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Exploring Group Cohesion in a Higher Education Field Experience

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EXPLORING GROUP COHESION IN A HIGHER EDUCATION FIELD EXPERIENCE

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Parks, Recreation and Tourism Management

by
Brian Keith Malcarne
December 2012

Accepted by:
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ABSTRACT

The purpose of this study was to gain understanding into the experience of group cohesion for university students participating in an academic field experience. A mixed methods approach was used following a two-phase, sequential research design to help provide a more complete explanation of how group cohesion was impacted by the field experience. The sample consisted of 112 undergraduate students involved in a 3-day academic field experience. The initial quantitative phase gathered pre- and post-test data on group cohesion using the Group Environment Questionnaire (GEQ) modified for an academic context. Findings demonstrated significant positive change in the domain of social cohesion. The follow-up qualitative phase used dyadic interviews to explore participants’ experiences with social cohesion and to identify attributes of the field experience contributing to the development of social cohesion.
DEDICATION

This work is dedicated to my amazing family. Alisha, Coleman, and Emilia: your patience, support, and confidence have enabled me to persist in, enjoy, learn from, and complete the process associated with this step of my education. I am looking forward to supporting you all in your future educational endeavors.
ACKNOWLEDGEMENTS

I acknowledge first my family. Their support was the prerequisite to the success of this process. Thank you especially to Alisha for her amazing ability to inspire and support me during this endeavor. In addition, I recognize and appreciate the support of many individuals from my academic community. Thank you to Dart, my dissertation chair and unfailing mentor throughout this entire process. Thank you to my committee members: Fran, Stacy, and Michelle. The support and active guidance of my committee helped transform the dissertation process into an extremely valuable and meaningful educational experience for me. Thank you to the Clemson Parks, Recreation, and Tourism Management (PRTM) EDGE team for inspiring, giving permission for, and supporting this research project. And thank you to my fellow graduate cohort for their collaboration during this shared process.
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CHAPTER ONE
INTRODUCTION

It has been suggested in contemporary society the transition period from adolescence to young adulthood has become prolonged for many young people (Arnett 2000, 2004). Arnett (2000) proposed because the transition to adulthood typically takes place over multiple years (approximate ages 18-25 years old), it may be more accurately represented as a distinct life stage which he terms *emerging adulthood*. In addition to being a distinct developmental period with unique characteristics, it has been suggested emerging adulthood represents a critical developmental juncture in the life span (Tanner, 2006). The period of emerging adulthood is a life stage when developmental markers, life events, and critical experiences more commonly occur and have an especially influential impact on identity development (Grob, Krings, & Bangerter, 2001). One of the characteristics associated with the developmental period of emerging adulthood is an increasing tendency for young people (approximately two thirds of those graduating from high school) to pursue higher education (Arnett, 2004).

Successful completion of a higher education program is an important achievement to help young people prepare for further education and future careers (Arnett, 2007). Recent attention to education has suggested, in addition to receiving quality academic instruction, students need to actively develop and apply collaborative learning skills such as communication, critical thinking, creativity, and problem-solving to help them succeed in professional pursuits (Partnership for 21st Century Skills, 2009). For example, peer collaboration in academics provides students with a context for mutual discussion,
exchange of ideas, and problem-solving on course specific topics (Phelps & Damon, 1989). In response to emerging professional expectations for graduating students, there has been increased attention in higher education on developing innovative approaches to maximize effective learning (Deignan, 2009).

Experiential education offers a variety of techniques with potential for innovative learning in higher education. One experiential education technique, with promise for fostering social interaction within higher education academic groups, is the use of field experiences. The philosophy of experiential education stems from the early work of John Dewey in which he conceptualizes the value of learning through experience as an active, relational, and context bound process (Dewey, 1929; Roberts, 2008). Palmer (2004) suggested a focus on wholeness is needed to achieve meaningful experiences. Integration of academic, professional, and social components of students’ lives into the learning experience may provide more complete learning experiences for life. Both Piaget and Dewey emphasized the social components of learning for meeting developmental needs and preparation for becoming contributing members of society respectively (Kraft, 1986).

In addition to providing personally relevant learning experiences for students, curriculum-based field experiences represent one form of experiential education with expected potential for producing opportunities for social interaction and development in connection with an academic context (Wurdinger, 1994). According to Harland, Spronken-Smith, Dickinson, and Pickering (2006), field experiences possess unique programming dimensions that need to be considered in relation to planning academic outcomes. With regard to potential for developing group cohesion, multiple-day field
experiences offer a unique blend of contexts for social interaction including structured academic learning experiences and unstructured free-time experiences. This unique opportunity for interaction within school and free-time contexts of the field experience may be characteristic of a more holistic social experience for students. Boyle et al. (2007) suggested field experiences may contribute to various positive student outcomes including social integration and collaborative interaction. More recently, Weeden, Woolley, and Lester (2011) found qualitative support for the facilitation of group cohesion among students participating in a field trip cruise in conjunction with their academic program of study. Group cohesion is often regarded as one of the most critical constructs within research of group processes, development, and performance (Cohen, 1994; Hackman, 1990). According to Michaelsen, Knight, and Fink (2004), the critical element supporting various positive learning and development outcomes associated with student learning groups is the fostering of a high degree of cohesiveness within a group.

Although the possibility of field experiences contributing to group cohesion is encouraging, the construct of group cohesion has historically been too complex to conceptualize and measure. Early research on cohesion is replete with inconsistencies in defining, conceptualizing, and measuring cohesion (Cota, Longman, Evans, Dion, & Kilik, 1995; Hogg, 1992; Mudrack, 1989). In response to the inadequacies of viewing group cohesion as a one dimensional construct, Carron, Widmeyer, and Brawley (1985) conceptualized cohesion using a multidimensional model distinguishing between (a) group and individual aspects of cohesion and (b) task and social aspects of cohesion. The usefulness of distinguishing between task cohesion and social cohesion has received
empirical support (Zaccaro, 1991; Zaccaro & Lowe, 1998). Chang and Bordia (2001) suggested future research is needed to “explore the impact of dynamic situational variables” on cohesion within academic groups (p. 402). It is anticipated field experiences may represent a dynamic situational variable in academic programming with potential for impact on the development of group cohesion.

Curriculum-based field experience programming in academics may offer an innovative educational strategy with potential to deliver academic learning while providing opportunities for students to practice and develop group interactional skills related to cohesion. Despite anticipated outcomes, further research is needed to support the development and guide the application of field experiences in higher education (Harland et al., 2006). More specifically, research is needed for a more complete understanding of the application of an academic field experience for higher education students that provides both structured and unstructured time for group social interaction and development.

**Statement of the Problem**

There is a growing expectation for institutions of higher education to more deliberately compliment the intellectual advancement of students with the development of interactive group skills (Partnership for 21st Century Skills, 2009). There is a current educational trend calling for the replacement of lecture-based format of information delivery with innovative approaches to effective learning necessary for students to be successful collaborators in a 21st century world (Deignan, 2009; Partnership for 21st Century Skills). Although institutions of higher education are regarded as providing
students with opportunities for academic and social development, it is thought student learning could be improved by integrating academic, social, and professional areas of their lives.

Experiential education techniques such as field experiences are thought to provide opportunities for active engagement and interaction of students in relevant experiences and reflective thought (Dewey, 1929; Coleman, 1979; Roberts, 2008). However, simply providing a field experience does not guarantee desired experiential education outcomes will automatically result. According to Dewey (1938), not “all experiences are genuinely or equally educative” (p. 12). To maximize the quality of an experiential approach to education, it is necessary experiential education allows for active involvement and engagement of students (Dewey, 1938). Although social interaction is regarded as an important component in experiential learning (Roberts, 2008), more research is needed to better understand the experience of group cohesion in academic field experiences. The problem of this study was a need to better understand how higher education can more deliberately prepare emerging adult students for the professional world through more collaborative academic group interactions. More immediate to this study was the need to understand if and how field experiences may contribute to the development of group cohesion.

Significance of the Study

Although students of various ages pursue higher education, the age range associated with the distinct developmental period of emerging adulthood (18-25 years old) represents a common and critical time in the life course to pursue higher education
(Grob et al., 2001; Tanner, 2006). The potential to impact emerging adults through their experiences within higher education continually carries a weight of responsibility for institutions of higher education. Students as well as their families are investing time and money for an education to help prepare students for future success. In order to aid students in becoming successful individuals and professionals, academic institutions need to design, research, and implement the best educative experiences possible.

The use of academic field experiences in higher education may be one instructional technique with potential for incorporating academic, professional, and social areas of learning. Preliminary evidence suggests field experiences may be useful in fostering group cohesion among participants (Weeden et al., 2011). These findings, however, create questions as to whether group cohesion may occur in other field experiences, whether group cohesion is a desirable outcome within an academic context, and whether the important attributes necessary for a field experience to successfully foster group cohesion can be identified and replicated. In considering the potential value of group cohesion within an academic context, it is important not to limit assessment of student performance within groups to outcomes in the form of finished products and final grades only. Although these may be important outcomes, it is also important to consider group processes of interaction and collaboration, which may contribute to or detract from the ongoing learning experience. A better understanding of the value and development of cohesion within academic groups will assist faculty leaders in determining if group cohesion is an important outcome worth facilitating and if so, how to design and implement field experiences that most effectively achieve outcomes on group cohesion.
**Purpose Statement**

The purpose of this mixed methods study was to understand the impact of and identify the essential components associated with the construct of group cohesion for university students participating in a three-day academic field experience.

**Research Questions**

The overall mixed methods research question guiding this study was how does a three-day academic field experience affect the group cohesion of participating university students? To address this overall question, this study pursued two consecutive research questions. First, this study focused on examining the impact of the field experience on group cohesion. Next, this study explored the underlying processes of the field experience so as to identify essential attributes of the experience impacting group cohesion.

1. What is the impact of the field experience on group cohesion for university students participating in a three-day academic field experience?
2. What attributes and underlying processes of the field experience influence group cohesion?

**Delimitations**

The scope of the study was delimited by the following:

1. Sample of second semester sophomores with Clemson University’s Park, Recreation and Tourism Management (PRTM) major.
2. Data collection took place during Spring Semester 2012.
Limitations

The study was limited by the following:

1. Potential for bias due to the researcher being involved in the planning and implementation of the field experience.
2. The presence of the researcher on one trip which may have influenced directly how that one trip was facilitated.
3. The presence of the researcher on one of the trips may have influenced participants from that trip to provide socially desirable responses to interview questions.

Assumptions

The study was conducted based on the following assumptions:

1. Participants accurately and honestly responded to questionnaire items and interview questions.

Definitions of Terms

Emerging adulthood. The life stage of emerging adulthood represents the age range from approximately 18-25 years old (Arnett, 2000, 2004). For this study, most of the participants are undergraduate sophomores and fell within the mean age of 20 years ($sd = 1.63$).

Experiential education. An educational philosophy emphasizing the role of experience for promoting active involvement and engagement in learning (Dewey, 1938).

Field experience. Field experience is the experiential education technique that involves venturing from the classroom to engage in first-hand learning of course content
(Gold et al., 1991). This study is specifically examining a three-day field experience embedded in Clemson University’s EDGE (Engaging in Diverse Guided Experiences) semester.

**Group cohesion.** Classically defined as “the resultant of all the forces acting on the members to remain in the group” (Festinger, 1950, p. 274). However, this study will rely on Carron’s (1982) definition of cohesion as “a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (p. 125).
CHAPTER TWO
LITERATURE REVIEW

This study sought to better understand the impact of and identify the essential components associated with the construct of group cohesion for university students participating in a three-day academic field experience. Therefore, the following literature topics are discussed: (a) group cohesion, (b) emerging adulthood, (c) experiential education, and (d) field experience in higher education.

Group Cohesion

Festinger’s (1950) seminal work provided a now classic definition of group cohesion as “the resultant of all the forces acting on the members to remain in the group” (p. 274). Carron (1982) offered a more recent definition of cohesion as “a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (p. 125). The construct of group cohesion is considered to be a critical variable in the research of group processes, development, and performance (Cohen, 1994; Hackman, 1990). Although many anticipated a link between group cohesion and group performance, early researchers struggled to establish a cohesion-performance relationship (Chang & Bordia, 2001). Difficulty establishing this link is thought to be due to a historical lack of consistency in defining, conceptualizing, and measuring cohesion (Cota et al., 1995; Hogg, 1992; Mudrack, 1989). With the evolution of the conceptualization of cohesion, two meta-analyses in the early and mid 1990s were able to identify a small but positive relationship between cohesion and performance (Evans & Dion, 1991; Mullen & Copper, 1994).
Festinger (1950) suggested cohesion is a cumulative product of the attractions toward three components of the group: (a) group prestige, (b) group members, and (c) group activities. However, much of the subsequent research has traditionally treated cohesion as a unitary construct with essentially interchangeable components (McGrath, 1984). Researchers considered different sources of cohesion to be equally influential on group cohesion and its related effects on other identified variables (Back, 1950; Schachter, 1951). Despite this view of cohesion sources as equally influential, interpersonal attraction surfaced as the most utilized component in unitary cohesion research (McGrath). Eventually, researchers began to call for a multidimensional approach to conceptualizing cohesion (Carron, 1982; Mudrack, 1989). The theoretical work of Tziner (1982) suggested a single-structure conceptualization of cohesion as insufficient and he proposed the conceptualization of group cohesion be extended beyond socio-emotional factors of interpersonal attraction to include instrumental factors.

**Multidimensional model.** Carron et al. (1985) introduced the multidimensional model for conceptualizing group cohesion in sport teams. Two major distinctions within the conceptualization of group cohesion were proposed: (a) the distinction between individual and group levels of conceptualizing cohesion, and (b) the distinction between task and social components of cohesion (see Figure 1).

The first distinction suggests cohesion may be conceptualized at the individual and at the group level. Cohesion at the individual level refers to individual attraction toward the group including motivation for group acceptance and staying connected with
the group. Cohesion at the group level, also known as group integration, represents characteristics of and perceptions shared by the group as a whole.

*Figure 1: Conceptual Model of Group Cohesion (Widmeyer, Brawley, & Carron, 1985)*

The second distinction is cohesion may be conceptualized as task or social cohesion. Task cohesion refers to motivation toward accomplishing specific goals associated with the purpose of the group. Social cohesion is the motivation for social interaction and connection within the group. These two distinctions result in four constructs of cohesion including task and social cohesion at the group level termed *group integration* (GI) and task and social cohesion at the individual level termed *attraction to group* (ATG). The four domains are represented as follows: (a) group integration-task (GI-T), (b) group integration-social (GI-S), (c) individual attraction to group-task (ATG-T) and (d) individual attraction to group-social (ATG-S). Research evidence has supported the usefulness of conceptualizing cohesion as a multidimensional construct consisting of both instrumental (i.e., task) and interpersonal (i.e., social) cohesion components (Zaccaro, 1991; Zaccaro & Lowe, 1998).
**Group environment questionnaire.** Based on the multidimensional model of group cohesion, Widmeyer et al. (1985) developed the Group Environment Questionnaire (GEQ) to measure group cohesion within team sports. Although other measures of group cohesion exist, Carless & De Paola (2000) complimented the GEQ as having the advantage of being designed based on an existing theoretical model and having the proper psychometric development and testing. As previously stated, early meta-analyses of cohesion research demonstrated the existence of only a small, positive relationship between cohesion and performance (Mullen & Cooper, 1994). Although past research has struggled to demonstrate the relationship between group cohesion and performance, recent and more advanced measurement techniques have demonstrated stronger evidence of a positive correlation (Beal, Cohen, Burke, & McLendon, 2003). For example, Carron, Bray, and Eys (2002) used the GEQ to demonstrate a strong relationship between sport team task cohesion and team performance determined by win-loss average. Additionally, the GEQ has been used within the sport literature to examine the relationship between group cohesion and variables such as athlete leadership behaviors (Callow, Smith, Hardy, Arthur, & Hardy, 2009; Murray, 2006; Vincer & Loughead, 2010), team goal setting (Senecal, Loughead, & Bloom, 2008), hazing practices (Van Raalte, Cornelius, Linder, & Brewer, 2007), attachment styles (Tiryak & Cepikkurt, 2007), and intra-team conflict (Sullivan & Feltz, 2001).

The GEQ was specifically developed for research on sport team cohesion but Dion and Evans (1992) described it as being “promising as a conceptual and methodological approach with potentially broad applicability to different types of
groups” (p. 247). A few initial studies attempted to apply the GEQ outside of a sport context, with mixed results generally supporting the task-social distinction of cohesion as useful, but not finding support for the individual-group level distinction (Carless & De Paola, 2000; Dyce & Cornell, 1996). Dyce and Cornell surveyed groups of musicians and found support for the task/social distinction but not the individual/group distinction. Carless and De Paola adapted and revised the GEQ for work teams and found the group level of analysis to be more critical than the individual level. Chang and Bordia (2001) studied student work teams using only the group level items of the GEQ. They found evidence of a stronger relationship between social cohesion and performance within a group context necessitating a great demand for creativity and group interaction. Subsequently, Chang and Bordia suggested future research is needed to “explore the impact of dynamic situational variables” on cohesion within academic group work (p. 402).

