LIFE INOCULATION: EXAMINING THE RELATIONSHIP BETWEEN ADVENTURE EDUCATION COMPONENTS AND RESILIENCE IN SUMMER CAMP EXPERIENCES

by

Sharon E. Tessneer

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Director of Thesis: Dr. Debra Jordan

Major Department: Recreation and Leisure Studies

The immersive nature of residential camp experiences, which often provide adventure based programs, and their existing focus on positive youth development may make them ideal intervention programs to foster resilience. This study aimed to measure the impact of an organized camping experience with adventure education components on indicators of resilience in youth. Using online surveys, pre-post resilience measures were used in combination with demographics and skill-based activity choices. Counselor intentionality was measured on behaviors thought to contribute to camper resilience, and a measure was created to assess qualities of adventure in skill-based activities. A paired-samples t-test was conducted and significant differences were found from pre- to post-camp. Campers who participated in adventurous skills (high adventure group) were compared to other participants. A significant difference in scores from pre- to post-camp was found for the high adventure group only, suggesting that camp experiences had a significant effect on resilience only for campers participating in more adventurous activities.

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APPROVED BY:

DIRECTOR OF DISSERTATION/THESIS: _____
Debra Jordan, Re.D.

COMMITTEE MEMBER: _____
Clifton Watts, Ph.D.

COMMITTEE MEMBER: _____
Nelson Cooper, Ph.D.

COMMITTEE MEMBER: _____
Christyn Dolbier, Ph.D.

CHAIR OF THE DEPARTMENT OF
RECREATION AND LEISURE STUDIES: _____
Debra Jordan, Re.D.

DEAN OF THE
GRADUATE SCHOOL: _____
Paul J. Gemperline, Ph.D.

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Introduction

One of the greatest predictors of success in life is an individual's resilience (Tough, 2012). This ability to overcome difficult life circumstances and continue at a normal level of functioning is a capacity within us all. Youth and adolescents are in a developmentally important life stage, particularly as related to the development of resilience. Thus, intentional resilience interventions may help prepare youth for success in dealing with later challenges. In life, the capacity for resilience may be fostered by facing difficulties that cause disorganization, providing opportunities to reintegrate one's self at a similar/resilient or higher level (Richardson, Neiger, Jensen, & Kumpfer, 1990).

Studies about resilience often lack clarity on how to foster this capacity intentionally. Interestingly, common traits or indicators of resilience identified in the literature are similar to outcomes of adventure education (AE) programs (Hattie, Marsh, Neill, & Richards, 1997). Adventure education programs may offer opportunities and processes that impact internal capacities and promote successful development when individuals are faced with adversity. Specifically of interest to this study, residential camps often include programs commonly described as adventure education. While too little is known about which program attributes most effectively foster the capacity for resilience, the immersive nature of residential camp experiences and their existing focus on positive youth development may make them ideal programs to foster resilience. Therefore, the purpose of this study was to measure the impact of an organized camping experience that includes adventure education components on resilience in youth between the ages of 11-16 years. Two research questions were addressed. First, what is the relationship between adventure-based camp experiences and camper resilience? Second, are

camp experiences with a higher number of adventure education components associated with greater increases in resilience compared to other camp activities?

Literature Review

Resilience

Resilience is a dynamic and interdisciplinary concept that, while it has been studied for over fifty years, lacks theoretical clarity. A conceptualization of an internal process moving toward positive outcomes, resilience is inferred from observations of an individual thriving under adversity (Rutter, 2012). This internal self-righting mechanism and the ability to function positively despite adversity may be a strong predictor of success in life; thus, it is important to understand the concept of resilience in a variety of contexts.

Masten (2001) attributes resilience to "ordinary magic", suggesting that resilience is a common human adaptive function. Resilience is a dynamic process wherein individual and environmental factors fluctuate across time, developmental life stage, expected outcome, and situational context. Individuals may be resilient in one situation and not others (Rutter, 2006; Tusaie & Dyer, 2004). Life transitions often reveal vulnerabilities and opportunities for developing resilience. Thus, adolescence with its physical, social, and emotional changes, may be a key time frame in which to examine the effects of activities on resilience (Masten, 2004). Masten explains that regardless of individual starting points, people's lives take distinct courses and there is a complex interplay of factors in development (2004). In view of that, it is important that researchers assess aspects of the environment, interactions, adaptation, processes, and outcomes when investigating resilience.

Resilience is often perceived as a set of personal traits that can be measured. Published resilience scales identify various indicators of resilience. The most commonly identified

attributes that are reported to indicate resilience include personal competence or self-efficacy, acceptance of change including flexibility and adaptation, an internal locus of control, independence, external support (social resources and family cohesion), social competence and adeptness, and spiritual influences (Baruth & Carroll, 2002; Connor & Davidson, 2003; Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003; Gartland, Bond, Olsson, Buzwell, & Sawyer, 2011; Hjemdal, Friborg, Stiles, Martinussen, & Rosenvinge, 2006; Hurtes & Allen, 2001; Ryan & Caltabiano, 2009; Wagnild & Young, 1993).

