attributes	16	40%
Outcome - Group	15	38%
Outcome - Individual	6	15%
Issues/Challenges	3	8%
TOTAL	40	

The Trip Attributes category produced the highest number of responses, which seems appropriate considering that the question asked was what aspects of their outdoor trip led to a sense of belonging for them. Therefore, a better understanding of the sub-category of Trip Attributes that led to a sense of belonging for students is needed.

Of the16 responses of Trip Attributes that led to a sense of belonging on an outdoor adventure trip, the most commonly cited sub-category was Interact with Different People (Table 4.23). This sub-category captures responses around participants' desire to meet different kinds of people on outdoor adventure trips and the extent to which interaction with people who they otherwise normally wouldn't, contributed to the

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overall experience for participants. The Interact with Different People sub-category

generated a total of six responses, and examples include "[I] learned more about the other

person, led to a sense of belonging [for me]," "Celebrating differences," and

"Exchanging views and ideas." Additionally, all six of the responses about Interacting

with Different People were positive comments, indicating that the opportunity to meet

and engage with others outside of a participant's normal social circle can have a positive

impact on their outdoor trip experience.

The next most commonly cited sub-categories of trip attributes that led to a sense

of belonging were Food/Cooking and Knowing People Before the Trip. The

Food/Cooking sub-category generated a total of three responses, which were all positive

reflections of trip attributes that led to a sense of belonging on their outdoor trip.

Examples of responses from the Food/Cooking category that led to a sense of belonging

are "Cooking group – leads to talking as a group," and "Meal time was a great time to

relax, brought the group together." These examples demonstrate that the mutual

accountability and reliance on others for food and cooking activities can have a positive

impact on participant's sense of belonging on outdoor adventure trips. The category of

responses of Knowing People Before the Trip also generated three responses, with one of

those being a negative reflection of their sense of belonging on their trip. A positive

example of this sub-category of responses was "Not knowing anyone helps you get to

know everyone else," and a negative response was "Two people who were friends – [they

were] less present, didn't want to be there." These examples demonstrate that the extent

to which other outdoor trip participants know fellow participants can lead to a sense of

belonging of others on the trip, and this impact on sense of belonging can be positive or negative.

Table 4.23

Factors Leading to a Sense of Belonging, by Trip Attributes

Factors	N	%
Interact with Different People	6	38%
Food/Cooking	3	19%
Knowing people Before trip	3	19%
Gender Balance	1	6%
Lack of Technology	1	6%
Length of Trip	1	6%
Leaders - Inclusive	1	6%
TOTAL	16	

The Group Outcomes category generated a total of 15 responses from participants, when asked about what factors of their outdoor adventure trip led to their sense of belonging (Table 4.24). The most commonly cited category was Group Camaraderie/Cohesion with a total of six responses, and all of those responses were positive. Examples from the focus group participants of how Group Camaraderie/Cohesion led to their sense of belonging include "Realizing it's a group experience, people are prepared to be in a group," "Small group - led to a close knit group," and "The whole group was suffering - led to sense of belonging." These examples demonstrate that the interaction and cohesion of the participant group can impact the extent to which individual participants feel that they belong to the group, and this study found that the group cohesion and camaraderie had exclusively positive impacts.

The second most commonly cited sub-category of responses of Group Outcomes that led to a sense of belonging on outdoor adventure trips was the Similar Interest sub-

category with a total of four responses. All of these were positive, and examples include "Finding something in common with others," and "Mutual interest of the participants – [we were all] there for the same reason." These examples illustrate that the extent to which program participants have similar interests with others on the trip can impact individual participant's sense of belonging, and this study found that influence on sense of belonging to be only positive as reported by focus group participants.

Table 4.24

Factors Leading to a Sense of Belonging, by Group Outcomes

Factors	N	%
Group Camaraderie/Cohesion	6	38%
Similar Interests	4	25%
Games/Activities	2	13%
Group vs. Individual	2	13%
Laughter/Humor	1	6%
TOTAL	15	

The Individual Outcomes category of responses generated a total of 6 responses, when focus group participants were asked about what impacted their sense of belonging on an outdoor adventure trip. The two most commonly cited sub-categories were Sense of Belonging and Interest in the Outdoors, each with two responses (Table 4.25). All responses in these sub-categories were positive and examples include "Happens naturally that you belong," and "Enjoying nature," respectively.

Table 4.25

Factors Leading to a Sense of Belonging, by Individual Outcomes

Factors	N	%
Sense of belonging	2	33%
Interest in Outdoors	2	33%
Sense of Accomplishment	1	17%
Developed Friendships	1	17%
TOTAL	6	

The Issues/Challenges category generated a total of three responses, when participants were asked about what led to their sense of belonging on an outdoor adventure trip, and all 3 responses were positive. The Weather sub-category was cited in two responses, and examples from the focus group participants included "Weather - everyone [was] cold and miserable [and that] led to sense of belonging," and "Everyone had to deal with the weather [which] brought us together."

With the question of study participants about what impacted their sense of belonging on their outdoor adventure trips, 38 of the total 40 responses were positive. The negative responses that were generated from focus group participants were around people on their trip knowing each other and being less likely to interact with the rest of the group, and also the sense of one participant that fellow trip participants were "single serving friends." The overwhelmingly positive responses of what led to participants' sense of belonging, and the diversity of responses, illustrate that a variety of trip components can lead to a sense of belonging on outdoor trips.

After evaluating the aspects of outdoor trips that help foster a sense of belonging for trip participants, the researcher asked focus group participants about how their sense of belonging to their university changed after participating in an outdoor trip. The focus group participants reported a total of 36 responses to this question, for an average of 1.8 responses per study participant (Table 4.26). The vast majority of responses were categorized as Individual Outcomes which is not surprising since the question focused on each participant's individual sense of belonging to their university after participating in an outdoor trip. Examples of some of these individual outcomes included "The trip helped me connect with other students," "Felt less isolated as a student," and "[I] felt

more connected to others on campus." The Trip Attributes category generated a total of 4 responses, and the Group Outcomes generated 1 response. In order to better understand what aspects of participant's outdoor adventure trip participation impacted their sense of belonging on their home university, a more in-depth evaluation of the focus group responses is needed.

Table 4.26

Sense of Belonging Change, by Category

Category	N	%
Outcome - Individual	31	86%
Trip Attributes	4	11%
Outcome - Group	1	3%
TOTAL	36	

A variety of Individual Outcomes were reported by study participants to demonstrate if and how their participation in an outdoor adventure trip impacted their sense of belonging to their university (Table 4.27). The mostly commonly cited examples were in the Developed Friendships sub-category, with a total of 6 responses. All 6 of these responses were positive, and examples of study participant's responses include "[I] met a lot of people I stayed in touch with," [I] made friends, [and I] have people to go climbing with, have a team of friends," and "[I] felt more open to meeting new friends," Meeting new people," "Strengthened my relationships with other people outside of the U," and "Started doing COA – like trips with other friends, brings us closer together." These examples demonstrate that, when outdoor trip participants are able to develop friendships on their trip, their sense of belonging may increase to their overall university after the outdoor trip.

Another sub-category of responses that study participants indicated as impactful to their sense of belonging after completing an outdoor adventure trip was Connection to the UMN, with five responses. Four of those responses were positive, and include "Makes me want to keep coming back to the U [UMN]," and "[I] felt more a part of the U [UMN]." One negative response was also generated in this sub-category and reflects the participant's hope that their participation in the outdoor adventure trip may have led to a greater sense of belonging, as evident by "[I] was hoping it would make me feel more belonging to the U [UMN], but it didn't."