Blanchard, Poon, Rodgers, and Pinel (2000) modified the GEQ for exercise settings and found attending aerobic fitness classes did not result in the development of group cohesion over time. The demonstrated lack of group cohesion development provides support for Spink and Carron’s (1992) concern that exercise classes only meet the minimal criteria for being categorized as a group in which participation does not require or necessitate group interaction. Sullivan, Short, and Cramer (2002) tested the application of the GEQ beyond team sports to include co-acting sports. This initial study with track and field athletes did not support the use of the GEQ as a valid measure for participation in co-acting sports. Brawley and Carron (2003) suggest caution in
accepting the conclusion of this study regarding co-acting teams due to possible misinterpretation in their use of confirmatory factor analysis. They go on to suggest although track and field athletes may compete in events separately, they spend a great deal of interactive time together during practices which may be expected to influence the development of group cohesion to some extent (Brawley & Carron). Burke et al. (2005) studied exercise classes and found support for acceptable levels of perceived cohesion so as to suggest even on-team exercise classes satisfy requirements to be considered actual groups. More recently, Ahronson and Cameron (2007) applied the GEQ to examine group cohesion in a military setting and found a distinction between the task-social dimensions with task cohesion being related to job satisfaction while social cohesion was inversely related to psychological distress.

Although efforts have been made to modify and apply the GEQ to contexts outside the realm of sport teams, success has been limited. In addition, there have been limited applications of the GEQ in academic group settings (Chang & Bordia, 2001). Carron and Brawley (2000) suggested the application of the GEQ beyond the context of sports teams needs to be carefully taken into consideration. They suggest making necessary modifications to ensure the instrument fits the desired group context, including advice to keep relevant items that directly fit the research context, adjust useful items that only need minor rewording, pilot test items to determine appropriateness, and create and “add new items that are more contextually meaningful or better represent the specific group context” (Carron & Brawley, 2000, p. 99). Carron and Brawley also recommended the need for sampling multiple groups longitudinally in order to measure change in group
cohesion as groups develop over time. When measuring the development (or non-
development) of group cohesion, it is important to take into consideration the role of
cohesion within the dynamic processes of group development.

Carless and De Paola (2000) criticized the design of specific GEQ items as
limiting the operationalization of social cohesion to only measuring the degree of
socialization that occurs between individual members of the group. The theoretical
conceptualization of social cohesion was defined by Widmeyer et al. (1985) as “a general
orientation or motivation toward developing and maintaining social relationships within
the group” (p. 16). Based on the statistically weak relationship historically exhibited
between social cohesion and group performance as well as the limited conceptualization
and operationalization of social cohesion, Carless and De Paola proposed the need for
future research to “explore an expanded definition of social cohesion” (p. 85). Based on
previous literature, Carless & De Paola suggested future efforts develop the construct of
social cohesion and consider the role of important related variables such as
communication, supportive social behavior, and cooperation in social cohesion. These
variables related specifically to social cohesion represent the types of collaborative group
interaction skills for which institutions of higher education are seeking to integrate into
the structure of academic learning for their students through innovative design.

**Emerging Adulthood**

The theory of emerging adulthood frames the life stage of contemporary young
adults in industrialized nations between the age of 18-25 years old (Arnett, 2000, 2004).
Emerging adulthood has evolved from some early recognitions of an existing life stage
transition between adolescence and young adulthood to an independent developmental stage. Building upon past theoretical contributions, Arnett (2000) suggested there has been a demographic shift for contemporary young people in the U.S. and other industrialized societies in which it is normative for the transition from adolescence to young adulthood to extend over several years (approximately ages 18-25 years old) before arriving at commitments to stable adult roles in career and family life. Tanner considered emerging adulthood to be a “critical juncture in human life development” (Tanner & Arnett, 2009, p. 40; Tanner, 2006). Grob et al. (2001) suggested the period associated with emerging adulthood is an extremely important life stage because key experiences and events may be more common and more impactful on memory and identity than any other stage.

Higher education represents an important context for the socialization and development of emerging adults. According to Arnett (2004), increasing opportunity for higher education in America has contributed to the historically recent formation of the emerging adulthood life stage. While adult commitments such as long-term relationships and careers are put on hold, an estimated two thirds of high school students pursue higher education within a year of graduating (Arnett, 2004). Arnett (2007) suggested the period of emerging adulthood can make a valuable contribution to society by affording young people the necessary time to pursue higher education from which to explore and prepare for future career options. The preparation that takes place in higher education seems to be akin to Grusec’s (2002) description of the socialization process as “individuals are assisted in the acquisition of skills necessary to function as members of their social
"group" (p. 143). Although little attention has been given to the process of socialization for emerging adults as compared to adolescents, Arnett (2007) suggested academic and social (e.g., peer, friend, etc.) environments are among the important contexts to be considered in the continued socialization process of emerging adulthood.

**Experiential Education**

Experiential education is one innovative approach to higher education that may have potential to integrate the academic and social contexts of learning for emerging adult students. Traditionally, it has been common practice to use the terms experiential education and experiential learning interchangeably (Kolb, 1984; Kraft, 1986). However, Itin (1999) argued the terms education and learning represent distinct constructs that are best understood separately although in relation to one another. He reaffirmed the idea experiential education represents an educational philosophy, while experiential learning is more appropriately used to explain the process of developmental change taking place within an individual as a result of educative experiences. In addition, understanding of the terms experiential education and experiential learning has been somewhat muddled through the common practice of using these terms synonymously with a multitude of various teaching strategies associated with the philosophical classification of experiential education (Itin). Such experience-based approaches to education include but are not limited to field experiences (Wurdinger, 1994). Teaching strategies such as these are more appropriately defined as specific facilitator-directed approaches that are designed based on the philosophical foundations of experiential education to provide structured learning through student engagement in active experience (Itin).
Dewey (1938) advocated for a pragmatic and progressive approach to education that emphasized the valuable role of experience in education. The term *experiential* is used to represent the type of education Dewey promoted with experience being central to the learning process (Kolb, 1984). To maximize the quality of an experiential approach to education, it is necessary experiential education allows for active involvement and engagement of students in the learning process (Dewey). Simply providing an active experience, however, does not constitute the full practice of experiential education; it is direct experience applied in conjunction with cognitive reflection that represents the essential components for helping students to achieve a truly educative experience (Dewey, 1938; Joplin, 1995). In addition, the design of the actual experience needs to offer a sense of relevancy for students in order for these experiential experiences to be educative in productive and meaningful ways (Dewey). It is proposed when educative experiences are relevant to students’ learning and lives; those experiences are more likely capture the attention of students, lead to naturally occurring reflection, and prompt real life application (Crosby, 1995). Educative experiences ought to be designed with increased relevancy for students by patterning them after and connecting them to real life circumstances, contexts, and conditions (Dewey; Taniguchi, 2005).

Experiential education is commonly viewed in contrast to the idea of didactic education which focuses primarily on a traditional lecturing approach to education in which knowledge is transferred directly from teacher and student (Neill, 2005). Coleman (1979) explained an information assimilation model has been traditionally used in education in which information is taught and received through symbolic mediums (e.g.,
written, spoken) with the assumption students will put this information into action sometime in the future. Estes (2004) described traditional education as a dispensing of subject material from teacher to students. An experiential education approach, however, generally starts with active experience followed by opportunities for reflective thought and critical analysis (Coleman). Although important instruction may be delivered through symbolic mediums, learning has the potential to be more active when students are engaged directly with original sources from which symbolic information is derived (Joplin, 1995). This initial, active experience can serve as a meaningful reference point in the learning process (Estes). Although working with information and mastering content are valuable skills for students to possess, teachers need to help students take the next crucial step of making connections between course content and real world application (Itin, 1999; Kraft, 1986).

Learning through experience was conceptualized by Dewey (1929) as being active, relational, and highly entrenched in context. In order to prepare students for engagement and contributions to society, Dewey called for educational efforts focused on the entire student (Kraft, 1986; Itin, 1999). More recently, Palmer (2004) pointed out the need for individuals to bring together various divided areas of life into a sense of wholeness in order to provide more meaningful learning experiences. Such wholeness may include the integration of areas of life such as academic, professional, and social components of students’ lives. Although the improvement of individual student lives is an important goal of education, Dewey also emphasized the social component of learning (Kraft) and the importance of enabling students through education to make positive
contributions to community and society. In addition to physical interactions with the learning environment, Piaget discussed the developmental importance for students to actively engage in social interactions with fellow students (Kraft, 1986).

There is a current trend in education calling for the replacement of traditional lecture-based classroom methods with innovative approaches to more effective learning (Deignan, 2009). However, innovation is only helpful if it represents a shift toward increasingly effective methods. According to Dewey (1938), quality educational experiences need to reach beyond traditional models of education, that are overly focused on providing curriculum content, and toward progressive approaches that effectively synthesize content and process. This content-process approach is thought to best occur within the framework of well-constructed experiences that contribute to the short-term quality and the long-term benefits of the educational process (Dewey, 1938). The application of the field experience, one of many experiential education techniques, in higher education may prove to be an especially productive approach to integrating social, academic, and professional components to produce learning and professional preparation that incorporates the development of group interactional skills.

**PRTM EDGE.** Clemson University’s Parks, Recreation, and Tourism Management (PRTM) Department faculty recently developed an innovative, semester-long immersive academic curriculum program for second semester sophomores. First piloted in 2010 as the Immersion Semester, it is now referred to as the Students Engaged in Diverse Guided Experiences (EDGE) semester. The EDGE semester is designed to be a highly immersive and engaging educational experience with the integrated delivery of
foundational academic content and the application of a variety of experiential learning strategies. Foundational academic content integrated throughout the EDGE semester experience includes 12-credit hours of core content from four traditional PRTM courses with NRPA approved learning objectives. The PRTM course topics include delivery systems, programming and event planning, administration and management, and legal aspects.

The philosophy of EDGE is “learning should take place wherever, whenever, with whomever, and however best facilitates an authentic connection between student, faculty, and content” (Department of Parks, Recreation and Tourism Management, 2012, para. 1). This approach represents an innovative framework within which to design and apply various real world experiences and experiential learning techniques that are not as logistically convenient or possible in a traditional semester model. One approach adopted for the EDGE semester is a three-day field experience that occurs near the beginning of the semester. The purpose of the field experience is designed to introduce students to various agencies, professionals, facilities, programs, and real life situations and contexts within the profession of parks, recreation, and tourism management. Students’ involvement during the field experiences includes various activities such as visiting agencies, meeting with professionals, touring facilities, observing programs, and participating in agency-based experiences.

**Field experience.** The application of a field experience in higher education may be represented in a variety of forms and lengths “from an hour-long local walk to a lengthy oversees project” (Boyle et al., 2007, p. 299). Gold et al. (1991) identified the
most basic qualifying factors of field experiences as venturing from the classroom and engaging in first-hand experience and learning. Field-based learning in higher education is generally valued by participating faculty (Harland et al., 2006) and students (Boyle et al., 2007). Lonergan and Andresen (1988) posited field-based education needs to be deliberately operationalized with clear learning objectives and logistical planning so as to ensure the quality of the learning experience. It is expected the level of quality in delivery of field-based learning experiences affects the subsequent degree of contribution to the overall educational experiences of students both directly and indirectly (Boyle et al., 2007).

Within the field of experiential education, there is increased attention on extending efforts beyond the documentation of program outcomes to identifying underlying processes responsible for outcomes from which useful models may be developed, tested, and applied to enhance the practice of experiential education (Gass, 2005; Henderson, 2004; Sibthorp, Paisley, & Gookin, 2007). Due to a lack of research on field experience, Harland et al. (2006) suggested a need for “fresh thinking and current research” to support the continued development and application of field experiences in higher education (p. 93). Beyond direct academic benefits of field experience, Boyle et al. (2007) concluded field experience may provide valuable affective benefits to students including course enjoyment, perceived value of field experience, social integration, and cohesive group interaction. More recently, a qualitative study of tourism students participating in a 7-day field trip cruise identified and discussed benefits of the field trip
experience which included perceptions of self-development and group cohesion (Weeden, Woolley, & Lester, 2011).

**Summary of Literature**

In summary, there is a need for emerging adults in higher education to experience more meaningful learning that will prepare them to be collaborative professionals in their chosen field. The experiential education approach of field experience offers an innovative approach to learning that blends academic, social, and professional realms of learning in a way that makes learning more meaningful to students. Exploratory research on using field experience in higher education has identified the development of group cohesion as one outcome with potential for transference back to the classroom (Weeden et al., 2011). A better understanding of how field experiences in higher education relate to group cohesion is needed to improve the application of academic field experiences in ways that maximize the potential for productive processes that lead to useful learning outcomes.
CHAPTER THREE

METHODS

The purpose of this mixed methods study was to gain understanding into the impact and processes associated with group cohesion for university students participating in a three-day academic field experience. More specifically, the purpose of this study was (a) to examine the impact of the field experience on group cohesion and (b) to explore the underlying processes associated with the impact of the field experience on group cohesion. The mixed methods approach was a two-phase, sequential research design employing techniques for quantitative data collection and analysis followed by qualitative data collection and analysis. Both quantitative and qualitative data were collected and analyzed separately. Following data analysis, quantitative and qualitative results were be integrated for discussion.

Research Questions

The overall mixed methods research question guiding this study was: How does a three-day academic field experience affect the group cohesion of participating university students? To address this overall question, this study pursued two consecutive research questions. First, this study focused on examining the perceived impact of the field experience on group cohesion. Second, this study analyzed student interview data to explore the underlying processes of the field experience so as to identify essential attributes of the experience impacting group cohesion.

1. What is the impact of the field experience on group cohesion for university students participating in a three-day academic field experience?
2. What attributes and underlying processes of the field experience influence group cohesion?

**Program Description**

This study examined and explored data on group cohesion in connection with a three-day field experience offered as part of the innovative instructional techniques of Clemson University’s EDGE (Students Engaged in Diverse Guided Experiences) semester within the Park, Recreation and Tourism Management (PRTM) major. All students who participate in a three-day field experience are assigned to 1 of 5 possible trip groups. Each of the five field experiences was led by an EDGE faculty member with at least one assisting graduate student and one fifth of the participating undergraduate students (approximately 33 students per trip group). The field experience entailed a three-day trip to one of Clemson’s neighboring (within a half day drive) cities and its surrounding area selected by faculty for the diverse recreation agencies, professionals, and programs available.

The cities visited in 2012 included: (a) Chattanooga, TN, (b) Charlotte, NC, (c) Augusta, GA, (d) Hilton Head, SC, and (e) Savannah, GA. Students met three times in class (once per week) prior to the trip to help them prepare for the trip. In addition, students attended a ropes course facilitation experience together the week prior to the trip in order to initiate group interaction. Students attended the trips between the dates of February 6-9, 2012 with some groups leaving a little earlier and other groups returning a little later than others. At the beginning of the trip, students met at Clemson University and took a bus together to various site locations as planned by the faculty instructor.
During this field experience, students toured various PRTM agencies, met with PRTM professionals, and participated in some of the recreation programming offered by the host agencies.

**Population**

Study participants were recruited via email message and in-class announcement from among the 161 Clemson University undergraduate students participating in the three-day academic field experience in connection with the Department of Park, Recreation and Tourism Management (PRTM) Engaging in Diverse Guided Experiences (EDGE) semester during Spring Semester 2012. As previously done, the EDGE semester took place during the second semester of students’ sophomore year. The majority of students were declared majors in the PRTM department within a variety of concentration areas including: Community Recreation, Sport, and Camp Management; Park and Conservation Area Management; Therapeutic Recreation; Travel and Tourism Management; and Professional Golf Management. A majority of students were within the age range of 18-25 years old, which is characteristic of traditional students within the life stage of emerging adulthood. Both female and male students were represented among the participating students.

**Rationale for Mixed Method Design**

A mixed methods approach was used to address the research questions because a combination of quantitative and qualitative methods was needed to provide the most complete picture to capture the impact and the underlying processes associated with the construct of group cohesion. Neither the quantitative nor the qualitative phases of the
study alone could have addressed the research questions as sufficiently. This study used an explanatory mixed methods research design which included the participant-selection variant technique as described by Creswell and Plano Clark (2011). The design included two sequential phases, beginning with an initial quantitative phase of data collection and analysis followed up by a qualitative phase of data collection and analysis. The quantitative phase of pre- and post-test survey data collection was fully completed prior to conducting participant interviews. In this way, researcher influence originating from researcher-participant interaction and exposure to the concept of group cohesion during the interview process of the qualitative phase could not influence participants’ responses to survey items during the quantitative phase.

The purpose of the quantitative research phase was to examine the impact of the field experience on group cohesion and to provide initial results that guided the purposive selection of qualitative interview participants. The purpose of the qualitative research phase was to provide a more in-depth understanding in conjunction with quantitative results. Results from both data sources were integrated to provide a more complete picture for the discussion, implications, and recommendations associated with this study.

**Procedures**

The procedures of this study were focused around the occurrence of an existing academic field experience in the Clemson, PRTM EDGE semester. Approval for this study was sought and obtained from two main sources including the EDGE faculty team facilitating the field experiences and Clemson’s Institutional Review Board (IRB). The idea for this research project was discussed with the EDGE faculty in their weekly
meeting on January 31, 2012 during which consent was given to the researcher. An application was also completed and submitted to Clemson’s IRB, which deemed the study exempt from continuing review on January 27, 2012, thus granting permission to conduct this research study.

**Participant recruitment.** Participants were identified as any student participating in the three-day experiential academic field experience in connection with the PRTM’s 3rd offering of the EDGE semester during Spring Semester 2012. All PRTM EDGE students were contacted and recruited as participants for the quantitative phase of data collection (i.e., on-line survey) via an email and an in-class announcement using an IRB approved verbal recruitment script (see Appendix A). The in-class announcement was made on February 2, 2012 during their last trip group preparation class prior to the trip.