Theoretical Understanding of Resilience

The development of resilience has been described as a process of psychological disruption and reintegration—one of the processes that may be used for preventative health education (Richardson et al., 1990). One such model that could be construed as a type of preventative health approach is the Hero's Journey. Stephenson (2006) developed this program as a model for male rites of passage. This program has been successfully used at the camp in this study to guide campers through the developmental processes of challenge and growth (thereby developing resilience). Psychologists have used a similar structure, Stress Inoculation Training (SIT), to increase an individual's ability to negotiate stressful events in life (Meichenbaum, 1985). The methods used in these two explanations of resilience appear to be parallel to processes of adventure education (AE) and may be useful in understanding youth development. While each model brings something unique to understanding the development of resilience, their similarities may demonstrate the importance of this basic process in adventure education programming. For instance, each model begins with a baseline, which in this instance is labeled homeostasis. From there individuals face a challenge, such as a new event or disruption, or work to re-conceptualize an existing challenge. The difficulty involved necessitates learning, which

leads towards added competence. As the individual applies this information to their life, the process is completed with an assimilation stage, which represents the transfer of learning (see Table 1).

Resilience Model. Richardson et al., (1990) perceived resilience as the opposite of vulnerability, and a resilient person as someone who does not experience as much disruption from stressful life events or who recovers more readily than those with little resilience. Life events is a term that includes experiences, stressors, challenges, bifurcations, risks, crises, and other displacing experiences that cause an individual to fall out of homeostasis and become disorganized. The objective of resilience is to reintegrate new skills and understanding, which leads to one of several results. Individuals may recover and return to homeostasis, fail to have learned and thus failed to have integrated new information, or continue with decreased functioning. Richardson and colleagues suggested that high functioning individuals seek out challenges (e.g., choose activities that hold greater perceptions of challenge) enable let the process of disorganization help them strengthen their skills in life.

Rutter (2006) noted that researchers have shifted from viewing resilience as a phenomenological trait, to a balance of risk versus protective factors, to a dynamic process, and more recently, as an individual's capacity to use traits and protective factors to recover from stressors. An individual who has experienced previous stress or adversity may have successfully gained protective effects for future disruptions (2006). This steeling effect is similar to the biological notion of immunization or inoculation, where controlled exposure helps individuals physically and psychologically prepare themselves to avoid being overcome by a trigger. However, not all situations provide a positive inoculation effect, and it is important to recognize that the advantages of protective resources depend upon the circumstances (Rutter, 2006; 2012).

Table 1

Comparison of Models

Common Stages	**Resilience Model** (Richardson, et al., 1990)	**The Hero's Journey** (Stephenson, 2006)	**Stress Inoculation Training** (Meichenbaum, 1985)	**Walsh and Golins Model** (Walsh & Golins, 1976)
Homeostasis	-	Conventional slumber	-	-
Challenge and conceptualization	Stressors, life events, challenges – interact with biopsychospiritual protective factors	Call to adventure	Conceptualization	Learner placed in a prescribed physical/social environment Characteristic set of problem-solving tasks
Difficulty	Disruption leads to disorganization	Threshold of difficulty	-	State of adaptive dissonance
Learning	-	Training and discipline	Skill acquisition and rehearsal	-
Competence	-	Culmination of the quest	-	Mastery or competence
Assimilation	Reintegration*	Threshold of difficulty Return and contribution	Application and follow through	Reorganization of the meaning and direction of the experience

*Reintegration may be at resilient, homeostatic, maladaptive, or dysfunctional stages.

Rites of Passage. Much of the programming at the camp utilized for this study is modeled after Joseph Campbell's, *The Hero's Journey,* as adapted by Stephenson (2006) for male rites of passage. This journey takes campers from a "conventional slumber", in which they are not aware of the problems around them, and wakes them up from this state with a "call to adventure." At camp, staff members and campers discuss the "thresholds of difficulty" as they relates to overcoming new tasks. The model encourages discipline and training in a variety of technical and people skills until individuals reach the "culmination of the quest." Upon completion, campers are asked for a "returning contribution," to share what they learned and apply it to their lives. Thus, at this camp, programs are designed to offer complexity, fun, and life lessons that engage mind, body, and spirit.

The Hero's Journey provides language that is easy to teach and apply in a camp setting. Campers may be seen as accepting a "call to adventure" simply by choosing to arrive at camp and be fully present in activities. They experience difficulty and learning in each skill-based activity, as well as through games, teamwork, and communication in the new environment. The culmination comes in achieving competence in a new skill, or in winning a game. Campers can then be challenged to return their knowledge to their cabin group and contribute in a positive way. The easy-to-communicate terminology is useful for staff as well as educating parents after campers return home. It applies well to blacksmithing activities as well as homesickness, and the idea of facing and overcoming challenges is easy to grasp for any age group.

Stephenson's model for rites of passage reflects Richardson et al. (1990) and is similar to how other researchers have addressed the process of resilience development, including Stress Inoculation Training (Meichenbaum, 1985), and the Walsh and Golins model, representing adventure education (1976). Each model incorporates aspects of a challenge and

conceptualization, a move from difficulty to competence, and assimilating the new knowledge into one's life.