The other sub-category that generated a number of responses was the Sense of Belonging sub-category, with a total of five responses. All of those responses were positive, and include examples such as "[I] made some friends [and] felt like I had at least one place where I could feel comfortable," "[I] felt less isolated as a student," and "[It] helped me connect with other students." These responses demonstrate that outdoor trip participation can impact participant's sense of belonging to their university after the trip, and that impact was found to be exclusively positive in this study.

Table 4.27

Sense of Belonging Change, by Individual Outcomes

Outcome	N	%
Developed Friendships	6	19%
Connection to UMN	5	16%
Sense of belonging	5	16%
Academic Integration	2	6%
Exposure to campus resources	2	6%
Open to new experience	2	6%
Personal Development	2	6%
Physical Fitness	2	6%
Focus	2	6%
Community involvement	1	3%
Interest in outdoors	1	3%
Stress Relief	1	3%
TOTAL	31	

The Trip Attributes category generated a few responses, when study participants were asked about the impact to their sense of belonging to their home university after participating in an outdoor adventure trip (Table 4.28). A total of four responses were generated, with the Length of Trip sub-category cited twice, and both responses were negative. Examples of the Length of Trip sub-category include "[A] longer trip may have added to my sense of belonging more," and "Also, [participating on a] short trip is tough to make friends." These responses indicate that the length of trip that participants experience can impact their sense of belonging to their home university after the trip, and longer trips may impact their sense of belonging more positively.

Table 4.28

Sense of Belonging Change, by Trip Attributes

Trip Attribute	N	%
Length of Trip	2	50%
Interact with Different People	1	25%
Timing of Trip	1	25%
TOTAL	4	

The Group Outcomes category generated only one response when study participants were asked about the extent to which their participation in an outdoor adventure trip influenced their sense of belonging to their home university after the trip. This response was positive and reads "You don't have to go alone - everyone's in it together." This response indicates that the camaraderie with the trip group can lead to participants feeling a greater sense of belonging to their home university.

When study participants were asked about how participation in an outdoor adventure trip impacted their sense of belonging to their home university, a large majority of their responses were positive. This data illustrates that outdoor trip participants feel that their participation in an outdoor adventure trip can impact their sense of belonging to their home university, and mostly in a positive manner

The data illustrate that there are a variety of aspects of outdoor adventure trips that can impact participant's sense of belonging on the trip, and that their participation in an outdoor adventure trip has the opportunity to have a mostly positive impact on participant's sense of belonging to their university after the trip. This data can be helpful to understand how to maximize participant's involvement on the trip, and the positive impact it can have on their integration to the university after the trip.

Individual Academic Success: Understanding the impact on participant's academic success is a primary goal of this study. Participants were asked about the extent to which participation on an outdoor adventure trip impacted their academic success, and also if their trip participation impacted their decision to continue their education at their home institution. Analysis of participant responses is included here.

Because academic success and persistence is a widely discussed metric for higher education institutions, this research sought to determine if participation in outdoor adventure trips may impact participants' success academically. When focus group participants were asked, they offered 39 responses, resulting in slightly less than two responses per participant on average. Due to the individual student focused question, it is no surprise that all 39 responses were categorized as an Individual Outcome. However, the responses by sub-categories of Individual Outcome are more varied (Table 4.29).

The Individual Outcome of Focus was cited most often by focus group participants, with a total of 10 responses. Examples of the Focus sub-category include, "Helped me focus when I got back," "Helped me academically because I could concentrate after the trip," and "Let me refocus and clear my mind," "Helps me clear my mind," "Trip helped me be calmer and concentrate on my workload," and "Afterwards, [I] went back to the trip in my mind and it helped me focus." These examples demonstrate that outdoor trip participation can have a positive impact on participants' ability to focus on their academic pursuits. Two participants also reported a negative impact on their ability to focus on their academic priorities after participating in an outdoor trip, with one example being, "[The trip] slightly hurt my academics, [because I was] addicted to the outdoors and sailing." In this way, it is clear that participation in an outdoor adventure trip may also have a negative impact for participants, especially if their interest in being outdoors is allowed to jeopardize time and effort spent on academic pursuits.

The Individual Outcome of Stress Relief was also a highly cited response from focus group participants, also with a total of 10 responses. Unlike the Focus sub-

category, all 10 responses were positive and included responses like "[The trip improved my] mental health, without it, school gets too overwhelming," "Going on trips recharges my batteries," and "[The trip] helped me not go crazy with school." These responses indicate that outdoor trip participation can have a positive impact on participant's ability to manage the stress of higher education.

The sub-category of Prioritization was also frequently cited from focus group participants, with a total of seven responses. All seven responses were a positive reflection on how participating in an outdoor trip helped students succeed academically, focusing on participant's ability to prioritize the many demands of being a student. Examples from the focus groups of how participation in an outdoor trip helped them prioritize include, "Rejuvenation of being in nature motivated me to do school work," "Helped me get stuff done before the trip, since I'm a procrastinator," and "Being more involved helps me prioritize." These responses demonstrate the multiple ways that participation in outdoor adventure trips can help students prioritize and succeed academically through requiring efficient use of time and rejuvenating students who can then prioritize their school work.

A variety of other sub-categories emerged from the focus group participants in their response to how participating in an outdoor trip impacted their academic success, including academic integration, escape from the city, experiential education, language skills, personal development, balance, and physical fitness.

Table 4.29

Impact to Academic Success, By Individual Outcome

Outcome	N	%
Focus	10	26%
Stress Relief	10	26%
Prioritization	7	18%
Academic Integration	2	5%
Escape from the City	2	5%
Experiential Education	2	5%
Language Skills	2	5%
Personal Development	2	5%
Balance	1	3%
Physical Fitness	1	3%
TOTAL	39	

Despite the diversity of ways in which participating in outdoor adventure trips impacted participants academic success, the responses from focus group participants reported almost exclusively positive impact to their academic success. Of the 39 total responses, only two were negative, indicating a mostly positive response of the impact to academic success as experienced by study participants.

These results demonstrate that participation in outdoor adventure trips can have a widely positive impact on students' future academic success, and can impact that academic success in a variety of ways. Other noteworthy responses of how participating in an outdoor trip impacted participant's academic success include "[I was] more confident asking people in my classes to work on homework together," "[The trip] helped me find the balance between academics and life," "My trip group helped me with new ideas for papers," and "[I gained] confidence with my language [skills]." In these ways, it is clear that participation in outdoor trips can impact participants in a variety of ways, including social integration and academic success.

In addition to the impact that outdoor trip participation can play on participant's academic success, this researcher also sought to understand how trip participation may impact students' decisions to continue their education at their home institution. Because the focus group participants were all UMN students at the time of participation in the outdoor trip, participants were asked if and how participating in the outdoor trip impacted their decision to continue at the UMN.

Focus group participants responded with a total of 13 comments, resulting in less than one response per participant (Table 4.30). All of those responses were positive, and all were categorized as an Individual Outcome. Due to the specific nature of the question, the sub-category generating the most responses was Connection to UMN, with a total of five responses. Examples of responses from focus group participants included "[I] feel more connected to campus, [I] want to come back here for grad school," [The trip] made me appreciate the U more," and "[The trip] made me want to recruit other people here." These responses indicate how participating in an outdoor trip had a positive impact on participant's connection with the UMN and their decision to continue their education at the UMN.

In addition to participant's reporting that their connection to the UMN was enhanced by participating in an outdoor trip, focus group participants also reported that the richness of their college experience improved from their outdoor trip participation. Focus group participants indicated that that richness impacted their decision to continue their education at the UMN with responses like "[Participating in the trip] made my time here more enjoyable," and "[I have] a better appreciation for the University experience."