PRTM EDGE students participating in the qualitative phase of data collection (i.e., dyadic interviews) were selected from among those students who completed both the pre- and post-test surveys. At least three interview participants were identified and selected to represent each trip group. Quantitative results were used to guide the selection of students based on pre- and post-test change in perceived group cohesion represented by the following categories: (a) positive change, (b) negative change, and (c) no change. These three categories of change were utilized so as to provide a qualitative sample representing diverse experiences in regard to group cohesion. Students were then contacted for recruitment via email using an IRB approved narrative recruitment script (see Appendix B).
Prior to participation, study participants were provided with necessary information about the study and their participation using an approved IRB information form about being in a research study (see Appendix C). The IRB information form was provided for each participant to read in an email sent to them with the on-line survey link. Additional copies of the full information form were available to participants upon request. As a result of meeting necessary criteria for being categorized as an exempt study through the IRB approval process, research participants were not required to provide written consent to participate. Completion of the questionnaire and participation in the interview served as implied consent for participation in the study.

**Data handling.** The researcher took specific precautions to maintain confidentiality of all data collected. Raw data obtained through questionnaire and interview techniques were stored, handled, and analyzed on a password protected computer kept either in personal possession of the researchers or stored in a locked office. The research data will be retained for at least 5 years after project completion or after professional publication of the findings (whichever is longer) before it is destroyed.

**Quantitative Methods**

**Data collection.** The quantitative research phase consisted of two cross-sectional data sampling points in a pre- and post-test design with respect to the EDGE field experience. Data were collected during trip group class time just prior to (February 2, 2011) and one week following (February 16, 2012) the EDGE three-day field experience. The quantitative data collected consisted of an on-line modified version of the Group Environment Questionnaire (GEQ) to all of the EDGE students willing to participate.
The survey was created using Snap 10.0 Surveys internet software which students were able access via an electronic link provided in the recruitment email. Faculty provided the students with the necessary time at the beginning of class to read the recruitment script and full information about participating in the study. Also included in the email was an electronic link to bring students directly to the internet version of the modified GEQ followed by demographic items.

**Measures.** The individual/group and task/social distinctions of Widmeyer et al.’s (1985) multidimensional model result in four dimensions of group cohesion including: (a) group integration-task (GI-T), (b) group integration-social (GI-S), (c) individual attraction to group-task (ATG-T) and (d) individual attraction to group-social (ATG-S). The GEQ is an 18-item self-report questionnaire with 5 GI-T items, 4 GI-S items, 4 ATG-T items, and 5 ATG-S items which represents 9 items for each dimension of distinction (task, social, individual, and group). The GEQ was modified for this study to appropriately accommodate an academic context instead of its originally designed use with sport teams. Each item was answered on a 9-point continuum ranging from 1 (strongly disagree) to 9 (strongly agree) with some items being reverse coded for reliability purposes. In an effort to adapt and test the GEQ for measuring work team cohesion, Carless and De Paola (2000) pointed out advantages of using the GEQ including its theoretical basis for development and early efforts to establish preliminary support for psychometric properties.

The multidimensional model serving as a basis for the GEQ was developed based on past research on group cohesion and group dynamics literature (Carron et al., 1985).
Several steps were taken by the research team to establish reliability and validity of the GEQ (Carron et al., 1985; Widmeyer et al., 1985). The developers took steps to help establish support for content validity of the GEQ as documented during its initial creation, including item development and scale refinement. For example, in an effort to avoid phrasing questionnaire items of the GEQ in the language of the researchers and to gain a better understanding of the phenomenon of group cohesion through the perspectives of group members, data was collected using interviews as well as open-ended questions in three research projects on group cohesion. These research projects in conjunction with literature review were used to develop an initial pool of 354 questionnaire items on group cohesion. Using the multidimensional model’s four constructs of group cohesion as a guide, the research team and external expert reviewers reduced the original pool of 354 items down to 53 items represented in the first version of the GEQ.

Three reliability studies were used to test and refine the internal consistency of the first version of the GEQ. Specifically, item analysis techniques were used to establish stability and equivalence. Intrascalar and interscalar equivalence with Cronbach’s alpha were used to assist the researchers in further reducing the item pool down to an 18-item scale with acceptable reliability coefficients for all four dimensions: ATG-T ($r = 0.75$), ATG-S ($r = 0.64$), GI-T ($r = 0.70$), and GI-S ($r = 0.76$). Once the 18-item version of the GEQ was finalized, the developers used factor analysis to successfully establish preliminary construct validity. The developers openly indicated the need for ongoing
testing in diverse research contexts and with a variety of samples to increase confidence in the GEQ as a valid instrument.

**Analysis.** Prior to analysis, raw data were organized so as to match pre- and post-test cases to create a comparison group. All reverse coded survey items were re-coded and cases were analyzed for extreme outliers. The EQS 6.1 software package was used to perform a Confirmatory Factor Analysis (CFA) to examine the second order factor of Group Cohesion with the four distinct first order dimensions (i.e., ATG-Social, ATG-Task, GI-Social, and GI-Task). Composite scores for Group Cohesion and each of its dimensions were calculated. SPSS (PASW 18) statistical software was used to report descriptive statistics and conduct paired-samples T-Test to assess change in pre- and post-test composite scores.

**Qualitative Methods**

**Data collection.** During the qualitative research phase, data were collected and analyzed from a purposively selected sample of students as a follow-up to quantitative findings. Students were purposively sampled based on quantitative results that identify them as having the most amount of positive or negative pre- and post-test change in group cohesion as a result of the EDGE field experience. Collection of qualitative data began after the field experience and the quantitative post-test and continued with all interviews being completed prior to the end of the semester. At least three students from each of the five trip groups were selected to participate in interviews.

Dyadic interviews were used to gather student responses in order to gain perspective into participants experience with group cohesion and underlying processes.
connected to the development or non-development of group cohesion in relation to the field experience. The use of dyadic interviews was selected based on their usability for gaining an in-depth perspective into the subject of study (Henderson, 1991). Although interviewers used an interview question guide to direct interviews generally, qualitative interviewing was used more as a conversation guided by the interviewer (Babbie, 2001; Henderson).

**Interview questions.** In order to explore group cohesion within the context of a field experience, two central questions were selected to guide the development of the interview questions: (a) What are perceptions of the experience of group cohesion in a three-day academic field experience?, and (b) What are perceptions of the mechanisms and underlying processes of group cohesion in a three-day academic field experience? Each central question was assigned sub-questions to narrow the research focus. Guiding interview questions for participants were formulated based on the research questions and sub-questions (see Appendix E). Question 1 pertained to perceptions of students with regard to group cohesion as part of the field experience. Sub-question 1a sought to understand generally the social experience of the students relative to the field experience so as to provide a descriptive social context for framing group cohesion. The intent of sub-question 1b was to explore student’s experience of group cohesion in conjunction with the field experience.

1. What are the perceptions of group cohesion in connection with a three-day academic field experience?
   a. What was the social experience of students during the field experience?
b. How did students experience group cohesion in relation to the field experience?

Question 2 pertains to perceptions from students concerning the underlying attributes and processes influencing group cohesion during the field experience. Sub-question 2a sought specific information to identify and describe components of the field experience linked to group cohesion. Sub-question 2b sought in-depth understanding of how identified components of the field experience influenced group cohesion.

2. What are perceptions of the mechanisms and underlying processes of group cohesion in a three-day academic field experience?

a. What components of the field experience served as mechanisms impacting group cohesion?

b. What attributes and underlying processes influenced group cohesion?

Specific interview questions were developed so as to best meet the criteria of being “open-ended, neutral, singular, and clear” (Henderson, 1991, p. 79). Open-ended questions were worded so as to solicit responses beyond a simple yes or no or other one word answers. For those questions anticipated to solicit a brief response, a follow-up question soliciting more detailed information and insight was included. Questions were developed to be as neutral as possible by avoiding words or phrasing that might lead participants to respond in a certain way. Questions were kept singular by taking care not to ask more than one question at a time within a stated question. Finally, questions were written to be clear by avoiding complex or lengthy questions as well as technical terms. Overall, selected questions were anticipated to guide participants to share an in-depth
perspective with rich description concerning their social experience in relation to the field experience, their social experience, their experience relative to group cohesion, and underlying processes impacting group cohesion.

**Analysis.** Qualitative interview data were transcribed and imported into MAXQDA 10 qualitative analysis software to assist with data organization and analysis. Straus and Corbin’s (1998) qualitative data analysis (QDA) approach for developing grounded theory was used to explore and identify themes related to participants’ experiences in relation to group cohesion. Analysis began with open coding and line-by-line analyses so as to carefully identify categories in the data related to the experience, mechanisms, and underlying processes associated with group cohesion. Open coding coincided with the collection of data in an iterative manner. In this way, qualitative analysis was able to shape the guiding interview questions. Line-by-line analysis is generally time consuming but considered a productive technique for identifying categories in the data (Strauss & Corbin, 1998). Open coding was considered complete when a point of saturation is reached in which new conceptual information is no longer being identified in the data.

Axial coding was used to compare and contrast categories, to develop categorical attributes, and to identify categorical relationships relative to the qualitative research questions. The goal of axial coding is to link descriptive information to previously identified categories and to find relationships between categories (Strauss & Corbin, 1998). A saturation point in axial coding was reached when no new categorical information was being identified in the data (Strauss & Corbin). Finally, selective coding
was used to identify overarching themes supported by the data analysis that offered the best insights into the experience of cohesions and underlying processes related to cohesion.

**Validity plan.** A few strategies were considered in the qualitative research design and throughout the research process to help “validate the accuracy of findings” (Creswell, 2003). The techniques of data source triangulation and presenting negative information were used in this study. The technique of triangulating two types of data was used by gathering both quantitative and qualitative data from students. These two types of data were collected via questionnaire responses and face-to-face interviews, both providing insight into the construct of group cohesion in relation to the field experience.

Another validity technique applied during the analysis was to consider and address discrepant information in the findings. Creswell (2003) pointed out how the discussion of discrepant information, which does not support themes and categories identified during data analysis, adds credibility to the presentation of findings. It was the purpose of this study to explore positive, negative, and non-change in relation to the field experience. In this way, the consideration of potential benefits to group cohesion during the field experience was framed within the reality of three potential outcomes (positive change, negative change, and no change). In addition, information provided during data collection that did not support constructed categories or themes was considered as discrepant findings.
ARTICLE ONE
FIELD EXPERIENCE AND GROUP COHESION: A STUDY OF IMPACT

Introduction

One important life achievement for young people with potential to improve their future education and career pursuits is the successful completion of a higher education program (Arnett, 2007). Beyond receiving quality academic instruction, the current expectation for helping students prepare to be successful professionals is the development of collaborative learning skills (Partnership for 21st Century Skills, 2009). Examples of student collaboration in academic groups include mutual discussion, exchange of ideas, and problem-solving (Phelps & Damon, 1989). In response to current expectations of student preparation in professionalism, more attention has been focused on approaching education in ways to incorporate professional development into higher education learning (Deignan, 2009).

Experiential education offers a variety of educational techniques from which to draw. According to Roberts (2008), social interaction is an important component of experiential learning. The use of field experiences in higher education represents one specific experiential education technique with potential for fostering social interaction and group cohesion within an academic learning context (Boyle et al., 2007; Wurdinger, 1994; Weeden et al., 2011). Within the research of group processes, development, and performance, the construct of group cohesion is considered critical (Cohen, 1994; Hackman, 1990). Carron, Widmeyer, and Brawley (1985) presented a multidimensional model approach to conceptualizing group cohesion that distinguishes between (a) group
and individual aspects of cohesion and (b) task and social aspects of cohesion. From this model was developed the Group Environment Questionnaire (GEQ), designed to measure group cohesion within team sports (Widmeyer, Brawley, and Carron, 1985).

The purpose of this mixed methods study was to examine how a three-day academic field experience impacted group cohesion. The following research question was used to guide this study: What is the impact of the field experience on group cohesion for university students participating in a three-day academic field experience? The quantitative phase of this study utilized a modified version of the GEQ to address the need for understanding as to if and how a three-day field experience influences group cohesion as conceptualized in Carron, Widmeyer, and Brawley’s (1985) multidimensional model. The follow-up qualitative phase of this study sought to explore student perceptions and add depth of understanding to the significant quantitative finding that demonstrated positive change in social cohesion, a dimension of group cohesion, in connection with the three-day field experience.

**Literature Review**

**Group Cohesion**

The construct of group cohesion has been defined as “a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (Carron, 1982 p. 125). Research efforts seeking to understand group processes, development, and performance consider group cohesion to be a critical variable of interest (Cohen, 1994; Hackman, 1990). Early research traditionally viewed group cohesion as a unitary construct (McGrath, 1984). Different sources of group
cohesion were acknowledged by researchers, but these sources were regarded as being equally influential on identified variables of interest studied in conjunction with group cohesion (Back, 1950; Schachter, 1951). Due to confusion and lack of consistency in measuring group cohesion, researchers called for a multidimensional approach to understanding cohesion (Carron, 1982; Mudrack, 1989).

**Multidimensional Model**

A multidimensional model approach to understanding group cohesion was proposed by Carron et al. (1985) for use with sport teams. Group cohesion was conceptualized with two major distinctions between: (a) individual and group levels of cohesion, and (b) task and social components of cohesion (see Figure 1). The individual level of group cohesion, referred to as attraction to group (ATG), represents group member motivation to be accepted by and connected with the group. The group level of group cohesion, referred to as group integration (GI), represents group characteristics and perceptions shared by the entire group. The task (T) component of group cohesion is concerned group member motivation to accomplish group level goals. The social (S) component of group cohesion refers to the motivation of group members to interact and connect with each other at the group level.

These two distinctions of group cohesion (individual/group and task/social) represent the building blocks used to conceptualize four domains of group cohesion: (a) group integration-task (GI-T), (b) group integration-social (GI-S), (c) individual attraction to group-task (ATG-T) and (d) individual attraction to group-social (ATG-S).
Research supports a multidimensional approach as useful for measuring and understanding group cohesion (Zaccaro, 1991; Zaccaro & Lowe, 1998).

*Figure 1: Conceptual Model of Group Cohesion (Widmeyer, Brawley, & Carron, 1985)*

![Conceptual Model of Group Cohesion](image)

**Group Environment Questionnaire**

Widmeyer et al. (1985) used the multidimensional model of group cohesion as the underlying theoretical model for developing the Group Environment Questionnaire (GEQ). One advantage the GEQ had over the measures of cohesion was the researchers invested time and effort into proper psychometric development and testing (Widmeyer et al.; Carless & De Paola, 2000). The GEQ was originally developed to measure group cohesion within sport teams and has since been used to examine the relationship between group cohesion and variables such as athlete leadership behaviors (Callow, Smith, Hardy, Arthur, & Hardy, 2009; Murray, 2006; Vincer & Loughead, 2010), team goal setting (Senecal, Loughead, & Bloom, 2008), hazing practices (Van Raalte, Cornelius, Linder, & Brewer, 2007), attachment styles (Tiryak & Cepikkurt, 2007), and intra-team conflict (Sullivan & Feltz, 2001)
Beyond its use in sport related studies, Dion and Evans (1992) described the GEQ as having promise as a “conceptual and methodological approach with potentially broad applicability to different types of groups” (p. 247). Initial attempts to apply the GEQ in non-sport contexts have provided mixed results. In these studies, the task-social distinction of cohesion has typically been supported, but there has been a lack of support regarding the individual-group level distinction (Carless & De Paola, 2000; Dyce & Cornell, 1996). Although the GEQ has been applied to some non-sport settings, Chang and Bordia (2001) pointed out limited application of the GEQ for studying group cohesion within academic settings.

**Social Cohesion**

More research attention is needed to understand the social cohesion dimension of group cohesion. The dimension of task cohesion has tended to received more attention at the neglect of social cohesion in research connecting group cohesion with group performance (Carlees & De Paola, 2000). A criticism of group cohesion research refers to the GEQ and how specific items are limited in their operationalization of social cohesion by only measuring the degree of socialization occurring between individual members of the group (Carless and De Paola). Widmeyer et al.’s (1985) theoretical conceptualization of social cohesion was defined as “a general orientation or motivation toward developing and maintaining social relationships within the group” (p. 16). Due to potential limitations existing in the conceptualization of social cohesion combined with a historically weak relationship exhibited social cohesion and group performance, Carless and De Paola proposed the need for future research to “explore an expanded definition of
social cohesion” (2000, p. 85). Based on previous literature, Carless & De Paola (2000) suggested future efforts develop the construct of social cohesion and consider the role of important, related variables such as communication, supportive social behavior, and cooperation in social cohesion.

**Experiential Field Experiences**

Field experiences represent an experiential approach to active learning with opportunities to blend the realms of academic, social, and professional which may add meaning to student learning. According to John Dewey, the role of experience should be central to the learning process (Dewey, 1938; Kolb, 1984). Opportunities for active involvement and engagement through experiential learning are necessary for producing a quality education (Dewey, 1938). Beyond the occurrence of active learning, Estes (2004) suggested this initial, active experience may serve as a reference point for continued learning. In addition to being active, Dewey (1929) conceptualized learning as being relational and entrenched in context. Piaget also referred to the developmental importance of social interaction among students (Kraft, 1986).

The technique of field experience may be able to offer promise within higher education with regard to integrating opportunities for group interaction within an active academic learning experience that is designed to help students in their preparation as future professionals. Beyond academic and other potential benefits, it has been suggested field experiences may provide positive outcomes related to social integration and cohesive group interaction (Boyle et al., 2007). In a recent exploratory study of students’ experiences on a 7-day academic field trip, Weeden et al. (2011) found students
identified perceptions of group cohesion among positive outcomes with potential for transference back to the classroom. More supportive research is needed to examine if and how field experiences influence group cohesion and how those influences transfer back to the classroom if at all.