Stress Inoculation. For a more focused effort to help people develop coping skills, Meichenbaum (1985) described a training process used with counseling patients to facilitate dealing with stress and anxiety; the training was designed to serve as an inoculation against future stressors. Stress Inoculation Training (SIT) utilizes a three phase process. First, conceptualization builds a collaborative relationship between two individuals, where they discuss problems and expectations. The therapist or facilitator collects information and assesses behavior to help the individual under stress to re-conceptualize the problem, while understanding the transactional nature of stress and coping. Next, the facilitator utilizes various techniques to help the individual learn how to deal with issues, leading to skill acquisition and rehearsal. This connection to and ownership of the process helps to reinforce learning. When a facilitator perceives that the individual is able to initiate coping responses without assistance, they move on to the third phase. Phase three is about application and follow-through of what has been learned. The individual in training continues to practice the learned stress-reducing skills and may occasionally check in with the facilitator. Meichenbaum summarizes this training stating, "SIT is designed to build 'psychological antibodies,' or coping skills, and to enhance resistance through exposure to stimuli that are strong enough to arouse defenses without being so powerful as to overcome them" (p. 21).

Adventure Education. While not a resilience model per se, adventure education (AE) attributes and intentions are quite similar to the processes involved in developing resilience. In many instances, AE is framed by the Walsh and Golins Model (1976) whereby the various processes through which individuals cope with and adapt to stressors are similar to the internal

processes utilized when involved in adventure education. Adventure education, in this paper, is defined as active engagement in nature-based activities and processes through which participants experience perceived risk and natural consequences while learning skills and being increasingly challenged to recognize their own resources. Participants learn to overcome challenges through determination, cooperation, and the use of coping skills in outdoor activities (e.g., rock climbing, white water rafting, sky diving; Hattie et al., 1997).

The Walsh and Golins (1976) Model includes the central elements of a motivated learner, a unique social and physical environment, problem solving tasks, and mastery. Through the AE process an individual is led toward "reorganizing the meaning and direction of his [*sic*] experience" (p. 4). Walsh and Golins called for adaptive dissonance and the therapeutic use of anxiety to overcome obstacles. Characteristic problem-solving tasks common to adventure education are introduced incrementally to allow individualized challenge and growth; the activities are organized, concrete, manageable, and consequential, which increases concentration and absorption of what is learned.

In AE, the natural environment provides straightforward tasks to be mastered (Walsh & Golins, 1976). Challenges are real, and require concrete solutions that allow participants to utilize their personal strengths and resources (Hattie et al., 1997). In one study, participants reported learning as much from the tasks necessary for their living and working environment in the outdoors as from the challenges they faced (Sibthorp, 2003). Hardships and functioning under difficult circumstances were remembered as supporting a variety of lessons (Sibthorp, Furman, Paisley, Gookin, & Schumann, 2011). Movement and use of a combination of senses can increase how much information a learner internalizes, thereby increasing transference and later implementation (Howden, 2012; Nei, 2003).

These four developmental models that depict various views of enhancing resilience each stem from different areas of study, yet share common characteristics. An individual may be in homeostasis before challenges occur (Richardson et al., 1990); this phase represents the state prior to choosing to begin an intentional process such as Stress Inoculation Training or an adventure program (Meichenbaum, 1985; Walsh & Gollins, 1976). Stages of challenge, both intentional and unintentional, or conceptualizing a growth area, are common to each model. This may include or be followed by a disruption in life or specific difficulty, the process of learning how to overcome the challenge, leading to a state of competence or mastery. The learned skills are later practiced and assimilated into an individual's life, contributing to resilience. While the stages of each model do not line up precisely (see Table 1), each model indicates that challenging experiences contribute to learning and the development of resilience.

Organized Camping, Adventure Education, and Staff Roles

Following the resilience and AE models, organized camping experiences are commonly about exposing youth to new skills and helping them grow; activities, therefore, are often challenging and interesting to avoid boredom and distraction (ACA, 2006b). Participants are given tools and experiences that provide incrementally difficult challenges, and distress is managed to potentiate self-discovery (Howden, 2012). Activities are sequenced to provide the appropriate amount of challenge for each camper's skill level (Nei, 2003). These experiential education activities engage learners physically, mentally, and socially so that challenges have a greater impact on future actions (Howden, 2012); this is similar to the experiences needed to enhance resilience.

Organized Summer Camp Experiences. American Camp Association staff are involved with research related to the positive benefits of camp experiences. One large-scale study assessed outcomes in various camps across the country. Campers and parents indicated growth in self-esteem, peer relationships, independence, adventure and exploration, leadership, environmental awareness, friendship skills, values and decisions, social comfort, and spirituality after a camp experience (ACA, 2005). Researchers found that nearly 70% of campers reported developmentally optimal levels of support and opportunity, significantly higher than those experienced in youth organizations and schools (40% and 20%, respectively; ACA, 2006a).

Bialeschki, Henderson, and James (2007) noted that camp opportunities seemed to accelerate youth development, as youth are more receptive to engaging in camp programming than planned interventions. The camp atmosphere provides youth control over their environment, appropriate responsibilities and autonomy, new skills and competencies, and opportunities to make a genuine contribution to their community. These, and other opportunities provided in the camp setting, contribute to resilience (Ungar, 2012).