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Table 4.30

Impact to Decision to Continue Education at the UMN, By Individual Outcome

Outcome	N	%
Connection to UMN	5	38%
Richness of college experience	4	31%
Connection to local area	2	15%
Diverse academic experience	1	8%
Interest in outdoors	1	8%
TOTAL	13	

In consideration of the focus group responses on how participating in an outdoor trip impacted their academic success and their decision to continue their education at the UMN, it is clear that study participants' experiences were overwhelmingly positive in the area of impacting their academic success and persistence at the UMN. These data and analysis may allow for better understanding of how outdoor trip participation can positively influence the academic experience of students. This increased understanding may then be used by higher education instructors, staff, and administrators as another way in which student experiences and program offerings may be used to help students succeed academically and perpetuate at their home institution.

Individual – Long-Term Impact: This study has explored the data surrounding the two primary goals of understanding how participation in outdoor adventure trips can impact student's sense of belonging and academic success. In addition to this, this study also sought to understand if any long-term impacts were experienced by outdoor trip participants. Questions targeted to the focus group participants focused on this, in addition to the specific area of how outdoor trip participation may have impacted participants' purpose in life. Analysis of focus group data allows for more complete understanding in these areas.

When asked about what long-term effects study participants experienced from participating in outdoor adventure trips, focus group participants offered a total of 55 responses for an average of 2.75 responses per participant. All 55 responses were positive, and the majority of those responses were categorized as Individual Outcomes. Given the specific nature of the question asked, it is not surprising that the majority of responses to the question of what long-term effects exist from participating in an outdoor trip would primarily pertain to the individual participant. When exploring the responses in more detail and grouping the responses into sub-categories, the themes emerging the most frequently were Interest in the Outdoors, Confidence, and Physical Fitness (Table 4.31). More in-depth analysis of these sub-categories will afford a better understanding of the long-term effects from outdoor trip participation on participants.

The sub-category of Interest in the Outdoors emerged the most frequently, with a total of nine responses from the focus groups. Examples of how participating in an outdoor trip influenced a long-term interest in the outdoors from participants included "[The trip] perpetuated my love for being outside," "[I] rediscovered a love for the woods and the wilderness," and "[The trip] makes me want to keep doing this throughout life, bring my kids on trips like this." These responses demonstrate the positive long-term impact that outdoor trip participation has on participants.

The next sub-category of responses of long-term effects on focus group participants after participating in an outdoor adventure trip is Confidence. The Confidence sub-category generated a total of eight responses from participants, and all were positive. Examples of responses from focus group participants demonstrating the long-term impact on their Confidence include, "[The trip] gave me confidence to go out

and do trips on my own ," [I have a] new confidence [from the] learning experience from COA trip, " and "[My] confidence improved, have to believe in yourself." These examples demonstrate that participating in an outdoor adventure trip can lead to long-term increase in participant's confidence levels in general, with specific impact on their confidence in conducting their own outdoor trips.

Another sub-category of responses that was cited often when study participants were asked about the long-term effects of participating in an outdoor adventure trip is Physical Fitness. A total of seven positive responses emerged in this category, and examples of responses include "[I] got more into shape," "[The trip] motivate[d] me to maintain my level of physical fitness," and "[I've] been more health conscious after the trip." These responses demonstrate the positive long-term impact of outdoor trip participation on study participants' fitness and wellness.

The positive long-term effects of outdoor trip participation are in various categories, although all were reported as positive impacts from study participants. In addition to the examples of positive long-term effects in the areas already discussed, additional positive long-term effects were found in a variety of other sub-categories shown in Table 4.31.

Table 4.31

Long-term Effects from Participation in Outdoor Trip, By Individual Outcomes

Outcome	N	%
Interest in outdoors	9	17%
Confidence	8	15%
Physical Fitness	7	13%
Skill Development	6	11%
Long term memories	5	9%
Developed Friendships	4	8%
Environmental Awareness	4	8%
Cultural Awareness	3	6%
Personal Development	3	6%
Social Integration	2	4%
Academic Integration	1	2%
Connection to local area	1	2%
TOTAL	53	

The final question asked of focus group participants focused specifically on study participant's change experienced in their Purpose in Life after participating in an outdoor adventure trip. Similar to the previous question about the long-term effects of participation in outdoor adventure trips on study participants, this question sought to understand if and how the trip experience influenced how participants approached their life or their personal impression of their purpose in life. This question generated 52 responses, for an average of 2.6 responses per participant, and all 52 responses on how participant in an outdoor trip changed their purpose in life were positive (Table 4.32).

Likely due to the nature of the question asked of study participants, all of the responses recorded were categorized as Individual Outcomes. By evaluating the responses further and organizing them by sub-category, a few interesting themes emerged. The Approach to Life sub-category was most commonly cited, with a total of 14 responses. Participant comments in this area included "[The trip] made me think about what kind of lifestyle I want and people I want to be around," "[The trip] helped

me figure out and solidify my values," and "[The trip] helped me figure out where I was and where I want to be." These responses demonstrate that the impact of participating in an outdoor trip to a participant's Purpose in Life can be very positive, and that impact can be a very diverse experience for participants.

The second most frequently cited sub-category of impacts to participant's purpose in life was Environmental Awareness. This sub-category generated a total of 10 responses, including "[My trip] helped me see my effect on the natural world," "[An outdoor trip] teaches you to want to preserve nature for all of us," and "[My trip] made me want to take more care of nature." Another sub-category of responses that was particularly interesting was of Humbling. This category grouped five positive responses from participants of how their outdoor trip participation helped them realize the size of the world around them, resulting in a humbling experience for participants. Examples of responses in this sub-category include "[My trip was a] humbling experience," "[The trip] made me think the world is so big," and "[The trip] puts you in your place, [and makes you realize that] there's more out there than you thought." The responses from these three sub-categories illustrate the positive influence that outdoor trip participation can have on trip participants, in a mostly positive way.

Table 4.32

Outdoor Trip Participation Change to Purpose in Life, By Individual Outcome

Outcome	N	%
Approach to Life	14	27%
Environmental Awareness	10	19%
Humbling	5	10%
Long-term goals	4	8%
Travel	4	8%
Spirituality	3	6%
Appreciation of nature	2	4%
Interest in outdoors	2	4%
Physical Fitness	2	4%
Safety/Risk Management	2	4%
Balance	1	2%
Confidence	1	2%
Experiential Education	1	2%
Long-term memories	1	2%
TOTAL	52	

The long-term impact of participant's outdoor trip experience was reported by study participants as very prevalent, given the number of responses reported in these areas. For most participants, the outdoor trip referenced during the focus groups was more than a year in the past, indicating their ability to accurately assess the long-term impact of their trip experience. The data demonstrate that the lasting impacts on outdoor trip participants are widely positive and can help shape participants' general sense of their direction and purpose in life. Beyond the commonly reported impact of an increased interest in the outdoors and outdoor activities, the data suggests a more in-depth impact on participants as reported in categories of responses like Humbling, Spirituality, Confidence, Balance, Cultural Awareness, and Personal Development. Given that all of these aspects help shape participants' sense of self, participation in outdoor adventure trips may be used as an interesting tool by higher education professionals interested in perpetuating the path of student development.