Methods

Research Design

This study used an explanatory mixed methods design as described by Creswell and Plano Clark (2011). The design consisted of two sequential research phases with an initial quantitative phase and a follow-up qualitative phase. The purpose of the quantitative phase was to examine the impact of the academic field experience on group cohesion and its specific dimensions as delineated in Carron et al.’s (1985) multidimensional model of group cohesion and as measured by Widmeyer et al.’s (1985) Group Environment Questionnaire (GEQ). The purpose of the qualitative phase was to confirm quantitative findings generally, to explore student perceptions, and to add depth of understanding to the significant quantitative finding that demonstrated positive change in social cohesion (a dimension of group cohesion) in connection with the three-day field experience.

Program Description

Clemson University’s Parks, Recreation, and Tourism Management (PRTM) Department launched an innovative, semester-long academic program during spring semester 2010. The program was the research context for this study in its third year (spring, 2012) and is currently known as the Students Engaged in Diverse Guided
Experiences (EDGE) semester. The design of the EDGE semester is to be an immersive educational experience to engage first semester sophomores with foundational academic content through a variety of experiential learning approaches. The philosophy and logistical format of EDGE value and enable real world experiences and experiential learning techniques that are not typically convenient in a traditional semester model. One experiential approach applied during the EDGE semester is a three-day field experience scheduled within the first few weeks of the semester. The rationale for the EDGE field experience is to (a) introduce students to agencies, professionals, facilities, and programs within the PRTM major, and (b) to provide opportunities for students to start bonding as an academic cohort.

Sample

The 2012 EDGE semester consisted of 161 participating students invited to participate in the quantitative phase of the study by completing the pre- and posttest survey using an online version of the modified Group Environment Questionnaire (GEQ) administered using Snap 10.0 Surveys internet software. There were 147 students that completed the pre-test together during class a few days prior to the EDGE field experience (91.3% response rate). Approximately a week and a half following the field experience, 148 students completed the post-test together during class (91.93% response rate). Pre- and post-test data capable of being matched up resulted in a useable comparison group of 112 students (females = 66; males = 46) representing a combined pre- and post-test response rate of 69.57%. Students in the comparison group had a mean age of 20 years (SD = 1.63). The follow-up qualitative phase consisted of face-to-face
interviews with 27 students selected from the comparison group. It was ensured at least three students representing each of the five field experiences were selected for interviews.

**Data Collection**

Research participants were recruited from undergraduate, sophomore students participating in a three-day field study in conjunction with Clemson University’s PRTM 2012 EDGE semester. All of the 2012 EDGE students were invited via email to participate in the study with a verbal follow-up reminder in class prior to and following the field experience. Students were given up to 15 minutes at the beginning of class to complete the survey. The recruitment email included complete information about being in a research study within the email text and as a separate attachment. A link was provided in the email to an on-line version of the GEQ with minor wording changes of items to modify it from a team sport context to an academic context. Participation was voluntary and consent was implied through the completion of the survey. Students were asked to complete the pre-test in the class period prior the field experience (about 3 days before) and the post-test in the first class period upon returning from the field experience (about 7 days after). Data from students who completed both pre- and post-test surveys were organized into a comparison group of students (N=112).

From the comparison group, pre- and post-scores were used to calculate change in cohesion scores for each student. Qualitative data were collected and analyzed from a purposively selected sample of students as a follow-up to quantitative findings. Students were purposively sampled based on quantitative findings of pre- and post-test change in perceived group cohesion represented by the following categories: (a) positive change,
(b) negative change, and (c) no change. The strategy of selecting interview participants identified as experiencing different directions and amounts of change in cohesion was used to increase the diversity of perspectives gathered through interview data and thus provide a more comprehensive understanding of the experience of group cohesion in conjunction with the three-day field experience.

Students were selected from each of the five field experiences for qualitative interviews. The process began by selecting two students from each category of change that most typified that category. Thus, the students who demonstrated the most positive change, the most negative change, and the least change in either direction were invited via email to participate in dyadic interviews. With response rate in mind, two students representing each category were invited from each group to participate in the interviews so as to help increase the likelihood of obtaining at least one student respondent from each category. Collection of qualitative data started after the field experience and the quantitative post-test and continued throughout the semester with all interviews being completed prior to the end of the semester. At least three students from each of the five trip groups were selected to participate in interviews.

Dyadic interviews were used to gather student responses in order to gain perspective into participants experience with group cohesion and underlying processes connected to the development or non-development of group cohesion in relation to the field experience. The use of dyadic interviews was selected based on their usability for gaining an in-depth perspective into the subject of study (Henderson, 1991). Although interviewers used an interview question guide to direct interviews generally, qualitative
interviewing was used more as a conversation guided by the interviewer (Babbie, 2001; Henderson).

In order to explore group cohesion within the context of a field experience, two central questions were selected to guide the development of the interview questions: (a) What are perceptions of the experience of group cohesion in a three-day academic field experience?, and (b) What are perceptions of the mechanisms and underlying processes of group cohesion in a three-day academic field experience? Each central question was assigned sub-questions to narrow the research focus. Guiding interview questions for participants were formulated based on the research questions and sub-questions.

Data Analysis

The EQS 6.1 software package was used to perform a Confirmatory Factor Analysis (CFA) to examine the second order factor of Group Cohesion with the four distinct first order dimensions (i.e., ATG-Social, ATG-Task, GI-Social, and GI-Task). Composite scores for Group Cohesion and each of its dimensions were calculated. SPSS (PASW 18) statistical software was used to report descriptive statistics and conduct paired-samples T-Test to assess change in pre- and post-test composite scores.

Qualitative interview data were transcribed and imported into MAXQDA 10 qualitative analysis software to assist with data organization and analysis. Strauss and Corbin’s (1998) qualitative data analysis (QDA) approach was used to explore and identify themes related to participants’ experiences specifically in relation to social cohesion. Analysis began with open coding and line-by-line analyses so as to carefully identify categories in the data related to the experience, mechanisms, and underlying
processes associated with social cohesion. Open coding coincided with the collection of data in an iterative manner. In this way, qualitative analysis was able to shape the guiding interview questions. Line-by-line analysis is generally time consuming but considered a productive technique for identifying categories in the data (Strauss & Corbin, 1998). Open coding was considered complete when a point of saturation was reached in which new conceptual information was no longer being identified in the data.

Axial coding was used to compare and contrast categories, to develop categorical attributes, and to identify categorical relationships relative to the qualitative research questions. The goal of axial coding is to link descriptive information to previously identified categories and to find relationships between categories (Strauss & Corbin, 1998). A saturation point in axial coding was reached when no new categorical information was being identified in the data (Strauss & Corbin). Finally, selective coding was used to identify overarching themes supported by the data analysis that offered the best insights into the underlying experience of social cohesion for students involved in the three-day field experience.

Results

Quantitative Findings

During the initial handling of data, pre- and post-test scores were linked together to create a useable comparison group. Cases were analyzed for univariate outlier responses using calculations for leverage, kurtosis, and skewness, and Mahalanobis Distance (Tabachnick & Fidell, 2001). Statistical outliers represent extreme data point values, as compared to other values in the data set, which violate assumptions of
normality and thus influence results in a way that misrepresents the sample population. No extreme violations were identified and therefore all cases were retained for further analysis.

Regarding missing data, the on-line survey did not necessitate participants to answer every question before being able to submit their answers. Therefore, some survey questions were left unanswered resulting in some missing data points. There were no obvious patterns for the unanswered questions or missing data points between different respondents or between pre- and post-survey responses of the same respondents. Further, a standard missing data analysis using EQS 6.1 was used to identify the missing data points were randomly distributed (‘missing completely at random’ [MCAR] achieved). In consideration of the low sample size (N = 112) of this study, which is in part due to working with a limited population (N = 161) of students participating in the field experience, the technique of data imputation was used to retain all respondents possible regardless of missing data points. Having established the random distribution of missing data points, it was deemed appropriate to use Maximum Likelihood Imputation with the Expectation Maximization (EM) Algorithm to impute the missing data points, representing 1.34% of the total data points (Kline, 2005).

A Confirmatory Factor Analysis (CFA) was performed using the statistical software package EQS 6.1 to examine the second order factor of Group Cohesion with four distinct first order dimensions (i.e., ATG-Social, ATG-Task, GI-Social, and GI-Task) (see Table 1). CFA was used to evaluate goodness-of-fit between the data and the four dimensions of group cohesion as proposed by Carron et al.’s (1985) conceptual
model of group cohesion. CFA results indicated 6 of the original 18 items from the modified GEQ appeared not to have transferred well from a sport context to an academic setting (see Table 2). Due to a lack of convergent validity as evidenced by low factor loadings, lack of measurement independence as evidenced by cross-loading of items with other unintended factors, and multiple error covariances, these items were removed from the model and further analysis.

The remaining 12-item model demonstrated acceptable psychometric properties based on meeting recommended minimums on fit indices and factor loadings as well as demonstrating a lack of cross-loadings and error covariances (following standard recommendations for CFA procedures outlined by Kline, 2005 and Byrne, 2008). The first of various fit indices used to evaluate the remaining 12-items and report model fit was the Satorra-Bentler Chi-Square (SB$\chi^2$). Similar to a standard Chi-Square ($\chi^2$) interpretation of data, the SB$\chi^2$ procedure adjusts for multivariate non-normal characteristics (Satorra & Bentler, 2001). SB$\chi^2$ values that are non-significant indicate no difference between the conceptual model and the data. In addition to the SB$\chi^2$, various fit statistics were also used to provide “interpretive guidelines” for examining and comparing the model and data relationship (Kline, 2005, p. 135). Fit statistics employed included: (a) the Comparative Fit Index (CFI) which measures discrepancy between models, (b) the Non-Normed Fit Index (NNFI) which adds to the CFI by accounting for model complexity, (c) the Standardized Root Mean Square Residual (SRMR) which measures differences between reproduced data matrices and observed data, and (d) the
<table>
<thead>
<tr>
<th>Construct and items</th>
<th>PRE (\lambda)</th>
<th>Mean(^a) (SD)</th>
<th>POST (\lambda)</th>
<th>Mean(^b) (SD)</th>
<th>Mean diff (t-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Group Cohesion</strong></td>
<td>-</td>
<td>6.76 (1.03)</td>
<td>-</td>
<td>6.92 (1.17)</td>
<td>-0.15 (-1.663)</td>
</tr>
<tr>
<td><strong>ATG-Social</strong></td>
<td>7.8 (1.23)</td>
<td>7.92 (1.44)</td>
<td>-0.12 (-1.135)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1: I do <strong>not</strong> enjoy being a part of the social activities of this trip group. (R)</td>
<td>0.72</td>
<td>8.22 (1.1)</td>
<td>0.90</td>
<td>8.08 (1.31)</td>
<td>-</td>
</tr>
<tr>
<td>Item 3: I am <strong>not</strong> going to miss the members of this trip group when the semester ends. (R)</td>
<td>0.86</td>
<td>7.38 (1.63)</td>
<td>0.87</td>
<td>7.75 (1.74)</td>
<td>-</td>
</tr>
<tr>
<td>Standardized estimate between the dimension and the second order factor of Group Cohesion</td>
<td>0.84</td>
<td>-</td>
<td>0.91</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>ATG-Task</strong></td>
<td>-</td>
<td>7.8 (1.07)</td>
<td>-</td>
<td>7.65 (1.17)</td>
<td>0.15 (1.587)</td>
</tr>
<tr>
<td>Item 2: I am <strong>not</strong> happy with the amount of classroom interaction time I get. (R)</td>
<td>0.74</td>
<td>8.05 (1.25)</td>
<td>0.57</td>
<td>7.72 (1.52)</td>
<td>-</td>
</tr>
<tr>
<td>Item 4: I am <strong>not</strong> happy with my trip group’s level of desire to succeed academically. (R)</td>
<td>0.76</td>
<td>7.84 (1.29)</td>
<td>0.68</td>
<td>7.75 (1.5)</td>
<td>-</td>
</tr>
<tr>
<td>Item 6: The trip group does <strong>not</strong> give me enough opportunities to improve my personal performance. (R)</td>
<td>0.74</td>
<td>7.7 (1.27)</td>
<td>0.72</td>
<td>7.49 (1.33)</td>
<td>-</td>
</tr>
<tr>
<td>Item 8: I do <strong>not</strong> like the style of interaction in this trip group. (R)</td>
<td>0.76</td>
<td>7.62 (1.41)</td>
<td>0.90</td>
<td>7.64 (1.46)</td>
<td>-</td>
</tr>
<tr>
<td>Standardized estimate between the dimension and the second order factor of Group Cohesion</td>
<td>0.98</td>
<td>-</td>
<td>0.93</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>GI-Social</strong></td>
<td>4.86 (1.53)</td>
<td>5.65 (1.67)</td>
<td>-0.8(^*) (-4.598)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 11: Members of our group would rather go out on their own than get together as a trip group. (R)</td>
<td>0.71</td>
<td>5.21 (1.94)</td>
<td>0.60</td>
<td>5.31 (2.05)</td>
<td>-</td>
</tr>
<tr>
<td>Item 15: Our trip group would like to spend time together when classes are not in session.</td>
<td>0.60</td>
<td>4.44 (1.71)</td>
<td>0.69</td>
<td>5.61 (2.09)</td>
<td>-</td>
</tr>
<tr>
<td>Item 17: Members of our trip group do <strong>not</strong> stick together outside of trip group meeting times. (R)</td>
<td>0.77</td>
<td>4.93 (2.06)</td>
<td>0.73</td>
<td>6.05 (2.14)</td>
<td>-</td>
</tr>
<tr>
<td>Standardized estimate between the dimension and the second order factor of Group Cohesion</td>
<td>0.59</td>
<td>-</td>
<td>0.85</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>GI-Task</strong></td>
<td>-</td>
<td>6.6 (1.32)</td>
<td>-</td>
<td>6.54 (1.39)</td>
<td>0.06 (0.470)</td>
</tr>
<tr>
<td>Item 10: Our trip group is united in trying to reach its goals for performance.</td>
<td>0.64</td>
<td>6.52 (1.8)</td>
<td>0.53</td>
<td>6.27 (2.02)</td>
<td>-</td>
</tr>
<tr>
<td>Item 14: Our trip group members have conflicting aspirations for the trip group’s experience. (R)</td>
<td>0.58</td>
<td>6.8 (1.51)</td>
<td>0.53</td>
<td>6.57 (1.76)</td>
<td>-</td>
</tr>
<tr>
<td>Item 18: Our trip group members do <strong>not</strong> communicate freely about each student’s responsibilities during trip group meeting times. (R)</td>
<td>0.69</td>
<td>6.48 (1.79)</td>
<td>0.77</td>
<td>6.77 (1.66)</td>
<td>-</td>
</tr>
<tr>
<td>Standardized estimate between the dimension and the second order factor of Group Cohesion</td>
<td>0.88</td>
<td>-</td>
<td>0.99</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>CFI</strong></td>
<td>0.926</td>
<td>-</td>
<td>0.982</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>NNFI</strong></td>
<td>0.903</td>
<td>-</td>
<td>0.977</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>RMSEA</strong></td>
<td>0.078</td>
<td>-</td>
<td>0.040</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>SB (\chi^2) (df)</strong></td>
<td>83.81 (50)</td>
<td>-</td>
<td>59.1 (50)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>SRMR</strong></td>
<td>0.068</td>
<td>-</td>
<td>0.051</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: \(^a\) Rated as agreement on a 9-point Likert scale (1 = strongly disagree; 9 = strongly agree); \(\lambda\) = standardized factor loading; CFI = Comparative Fit Index; \(df\) = degrees of freedom; NNFI = Non-Normed Fit Index; R = reverse coded item; RMSEA = Root Mean Square Error of Approximation; SB \(\chi^2\) = Satorra-Bentler Scaled Chi-Square; SD = standard deviation; SRMR = Standardized Root Mean Squared Residual; \(^*\) \(p < 0.001\)
Root Mean Square Error of Approximation (RMSEA) which measures lack of fit per degree of freedom (Byrne, 2006). These measures demonstrated acceptable levels of fit for both the pre-test (CFI > 0.926; NNFI > 0.903; SRMR < 0.068; RMSEA < 0.078) and the post-test test (CFI > 0.982; NNFI > 0.977; SRMR < 0.051; RMSEA < 0.040) (Byrne, 2006; Kline, 2005).

Therefore, these 12 items were used for subsequent analyses to measure change in the total and dimensions of group cohesion. A composite score was calculated for the second order factor of group cohesion and each of the first order dimensions. Next, a paired-samples T-Test was used to assess change from the pre-experience composite score to the post-experience score for group cohesion and each of the four dimensions. Students’ overall group cohesion scores as well as three of the four dimensions of group cohesion scores (ATG-Task, ATG-Social, GI-Task) were not found to have significant change from pre- to posttest. The GI-Social dimension of group cohesion was the only dimension that received significant statistical support for positive change from pre-test ($M = 4.86; SD = 1.53$) to post-test ($M = 5.65; SD = 1.67$) in comparative mean scores ($M\Delta = 0.8, t = 4.598; p < 0.001$).