In an effort to validate the outcomes of the multiple benefits of recreation participation, Allen and Cooper (2003) utilized the Benefits Based Program (BBP) model, which identified indicators of resiliency. In one of their studies, camp counselors received eight hours of training on the BBP model, which included developing program plans focused on resilience attitudes and skills. Used in a day camp setting, comparison of camper pre- and post-test scores showed significant changes on five of seven resiliency indicators, including humor, independence, insight, relationships, and values orientation (Allen, Cox, & Cooper, 2006). Researchers concluded that intentional program design in camp and recreation programs was effective in developing resilience.

Investigators found that age, gender, race, and camp sponsorship all influenced levels of perceived support and opportunities to learn and apply knowledge in different ways (ACA, 2006a). Single gender camps provide higher levels of supportive relationships and skill building than co-ed camps, especially for boys (2006a). Among various types of camp sponsorship, independent for-profit camps scored highest on overall supportive relationships and skill building, while religiously affiliated camps provided the highest level of perceived physical and psychological safety (2006a).

Adventure Education Processes. While camp has been shown to promote youth development and resilience, adventure education programs provide additional opportunities to enhance resilience. The concept of adventure education encompasses a broad variety of activities that include some level of perceived risk and take place in a natural setting. Hattie et al., (1997) define AE as a multi-week group wilderness program with challenging objectives, intense interaction, and a trained leader. Other characteristics include holistic and engaging experiences with natural consequences, uncertainty, and activity-specific challenges that group members address (Prouty, Collinson, & Panicucci, 2007).

McKenzie (2000; 2003) identified five specific components most contributing to positive AE outcomes; the physical environment, social environment, course activities, instructors, and service. Additionally, they reported that processing experiences and the uniquenesses of the participants were important contributors to outcomes of AE. Each of the components identified by McKenzie coincides with pieces of the Walsh and Golins Model. In addition, Goldenberg, McAvoy, and Klenosky (2005) found that participants attributed learning to interactions, as well as participation in activities such as rock climbing, expeditions, campcraft, and ropes course challenges. According to King (1988), learning and adventure place participants into

uncomfortable situations with the expectation that they will learn and be better equipped for future challenging experiences. A new social environment for instance, provides room for youth to try new behaviors in a setting (e.g., camp) that is separate from their home life and thus perceived as "safe" (Sibthorp & Morgan, 2011).

In a meta-analysis of adventure education programs, Hattie et al. (1997) identified 40 outcomes of participation in AE and grouped them into categories labeled leadership, self-concept, academic, personality, interpersonal, and adventuresome. Outcomes included the internal assets of independence, confidence, self-efficacy, internal locus of control, social competence, organizational ability, goals, achievement motivation, and decision-making (Hattie et al.). Later researchers noted perseverance, leadership, self-concept, motivation, and interpersonal skills as being gained through participation in adventure programming (Goldenberg et al., 2005; McKenzie, 2003).

Green, Kleiber, and Tarrant (2000) studied the effect of high and low ropes experiences on resiliency by measuring traits and characteristics referred to as protective factors in low income, minority youth. Of the nine protective factors measured eight showed significant changes with the greatest positive changes in "interested and caring adults", "ability to work-out conflicts", "sense of acceptance," and "value on achievement". The results indicated that adventure experiences that include a processing or reflection component can positively affect the resiliency of youth who are considered at risk.

A more recent study examined an anti-bullying initiative at an outdoor center, which combined a series of two-hour classroom or playground sessions with low and high ropes elements (Beightol, Jevertson, Carter, Gray, & Gass, 2012). The mixed method study showed limited results for the resilience measurement. Other investigators have found no significant

changes in resilience after participation in camp programs (Russell & Walsh, 2011; Winsett, Stender, Gower, & Burghen, 2010). These contradictory findings may be due to research design, abbreviated measurement tools, duration or design of the programs, or other confounding factors.

Ewert and Yoshino (2011) built their study upon the belief that components commonly found in AE programs correspond to resilient-enhancing variables, such as a sense of control and viewing challenges positively. Initial findings in short term AE experiences showed significant changes in resilience. Conducting follow-up telephone interviews up to three years after participation in the program, subjects recalled items relating to perseverance, self-awareness, social support, confidence, responsibility to others, and achievement as being important to their growth. Other outcomes common in adventure programs have included self-efficacy, independence, internal locus of control, social competence, flexibility, leadership-teamwork, and organizational ability. Adventure programs excel at providing clear goals, feedback, and an opportunity to assess and actualize coping processes (Hattie et al., 1997) all of which correspond with resilience indicators.

Staff Roles in Camper Learning. Counselors play a key role in understanding what children need and helping them find it at camp, and fitting programs to individual camper needs (Ungar, 2012). Staff help create a community of acceptance as well as positive attitudes and a safe space for learning, all of which are important to the development of resilience (Gillard, Roark, Nyaga, & Bialeschki, 2011). Sibthorp et al. (2011) found that campers indicated that almost half of the time camp staff played an important role in campers' learning their "greatest lessons". Counselors often assist campers' learning by utilizing a series of open-ended questions throughout the camp session moving from concrete to abstract and metaphorical (Green et al., 2000). Feedback, reflection, and debriefing are part of intentionally designed programs that

impact positively on youth (Sibthorp & Morgan, 2011). It is the level of training and intentionality of staff members that enable camps to provide positive interventions for youth development (Bialeschki et al., 2007). According to Unger (2012), the relationships that form between campers and counselors also contribute to camper resilience.