Total Responses – Outdoor Trip Participation Themes: After considering the individual components addressed in the focus group questions and responses, it is also helpful to review the total responses to determine what broad themes exist in the data. The focus groups generated a total of 416 total responses, averaging 20.8 responses per focus group participant (Table 4.33). The most common category of responses was Individual Outcomes, with a total of 239 responses; followed by Trip Attributes with 90 responses; Group Outcomes with 58 responses; then Issues/Challenges with 29 responses. This distribution of responses is not surprising, given that focus group participants were asked to reflect mostly on their personal experience during and after their outdoor adventure trip. In order to determine over-arching themes in the total data set, the researcher will review the total responses by category to determine what aspects of outdoor trip participation were most commonly reported across all focus group questions and participants.

Across all of the questions asked during the focus groups of this study, participants reported an Individual Outcome more than other components of their experience. With 239 total responses, 57% of the total responses reported by study participants were Individual Outcomes. The vast majority of those responses were positive, with a total of 233 responses and only six negative responses. This data demonstrate that outdoor trip participation has the most impact on individuals, which certainly seems reasonable given that the groups that are formed for outdoor trips are often due only by the random dates at which participants register for a trip. Although a variety of group outcomes were reported from the focus groups, the majority of lasting impact was reported for individual participants.

The most common sub-categories of Individual Outcomes reported from focus group participants were: Developed Friendships (N=20), Interest in Outdoors (N=15), Approach to Life (N=14), Environmental Awareness (N=14), Personal Development (N=13), Physical Fitness (N=13), and Focus (N=12) (Table 4.33). Interestingly, there is great diversity among these sub-categories, reflecting that outdoor trip participation has the opportunity to positively impact the individual participants in a variety of ways.

The Trip Attributes category generated a total of 90 responses from focus group participants, representing 21.6% of the total responses. Of the 90 responses, 71 were positive and 19 were negative. This data demonstrates that the attributes and design of outdoor trips can generate positive and negative response from trip participants, and that these outdoor trip participants participating in this research study reflected mostly positively on the attributes of the trips on which they participated.

The mostly commonly reported sub-categories of responses in the Trip Attribute category were Leaders-Inclusive (N=22), Interact with Different People (N=18), Food/Cooking (N=14) (Table 4.34). These themes highlight a variety of trip attributes that were reported by focus group participants, indicating that the area of Trip Attributes that was the most impactful to study participants was the extent to which their Leaders created and perpetuated an inclusive environment. Interestingly, while this sub-category of responses generated many positive responses (N=14), many negative responses were also recorded from study participants in this area (N=8). The Interact with Different People sub-category generated almost entirely positive responses from study participants, as were the responses in the Food/Cooking sub-category.

Table 4.33

Total Focus Group Responses of Individual Outcomes Category

Category	Sub-Category	*N*	%
Individual Outcomes			
	Developed Friendships	20	8%
	Interest in outdoors	15	6%
	Approach to life	14	6%
	Environmental Awareness	14	6%
	Personal Development	13	5%
	Physical Fitness	13	5%
	Focus	12	5%
	Stress Relief	11	5%
	Awe of nature	10	4%
	Connection to UMN	10	4%
	Confidence	9	4%
	New Experience	9	4%
	Sense of belonging	7	3%
	Cultural Awareness	6	3%
	Long-term memories	6	3%
	Prioritization	7	3%
	Skill development	6	3%
	Academic Integration	5	2%
	Humbling	5	2%
	Long-term goals	4	2%
	Richness of college experience	4	2%
	Spirituality	4	2%
	Travel	4	2%
	Connection to local area	3	1%
	Escape from the city	3	1%
	Experiential Education	3	1%
	Sense of accomplishment	3	1%
	Appreciate of nature	2	1%
	Balance	2	1%
	Exposure to campus resources	2	1%
	Language Skills	2	1%
	Motivation	2	1%
	Open to new experience	2	1%
	Safety/Risk Management	2	1%
	Social Integration	2	1%
	Community involvement	1	0%
	Diverse academic experience	1	0%
	Learning from others	1	0%
TOTAL		239	

Table 4.34

Total Focus Group Responses of Trip Attribute Category

Category	Sub-Category	N	%
Trip Attributes			
	Leaders - Inclusive	22	24%
	Interact with Different People	18	20%
	Food/Cooking	14	16%
	Leaders – Expertise	9	10%
	Knowing People before Trip	8	9%
	Different Skill Levels	6	7%
	Age Differences	3	3%
	Length of Trip	3	3%
	Outdoor Activity	3	3%
	Gender Balance	1	1%
	Lack of Technology	1	1%
	Physical Challenge	1	1%
	Timing of Trip	1	1%
TOTAL		90	

The Group Outcomes category generated a total of 58 responses from the focus groups, for an average of 2.9 responses per participant. The majority of these responses were positive, with only two negative responses recorded. These data indicate that the majority of experiences of the group on an outdoor trip are recorded as positive.

Within the Group Outcomes category of responses, the sub-categories cited most frequently were Group Camaraderie/Cohesion with 36 responses and Group vs. Individual with 11 responses (Table 4.35). Given that two of the focus groups questions were focused specifically on the group interaction, it is not surprising that the most commonly reported sub-categories reported were focused on the group experience. Within the Group Camaraderie/Cohesion sub-category, the majority of responses were positive reflections of the group, with only two responses coded as negative response. Similarly, the Group vs. Individual sub-category was exclusively reported as positive responses, indicating that when participants had experiences on their outdoor trip that

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required participants to prioritize the group over an individual, that this was considered a positive reflection.

Table 4.35

Total Focus Group Responses of Group Outcomes Category

Category	Sub-Category	N	%
Outcome - Group			
	Group Camaraderie/Cohesion	36	62%
	Group vs. Individual	11	19%
	Similar interests	4	7%
	Diversity of group	3	5%
	Games/Activities	3	5%
	Laughter/Humor	1	2%
TOTAL RESPONSES		58	

The final category of focus group responses to review is the Issues/Challenges. This category of responses combined the unexpected events and problems that occurred on the outdoor adventure trips of study participants and generated a total of 29 responses, for an average of 1.45 responses per participant. Given the nature of the responses reporting mostly problems and challenges of outdoor trips, it is not surprising that the majority of the responses categorized in this way were negative (N=22).

The sub-categories of responses from the Issues/Challenges category that was cited the most frequently were Weather with a total of 13 responses, followed by Unexpected Events of Nature with a total of 6 responses (Table 4.36). These responses reflect the variety of challenges that an outdoor adventure trip can present to participants, and the diversity of experience that can emerge for participants based on the circumstances of nature and weather.

Table 4.36

Total Focus Group Responses of Issues/Challenges Category

Category	Sub-Category	*N*	%
Issues/Challenges			
	Weather	13	45%
	Unexpected Events of Nature	6	21%
	Challenge of the Trip	3	10%
	Change of Plans	2	7%
	Injury	2	7%
	Bad Decision Making	1	3%
	Environment Uncertainty	1	3%
	Equipment Failure	1	3%
TOTAL RESPONSES		29	

From this analysis of the complete data set of study participants' responses, a variety of trends emerged highlighting the variety of outcomes participants experienced as individuals, the trip attributes leading to positive and negative trip experiences, and the issues and challenges experienced on outdoor adventure trips. Chapter five interprets these results and provides recommendations for how these data may be best used. By offering suggestions of how these data may help to understand the student experience when participating in outdoor adventure trips, opportunities for increasing student academic success and social integration may emerge.