Table 1.2: Items Removed from the Model

<table>
<thead>
<tr>
<th>ATG-Social</th>
<th>Item 5: Some of my best friends are in this trip group.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Item 7: I enjoy other parties more than parties with members of my trip group.</td>
</tr>
<tr>
<td></td>
<td>Item 9: For me this trip group is one of the most important social groups to which I belong.</td>
</tr>
<tr>
<td>GI-Social</td>
<td>Item 13: Our trip group members rarely party together.</td>
</tr>
<tr>
<td>GI-Task</td>
<td>Item 12: We all take responsibility for any loss or poor performance by our trip group.</td>
</tr>
<tr>
<td></td>
<td>Item 16: If members of our trip group have problems on schoolwork, everyone wants to help them so we can get back together again.</td>
</tr>
</tbody>
</table>
Qualitative Findings

Although students interviewed were purposively selected based on varying degrees and directions of change (including no change) in group cohesion in order to provide a diversely representative range of experiences with cohesion, qualitative data analysis revealed the majority of students interviewed expressed an overall positive social experience and increased sense of cohesion within their trip group as a direct result of the field experience. Of the 25 students interviewed, only two (0.08%) reported they had a negative social experience and their sense of group cohesion did not change as a result of the field experience. Participants’ verbal expressions of increased group cohesion as evidenced by numerous positive comments made by students regarding their overall social experience appropriately matched statistical findings related to the positive increase in the group cohesion dimension of social cohesion at the group level (GI-Social).

Qualitative findings link reports of increased group cohesion with the positive social atmosphere of the field experience. Interviewed students consistently made positive comments related to their social experience during the field experience and how the field experience changed the social interaction occurring within the group upon return to the classroom. For example, one student reported, “(the) social aspect of the trip was huge – like, the cohesion of it” (Student #4, Female, Group #4). Due to the associative way group cohesion and social experience were expressed, further analysis concentrated on exploring qualitative data in connection with Carron et al.’s (1985) dimension of social cohesion at the group level (GI-Social). Despite significant quantitative findings
regarding positive change in social cohesion and positive expressions of gained cohesion from a majority of participating students, qualitative analysis revealed student experiences with social cohesion varied. How students experienced and viewed social cohesion in connection with the three-day field experience was identified by the following thematic groupings: (a) complete social cohesion, (b) negative social cohesion, (c) negotiated social cohesion, and (d) contextual social cohesion.

**Complete social cohesion.** Students in this group expressed common attributes with regard to perceiving complete social cohesion throughout the group and to some extent beyond the academic context of the group. These students reported having an excellent social experience in conjunction with the field experience. For example, “We all like socially kind of connected with everything that we did. . . . I feel like we grew and by the end it was just kind of like we had known each other for years” (Student #4, Female, Group #4). In some instances these students made references to student behaviors that may have created some social awkwardness and detracted from group cohesion, but overall these were just observations to which the students did not perceive their own personal sense of group cohesion being affected.

That first night people were – this is fine with me, but people were kind of going crazy as far as like maybe drinking and stuff . . . it wasn’t an issue to me but I can see how some people took a little offense or felt a little uncomfortable around it. (Student #9, Male, Group #2)
Students in this group reported making close friends in subgroups while also feeling a sense of openness and general connection to the whole group.

We still had our mini groups but not clique groups. . . Everyone just talked to everyone so that was a great experience because I’m usually around people that tend to stick to their own people. So being able to open up to anybody was a real great experience.

(Student #12, Female, Group #4)

They felt like the group became more cohesive as a result of the field experience and this sense of cohesion among students transferred back to classroom meeting times that were continued with the same group of students following the field experience. Students in this group felt like the cohesion in the classroom had the potential to extend beyond the context of the trip group including non-school related interactions both on and off campus. One student explained, “Like me and the other girls that sat in the back of the bus – we hang out like when we’re not in class” (Student #3, Female, Group #4).

**Negative social cohesion.** Overall, these students reported having a negative social experience at the group level due to the presence of cliques as well as negative personal feelings associated with being left out at the group level.

I did not enjoy the social experience because there was a bunch of set girls . . . like, the sorority girls kind of did their own thing and kind of just made it awkward for everybody else. So, it was kind of like before we even got on the bus, they had like little cliques . . . if you didn’t know anybody and didn’t have a clique you kind of
were just left out . . . “(back at the hotel) for the most part I just
stayed in the room and went to bed . . . but everybody else, I think,
actually hung out for the most part.” (Student #2, Female, Group
#2)

These students were not completely isolated from the group and had contact with
other students at least on a small group level, but their overall experience was considered
to be socially awkward and negative. One student summed up her experience, “I really
didn’t like it . . . people that I went with were like really cliquish . . . they just didn’t want
to do anything with you.” (Student #28, Female, Group #4). Periods of unstructured free
time seemed to be when these students felt most left out of the group.

I ended up spending a lot of time walking around (the city) kind of
by myself . . . I don’t know if clique is the right word but, you
know, everybody sort of had their people to go with. Like I said, I
just kind of was on my own most of the time . . . it was not a great
social experience for me . . . it was just kind of annoying that, you
know, like I didn’t really have that many people that I could be like
‘oh, let’s do something fun. (Student #16, Female, Group #1)

These students observed the majority of the group getting along within cliques
and becoming more cohesive with the whole group, but they did not feel included in that
process of group development. These students noticed increase interaction in the
classroom upon return from the field experience but more as a third party observer than a
participant.
It looks like everybody’s a lot more social and sort of together and stuff. Um, like I said, it’s not something that I know from first hand but just sort of standing back and observing it looks like they’re all more together. (Student #16, Female, Group #1).

**Negotiated social cohesion.** Students in this group reported a mixed perspective on their social experience, which included positive connections with subgroups but negative interactions at the whole group level. These negative experiences were generally associated with rigid social boundaries and exclusive interactions among subgroup cliques. These students reported coming to terms with negative emotions related to subgroup cliques and expressed the end result of the field experience being a generally positive social experience which contributed to group cohesion and continued to develop in subsequent group interactions during classroom meeting times.

We’ve grown to like each other as far as the trip group goes. My own social experience was fine . . . It definitely helped me bond with the people that I do know better in the trip group such that I was able to bring that back . . . relate to them and talk to them about what’s going on in classes . . . I mean, it was a good social experience other than the people that were cliquey. But it’s something that after – I just kind of got over it because it wasn’t something that I could change and I didn’t want it to like bring me down. (Student #10, Female, Group #2)
However, students also expressed less comfort and interest at the thought of spending time with some students outside of the trip group context.

I only planned on hanging out with two to four members of my trip group outside of class after the trip. I realized that I was different than a lot of people on my trip and that we didn't share the same interests . . . (but) I didn't really get the chance to carry on with (them) after the trip. (Student #11, Female, Group #3)

One student reported making some positive social connections during trip group class meeting times following the field experience. She reported these social connections occurred as a delayed response to the shared experience of the trip resulting in an increased sense of social comfort and connection within future classroom meeting times for the trip group.

Even though I kind of kept to myself, I still got to know everybody a little bit better. And then when we got back we kind of knew each other a little bit more . . . since we’ve been back, everybody’s been more like talking with everybody else and hasn’t been just a set group. (Student #2, Female, Group #2)

Although not feeling completely connected to the whole group, these students still reported an increased sense of cohesion within the trip group and a greater sense of comfort with the whole group during class. The characteristics of this group were similar to the group described as complete social cohesion with the main difference being the
need to negotiate awkward social circumstances in order to eventually arrive at the same positive conclusions about the group.

**Contextual social cohesion.** Students in this category represent what might be expected and actually match almost consistently with the characteristic of those students categorized as complete social cohesion. Similarly, these students reported extremely positive social experiences in connection with the field experience and indicated an increased level of comfort and cohesion with their trip group that transferred to the classroom environment following the field experience. These students did not report the occurrence of cliques or the need to negotiate socially awkward situations. The main expressed difference between this lower scoring group and higher scoring students was their social connections with the group were limited specifically to the trip group within the academic context. One student stated, “I haven’t really hung out with anybody outside campus yet. It’s mostly class for me” (Student #18, Male, Group #3). Although students reported making positive social connections during the trip that continued after the trip during classroom meetings, social interactions with members of the group did not generally extend beyond the context of the trip group.

Whenever we see each other outside of class we obviously say ‘hi’ to each other and stuff but we don’t like hang out with them all the time and we have each others’ numbers . . . and it wouldn’t be weird for one of us to like call the other one . . . but it’s not something that we just think about every Friday night. (Student #23, Male, Group #2)
These students expressed a social connection and increased cohesion with the group, but it was specific to the context of formal trip group meeting times. Qualitative findings on the variable of whether or not cohesion extended outside of the trip group context matched the stems of the original three GI-Social questionnaire items that are related directly to cohesion extending into contexts outside of formally structured group meeting times (see Table 3).

Table 1.3: GI-Social Dimension Items (retained following CFA)

<table>
<thead>
<tr>
<th>Item 11</th>
<th>Members of our group would rather go out on their own than get together as a trip group. (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 15</td>
<td>Our trip group would like to spend time together when classes are not in session.</td>
</tr>
<tr>
<td>Item 17</td>
<td>Members of our trip group do not stick together outside of trip group meeting times. (R)</td>
</tr>
</tbody>
</table>

(R) = Reverse Scored Item

Although some students did not expect or consider social interactions to extend beyond the structured learning environments of campus, these students indicated the value of positive social interactions within the classroom. It was indicated that for social cohesion to be helpful by establishing a sense of social comfort within the classroom setting, one did not necessarily need to be overly close to members of the group. One student relayed, “Even if not everyone is best friends, I mean, we all knew each other and were comfortable enough. Like when we had that assignment last week, no one was worried about standing up in front of the class” (Student #5, Female, Group #2). Even if connections did not extend beyond campus, being able to connect socially with the group within the trip group context was viewed as enhancing the overall quality of the academic learning environment.
For the most part (the cohesion) stays inside the classroom . . . for some people the people that they want to hang out with outside of their classroom may not be the people in their trip group. They just feel like they don’t connect enough with them. They don’t share enough connections to where it’d be fun to hang out with them outside of the group. But they’re still compatible within the classroom . . . Even if it doesn’t expand beyond the classroom, it’s good to have that social aspect . . . when you’re able to socialize and interact with one another comfortably, it makes everything a lot more smoother, more efficient, things are more fun, activities are done more successfully, and just a better time for everybody.

(Student #25, Male, Group #4)

Students indicated social connections initiated during the field experiences not only improved the cohesion of the trip group but spilled over into the greater context of the EDGE semester including other EDGE related classes and blocks of free time occurring on campus between classes. As phrased by one student, “It just makes everyone more friendly. It’s just more people that you know around school (Student #23, Male, Group #2). One student summarized her social interactions during the field experience as “building our little EDGE community” (Student #11, Female, Group #3).

**Discussion**

The purpose of this study was to examine the impact associated with group cohesion for university students participating in a three-day academic field experience.
Application of the modified version of the GEQ was somewhat limited and in need of further refinement to better fit the research context as evidenced by the need to remove 6 of the 18 questionnaire items due to a lack of convergent validity. However, findings suggest the remaining 12 item version of the GEQ were useful in this preliminary examination of change in group cohesion. In addition, a multidimensional approach to conceptualizing group cohesion proved especially useful with regard to distinguishing between the influences of the specific dimensions of social and task cohesion. Specifically, findings indicate the three-day field experience was significantly impactful in influencing positive change within the specific group cohesion dimension of social cohesion at the group integration level. Qualitative findings present themes illustrating how the process and experience of social cohesion was perceived among students suggesting a need for discussion and reconsideration of the potential role and value of social cohesion for group interaction. These findings have important implications related to measuring group cohesion in the context of academic student groups participating in a shared field experience as part of their course experience and determining the impact of field experiences on group cohesion.

The quantitative phase of this study focused on the impact of the three-day field experience on group cohesion? The preliminary application of the GEQ within an educational context to measure impact of the field experience provided support for its usefulness along with evidence to support recommendations for future scale refinement. Usefulness of the GEQ included its ability to distinguish between task and social dimensions of group cohesion. Whereas the full scale did not demonstrate significant
change in perceptions of overall group cohesion, examining the subscales revealed a significant increase in the social component of group cohesion at the group integration level (GI-Social) for participants. Limitations of applying the GEQ to an educational context included the identification of six underperforming items for this research context that were removed from the scale prior to comparative analyses. These six items are in need of further consideration to determine whether or not they are inappropriate for use in future academic contexts or if there were other measurement conditions influencing student responses to these items such as the timing of both pre- and post-test measurements which were conducted at the early stages of group development.

Findings also supported the usefulness of a multidimensional approach for distinguishing between the social and task dimensions of group cohesion within an academic research context. Without having used a quantitative measurement tool sensitive to the conceptual distinction between the social and task dimensions of group cohesion, findings related to overall group cohesion as a one-dimensional construct would have overlooked significant impact of the field experience on social cohesion at the group level. Although the discussion of this study is specifically concerned with the change that occurred related to social cohesion at the group level, the lack of significant change in social cohesion at the individual level as well as the dimensions of task cohesion is also of interest. Lack of significant findings related to task cohesion may be of specific interest considering this dimension has traditionally been found to be more strongly related to team success than social cohesion within studies of sport teams (Carron, Bray, & Eys, 2002; Widmeyer, Carron, & Brawley, 1993).
Why did the field experience seem to fail at providing a positive boost to task cohesion as it did to social cohesion? There are many possibilities, but one important factor to consider is the academic structure of the field experience. Although the focus of the field experience was primarily academic, there were minimal group assignments necessitating focused teamwork other than generally working together as a group to have an overall successful trip. This lack of team-based assignments during the field experience may have resulted in the students not having any new information regarding the type of group interaction with others characteristic of task cohesion. Another factor to consider is the students participated in a half day of team building activities at the university’s ropes course just prior to the pretest and the actual trip. Due to the team based focus of this experience, it is possible this experience influenced perceptions of task cohesion within the group prior to measurement thus reducing change as a result from the field experience. For subsequent applications of field experience, it may be possible to deliberately program opportunities to develop task cohesion within the group. If so, it should be assessed whether or not programming for the development of task cohesion can be done effectively in such a way to add academic value to the overall experience and subsequent learning interactions without compromising the development of social cohesion.

Quantitative findings indicate student perceptions of social cohesion at the group level were positively and significantly impacted as a result of participation in the three-day field experience. Documenting this increase in social cohesion provides preliminary evidence to support expectations that field experiences may have useful potential for
fostering positive social interaction outcomes for participants at a group level (Boyle et al., 2007). Results also compliment Weeden et al.’s (2011) recent exploratory finding that tourism students participating in a seven-day field experience on a cruise ship shared a common theme of experiencing positive outcomes related to social cohesion. Although documenting the positive impact of the three-day field experience on social cohesion may be an important contribution to our understanding of potential field experiences outcomes, the next necessary step in understanding impact was to explore if social cohesion develop during an academic field experience translates to impact on the classroom setting.

The qualitative phase of this study provided greater insight and depth into understanding differing patterns of attitudes toward and experiences of social cohesion for student participants. Findings supported four themes of how social cohesion was experienced differently among various groups of students including consideration of successfully and unsuccessfully negotiating negative social experiences and distinctions between in-class and out-of-class contexts for social cohesion. In contrast, the GEQ measurement of social cohesion at the group level (GI-Social) is only connected to participant attitudes toward spending time with group members outside the structure of the trip group context. Although spending time outside structured class time may be an indicator of increased cohesion within the group, findings indicate the GEQ was not sensitive enough to identify social cohesion formed within the trip group unless it extended to interaction beyond the structure of the trip group. Findings also provided support that social cohesion need not extend beyond the classroom context in order to
produce expressions of positive outcomes related to increased social cohesion within a
group of students involved in a three-day field experience.

**Implications**

The findings of this study have important implications for innovative
programming for emerging adults in higher education including potential links between
field experiences and group cohesion. Field experiences may represent a useful
experiential education technique for integrating social, academic, and professional
components within a single experiential learning experience. The findings of this study
suggest potential value of field experiences in impacting group cohesion specifically
through increasing social cohesion at the group level (GI-Social). Although these
findings are not intended to generalize directly to other field experiences, they support the
potential of field studies to integrate a positive social component which supports the
development of social cohesion.

In a critique of how social cohesion was conceptualized in connection with the
GEQ, Carless and De Paola (2000) proposed a need for research to “explore an expanded
definition of social cohesion” (p. 85). This study provides findings that contribute to the
understanding of social cohesion and provides considerations for adjusting the GEQ in
measuring it. Based on findings, it is proposed the GEQ needs further modification for
application in academic contexts. Such modification ought to focus on providing a more
sensitive and useful measurement of social cohesion that considers cohesion within the
relevant context of the group as well as out of group interaction. Higher education
programs utilizing field experiences may benefit from using a revised version of the GEQ
to identify areas for program improvement and to provide evidence supporting program
performance in connection with objectives to improve social cohesion within the
classroom. Measuring social cohesion may also be useful in identifying individual needs
for intervention or mentoring from faculty. Such situation where an individual is
struggling with group cohesion may be easily overlooked when the majority of students
are reporting an overall positive social experience and sense of cohesion and comfort
within the classroom.

Beyond implications for field experiences in higher education, the body of
cohesion literature utilizing the GEQ may need to reconsider the way social cohesion is
defined and measured using the GEQ. A historical lack of useful connections between
social cohesion and performance in sports teams may be due to the way social cohesion
has been operationalized and measured using the GEQ from an out-of-group perspective.
Perhaps such an out-of-group cohesion perspective may be overlooking the most
important context for social cohesion being within the actual, formal contexts in which
the whole group meets together.