Resilience and personal development are addressed in the literature from many directions. Resilience may develop naturally through life or be fostered through challenging rites of passage, individualized training for inoculation, or as part of intentional program experiences as found in organized camping and AE settings. While the exact methods of development remain unclear, AE programs may be valuable programs for fostering resilience in youth. Because of the potential for program design and staff training to impact the development of resilience in youth in organized camp settings, it is important to better understand the relationship between the various factors.

Methodology

The Setting

An ACA accredited faith-based summer camp for boys in the southern Appalachian region of the United States was purposely selected as the study site. The camp has a reputation for challenging campers and perpetuating a focus on developing resilience in participants. Staff played a valuable role in overall youth development, fostering resilience, and other experiences at camp. At the camp in this study, directors focused on hiring individuals who could relate to experiences of failure, and who were able to reflect on their own personal challenges and growth, demonstrating personal levels of resilience. Staff members were encouraged to view a camper's attendance at camp as accepting a great call to adventure (The Hero's Journey model) and to understand camper nervousness and apprehension in an unfamiliar environment. Staff indicated

that camp philosophy firmly embedded a focus on developing camper resilience in staff training and in the way programs were structured. In addition, the camp program included adventure and skill-based activities to aid in camper growth. While returning campers might not experience site novelty, the camp program is structured to provide new challenges for each age group and included returning campers. Each age group focused on different characteristics of growth, including personal responsibility, servant leadership, spirituality, and being proactive and engaged in one's community.

The overall camp program is designed to teach progressively challenging skills to campers; the schedule incorporates free time, autonomy, and time to engage in activities outside of the four outdoor skill-based activities. A waterski trip, horseback trail ride, and whitewater rafting trips were optional elements of the camp experience. Kayaking trips were offered to participants based on competency, and campers in that skill area had opportunities to participate in more than one day trip. Program structure results in campers spending at least six hours of each two week session in each of four chosen skill activities (e.g., archery, canoeing, outdoor skills, homesteading).

It is important to note that the primary investigator in this study was a staff member at camp and able to observe camp programming and camper-counselor interactions. The camp directors routinely reminded the entire camp community to challenge themselves, and staff members were reviewed for exhibiting attention to camper development. To verify that the program design was carried out (i.e., being intentional in fostering resilience in campers), cabin counselors serving the 11-16 year old age groups (the group involved in this study) were asked to complete a brief Counselor Intentionality Survey (CIS) during two midsession counselor meetings. The five point, Likert-type survey was created for this study and included fourteen

items. The average age of cabin counselors was 21.14 (*SD* = 2.84) years, with an average of 2.19 (*SD* = 1.93) years of experience in this or similar programs.

Study Participants

At this boys' camp, campers attend programs from two to four weeks in length, with most campers staying two weeks; some combine multiple sessions for up to nine weeks at camp. Most campers were from the surrounding region; others came from a variety of states, with some traveling internationally to attend. The majority of campers were from affluent Caucasian families, although the camp has a financial assistance program for those in need. Campers submitted activity preferences and were placed into four instructional skill-based activities (e.g., archery, canoeing, outdoor skills, homesteading) as part of their camp experience. Because activity choices and program structure changes at age eleven to include higher levels of adventure, campers age 11-16 were chosen for this study.

Measures

The campers completed a pre-camp survey containing the Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003), Perceived Stress Scale (PSS; Cohen & Williamson, 1988), demographic items, skill-based activity choices, and five items addressing camper expectations about their upcoming experience. The CD-RISC was selected for its sensitivity to treatment, use with adolescents, and broad utilization in research in a variety of disciplines. The questionnaire required participants to rate their agreement with 25 items on a 5-point Likert-type scale (0-4); responses were summed for an overall score (as per the scoring instructions). The CD-RISC has demonstrated validity and reliability in past studies, with an alpha coefficient of .89. The ten item PSS (also a rating scale) was used to measure the applicability of resilience to the study population and has a reported .85 reliability coefficient

(Cohen, Kamarck, & Mermelstein, 1983). The mean score of 13.29 fell into the expected range for this age group, demonstrating that campers experienced a moderate level of stress and could benefit from increased resilience; thus, this was an appropriate group for study. While comparison values for both scales are available, none were found appropriate for the age group being studied and were not utilized in the analysis. The post-camp survey included the CD-RISC, skill choices, and 15 items assessing perceptions of the camp experiences, which have been identified in the literature as contributing to the development of resilience. On a 5-point rating scale, camper scores ranged from means of 3.98 (*SD* = 0.90) to 4.88 (*SD* = 0.33), indicating that camper experiences aligned with the qualities identified as important for the development of resilience (see Table 2).