CHAPTER 5

SUMMARY, DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Summary of the Study

Understanding the components of the student experience in higher education can lead to better understanding of how students become successful in their academic experience. By studying and understanding the extracurricular activities that create a sense of belonging to academic institutions for students, researchers are better able to determine what elements of a student experience can impact student success. Relying on the past research from Tinto demonstrating that social integration can lead to academic success for college students, this researcher sought to understand if participation in outdoor adventure programs may also drive social integration and academic success. With this researcher's experience working in the field of outdoor adventure programming, much anecdotal knowledge has demonstrated that students often return from outdoor adventure trips having made new friends and feeling more a part of their higher education environment. However, to actually understand if that outcome of outdoor adventure trips has any lasting impact on students was a primary goal of this study.

Summary of the Purpose of the Study

The purpose of this research study was to gain a better understanding of the effects of outdoor adventure program participation on student academic success, as measured by grade point average (GPA), persistence, and graduation rates at a large public institution. Through the mixed method analysis approach, this purpose was partially fulfilled. This study included a very small N of 17 for the quantitative research,

possibly contributing to the lack of significant findings of the study. Although no statistically significant impact on the three aforementioned variables was found, the qualitative aspect of this study produced extensive data supporting the goal of understanding how outdoor adventure program participation can impact student social integration. It is these aspects of social integration discovered through this study that the researcher utilizes within Tinto's framework to evaluate how outdoor adventure participation can impact student success.

This researcher hypothesized that students participating in outdoor adventure programming would earn better grades, continue in their education further, and graduate more frequently than their peers. Furthermore, this researcher believed that participating in outdoor adventure trips led to an increased sense of social integration for participants, although the specific components of social integration were unknown. While the findings of this study have not presented any statistically significant results on academic success of outdoor adventure trip participants, extensive qualitative data were uncovered about social integration and what elements of outdoor trip participation affected students' sense of social integration.

<center>Summary of the Methodology</center>

This study utilized two methods of data collection as part of the mixed method approach to analyzing the research questions. The quantitative portion of this study focused on students participating in an outdoor adventure of at least two days in duration during their first year of undergraduate education (N=17). By measuring those students GPA's, rates of persistence, and graduation rates and comparing those variables with the greater student population, this study sought to determine the relationship between

outdoor adventure trips participation and student academic success as measured by GPA, persistence, and graduation rates.

Next, this study utilized a focus group approach to determine the impact of outdoor adventure program participation on student social integration. Although the researcher believed that many aspects of outdoor adventure trip participation could impact student social integration, the specific aspects of trip participation were unknown. The focus groups utilized responses from 20 participants over the course of 4 focus groups, generating a total of 416 responses.

This research study was moderately successful in measuring the variables and impact of outdoor trip participation sought by the researcher. The quantitative aspect of the mixed method study produced a very small sample size (N=17), making the measurement of statistical significance of the three academic success variables challenging. Because of the small number of students participating in outdoor adventure trips during the first year of their undergraduate experience, no real evidence of outdoor trip participation affecting academic success emerged from this study.

In contrast to the lack of statistically significant results from the quantitative approach of this study, the qualitative research methods presented ample data on the impact of outdoor trip participation on student social integration. With an average of more than 20 responses per focus group participant, the volume of data collected from the focus groups indicate that students participating in outdoor adventure trips have a lot to report about their experience and that they are impacted in a variety of ways. The researcher acknowledges that some self-selection bias may exist among the focus group participants, and that those electing to participate in the focus groups were likely to

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actively contribute to the discussion. The volume of data was unexpected. From that data, much information about the student experience on outdoor adventure trips emerged, with substantial learning about the variety of trip aspects that can positively impact participants.

<div align="center">Summary of Findings & Discussion</div>

The quantitative aspect of this research study produced no statistically significant results of the impact of student outdoor trip participation on academic success. Although positive results were seen in first-year students being more likely to graduate and having higher GPA's than their non-participatory peers, these findings cannot be distinguished as statistically significant. The qualitative portion of this research study produced extensive data on the impacts of outdoor trip participation and student social integration, specifically in the area of Individual Outcomes. The most common aspects of Individual Outcomes as reported by trip participants were in the categories of Developing Friendships, Interest in Outdoors, Approach to Life, Environmental Awareness, Personal Development, Physical Fitness, and Focus. A more in-depth discussion of the impacts found on academic success and social integration from outdoor trip participation is provided here.

Academic Success

This study sought to understand if participation in outdoor adventure programs impacted student success in a higher education environment for first-year college students. Specifically, the researcher sought to determine if students participating in outdoor adventure trips in their first year of college had higher GPA's, continued in their education more, or graduated more frequently than other students. Using the first three

research questions previously discussed, the logit and regression models were the methodology used to answer these questions. Due to the small sample size of students who participated in an outdoor adventure trip in their first year, none of these questions presented a statistically significant result. Although the models showed that students participating in outdoor adventure trips in their first year of college did have higher GPA's and slightly higher graduation rates, these data need to be studied further with an appropriately large sample size to determine any real impact on these outcomes.

Although the quantitative method failed to exhibit statistically significant impacts on academic success for first-year students participating in outdoor adventure trips, the qualitative methods did demonstrate positive impacts on academic success. While only a few group participants commented that their outdoor trip participation positively impacted their academic life, those who did, described that the trip helped them become more engaged academically. Specifically, participants shared that after their outdoor adventure trip, they were more engaged in classroom discussions, more likely to work on homework with fellow students, and more likely to join a study group. Although participants did not explain why they were more apt to be more engaged academically after their outdoor adventure trip, a variety of possible reasons exist. International participants may have become more confident in their English language skills from their outdoor trip participation, making them more confident and vocal in classroom discussions. Or, participants may have learned from the small-group experience of their outdoor adventure trip that they can be successful in a new group environment, and therefore become more confident in participating in study groups. Although this research

does not address this question fully, this could be explored in greater detail in future research.

Based on previous research related to participation in wilderness orientation programs and campus recreation facilities, this study could continue to build support for outdoor adventure programming as a possible contributor to student retention and academic success. Given the prevalence of metrics used in higher education institutions focusing on retention and graduation, this research may be particularly interesting to higher education leaders tasked with maintaining a strong academic environment while also ensuring that students are primed for success, perpetuation, and completion of their academic pursuits. For example, as the University of Minnesota strives to continue to improve its 4- and 6- year graduation rates, research demonstrating that participation in outdoor adventure trips is helpful to engage students academically may be very compelling as another method for increasing students' opportunity for academic success.

Social Integration

This study sought to determine the effect outdoor adventure program participation has on the social integration of students. A variety of themes emerged that demonstrate positive impacts on student social integration. The themes that emerged from this study include: participants identifying outdoor adventure trips as a way to make friends on campus, participants developing lasting friendships with fellow participants, meeting people who share similar interests, being part of a social environment, feeling more connected to others, and having a greater sense of community. A more in-depth summary of these themes will allow for a better understanding of these concepts, in

addition to better understanding of why these themes are important for higher education professionals to understand.

Tinto's theory of student departure suggests that high levels of integration into the social and academic life of an institution lead to a greater commitment to the institution (Tinto, 1975). The first theme to emerge which supports this model relates to students identifying an outdoor trip as a way to meet people. This is an important first step, because students are looking for ways to create and form new friendships at their institution. Due to the size of large, public universities, meeting people on campus can sometimes be challenging. This research demonstrates that outdoor adventure trip participation is another way for students to meet other students, thereby increasing the likelihood of forming friendships on campus, which is another theme that emerged from that data. This further supports Tinto's model of social integration because forming friendships is the next step in social integration within an institution. With the goal of participants meeting new people as a common reason for signing up for an outdoor adventure trip, it is not surprising that a common outcome experienced from their participation was forming friendships with other participants. Even though the duration of the trips was often brief (2-7 to days), the outcome of participants building friendships from outdoor adventure trips can be used as another vehicle for increasing social integration of students. This is particularly important for educators and higher education practitioners because the more opportunities that exist for students to be socially integrated to their institution, the more likely they are to persist in their education and be successful.