Limitations

The main limitation of this study was the use of a modified version on the GEQ
with adapted items for use in an academic context. It would have been preferred to have
pilot testing the modified GEQ including new items developed specifically for group
cohesion within the academic context as advised by Carron and Brawley (2000). In
addition, the sample is limited to students within the PRTM major attending EDGE,
which is a non-typical semester employing various experiential and interactive
components. The overall context of EDGE may have produced overall influences different from what may be experienced during a traditional academic semester with lecture-based classes. Future research needs to test and refine the modified GEQ with students from various disciplines and for a range of instructional techniques for comparing effectiveness in affecting group cohesion.

Limitations of this study parallel those associated with the quantitative and qualitative data collection phases to address the original research questions. This study specifically exposes and addresses one of the limitations of how the quantitative instrument measures the dimension social cohesion. Findings regarding the conceptualization of social cohesion within specific contexts are preliminary and in need of further investigation. Another limitation is the narrowing focus of this study on the GI-Social dimension of group cohesion due to its statistical significance and qualitative relevance. Although this study provides more concentrated findings regarding social cohesion, these findings only represent one component of group cohesion without adding to our understanding of the task cohesion dimension of group cohesion and its relationship to social cohesion.

**Recommendations for Future Research**

The modification of the GEQ for application from a sport team context to an academic group context within higher education followed the initial steps for modification as outlined by the developers of the scale (Carron & Brawley, 2000). This included slight rewording of individual scale items to be consistent with an academic environment while maintaining the stem of each item and the deletion of items in which
the stem did not seem to appropriately transfer to the context of the study. Findings suggest that the modified 12-item version of the GEQ was useful in this preliminary study of group cohesion within an academic environment. Therefore, it is recommended that the next steps in the modification of the GEQ within an educational setting include efforts to develop and “add new items that are more contextually meaningful or better represent the specific group context” (Carron & Brawley, 2000, p. 99). Also in accordance with Carron and Brawley’s comments, it is recommended that modifications of the GEQ focus on developing scale items capable of generalizing across academic contexts so as to enable comparisons between groups that may be using different instructional approaches.

It is also recommended that the GEQ be modified so as to measure social cohesion within the classroom context as well as outside the class. Future research can test to confirm whether or not a distinction exists between perceptions of in-class and out-of-class social cohesion in other academic contexts using field experiences or other experiential education techniques. Further evidence is needed to determine if the measurement of context specific cohesion may reveal social cohesion within the classroom as useful in fostering a socially comfortable learning community among students regardless of out-of-class socialization. In expanding findings related to social cohesion to the overall GEQ, it is also suggested questionnaire items for task cohesion be examined to determine if both in-class and out-of-class contexts are considered. If not, there may be opportunities to improve how the GEQ measures the dimension of task
cohesion by extending beyond the classroom to include group work and study groups that occur outside the classroom context.

Overall, the findings related to this study suggest a need to more seriously consider and investigate the potential of field experiences as an innovative instructional strategy. Further research is needed to determine if the development of social cohesion within an academic context offers value to students such as in the form of practice and development of professional collaboration skills. Perhaps application of field experiences may be used to more deliberately generate positive group interaction transferable to the classroom in the form of interactional behaviors characteristic of an active learning community versus a passive crowd of students. Beyond use with field study, it is recommended an improved version of the GEQ be developed and applied to various academic contexts to compare the use of different techniques and approaches on the development of group cohesion. Due to the dynamic nature of group development over time, it is also recommended longitudinal studies be conducted where cohort groups of students remain intact across multiple semesters.
References


ARTICLE TWO

EXPLORATION OF AN ACADEMIC FIELD EXPERIENCE:

ATTRIBUTES IMPACTING GROUP COHESION

Introduction

The pursuit of higher education represents an important path to achievement for young people which will support their success as future professionals (Arnett, 2007). There is a current trend in education calling for the development and application of innovative learning techniques with increased effectiveness over a traditional lecture format (Deignan, 2009). The Partnership for 21st Century Skills (2009) has identified several areas of professional development for students including the development of collaborative learning skills. Collaborative learning in academic groups includes various skills such as mutual discussion, exchange of ideas, and problem-solving (Phelps & Damon, 1989). Within the consideration of student interactional skills and group processes, development, and performance, group cohesion is considered a critical construct (Cohen, 1994; Hackman, 1990).

Experiential education, as an alternative to a traditional lecture-based approach to education, offers various techniques focused on the application of experience in the learning process (Dewey 1938; Kolb, 1984). Social interaction is thought to be an important component of experiential learning (Roberts, 2008). Field experiences in higher education represent one experiential education technique with potential for helping students develop group cohesion through engagement in social interaction within an academic learning context (Boyle et al., 2007; Wurdinger, 1994; Weeden, Woolley, &
Lester, 2011). An adapted version of Widmeyer, Brawley, and Carron’s (1985) Group Environment Questionnaire (GEQ), was used to measure the impact of a three-day field experience on group cohesion. Beyond examining outcomes of experiential programs such as field experiences, however, a need has been expressed for more research efforts to focus on identifying the processes and attributes underlying experiential learning programs which lead to desired outcomes (Gass, 2005; Henderson, 2004; Sibthorp, Paisley, & Gookin, 2007).

The following research question was used to guide this study: What attributes and underlying processes of the three-day field experience influenced group cohesion? A mixed methods approach was used to address this question so as to provide a more complete picture of underlying processes of an academic field experience that are connected to impact on group cohesion. This study used a participant-selection variant of the explanatory mixed methods design as described by Creswell and Plano Clark (2011).

**Literature Review**

**Group Cohesion**

Group cohesion is regarded as a critical variable in group processes, development, and performance (Cohen, 1994; Hackman, 1990). Despite the perceived value of cohesion in groups, research has historically lacked consistency in defining, conceptualizing, and measuring the construct of group cohesion (Cota et al., 1995; Hogg, 1992; Mudrack, 1989). More recently, Carron (1982) defined cohesion as “a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (p. 125). Extending the conceptualization of
group cohesion beyond a unitary construct, Carron, Widmeyer, and Brawley (1985) presented a multidimensional model of group cohesion. Based on this multidimensional model, Widmeyer et al.’s (1985) developed a questionnaire to measure group cohesion in sport teams known as the Group Environment Questionnaire (GEQ). Use of the GEQ in non-sport contexts has received support with the cautionary advice to modify questionnaire items so as to appropriately fit the new research context (Carron & Brawley, 2000).

**Experiential Education**

Stemming from the early work of Dewey (1938), experiential education represents an approach to education emphasizing the valuable role of experience in education. The term *experiential* is used to represent an approach to education with experience being central to the learning process (Kolb, 1984). The application of experiential education techniques may offer potential for integrating a social component of learning, such as group cohesion, in an academic environment. Dewey called for contextual experiential education efforts which focus on the entire student (Kraft, 1986; Itin, 1999). According to Dewy (1929), learning through experience needs to be active, relational, and entrenched in context so as to prepare students for successful engagement and productive contributions to society. Piaget also considered active social engagement between students as having developmental importance (Kraft, 1986). Palmer (2004) suggested individuals are more likely to have meaningful experiences if their currently divided areas of life are brought together toward a sense of wholeness. Wholeness for students may include integrating academic, professional, and social components of life.
Field Experience

Field experience represents one of various experiential education techniques (Wurdinger, 1994). Within higher education, field experiences may be utilized in various forms and lengths “from an hour-long local walk to a lengthy overseas project” (Boyle et al., 2007, p. 299). The most basic factor associated with classifying field experiences has been described by Gold et al. (1991) as the event of venturing out of the classroom to engage in experiential learning. Research supports field experiences in higher education as being typically perceived as valuable by participating students (Boyle et al.) and faculty (Harland, Spronken-Smith, Dickinson, & Pickering, 2006). Beyond targeting academic benefits, the application of field experience may be useful for integrating a social component of learning in an academic context to promote professional learning skills. Boyle et al. (2007) concluded students participating in field experiences may be recipients of various potential outcomes including social integration and cohesive group interaction. In a recent exploratory study of undergraduate students’ experiences on a seven-day field trip, Weeden et al. (2011) identified group cohesion as one of students’ perceived learning outcomes from participation.

There is a call in education for innovative efforts to replace or at least supplement the traditional lecture-based classroom approach to learning with more effective learning techniques (Deignan, 2009). However, innovation is only helpful if it represents a shift toward increasingly effective methods. To ensure field-based education results in quality learning, Lonergan and Andresen (1988) posited the need for deliberate planning and operationalization of the experience. Identifying whether or not a program contributes to
an intended outcome such as group cohesion is important but not sufficient. Beyond reporting program outcomes, a current research direction in the study of experiential education is to identify processes and attributes leading to program outcomes from which researchers may develop, test, and apply models to improve the application of experiential education techniques (Gass, 2005; Henderson, 2004; Sibthorp et al., 2007).

Methods

Research Design

The research design consisted of two sequential phases with an initial quantitative phase followed by a more extensive qualitative phase. The purpose of the quantitative research phase was to provide initial survey results that were used in the purposive recruitment of interview participants that represented a diverse range of change (i.e., positive, negative, no change) in pre- and post-test group cohesion scores. The purpose of the qualitative research phase was to provide an in-depth exploration to explain the mechanisms and processes influencing group cohesion within the context of a three-day academic field experience.

Program Description

During spring semester 2010, Clemson University’s Parks, Recreation, and Tourism Management (PRTM) Department initiated a semester-long academic program for second semester sophomores. The program served as the research context for this study in its third year (spring, 2010) and was newly named the Students Engaged in Diverse Guided Experiences (EDGE) semester. The EDGE semester presents a unique educational experience using an immersive design. Various experiential education
techniques are employed to engage undergraduate students with academic content foundational to PRTM studies. One experiential approach used within the first three weeks of the EDGE semester is a three-day field experience. The rationale for the field experience is to (a) introduce students to agencies, professionals, facilities, and programs within the PRTM major, and (b) to provide opportunities for students to start bonding as an academic cohort.

Sample

The 2012 EDGE semester consisted of 161 participating students participating on one of five field experiences led by one of five faculty members. Qualitative data were collected via dyadic interviews from 27 students (females = 16; males = 11). The majority of the qualitative sample was selected from the pre- and post-test comparison group (N = 12). Snowball sampling was used to select two additional interview participants from outside of the comparison group to bring in further perspectives based on not being able to attend the field excursion and not enjoying the field excursion.

The comparison group of students completed a pre- and post-test survey using a modified version of using Widmeyer et al.’s (1985) Group Environment Questionnaire (GEQ). The survey was administered on-line using Snap 10.0 Surveys internet software. Students in the comparison group had a mean age of 20 years ($SD = 1.63$). Quantitative findings were used to select students from the comparison group for exploratory interviews based on change in scores regarding the construct of group cohesion. Three or more students from each of the five field experiences were selected to represent each
level of change (i.e., positive, negative, none) in order to provide diverse perspective contributing to and detracting from group cohesion.

An initial quantitative analysis was performed so as to identify and purposefully select a qualitative sample based on quantitative findings distinguishing participants’ direction and level of pre- and post-test change in group cohesion. Pre- and post-test data were organized into a comparison group of 112 students. Calculations were made for each case to compare pre- and post-scores. Findings revealed participants from each of the five field experiences that could be selected so as to generate a sample for exploratory interviews that included three categorizations of group cohesion scores: positive change (see Table 1), negative change (see Table 2), and little to no change (see Table 3). At least one student from each category was selected from each of the 5 groups. Additional students were selected based on findings until a point of data saturation was reached for each of the three categories of change. Some of these additional students were selected through a snowball sampling technique until a point of saturation was reached during analysis in which no new information to support the developing themes was being identified.

Table 2.1: Student scores exhibiting positive change

<table>
<thead>
<tr>
<th>Student</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
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<tbody>
<tr>
<td>Change</td>
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<td>0.78</td>
<td>2.44</td>
<td>3</td>
<td>1.78</td>
<td>1.44</td>
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Table 2.2: Student scores exhibiting negative change

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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change</td>
<td>-1.49</td>
<td>-0.89</td>
<td>-1.27</td>
<td>-1.92</td>
<td>-0.95</td>
<td>-1.55</td>
<td>-0.89</td>
<td>-1.35</td>
<td>-1.95</td>
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</tbody>
</table>
Table 2.3: Student scores exhibiting no change

<table>
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<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
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<tr>
<td>Change</td>
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<td>0.22</td>
<td>-0.17</td>
<td>0.26</td>
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</tbody>
</table>

**Results**

**Qualitative Findings**

Qualitative data analysis supported a central theme and underlying processes connecting the development of the group social cohesion with a sense of social comfort important to the group’s academic functioning. The central theme of this study was designated as *Social Cohesion: A Comfort Factor*. In considering the field experience and its surrounding pre- and post-trip academic context, the following attributes were identified as key factors within the processes influencing the development or detraction from social comfort and perceived social cohesion within the group: guided social dispositions, breaking the ice, sharing the experience, structured learning, unstructured free-time, and bringing it back to the classroom.

**Social cohesion: A comfort factor.** Social Cohesion: A Comfort Factor is the degree of social comfort at the group level referenced in conjunction with developing social cohesion. One student referred to the positive change in cohesion that came about through the field experience as being “a comfort factor” (Student #10, Female, Group #2). According to students, the field experience offered unique opportunities for concentrated social interaction within a shared experience composed of structured learning and unstructured free-time that brought about increased levels of social comfort and cohesion. Upon return from the field experience to the classroom, gains in cohesion
transferred and manifested as a shared sense of “comfort” enabling students to approach
the classroom learning environment differently.

I guess before we weren’t very comfortable in our group. Like,
they were just people that we met with every so often. And then
after, it’s something where you know you are going to know
everyone in the room . . . in the trip group you know everyone. So
it’s kind of, I guess, a comfort factor. That’s the difference.

(Student #10, Female, Group #2)

*Guided social dispositions.* Before the field experience, class meeting times were
used to prepare students for the upcoming experience. Students mentioned feeling more
prepared to engage socially during the field experience due to the established expectation
by faculty that the field experience offers a unique opportunity for socialization and that
bonding with peers is one desirable outcome in addition to the learning objectives of the
field experience.

That was very discussed in our classroom . . . like some of your
best friends will come from your trip group . . . But truthfully, I do
enjoy spending time with them, but I think it’s because it was kind
of instilled in us before -- that you should get to know them and
you should take an interest in your trip and like your trip group.
And so, I think my group specifically bought into that. (Student
#7, Male, Group #5)
By being transparent about the anticipated social experience of the groups, students were able to look forward to the social aspect of the field experience. One student commented, “I think from the get go people were really anticipating getting out there and doing something with their group outside of the classroom” (Student #1, Male, Group #3). Some students were surprised that faculty leaders were correct about connecting so well with other students at a group level.

I remember at the beginning of EDGE they said ‘oh, you’ll know everybody pretty well by the end of this’ and I was like ‘yea, yea, right, you know, I’ll have my few guys and then that’d be it.’ But really, the trip – our trip group tends to still stick together now.

(Student #18, Male, Group #3)

Although discussing the potential outcome of social bonding may be of valuable within the preparation phase, it is possible to overpromise and under-deliver leaving students disappointed when social cohesion does not take place as anticipated. For example, one student expressed disappointment when she did not feel like she got to know the leaders of the field experience as well as anticipated.

I feel like since like we’re supposed to really know our EDGE professors, like that would have been a great time just to like talk and for them to get to know me more and what I want to do and different things . . . And I know like they have other things to do, but I just wish we could have like sat down and got to know them more . . . in the beginning they’re like ‘you’re going to know these
people very well’ and stuff. And I just like feel like I don’t really
know them that well. (Student #11, Female, Group #3)

**Breaking the ice.** A few days prior to the field experience, each trip group
participated in a three-hour group initiatives team building experience at the ropes course
owned by the University. Faculty reported the purpose of the group initiatives experience
was to break down initial boundaries to prepare them for successful social interactions
during the field experience. According the data, the group initiative team building was an
overall positive experience and helped break the ice in preparation for the field
experience. Regarding the group initiatives, students used descriptive terms such as
“broke the ice,” “got the ball rolling,” “turning point”, and “opened the door.” Although
there were varying perspectives as to the impact of the group initiatives, most of the
students reported the group initiatives contributed toward initiating group interactions at a
beginning level through learning names and getting to know each other a little better,

It obviously wasn’t as long of a thing so I didn’t have as much time
to get to know people on a personal level. We did a lot of small
group stuff and even paired up a few times and that kind of helped
me get to know some people’s names and even a little bit about
some people. (Student #9, Male, Group #2)

Students also attributed the group initiatives in helping get past some of the social
awkwardness of meeting and working with new people,

Before hand, the group initiatives were just the best thing that you
could do before you go on a trip like that. It just gets rid of all the
awkwardness up front and then everyone can kind of get along . . .

Because then everyone really started to know each other after that
just because everyone had to do it and it was kind of awkward.
(Student #23, Male, Group #2)

The group initiatives prepared students for the field experience by setting them up for
increased social interaction during the trip,

We learned people’s names fairly well at the group initiatives . . .

But then you really got to know everyone on the trip, I guess is the
difference. I mean, in the group initiatives setting, you just see
who stands out. But then in the trip setting, you get meet everyone.
(Student #5, Female, Group #2)

Overall, I think starting out the trip before with the group
initiatives really helped with the cohesion . . . it just kind of opened
the door for everyone to just be themselves because we had already
experienced some like funny and vulnerable and awkward and all
that type of moments by the group initiatives. (Student #8, Female,
Group #4)

Although students valued the role of the group initiatives in preparing them for the field
experience, they reported the group initiatives contributed only minimally to the actual
cohesion of the group,

I think it was a good activity . . . like a fun thing that sparks up I
guess some kind of communication and stuff and makes you work
as a group. But I don’t think it actually pulled us together. (Student #14, Female, Group #1)

With regard to building group cohesion, students indicated the value of the group initiatives was in preparing them for more open social interactions during the field experience which expedited the development of cohesion. A student commented, “It definitely was a good experience. I feel like if we hadn’t had it, it might have taken us longer on the trip to get into the groove of working together” (Student #10, Female, Group #2). Another student commented, “We kind of got to know each other. But I feel I feel like the trip just had way more of a lasting impact than the (group initiatives) did” (Student #27, Male, Group #1).