Table 2

Camper Experiences—Post-camp. (N = 42)

Item	$\bar{x}$	SD	*Range*
I wanted to try new things at camp	4.38	0.76	3
I learned more by being away from home	4.40	0.67	2
I took responsibility for myself at camp	4.67	0.57	2
I was involved in decision making at camp	4.33	0.79	3
I learned how to solve problems with my friends	4.33	0.72	2
I supported my group members in our activities	4.43	0.67	2
I used my mind, body, and spirit in our activities	4.50	0.63	2
The activities fit my goals and interests	4.36	0.66	2
I learned things that will help me after camp	4.45	0.63	2
My counselor was supportive of me	4.88	0.33	1
Challenges were difficult, but solvable	4.29	0.64	2
Challenges got harder as my skills improved	3.98	0.90	3
When I didn't do well, someone helped me figure out how to improve	4.19	0.67	2
I would enjoy coming to camp again	4.62	0.73	2
My group talked about activities we had completed	4.02	0.95	3

To assess the level of perceived adventure involved in the many skill-based activities seasonal leadership staff who had oversight of various age groups were asked to complete the Adventure Qualities Assessment (AQA) instrument. The AQA was a researcher created, study-specific tool designed to determine the perceived AE qualities of 42 camp-specific skill-based activities, trips, and other programs. The instrument initially included ten qualities commonly associated with adventure education experiences and gleaned from the literature (interaction with nature, perceived risk, natural consequences, actively engaging, novel, progressive, holistic, relatable, recognizable challenges, and collaboration). Staff members were given a hard copy of the AQA with instructions to complete the instrument, rating each attribute on a scale of 1-5 indicating level of adventuresomeness for each camp activity. They then placed the completed instrument in an envelope and placed it in the lead researcher's mailbox the following day.

Procedures

Upon receiving approval from the university Institutional Review Board, data were collected from three different sources: 1) camper pre- and post-camp online surveys, 2) hard copy staff-completed AQA instruments, and 3) a hard copy of the cabin Counselor Intentionality Survey (CIS). Further, the lead researcher was a skill leader at camp and able to make observations without campers being aware of her role in this research study.

Parent consent and youth assent were obtained prior to a camper accessing the online survey. Participants received an incentive for participation – early release of official camp photo slideshows, which were seen as highly valued by campers. At the end of the pre-camp survey campers who wished to, provided an e-mail address, which was kept confidential. Email addresses were used to distribute the post-camp survey and the incentive.

Invitation e-mails were sent to parents prior to camper arrival, followed by reminder emails. For the first session, 279 e-mails were sent to parents of 184 participants. The camp posted a reminder about the research opportunity on their Facebook page during the second and third camp sessions. For the second and third sessions, 316 and 220 e-mails were sent to the parents of 214 and 157 campers, respectively. This totaled 815 separate emails sent to 555 potential research participants. As part of this count, follow-up e-mails were sent to participants on the evening of camp closing day and on two other occasions within the week following camp. Participants who completed both pre- and post-camp surveys were sent a link to the online photo slideshow.

Upon request of the lead researcher, the camp reviewed the rate at which the addressees viewed the e-mailed survey invitations. For the first session, 198 of 279 (70.9%) e-mails were viewed. During the second session, 210 out of 316 (66.5%) e-mails were viewed. For the final session, 154 out of 220 (70.0%) e-mails were viewed. While many families had multiple e-mail addresses on file, the numbers indicate that between 66% and 71% of the sent e-mail invitations were viewed. With an invitation and single reminder for the pre-camp survey, and three notifications for the post-camp survey, a total of 50 campers (9.09% response rate) returned both pre- and post-camp surveys. After omitting incomplete surveys and those indicating a parent had completed the survey, we were left with 42 useable sets of data. Due to the lateness of distribution in camp session one, only four usable datasets were returned from that session; this had a significant impact on the overall low response rate.

Analysis

The Adventure Quality Assessment (AQA) was used to rate skills, trips, and activities on qualities of adventure derived from a broad literature review. Responses were inputted into a

spreadsheet and means were calculated for each quality listed (Table 3). Inclusion of all ten qualities on the AQA yielded very little AE distinction between any of the camp activities (see Table 4). For example, on the five-point rating scale lacrosse was scored the highest for interaction with nature, followed by basketball. The researchers were unable to follow up with the raters to determine their understanding of the AQA questions.

The researchers reexamined the attributes being measured for perceived and logical relationship distinct to AE and reevaluated the literature. Based on this analysis, we removed five attributes of AE. The retained characteristics included interaction with nature, perceived risk, natural consequences, actively engaging, and recognizable challenges. Based on these traits (column 1, Table 4), the researchers ranked the camp activities, which logically and numerically separated into five groups. This resulted in identifying the most adventurous skills at camp, which included kayaking, horseback riding, the whitewater raft trip, blacksmithing, and rock climbing. The next most adventurous skill set included trap shooting, archery, lacrosse, rocketry, a waterski trip, riflery, and horseback trail riding. We recognize that activities such as lacrosse and rocketry do reflect common views of what is AE. However, due to high scores on one of the remaining attributes (e.g., lacrosse—high degree of relationship to nature) these activities landed in the high adventure activity groupings.

The top two skill groupings were assigned values to represent their level of adventuresomeness; a value of five was assigned to each of the top adventure activities, and the second tier of adventure activities were awarded a value of four. Skill group values were summed for each camper who participated in those activities, and a scatterplot showed no correlation with CD-RISC change scores. The data did not meet the assumptions for linear regression; thus, separate paired sample t-tests were performed for individuals who participated

in at least three of the top and upper level adventure skills, and those without a high level of involvement in adventurous skills (participated in fewer than three high adventure rated skills). Because only two of these skill-based activities (rock climbing and kayaking) are commonly identified in the literature as AE, a final paired sample t-test was performed on individuals who participated in either skill area.