Beyond the outcomes of students meeting others from outdoor adventure trip participation, another theme emerged that is similar in nature and can also lead to social integration. When study participants indicated that they were able to meet people who shared similar interests as them from their outdoor trip participation, a student's social network on campus increases and may foster lasting friendships. A variety of experiences can emerge from an outdoor trip that can afford an opportunity for participants to realize shared interests including outdoor adventure activities, sharing new experiences, experiencing the natural environment, or visiting a new place. By identifying an outdoor adventure trip as a way to meet people, develop friendships, and meet people with whom students share similar interests, participants have the opportunity to create a social network for themselves which can lead to further social integration.

In addition to the themes discussed around how outdoor adventure participants are using their experience to build their social community, a variety of other themes emerged from the data indicating an increase in social integration for students. Those themes include students reporting that they felt more of a connection to others on campus, an increased sense of community, greater connection to campus, and greater institutional pride and appreciation. These findings indicate a more lasting impact to social integration, demonstrating that outdoor trip participation may go beyond providing a social outlet for students and actually emerge into providing a community for students in their institution. Tinto describes social integration as students feeling a part of the fabric on an institution, with the potential to provide a lasting sense of social integration (Tinto, 1993). By increasing social integration through outdoor trip participation, students also reported an increased pride and appreciation for their institution. These long-term

impacts of outdoor trip participation are important to educators to understand because with a greater, lasting sense of social integration within an institution, students are more likely to persist and may be more likely to go on to graduate school, decide to stay in the area after school, or become a donor to the institution in the future.

<div align="center">How do the Findings Compare with Published Literature?</div>

This researcher sought to add to the body of research about outdoor adventure programming and how it impacts the student experience. Specifically, the intention was to demonstrate if outdoor adventure program participation impacts student success, as found from previous research demonstrating positive impacts of Campus Recreation Facilities on student academic success. Additionally, this study sought to determine if outdoor recreation participation impacts student social integration, as found from previous research.

Academic Success

This study sought to add to the body of research related to student academic success as impacted by participation in recreation activities. Although little research has been conducted in this area, there are previous studies examining the impact of CRF usage and student success. Previous research has shown CRF usage to positively impact student academic success (Huesman et al., 2007; Hall, 2006; Belch et al., 2001). Similarly, previous research conducted by Gass et al. (2003) found that students participating in wilderness orientation programs experienced higher levels of academic success through GPA's and greater retention of first-year students than non-participants. Unfortunately, this present study was not able to contribute to the body of research on campus recreation participation impacting student academic success due to a very small

sample size of 17 and a lack of statistical significance found between outdoor adventure trip participation and student academic success.

<u>Social Integration</u>

In addition to the goal of adding to the body of research about how outdoor adventure participation can impact student academic success, this study sought to further the research on how recreation activities can influence social integration positively for students. The research in this area was reviewed in the categories of individual outcomes and group outcomes, and will be reviewed in the same manner here.

Individual Outcomes

Outdoor adventure program participation has been determined to positively influence individual student social integration in a variety of ways. An example of this is outdoor adventure program participation demonstrating many benefits of individual skill development as found by Hattie, Marsh, Neill, and Richards 1997. This research study also found a number of examples of skill development of past program participants.

Past research has demonstrated how student social integration can be influenced by CRF's (Huesman, Brown, Lee, Kellogg & Radcliffe, 2007; Huesman, Brown, Lee, Kellogg & Radcliffe, 2009), and this research study also found a variety of ways that social integration was influenced by past participation in outdoor adventure programs. Furthermore, students participating in CRF's reported higher levels of sense of belonging within their university community (Miller, 2011; Henchy, 2011), and this study found a number of examples of past participants citing ways in which they felt more of a sense of belonging within their institution.

Past research on recreational activity participation and the impact it can have on social integration of individuals includes a variety of examples of development of personal attributes for the participant. A variety of benefits of outdoor adventure participation have included increased confidence, independence, self-efficacy, self-understanding, assertiveness, internal locus of control, and decision making (Hattie et al., 1997). This study found similar examples of personal development in some of these areas that influence participant's self concept, including self confidence and self-efficacy.

Self confidence is an individual attribute found to increase from outdoor adventure participation and later have application in participant's daily lives (Paxton & McAvoy, 2000). This study also included a variety of examples of participants experiencing increased levels of self confidence, although the extent to which that confidence impact their daily lives long-term was not evaluated.

Past research has also found that participation in outdoor adventure programs fostered the perception of ownership of the trip for participants and greater sense of responsibility (Sibthorp, Paisley, & Gookin, 2007). These are similar to a variety of examples cited in this study's results from participants describing their sense of responsibility of the overall group experience, as opposed to their individual experience.

Similar research from a National Outdoor Leadership School (NOLS) course found higher levels of autonomy and outdoor skill attainment of participants (Sibthrop, Paisley, Gookin, & Furman, 2008). This was found similarly in several examples in this study reflecting on how their participation in an outdoor trip experience increased their overall skills and confidence in their skills to plan and execute their own outdoor adventure experience. These examples of increased confidence in outdoor trip

participants also supports past research of NOLS participants demonstrating increased levels of self-efficacy after completion of their outdoor experience (Propst & Koesler, 1998).

An outdoor adventure trip participant's ability to build and develop friendships is an individual outcome of participants that is well supported in past research. Similar to past research by Goldenberg, et al., 2005, this study found that many participants reported developing friendships as either a goal or outcome of their participation in an outdoor trip experience. Other research of Wilderness Orientation Programs (WOP) reported that participants reported increased social benefits through friendships made in their WOP (Lien & Goldenberg, 2012), and Devlin (1996) found that participants of WOPs reported higher levels of friendship formation than their non-participant peers. This study supports the past research, with the individual outcome of developing friendships as the most frequently cited individual outcome of past outdoor program participants.

Additional research in the area of long-term effects of student participation in WOPs was found in Gass, Garvey, and Sugarman's study (2003). This present study found that WOP participants reported maintaining relationships throughout their college careers. This study was unable to measure maintaining relationships due to the research design not intending to measure the impact of outdoor trip participation over a longer period of time.

Another individual outcome of participation in outdoor adventure programs included in past research is a student's commitment to their institution. Wolfe and Kay

(2011) found that the social interaction of a WOP impacted student's commitment to their academic institution, and this study found similar results.

In addition to the individual outcomes of self-concept, developing friendships, and commitment to the institution, a variety of other individual outcomes of personal development have been reported in past research. One former study (Holman and McAvoy, 2005), found that outdoor adventure participation influenced a better understanding of persons with disabilities and differences. This is supported by this study's findings that many past participants reported learning to work with new people and be more accepting of other viewpoints through their outdoor trip experience. Similarly, Goldenberg, et al., 2005, found that relationships on an outdoor adventure trip increased participant's ability to work with others. This is also supported by this present research study in which a number of past participants shared that their outdoor trip experience introduced them to people with whom they otherwise wouldn't have met and forced an interdependence and sense of community on the trip. The sense of community found from this research also substantiates results found from past research indicating that participant's sense of community on an outdoor adventure trip was impacted positively by trip attributes including preparing meals, trip challenges, and group-oriented activities (Bruenig, O'Connell, Todd, Anderson & Young, 2010).