**Sharing the experience.** An important attribute that contributed to the cohesion of the group was the sharing of an experience. Beyond having an experience in common or even concurrently in the same location, the students discussed the importance of actually sharing in that experience together and socializing throughout that experience. Not only is the field excursion an immersive three-day experiential learning, but it is an immersive social experience in which members of the group have the potential for constant contact with other students starting at the group initiative activities just prior to the trip, to the three-day field excursion with bus travels, meals, structured learning, unstructured free-time, and staying at the hotel up until the bus ride back to campus.

Saying like ‘hey all 30 of you all are going to be together for three days. You all are going to be meeting with each other every hour pretty much.’ So therefore there’s really not much you can do
Besides get to know these people because you’re going to be with them for three days. (Student #11, Female, Group #3)

On the trip you’re there with just these people. This is who you’re going to eat with, this is who you’re going to spend your breaks with, this is who you are rooming with, I mean, there were no other options, you have to be cohesive. (Student #5, Female, Group #2)

Some students alluded to it being helpful to be visiting overnight in a new city away from campus and other social circles so there could be more of a focus on the social component of the field experience, “Just by being put in a city we don’t really know and having three days where it was just us, not our program plan group or our roommates at home” (Student #10, Female, Group #2). Spending time together and having that shared experience within the interactive context of experiential learning provided a “good groundwork for cohesion.”

Just to have that shared experience . . . being able to learn hands-on instead of sitting in a classroom . . . just that experience alone, just gave you something in common with all those people. And just having something in common with anybody, it just makes for good groundwork for cohesiveness. (Student #27, Male, Group #1)

Spending time together also fostered an increasing sense of social comfort among group members.

So, like just spending time together kind of made it – all of us more comfortable with each other and . . . because we spent that
time together that kind of brought us more together every day. By
the end we all kind of knew exactly how we could work together.

(Student #4, Female, Group #4)

**Structured learning.** According to faculty leaders, the educational intent of the
field excursion represents the central purpose of the experience. The structure of the field
excursion, including on-site agency visits and interaction with recreation professionals, is
designed to link student academic learning to the professional domain. With regard to
building group social connections, students did not consider most of the structured
learning experiences such as facility tours and meetings with professionals to directly
contribute to the development of cohesion. Many students expressed how the focus
during most of the tours was on observing, listening, and learning and not on socializing
with other students.

But when we’re actually sitting there like taking a tour . . . you’re
trying to listen to what the person is saying and not necessarily
talking to someone else. So that’s – it’s not that it wasn’t a social
aspect or positive social environment. It’s just that it’s not the
right time or place for social interactions with each other. (Student
#13, Male, Group #3)

Whenever we were visiting the agencies, I didn’t really get to bond
with people. Because obviously like their talking to us so we can’t
really talk with other people . . . none of the agencies that we went
to increased cohesion. (Student #11, Female, Group #3)
Some students compared the visits with professionals to being in a lecture style classroom with the presentation of useful information but limited interaction.

That was really useful information that we wanted to know and we were learning but like, just sitting there. Like, it’s kind of like just sitting in a classroom. You’re not really getting with the group. Like, you’re just sitting there listening to what they have to say . . . they talked and all of us really enjoyed it but it wasn’t like something we did together that brought us more together. (Student #4, Female, Group #4)

Overall, the students recognized interacting with other students during agency visits and meetings with professionals would be inappropriate within that learning context and “it’s not the right time or place for social interactions with each other” (Student #13, Male, Group #3). On those occasions when some students were not respectful during tours, it created awkwardness and tension within the group.

There were [students] that -- they were kind of rude to some of the tour guides which – you know, just talking while they’re talking. I think even one guy was like – told some people to be quiet which is kind of embarrassing as the whole group. (Student #9)

Although students did not interact much during most of the structured visits, some reported the visits served as a point for discussion with peers during unstructured portions of trip between visits, “For the agencies I mostly just listened but like when we moved from place to place we’d talk about what we just learned” (Student #12, Female, Group
In addition, visits that had opportunities for interactive experiential learning integrated into agency tours contributed to both learning and social cohesion of the group. Within the context of a Park, Recreation, and Tourism Management (PRTM) field experience, the experiential education components of the trip tended to be participatory recreation activities related to the facilities and programs offered by the agencies visited. Although experiential education based learning may have been foremost intended to enhance individuals’ engagement and connection to learning and provide common experiences for discussion, it was the interactive experiential learning components of visits that best contributed to group cohesion within the structured learning visits.

We did a bunch of activities which was good. It wasn’t just sit and listen to someone talk about what they do so that helped it out but thinking maybe more interactive activities would have helped out. Like the wheelchair basketball was good because it was interactive but . . . there were just other activities that I felt like were maybe more – you could do it by yourself. I felt like we should have done stuff that you had to do with each other. (Student #25, Male, Group #4)

Participation in experiential learning that engaged students socially was described by students using positive terms such as “encouraging” each other, “working together”, “getting along”, and getting to know each other. These positive interactions within the context of learning while touring professional agencies helped contribute to and provide an outlet for cohesion and social comfort within the group.
The actual activities we did . . . the wheelchair basketball and the sit-up volley ball. And we did blind go ball. And by that time we had known each other but that way we really got to like work and I guess quote ‘play together’ and interact in different ways . . . it was just fun because by that point we were comfortable with like each other to be blind folded and get a ball thrown at you. And you knew people were watching and you really didn’t care because you knew it was just people in your trip group. I mean, that stood out to me because normally I would have been really embarrassed to be blind folded and just be standing there waiting to hear a ball to be thrown at me from some direction (laughs). So I guess just the feelings change because instead of being shy and embarrassed, I was laughing and having fun with it because I knew and trusted the people I was around. I mean, that was probably the moment I really felt comfortable and knew I was. (Student #5, Female, Group #2)

Although the interactive experiential learning components of the trip were nested in the higher academic and professional purposes of the field experience, occasionally students expressed enjoyment of the activity simply as interactive recreation while missing the academic connection to the learning objectives, “Um, highlights of the trip? I guess the (PRTM agency) place was pretty cool. Everybody had a lot of fun with that. Although I’m not really sure how it related to PRTM” (Student #18, Male, Group #3).
**Unstructured free-time.** Multiple day field experiences offer a unique opportunity for shared experience in chunks of time not structured for learning. These shared experiences may or may not be present in day outing that require less time and no overnight accommodations. Such time includes trip related logistics such as travel time, life maintenance such as meals and rooming together, and unstructured free time apart from the scheduled portions of the field experience. The unstructured time in the evenings was regarded by many of the students as the most social portion of the field experience and was referred to as “free time”, “spare time”, or “down time” that took place “when we were done with our schedule . . . constructed tours and everything and lecturing” (Student #13, Male, Group #3). This unstructured free time within an immersive social environment was an important component for students to get to know each other on a more personal level outside the structured context of school, “Free time was definitely a big time to get to know each other” (Student #2, Female, Group #2).

Like at school you have classes together but like you have time between so you don’t have to spend it with these people. Whereas on the trips, your free time, you spent it with the people that you were on the trip with. So I felt like having so much time to get to know each other and just these people helped. (Student #3, Female, Group #4)

Students reported that spending their free time together, especially getting together to go out to eat and hanging out at the hotel, is when they were able to “kick back”, “let loose”, “open up”, “interact”, “get to know each other”, and “bond” with each
other. Beyond the academic and logistic structure of the field experience, the free-time component offered a more casual and comfortable environment for interaction that “equals the playing field for everybody” (Student #23, Male, Group #2) in which “we were able to learn about each other” (Student #10, Female, Group #2) and which “brought us together as a group” (Student #26, Female, Group #4).

During free time it was common for students to form subgroups in which they were able to focus on bonding at a more personal level and forming closer friendships. Students indicated these subgroups occurred naturally due to interests.

During the downtime when groups would kind of split up and like one group of people would hang out and then everyone else would be kind of somewhere else. We were all kind of like separate. But, I mean, certain groups bonded more which is natural in a big group setting like that. (Student #8, Female, Group #4)

We were all together during the agencies but like during the hotel we weren’t all hanging out at the hotel. We didn’t all go to dinner at the same time. We still had our like mini groups but not clique groups. They were just like random people like ‘hey, you want to go to dinner?’ ‘Yeah, let’s go to dinner.’ (Student #12, Female, Group #4)

Although it was not typical for the entire group to spend their free time together, subgroups were often still composed of many students.
Some groups split up and went to (restaurant A) one night but there was a big group of about like 15 or 20 of us that all went to (restaurant B) and like this . . . one night most of us, pretty much all of us did go to (restaurant C) right by the hotel one night. So we all pretty much stayed together for the most part. There wasn’t anyone that was like – there weren’t any like groups of 2 or 3 so pretty much big groups. So it was a lot of fun. (Student #24, Female, Group #5)

When students felt comfortable enough to openly interact across subgroups without feeling the presence of rigid social boundaries, the subgroups were generally seen as flexible networks for closer interaction and shared interests instead of exclusive cliques of students that created awkwardness and reduced interaction and overall cohesiveness of the group. For example, one student relayed an experience where he noticed the boundaries between forming subgroups were flexible allowing interactions at the whole group level.

During the free time, a lot of people went off on their own . . . just by chance everyone ended up at the same restaurant even though we went off into different groups. After that the bus rides were more like -- everyone got along and talking and not so ‘groupy’ and all just like sat together and – I mean, there were still like groups and stuff but like everyone got along with each other.

(Student #21, Female, Group #5)
In addition, some students enjoyed the atmosphere at the hotel in which they felt open to visit with any of the other students.

And pretty much – I really liked how we were all in the same hall of the hotel. So that, you know, I could go to a different room if I want to talk to somebody else, so that was nice. (Student #11, Female, Group #3)

At the hotel, everybody was – it wasn’t like people just went back to their rooms and hung out in their own hotel room. Like everybody was in and out kind of like a dorm I guess. Everybody was just popping back and forth, running – you know . . . And downstairs in the lobby, we hung out there a lot . . . so there was a lot of like jumping around and nobody really – you know, it wasn’t like 4 people did their own thing and just like went to their rooms or anything like that. I would say – I don’t think there was anybody who didn’t like kind of branch out of their comfort zone and go hang out with other people. (Student #7, Male, Group #5)

In contrast to open boundary subgroups, some of the subgroup boundaries were seen as more closed in which cases the students referred to these subgroups more as “cliques”. The presence of cliques on the field experience seemed to generate a sense of social awkwardness among other group members thus limiting the overall sense of comfort, cohesion, and openness of interaction and communication among the group.
Actually, I did not enjoy the social experience because there was a bunch of set girls . . . did their own thing and kind of just made it awkward for everybody else. So, it was kind of like, before we even got on the bus, they had like little clique and so like we didn’t really do everything together. Like everybody stayed in their own little clique. And if you didn’t know anybody and didn’t have a clique, you kind of were just left out. (Student #2, Female, Group #2)

There are definite groups of people that just like mesh together . . . I wouldn’t feel comfortable going up to them and starting a conversation with them because I feel like they’d just kind of like brush me off. (Student #10, Female, Group #2)

Some cliques existed due to a sense of pre-existing or quickly formed social comfort among a subgroup which may have precluded the urgency with which students felt a need to reach out to other students to extend their social network during the field experience, “(Having a friend) probably kept me. Because, since I already knew him I didn’t really like go talk to other people. I would just hang out with him” (Student #20, Male, Group #5).

There were some people in my trip group that I didn’t get to know as well because they were friends before. And there were like four of them that hung out the entire time and didn’t really talk to a lot of other people, I guess. So, I mean, I kind of wish everyone was a
lot more open. . . it took more effort to get to know them because
they already knew people. (Student #5, Female, Group #2)

Another source of clique divisions was due to negative perceptions or interactions
causing social tension and sometimes conflict. There were numerous sources of social
awkwardness with potential to lead to negative interactions and closed social boundaries
including but not limited to divergent attitudes, personalities, maturity levels, moral
standards (e.g., partying, alcohol use), etc. In at least one instance, a conflict that existed
between a couple students situated in different subgroups resulted in the subgroups
remaining separate throughout most of the field experience.

There were basically two major groups, but within those two major
groups like there were only a couple people that really had an
actual problem with another person in the other group . . . It
wasn’t like one group didn’t like the other, it was like myself and
one or two other people in the other group didn’t get along . . . I
feel like that was the main reason why there wasn’t like just one
giant group. It was just because a couple people didn’t get along.

(Student #15, Male, Group #4)

However, the sources of social awkwardness and tension alone did not seem to cause a
reduction in group cohesion. Rather it appeared to be students’ reactions to differences
and awkwardness that determined how group cohesion was influenced.

**Back to the classroom.** In forming group cohesion, it was useful for students to
have continued classroom interaction after the field experience so they could fully realize
the change that took place within the group and how it may transfer from the field experience back to the classroom context. In response to the field experience, many of the students indicated they developed close friendships with certain members of the group and almost all the students observed an overall change in comfort and cohesion in the trip group at the group level.

Before -- there wasn’t really cohesion. Everyone was like scattered on the bus. And then everyone kind of like found their little friends during the trip. I feel like after we’ve all become a lot closer and like in class we’ll still like -- it’d be like we knew each other for like years instead of just like a few weeks. (Student #14, Female, Group #1)

It’s kind of weird because I didn’t know my roommates that well. But like, it got better every day . . . I feel like we grew and by the end it was just kind of like we had known each other for like ever . . . I mean, I just thought it was completely different. The whole group itself was different. We worked a lot better together closer to the end than we did in the beginning. (Student #4, Female, Group #4)

One student conceptualized the groups’ development as a group of people previously interacting like a crowd that was able to progress to a point of social comfort and cohesion characteristic of a team.
I guess before we weren’t very comfortable in our group. Like, they were just people that we meet with every so often. And then after, it’s something where you know you’re going to know everyone in the room . . . in the trip group you know everyone. So it’s kind of, I guess, a comfort factor. That’s the difference that I guess I’m ranking it on . . . the trip group is based on, you know, everyone working on a team including (the teacher). (Student #10, Female, Group #2)

Comparing the classroom environment before and after the trip, students reported a change in the atmosphere and level of classroom interaction that paralleled the group development achieved during the field experience.

Now when we have trip group meeting on Thursdays, it’s just like the trip again. Everybody’s having fun and it’s just a different vibe in there than it was before. And I think that’s because of the trip because people got to know each other and we all kind of see how other people act and it’s just more comfortable. (Student #9)

Characteristic of this change in classroom interaction was students’ openness to interaction, communication, and collaboration.

Although students’ reported an increased disposition toward interaction, communication, and collaboration within the trip group, it is important to note that the structure of classroom meetings and facilitation style of faculty may have been the critical component for allowing and encouraging students to exercise their social
dispositions in connection with class and to realize their potential for open interaction
during the learning process. For example, after the field experience the trip groups
continued to meet weekly on Thursdays for a one and a half hour whole group
discussion/debriefing session about their learning for the week and relevant connections
to the field excursion. These use of debriefing sessions offered a learning context
compatible with a socially comfortable and cohesive trip group. Students capitalized on
provided opportunities to openly engage, interact, and exchange information, which
fostered a more productive and integrated group learning environment than prior to the
field experience.

I feel like we’re getting a lot more out of class – especially the
debriefing. I feel like I can – I feel like a lot of people are raising
their hands to answer questions more than before. So like
whenever more people raise their hands, you’re getting more
information and views of things that you may have not thought
about and I feel like it’s easier to interact and discuss in class now
from the trip. (Student #11, Female, Group #3)

Although meeting after the trip was regarded as positive, productive, and
contributing to the continuing development of the group, some of the students reported
that meeting more than once a week would have helped to better maintain and develop
the group cohesion established from the field experience. For those students that spent
time outside of weekly class meeting times, new formed relationships stayed connected
and continued to develop.
With the trip group, spending time out of class is huge. When you just hang out with people and just chill outside of class when you’re not like working on something because then they really start to like open up and start to get fun . . . I think it’s just how much time you really spend with them that makes a big difference.

(Student #23, Male, Group #2)

However, for some students meeting only once per week and not having group work outside of class left them feeling by the end of the semester like the group had somewhat “grown apart” or “faded away”.

We bonded some on the trip. Because I know a lot of us were saying we wish we had more trip group meetings . . . a lot of us were wishing that we were having these group projects together just because we’ve worked together in other group settings. (Now) we only meet on like Thursdays . . . it’s kind of faded away. But I mean, we all still get along. But we don’t see each other as much as we had after those first few weeks after the trip and before the trip. (Student #21, Female, Group #5)

**Discussion**

The purpose of this study was to explore the attributes and underlying processes of a three-day academic field experience influencing group cohesion for participating university students. Qualitative analysis provided support for a central theme designated as Social Cohesion: A Comfort Factor. This central theme connects group social
cohesion with an expressed sense of social comfort at the group level within the classroom context. The field experience provided a context with opportunities for concentrated social interaction within a shared experience composed of structured learning and unstructured free-time that brought about increased levels of social comfort and cohesion transferrable to classroom learning. The underlying processes of developing cohesion and comfort are addressed in the following attributes of the field experience: (a) guided social dispositions, (b) breaking the ice, (c) sharing the experience, (d) structured learning, (e) unstructured free-time, and (f) bringing it back to the classroom.