Table 3

Adventure Quality Assessment Means

Skill	A	B	C	D	E	F	G	H	I	J
Archery	2.17	4.00	3.50	3.50	3.67	4.17	3.50	2.50	3.33	2.17
Basketball	3.83	2.00	2.33	3.67	2.50	2.67	2.50	3.33	3.17	3.83
Bible Study	3.50	1.00	2.17	3.83	3.17	2.67	2.67	4.17	2.33	3.50
Blacksmithing	2.17	4.50	3.83	3.50	4.83	4.00	3.83	2.67	3.67	2.17
Canoeing	2.83	3.17	2.67	3.50	2.83	2.17	2.67	2.00	2.67	2.83
Ceramics	1.50	1.33	1.50	3.33	3.33	3.33	3.00	2.00	2.67	1.50
Crafts	1.83	1.17	2.00	3.33	3.17	2.83	3.00	2.83	2.50	1.83
Disc sports	1.67	1.83	2.17	3.50	2.83	1.83	3.00	2.83	3.17	1.67
Field sports	2.67	2.00	2.67	3.17	2.67	1.67	2.83	2.50	2.83	2.67
Fitness for life	2.50	2.83	3.00	3.17	2.83	3.67	2.83	3.33	3.00	2.50
Fly Fishing	1.67	2.00	2.50	3.00	3.50	2.67	3.00	2.50	3.00	1.67
Fly tying	1.83	1.50	2.33	3.17	3.00	3.00	2.67	2.17	2.50	1.83
Guitar	2.83	1.17	1.67	3.17	3.33	4.33	3.33	3.17	2.67	2.83
Homesteading	3.50	2.17	2.50	3.17	4.50	2.83	3.00	3.33	2.83	3.50
Horseback Riding	3.17	3.67	3.83	3.83	4.33	3.00	3.50	2.83	3.83	3.17
Kayaking	3.67	4.33	3.83	4.50	4.00	4.00	3.67	2.33	4.00	3.67
Lacrosse	4.17	3.00	2.67	3.67	3.17	2.83	2.83	2.83	2.83	4.17
Nature	2.50	2.67	2.17	3.33	4.17	2.00	3.17	3.67	2.17	2.50
Outdoor Skills	2.50	2.67	2.67	3.50	3.67	2.83	3.17	3.67	3.17	2.50
Photography	1.50	1.50	2.17	2.83	3.33	2.50	2.33	3.17	2.50	1.50
Riflery	1.67	3.67	3.83	3.50	3.00	2.67	2.50	2.50	3.00	1.67
Rock Climbing	2.67	3.67	3.67	4.17	3.33	3.17	3.67	3.00	3.50	2.67
Rocketry	1.83	3.67	3.50	3.50	3.67	3.17	3.00	2.00	3.50	1.83
Soccer	3.67	2.00	2.00	3.50	2.50	1.83	2.50	3.17	2.83	3.67
Swim Basics	2.00	2.00	2.67	3.67	2.33	2.67	2.33	3.50	3.17	2.00
Stroke Development	2.00	2.00	2.67	3.67	2.33	2.83	2.50	3.17	3.00	2.00
Swim-tri Training	1.83	2.00	2.17	3.67	2.33	2.67	2.83	2.83	2.83	1.83
Swim with Guards	2.00	2.00	2.17	3.50	2.33	2.17	2.67	2.67	2.67	2.00
Swim Sports	2.33	2.00	1.67	3.50	2.50	2.17	2.67	2.50	2.67	2.33
Table Games	3.00	1.17	1.83	2.83	2.33	1.67	2.17	2.67	2.50	3.00
Tennis	2.83	1.50	2.83	3.50	2.33	2.67	2.67	2.67	2.83	2.83
Trap Shooting	2.33	4.33	3.33	4.00	3.67	3.17	3.33	2.50	3.17	2.33
Yard Games	2.17	2.00	2.00	3.17	2.50	2.17	2.67	2.67	2.83	2.17
Lake James Trip	2.33	3.33	3.33	3.33	4.00	2.17	3.00	2.83	3.33	2.33
Horseback Trail Ride	2.33	3.17	3.17	3.50	4.17	2.50	3.33	2.67	3.33	2.33
Whitewater Raft Trip	4.00	3.83	3.33	3.33	4.00	2.00	3.33	2.67	3.33	4.00
Sailing/SUP	2.42	2.75	2.50	3.42	3.42	2.25	3.17	2.08	2.67	2.42

A = Interaction with Nature, B = Perceived Risk, C = Natural Consequences, D = Actively Engaging, E = Novel, F = Progressive, G = Holistic, H = Relatable, I = Recognizable Challenges, J = Collaboration