Another individual outcome found in past research of the impact of student participation in outdoor adventure experiences is the future career goals students establish for themselves as a focus of their education. Gass, et al., 2003, found that some outdoor program participants reported considering a new educational major after their trip. This

study also found some evidence of participants reporting a shift in career or college major plans as a result of participation.

Environmental awareness is another individual outcome found in past research of outdoor trip participation. Yoshino's study found that environmental attitudes of adventure trip participants were altered after their trip experience (2005), while Ewert, et al. found that environmental attitudes were established early in life and therefore less likely to be altered through an outdoor trip experience (2005).   This present study found a variety of responses from focus group participants that implicate increased levels of environmental awareness including outcomes for individuals reported by sub-categories of increased interest in the outdoors, increased environmental awareness, and increased awe of nature.

Past outdoor trip participation has also been shown to impact student spiritual development when students participated in a program designed for this specific purpose (Bobilya et al., 2011). This present research study also included a small number of reports of increased spiritual development after participating in an outdoor adventure trip, although because the outdoor adventure experiences of this study's participants did not have this purpose, the extent to which this study aligns with past research in this area is uncertain.

Group Outcomes

In addition to the extensive research previously conducted on the impact of outdoor adventure trip participation on individuals, past research has also highlighted group outcomes experienced from trip participation. Small participant groups increased the interdependence of participants and seemed to yield higher levels of personal

responsibility. This interdependence and personal responsibility was likely due to greater emphasis being placed on the needs of the group, rather than those of individual participants. Garst, et al., (2001), found these to lead to increased levels of social acceptance through higher tolerance of inter-group differences. This present study produced similar reports of participants developing greater understanding of differences, previously discussed in the review of individual outcomes research (Holman & McAvoy, 2005), in addition to Goldenberg's, et al., (2005), study findings demonstrating participant's ability to work with others in groups. This present research study found similar results of positive group outcomes from participating in an outdoor adventure trip through which participants reported interacting with a group of peers, some of whom they otherwise wouldn't have met in their educational experience. These interactions among the group were reported as leading to a sense of interdependence and focus on the needs of the group, rather than that of the individual, which aligns with the past research reporting group outcomes of outdoor trip participation.

<p align="center">Implications</p>

This study demonstrates how outdoor adventure trip participation can impact social integration and student success positively, which could benefit the field of recreation and provide additional research into the benefits of outdoor adventure programming. In the past, outdoor adventure programs have been criticized as "feel good" experiences that have little significant or lasting influence on the lives of participants. Critics claimed that adventure programs were fun experiences or a nice vacation, and had little lasting value for personal or group development. However, recently the re-analysis of earlier data are showing that some of these programs and

experiences have major life changing influences on participants (Hattie, et al., 1997)

Studies are showing that the benefits gained by participating in outdoor adventure programs can be transferred into the daily lives of participants (Ewert & McAvoy, 2000). This study demonstrates how outdoor adventure participation can impact student success positively, further building upon previous research to illustrate lasting effects of outdoor trip participation.

Based on previous research related to participation in wilderness orientation programs and campus recreation facilities, this study could build support for campus outdoor adventure programming, as a possible link to retention and academic success. Colleges and universities may want to implement strategies to raise awareness among students and faculty of the relationship between student involvement in outdoor recreation activities and their campus experience. Faculty, staff, and advisors may encourage participation in outdoor adventure programs, as another way for students to get involved on campus, similar to campus activities that are social or group oriented. Outdoor adventure trip participation may be an effective tool in aiding and developing students as they transition through the University system, ultimately enriching their campus experience. Finally, the findings from this study also further build the case for outdoor adventure programs as a way to integrate students into an academic institution, similar to other programs such as wilderness orientation programs, campus recreation facilities, first year programs, and student orientation programs.

Recommendations

<u>Limitations</u>

Although this study has presented findings that outdoor adventure programs positively impact student social integration, limitations exist within the structure of this study. One limitation of the study is the likelihood of self-selection bias. Students registered for a trip on their own, and paid anywhere between sixty-five and five-hundred dollars to go on a multi-day trip. The study tried to alleviate some of the self-selection bias by electronically comparing students with similar characteristics. Unfortunately, there may be unobserved characteristics of those students who participate in COA trips versus those student who do not, which could affect the outcome of interest. This causal inference could be related to demographic, socio-economic conditions, or other characteristics related to participation in recreation. In addition, students who took part in the focus group study also signed up and participated on a volunteer basis.

A second limitation to the study is the potential lack of generalizability across other universities. The study utilized students who participated in an outdoor adventure program at a large public institution in the Midwest between the academic years 2002-2010. Although the results are similar to other research, and the researcher controlled for many external variables related to student retention, success, and academic years, the physical geographical location of the institution, time of year, and student population could impact the generalizability of the results.

A third limitation to this study was the small sample size. The researcher was planning on a large sample size of approximately 100 first-year students, which would have presented a greater opportunity for statistical significance of the quantitative

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measures used in this study. Unfortunately, the results were statistically insignificant.

Because this was a first attempt at looking at outdoor adventure programs and student

retention utilizing logit and regression models, recreating this study with an appropriately

large sample size may yield different quantitative measures.

A final limitation of this study which is very important to acknowledge is that of

the use of Tinto's model as the exclusive framework for student departure. Although

Tinto's model has provided a foundation upon which much research on student departure

has been built, a number of other models have emerged in recent decades that provide a

supplementary view of the factors that influence student retention. One of the most

influential of these has been that of (Bean & Eaton, 2000), which includes a number of

psychological factors as influential components of persistence, in addition to the heavily

sociological model used by Tinto.

Bean and Eaton's (2000) model includes consideration of a number of

psychological influences on student persistence, including student's entry characteristics

which impact how a student handles their environmental interactions, ultimately leading

to psychological outcomes that influence academic success and social integration. While

Tinto acknowledged the pre-entry attributes of family background, skills and attributes,

and prior schooling as influential on the student retention model, Bean and Eaton include

a variety of additional aspects of entry characteristics that influence student persistence,

including past behavior, personality, initial self-efficacy, normative beliefs, coping

strategies, and motivation to attend. These characteristics influence how a student

responds to the institutional environment, including bureaucratic interactions, academic

and social interactions within the institution, and interactions outside of the institution. A

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student's pre-entry characteristics and environmental interactions further influence their psychological processes in the areas of self-efficacy, coping processes, and locus of control. All of these factors ultimately influence academic success and social integration by the extent to which they impact positive self-efficacy, reduced stress and increased confidence, and internal motivation for students.

The Bean and Eaton (2001-2002) model could be considered to be a more complete evaluation of the factors impacting student persistence, and an example of a common student experience is best used to illustrate this. As a student prepares for an academic exam, a variety of influences are likely to impact their academic performance, including their past study habits [past behavior], belief in their ability to earn a good grade [initial self-efficacy], and their academic success in past exams [academic interactions]. These factors influence the psychological components of establishing a student's confidence level [coping process] and sense of their potential success resulting in their skill or effort, as opposed to luck or prejudice [locus of control]. When considering these psychological attributes of students, the Bean and Eaton model could be a more inclusive view of student retention, as influenced by academic success and social integration.

<div align="center">Recommendations to Improve Study</div>

From this research study, a variety of options exist to continue this work to determine the impact of outdoor adventure participation on academic success and social integration of students. Initially, replicating this research study with an appropriately large sample size of first-year students would allow for deeper understanding of the impacts on outdoor adventure trip participation on first year college students.

Additionally, this researcher determined that, while a lot of data exist demonstrating that outdoor trip participation positively impacts social integration, not a lot of detail emerged concerning how that participation impacted student social integration. For example, this study was not able to determine if the greatest impact on social integration for participants came from students making friends on the trip or students learning to effectively interact in a cooperative environment.