The purpose of this study focused beyond the outcome of increased group cohesion to understand more about the underlying processes within a field study influencing the development of group cohesion. This approach is in accordance with the call for research in experiential education that goes beyond the documentation of program outcomes to identify underlying processes responsible for outcomes (Gass, 2005; Henderson, 2004; Sibthorp et al., 2007). Findings demonstrated the importance of developing and expanding social comfort within the group in order for cohesiveness to increase at the group level instead of just in small pockets of subgroups. Findings also link increased social comfort and cohesion with producing academic groups with more potential for becoming interactive learning communities upon return to the classroom. It is important to point out that because the development of social comfort and cohesion were prominent in this study, this does not imply such bonding will naturally occur in any field experience program without careful planning, preparation, and facilitation. It is
important to consider what factors of the field experience influenced cohesion in both positive and negative ways and why some students were successful at achieving a level of group cohesion while others were not.

Prior to the actual three-day field experience, two categories of influence on group cohesion were identified: (a) guided social dispositions and (b) breaking the ice. With regard to social dispositions, there are bound to be students represented across a range of potential attitudes toward engaging in social interactions. Some students may come with preexisting dispositions toward making the experience a social one. On the other hand, other students may not be inclined to engage socially with the group despite preparatory efforts. However, there may be many students that do not know what to expect or anticipate in regard to the social aspect of the field experience. Therefore, setting up students with the expectation of having a positive social experience going into the field experience may help get them interacting sooner and more often in conjunction with the field experience. It may also be possible to instill students with the proper perspective toward social engagement they may make it their own goal to reach intended social outcomes such as open group interaction, communication, and collaboration.

Preparing the students to consider the social aspect of the field experience seemed to help foster their disposition toward social engagement and cohesion. However, if field experience leaders do promote the social environment and group bonding that occurs on during the field experience, they may need to make deliberate effort to ensure they are making connections with the students at both individual and group levels.
The group initiatives teambuilding experience was another influential factor that took place prior to the field experience. Qualitative findings supported the teambuilding experience accomplished the intended goal of faculty to initiate social interactions by helping students to interact as a group, learn names, and to begin to get to know each other in preparation for the field experience. Although the teambuilding experience was not reported by students to have actually impacted the group’s level of cohesion, they felt like the experience initiated the process of developing cohesion which continued and successfully occurred during the field experience. The teambuilding activities proved successful in breaking the ice and initiating social interaction and ought to be considered a useful tool for initiating group development. However, the essence of the attribute breaking the ice is the group development process the teambuilding experience initiated so it is possible that other programming approaches may also serve as useful alternatives to initiating social interaction and the process of developing group cohesion.

Findings relative to the important role of shared experience in the development of group cohesion compliment Duerden and Witt’s (2010) proposed shared experience and bonding framework that identifies the accumulation of shared experiences through experiential programming as a major contributing component for group bonding. Findings also support the important component of social immersion during shared experience that allows constant contact with other group members and the spending of time together throughout the entire experience including travel, meals, structure programming, free-time, etc. (Duerden & Witt; Weeden et al., 2011). Within this study, the context of being socially immersed within a three-day field experience provided
ample opportunities for participant interaction during the shared experience. Findings supported the entire shared field experience improved participants’ sense of comfort and cohesion within the group but different components of the experience (i.e., structure learning, unstructured free-time) facilitated different types of interaction contributing in different ways to the process of developing group cohesion.

Regarding structured learning, findings indicate following traditional academic methods of content delivery in the form of facility tours and lectures presented by professionals may provide useful information but do not encourage student engagement and interaction in a way that integrates social and professional components into academic learning. Experiential education approaches provide opportunities for students to directly engage in learning experiences related to academic content. When experiential learning opportunities require positive interaction among students and faculty leaders, learning experiences are reported to offer a more comprehensive and well-rounded learning experience that is more likely to contribute to the development of a sense of group comfort and cohesion. Despite the length, purpose, objectives, or discipline of a field experience, providing interactive experiential components is one way to enhance a field experience and encourage student engagement and interaction.

One specific challenge of offering interactive experiential education components within the field of recreation management is the potential for blurring between the lines of what students and even faculty leaders consider learning and what they consider recreation during the field experience. Perhaps the ideal circumstance is that the blending of recreation, education, and social interaction within experiences may make experiences
richer, more meaningful, and help meet outcome objectives related to each of these categories in an integrated manner. However, as the data presented previously indicate, the experiential education activities were perceived by the students more as opportunities for recreation and enjoyment than as structured learning, or experiential education. The use of recreation to achieve learning outcomes needs to be approached by faculty with a conscientious approach to balancing intended learning outcomes such as content delivery, social bonding, and participatory experience. Preparing students mentally and debriefing experiences need more consideration and research as to how to best ensure students are achieving intended outcomes of the field experience.

When field excursions occur over multiple days including overnight stays, there is an increased opportunity for students to experience unstructured free-time within the context of the field experience. Unstructured free-time was described by participants as providing for more casual interactions with other students in which they could be themselves and really get to know each other better. Generally during free-time, students would form and spend time with subgroups whether going out to restaurants, touring the area, or hanging out at the hotel. Students expressed their free time was the best time for them to interact with and get to know each other on a more personal level. Although students typically formed subgroups they were closer with, there was generally enough interaction between subgroups that the majority of students felt an increased sense of comfort and cohesion within the whole group.

When students perceived subgroups as cliquish having more rigid social boundaries, less interaction occurred between subgroups which appeared to result in a
decreased sense of shared experience although students were on the same trip together. With the presence of cliques, unresolved feelings of social awkwardness and tension seemed to detracted individuals from feeling as comfortable and cohesive at the group level. The presence of unstructured free time during field experiences needs to be considered beyond being just a logistical necessity of multiple day trips and more for the potential role it may play in the social development and bonding of the group. The involvement of leaders within the unstructured free time may be a delicate balance in providing a degree of guidance to help students maximize the use of their free time without infringing on their free time in a way that makes it feel constrained through external structuring by leaders.

Upon return from the field experience to the classroom, findings support group development gains in social comfort and cohesion that transfer to the learning atmosphere. Students reported being more comfortable collaborating with other students through interactions and communications at the group level following the field excursion. An important consideration is that the format and faculty approach to subsequent class meeting times encouraged classroom participation and discussion. However, reported change in classroom interaction from before the field experience demonstrated that students were engaging more frequently and openly directly after the field experience. Findings are important to group development for team-based learning because they support field experiences as being a valuable tool for quickly initiating group cohesion and influencing cohesion at the classroom level.
Being able to initiate cohesion quickly through a three-day field experience suggests value in carefully planning how to situate a field experiences within the context of a semester long course or program. By offering the field experience early in the semester, a sense of group cohesion and learning community may be fostered that will continue to benefit the learning experience of students throughout the semester and encourage students to practice collaborative interaction skills that will help them be successful as future professionals. Offering a field experience at the end of the semester may still offer valuable and even represent a culminating course/semester experience for students, but the potential for continued group development and utilization of newly strengthened social connections will most likely be lost without continued interaction and opportunities to work together as a team. In addition, findings supported the development of group cohesion at the class or large group level. Findings suggest that field experiences may be a powerful tool for developing a team mentality among an entire classroom.

**Implications**

Understanding the attributes and underlying processes of the field experience in relation to group cohesion may provide valuable insights into the development and facilitation of future field experiences. Being able to identify influencing factors of field experience on group cohesion suggests educators and program planners need to be conscientious of the components of a field experience and how they are (or are not) influencing group processes and development. Emerging adults enrolled in higher education are at a critical stage of developmental transition from student to future
professional and may benefit from integrative field experiences. Offering academic field experiences in conjunction with coursework is one experiential education strategy with potential for promoting integration of academic, professional, and social contexts of student learning and experience. Considerations may be particularly useful for field experience programs seeking to generate productive social environments transferable to future classroom interactions characteristic of an academic learning community. Potential outcomes of field experiences in relation to group cohesion may tap into a valuable social resource in academic programming leading to enhanced classroom collaboration. Findings suggest preliminary evidence to support the need for additional research with regard to field experience.

Limitations

A potential limitation was the involvement of the researcher as a member of the EDGE team which necessitated involvement in programming and facilitating one of the field experiences. Despite the researcher’s involvement, even students attending the field experience that he helped lead were willing to share both positive and negative feedback regarding their experience on the trip. The researcher found being a graduate student gave him a balance of rapport with students while maintaining a sense of casual interaction because he was not a faculty member. The students shared several comments that probably would not have been shared with an interviewing faculty member. Despite the apparent openness of students during the interviews, a third party interviewer not involved with the field experience or EDGE may have yielded the most open and honest responses from students.
Recommendations for Future Research

There is a need for more research on the application of field experiences in higher education. The underlying attributes influencing group cohesion in this study need to be considered and refined in conjunction with research on other field experiences used in higher education. Research within other academic disciplines beyond recreation management and leisure studies will help to determine if some findings of this study are specific to the population considered or the use of participatory recreation being the basis of experiential education learning implemented during the trip. Although group cohesion is a construct of interest, it is also important to explore what other outcomes field experiences may offer to students in higher education. For example, it is recommended field experiences of different lengths be compared with regard to processes and outcomes. It is also suggested influences on factors such as group development during field experiences be compared with various other classroom approaches, especially those intended to impact group development. Finally, it is recommend future research consider how group cohesion of students involved in field experiences is influenced by of faculty leader perceptions of (a) structured learning, (b) the process of developing group cohesion, (c) group cohesion as it translates to the classroom, (d) experiential education/recreation opportunities.
References


APPENDICES
Appendix A

Participant Recruitment Method Description: Verbal Recruitment Script

Verbal Recruitment Script for Survey Participation (read in class to all EDGE students)

Dorothy Schmalz, a PRTM faculty member, and Brian Malcarne, a PRTM graduate student are inviting you to take part in a research study on group cohesion. Participation in the study will require completing a brief survey (approximately 15 minutes) on two separate occasions. Your answers to the survey questions will be kept confidential. If you are willing to help with this study, please access Blackboard (direct students to the appropriate course/workgroup location and “research survey” tab) and read the full statement of information about this study along with an electronic link to the survey. The statement of information on this study will remain on Blackboard as a reference to you as well as a copy being emailed to you.
Appendix B

Participant Recruitment Method Description: Narrative Recruitment Script

Narrative Recruitment Script for Interview Participation (emailed to participants selected for potential participation in interview)

Dorothy Schmalz, a PRTM faculty member, and Brian Malcarne, a PRTM graduate student are inviting you to take part in the second phase of a research study on group cohesion. Participation in this phase of the study will require completing a follow-up interview to the two surveys that you already took. The interview will take about 60 minutes. Your answers to the interview questions will be kept confidential. Please read the informed consent form attached with this email and reply to this email indicating whether or not you are willing to continue your participation in this study.
Appendix C

Information about Being in a Research Study at Clemson University

Description of the Study and Your Part in It

Dorothy Schmalz and Brian Malcarne are inviting you to take part in a research study. Dorothy Schmalz is a Park, Recreation and Tourism Management (PRTM) faculty member at Clemson University. Brian Malcarne is a student at Clemson University, running this study with the help of Dr. Schmalz. The purpose of this research is to understand the experience of group cohesion for university students.

Your part in the study will be to complete a survey on two occasions. The survey will take about 15 minutes on each occasion. It will take you about 30 minutes to be involved in this study.

A few students will be selected for a follow-up interview about their experience with groups in EDGE. If you are selected and agree to participate in a follow-up interview, the interview session will take about 60 minutes with a total of about 90 minutes to be involved in this study.

Risks and Discomforts

We do not know of any risks or discomforts to you in this research study.

Possible Benefits

We do not know of any way you would benefit directly from taking part in this study.

Protection of Privacy and Confidentiality

We will do everything we can to protect your privacy and confidentiality. We will not tell anybody outside of the research team that you were in this study or what information we collected from you in particular. All information collected will be stored in a secured location only accessible to the researchers. Survey information will be assigned to a non-identifying number for analysis. Interview sessions will be audio recorded on a digital recorder and transcribed into text files. Participant’s responses to interview questions will not be attributed to them. Rather, pseudonyms will be assigned to each participant so as to maintain participant confidentiality.

Digital and text files containing information from the interviews will be securely stored on a password protected computer which will be stored in a locked office. Only the research team will have access to the interviews and the interview information will only be used for purposes related to the research study. Information collected during the study
will be retained for at least 5 years after project completion or after professional publication of the findings (whichever is longer) before it is destroyed.

**Choosing to Be in the Study**

You do not have to be in this study. You may choose not to take part and you may choose to stop taking part at any time. You will not be punished in any way if you decide not to be in the study or to stop taking part in the study. If you decide not to take part or to stop taking part in this study, it will not affect your grade in any way.

**Contact Information**

If you have any questions or concerns about this study or if any problems arise, please contact Dorothy Schmalz at Clemson University at (864) 656-2184. If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at 864-656-6460 or irb@clemson.edu. If you are outside of the Upstate South Carolina area, please use the ORC’s toll-free number, 866-297-3071.

A copy of this form will be emailed to you.
Appendix D

*Modified Group Environment Questionnaire*

1. I do not enjoy being a part of the social activities of this trip group.  
   (Original Question: I do not enjoy being a part of the social activities of this team.)

2. I am not happy with the amount of classroom interaction time I get.  
   (Original Question: I am not happy with the amount of playing time I get.)

3. I am not going to miss the members of this trip group when the semester ends.  
   (Original Question: I am not going to miss the members of this team when the season ends.)

4. I am unhappy with my trip group’s level of desire to succeed academically.  
   (Original Question: I am unhappy with my team’s level of desire to win.)

5. Some of my best friends are in this trip group.  
   (Original Question: Some of my best friends are on this team.)

6. This trip group does not give me enough opportunities to improve my personal performance.  
   (Original Question: This team does not give me enough opportunities to improve my personal performance.)

7. I enjoy other parties more than parties with members of my trip group.  
   (Original Question: I enjoy other parties more than team parties.)

8. I do not like the style of interaction in this trip group.  
   (Original Question: I do not like the style of play on this team.)

9. For me this trip group is one of the most important social groups to which I belong.  
   (Original Question: For me this team is one of the most important social groups to which I belong.)

10. Our trip group is united in trying to reach its goals for performance.  
    (Original Question: Our team is united in trying to reach its goals for performance.)

11. Members of our trip group would rather go out on their own than get together as a trip group.
(Original Question: Members of our team would rather go out on their own than get together as a team.)

12. We all take responsibility for any loss or poor performance by our trip group.
(Original Question: We all take responsibility for any loss or poor performance by our team.)

13. Our trip group members rarely party together.
(Original Question: Our team members rarely party together.)

14. Our trip group members have conflicting aspirations for the trip group’s performance.
(Original Question: Our team members have conflicting aspirations for the team’s performance.)

15. Our trip group would like to spend time together when classes are not in session.
(Original Question: Our team would like to spend time together in the off season.)

16. If members of our trip group have problems on schoolwork, everyone wants to help them so we can get back together again.
(Original Question: If members of our team have problems in practice, everyone wants to help them so we can get back together again.)

17. Members of our trip group do not stick together outside of trip group meeting times.
(Original Question: Members of our team do not stick together outside of practices and games.)

18. Our trip group members do not communicate freely about each student’s responsibilities during trip group meeting times.
(Original Question: Our team members do not communicate freely about each athlete’s responsibilities during competition or practice.)

* Items modified from a sport team context to an academic context. All changes are indicated in bold type. Caution was taken to maintain the original stem of each item.
Appendix E

*Interview Guide Questions

Introduction/Icebreaker Questions
- What were the highlights of the trip for you, if any?
- What were the disappointments of the trip for you, if any?

Guiding Research Questions

1. What are student perceptions of the experience of group cohesion in a three-day academic field experience?
   a. What was the social experience of students during the field experience?
      - How would you describe the overall social experience of the group during the trip?
   b. How did students experience group cohesion in relation to the field experience?
      - How would you compare the level of cohesion in the trip group before and after the trip?
      - How would you describe cohesion in the trip group before the trip?
      - How would you describe the level of cohesion in the trip group after the trip?
      - How was the experience of group cohesion during the trip?
      - With the trip, how did group cohesion change or stay the same?
      - What made the difference, if there was any?

2. What are student perceptions of the mechanisms and underlying processes of group cohesion in a three-day academic field experience?
   a. What components of the field experience served as mechanisms impacting group cohesion?
      - What facilitated/inhibited/detracted from cohesion on the trip?
   b. What attributes and underlying processes influenced group cohesion?
      - Please take a few minutes to give an overview of the trip from the beginning to the end highlighting those aspects of the trip experience that made a difference (increased or decreased) in the group’s cohesion?
      - What was it about those things you named that facilitated group cohesion?
      - How did they facilitate group cohesion?
      - What was it about those things you named that inhibit cohesion on the trip?
      - How did they inhibit group cohesion?
      - What was it about those things you named that detracted from cohesion on the trip? How did they detract from group cohesion?

*Interview guide questions in bold text
Appendix F

Data Collection Timeline

Feb. 2       Recruit Students
             Administer Pre-Test Survey (GEQ)

Feb. 6-9     EDGE Trips

Feb. 16      Administer Post-Test Survey (GEQ)

Feb. 16-19   Preliminary Data Analysis to Select Interview Participants
             Send Recruitment E-mail to Selected Participants
             Schedule Interview Times

Feb. 20-21   Begin Conducting Interviews with EDGE Students

Figure 2: Data Collection Time Table
PROPOSAL REFERENCES