Finally, clarification of participants' personal goals before participating in outdoor adventure trips would be very useful in understanding how the impact to academic success and social integration emerged. If the goals of participants were measured before their trip, a pre and post-trip analysis of participant goals and outcomes would provide a more clear understanding of the impacts of social integration and academic success. For example, if the goal of a participant was initially to meet people on an outdoor adventure trip, that may impact how they interact with others on the trip and engage with the group. Likewise, if a participant had a goal of getting out of the city or appreciating nature, they may experience different outcomes, leading to a difference in the social integration experienced from an outdoor adventure trip. All of these recommendations for additional research would lead to a more complete understanding of the impact of outdoor adventure trip participation on academic success and social integration.

<u>Recommendations for Future Research</u>

This study suggested several areas where future research can build upon these results and further answer the research questions utilized here. Some of the recommendations for future research are related to the limitations of this research study,

while other suggestions expand the opportunity to better understand how outdoor trip participation impacts student academic success and social integration.

One opportunity for future research in the area of understanding outdoor trip participation's impact on student success could include a larger sample of outdoor trip participants. Utilizing students at different points in their academic career could provide for a better understanding of how outdoor trip participation can impact academic success. If a future study would use the same three variables of academic success as this study, the need to control for those variables prior to participating in outdoor trips would be essential. This would allow for an accurate evaluation of the extent to which participating in an outdoor adventure trip impacts students' GPA's, persistence, and graduation rate.

Another opportunity for future research to build on this study could utilize outdoor trip participation for first-year students across multiple institutions. By evaluating the three variables of academic success across institutions, a better picture of the impact of outdoor trip participation on first-year students is possible. This study could utilize the same data collection and analysis processes of the quantitative aspect of this research study, although the need to compare the variables of academic success by individual institution would be essential to produce accurate results.

Considering the research question of how outdoor trip participation impacts student social integration, the opportunity for future research to build upon this study exists. Through this researcher's professional experience, the possibility emerges that the more outdoor trips a student participates in can lead to higher levels of social integration for that student. Specifically, future research could evaluate whether or not students who

participate in more outdoor adventure trips experience higher levels of social integration than those who participate in one or few trips. Data collection and analysis methodology could be similar to that of the qualitative aspects of this study, although the need to separate students into groups based on the number of trips they participated in would be essential to effectively compare those groups and their social integration.

Final Thoughts

This study was able to determine if outdoor adventure program participation positively impacts student social integration through individual and group outcomes. The experiences reported by students on their outdoor adventure trip participation were very diverse and many themes emerged from the data with positive impacts on student social integration. The qualitative data and social integration themes from this study further previous research demonstrating how outdoor trip participation can positively impact the student experience.

Unfortunately, this study was unable to produce significant results around outdoor trip participation and its impact on student academic success through GPA, persistence, and graduation. However, much opportunity exists for continued research in this area, hopefully to demonstrate that outdoor trip participation can support institutions in driving student academic success. It is these opportunities for continued research around academic success and this study's findings on social integration that develop future opportunities to evaluate the impacts of outdoor trip participation on the student experience.

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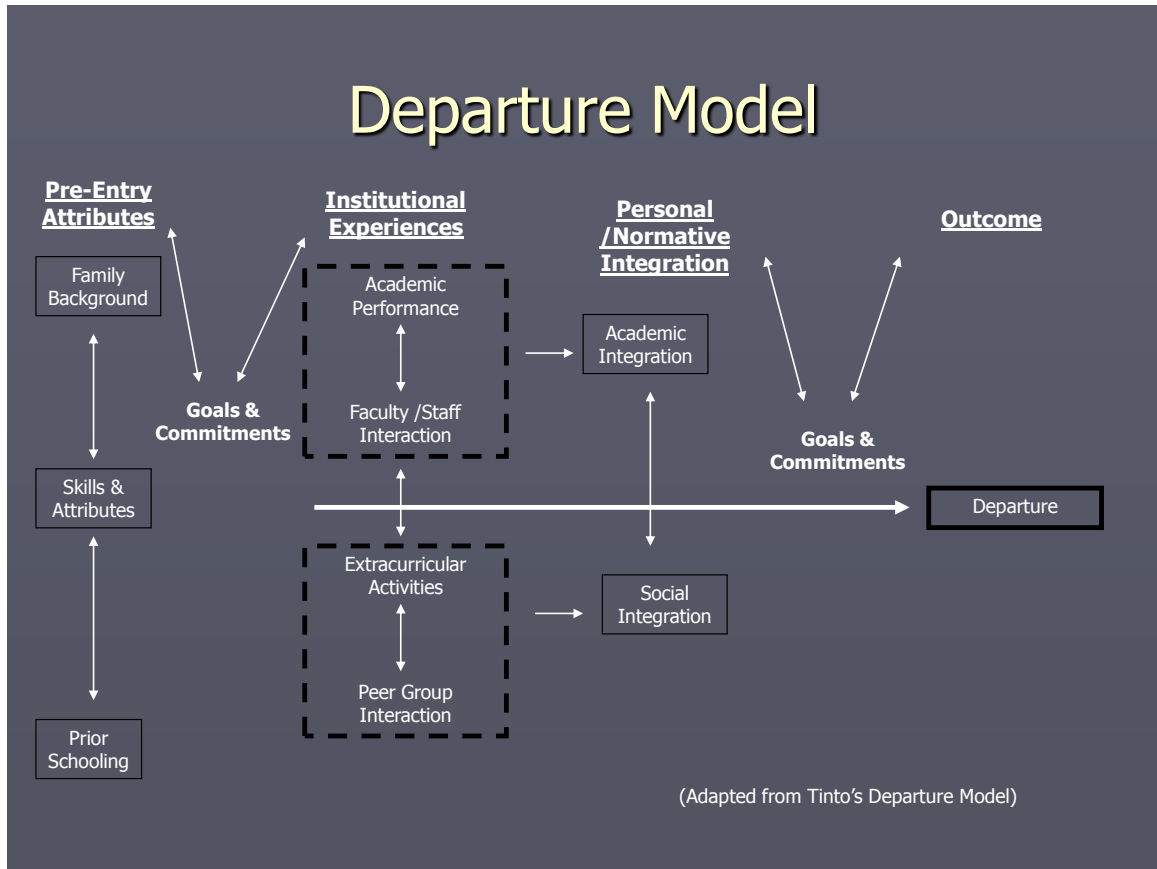Neuendorf, K. A. (2002). *The content analysis guidebook.* Thousand Oaks, CA: Sage.

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Appendix A: Vincent Tinto's Student Departure Model

(Adapted from Tinto's Departure Model)

Appendix B: Focus Group Questions

The following ten questions will be asked during the two focus group sessions:

1. Describe the outdoor activities (if any) you participated in as a child or with your family.
2. Why did you choose to participate in a COA trip?
3. Describe the most memorable part of your COA trip?
4. Describe the interaction among the participant group on your COA trip.
5. What specifically impacted (positively or negatively) how your group interacted with each other?
6. What factors do you think lead to a sense of belonging on a COA trip?
7. How did your sense of belonging change (if at all) at the University after participating in a COA trip?
8. What role (if any) has participating in a COA trip played in your academic success at the U of MN?
9. What role (if any) has participating in a COA trip played in your decision to continue your education at the U of MN?
10. What (if any) long term effects have you experienced from participating in a COA trip.
11. How did your participation in the COA trip change your purpose in life?