Table 4

Adventure Quality Assessment Summed Scores

Skill	ABCDI	Group	ALL	Rank
Kayaking	20.33	5	38.00	38
Horseback Riding	18.33	5	35.17	37
Whitewater Raft Trip	17.83	5	33.83	35
Blacksmithing	17.67	5	35.17	36
Rock Climbing	17.67	5	33.50	34
Trap Shooting	17.17	4	32.17	31
Archery	16.50	4	32.50	33
Lacrosse	16.33	4	32.17	32
Rocketry	16.00	4	29.67	24
Riflery	15.67	4	28.00	20
Lake James Trip	15.67	4	30.00	27
Horseback Trail Ride	15.50	4	30.50	29
Basketball	15.00	3	29.83	26
Canoeing	14.83	3	27.33	18
Fitness for life	14.50	3	29.67	25
Outdoor skills	14.50	3	30.33	28
Homesteading	14.17	3	31.33	30
Soccer	14.00	3	27.67	19
Sailing/SUP	13.75	2	27.08	17
Swim Basics	13.50	2	26.33	15
Tennis	13.50	2	26.67	16
Field sports	13.33	2	25.67	13
Stroke Development	13.33	2	26.17	14
Bible Study	12.83	2	29.00	23
Nature	12.83	2	28.33	21
Swim-tri Training	12.50	1	25.00	11
Disc sports	12.33	1	24.50	9
Swim with Guards	12.33	1	24.17	5
Fly Fishing	12.17	1	25.50	12
Swim Sports	12.17	1	24.33	8
Yard Games	12.17	1	24.33	7
Guitar	11.50	1	28.50	22
Fly tying	11.33	1	24.00	4
Table Games	11.33	1	23.17	1
Crafts	10.83	1	24.50	10
Photography	10.50	1	23.33	2
Ceramics	10.33	1	23.50	3

A = Interaction with Nature, B = Perceived Risk, C = Natural Consequences, D = Actively Engaging, E = Novel, F = Progressive, G = Holistic, H = Relatable, I = Recognizable Challenges, J = Collaboration

Results

Of the 42 participants who provided useable sets of data, the majority (69.1%) were 11 or 12 years old, with the oldest being 16 years of age. Most participants had been to camp before (71.4%) and prior to attending this year, knew at least one other camper who would be at camp during their session (81%); complete demographic data are in Table 5.

Table 5

Demographic Information. N = 42

Demographic	Frequency	Percentage
Age		
11-12	29	69.1
13-14	12	28.6
16	1	2.4
Had been to camp before		
Yes	30	71.4
No	12	28.6
Years attended this camp		
1	0	0.0
2	10	23.8
3	6	14.3
4	5	11.9
5	4	9.5
Knew other campers attending the same session		
Yes	34	81.0
No	8	19.0
Number of other campers known		
1-2	15	35.7
3-4	7	16.7
5 or more	10	23.8

To address the first research question, *what is the relationship between adventure-based camp experiences and camper resilience?,* a paired samples T-test was performed on the pre-

and post-camp CD-RISC scores. A significant difference was found in scores from pre- to post-camp ($N = 42$, $p = 0.003$). Further, Cohen's effect size ($d = .50$) suggests a moderate practical significance. The complete results of T-tests are available in Table 6.

Table 6

Results of T-tests

Item		Pre-Camp		Post-Camp			
	N	$\bar{x}$	*SD*	$\bar{x}$	*SD*	*t*	*P*
Sample	42	75.17	11.21	79.05	11.85	-3.21 (41)	0.00**
High Adventure group	17	73.06	12.61	78.65	10.41	-2.55 (16)	0.02*
Low Adventure group	25	76.60	10.17	79.32	12.93	-1.99 (24)	0.06
Kayaking or Rock Climbing	18	75.06	11.45	79.67	10.72	-2.29 (17)	0.04*
Not Kayaking or Rock Climbing	24	75.25	11.28	78.58	12.83	-2.22 (23)	0.04*

*Significant at ≤.05; **Significant at ≤.005

Resilience through Adventure Education

To address the second research question, *was a camp experience with a higher number of adventure education components associated with greater increases in resilience*, camper surveys were divided into two groups. Campers who participated in at least three skills or trips in the upper two groupings of adventuresomeness ($n = 17$) were compared to the remaining participants ($n = 25$). Because of the single, within group comparison needed in this study, additional paired sample T-tests were performed separately on each group. A significant ($p = 0.02$) difference in scores from pre- to post-camp responses was found for the high adventure group. Cohen's effect size ($d = .64$) suggests a moderate to high practical significance. For the low adventure group, pre- and post-camp responses were not significant ($p = 0.06$). Further, the Cohen's effect size ($d = .43$) suggests a moderate to low practical significance for this group. The results of a final analysis between individuals who had participated in either rock climbing or kayaking and those who had not, revealed significant results for both groups (see Table 6).

Counselor Intentionality

Results of the Counselor Intentionality Survey indicate that overall, cabin counselors reported engaging in four of the fourteen intentional behaviors less than "often" (see Table 7). These include *using* "*describe label praise*" ($\bar{x}$ = 3.12, *SD* = 1.06; *Introducing tasks incrementally* ($\bar{x}$ = 3.54, *SD* = 0.87); *activities were organized to arouse curiosity* ($\bar{x}$ = 3.64, *SD* = 0.85); and *we took time to talk about what we've learned* ($\bar{x}$ = 3.87, *SD* = 0.95). The other ten items ranged from 4 to 4.52, indicating counselors reported that they demonstrated the skills often or almost all of the time over the 48 hours before the survey was administered (Table 7). This supports the camp premise that counselors were integrating these resilience-supporting behaviors into the camp environment.

Table 7

Counselor Intentionality. N = 67 (over two sessions)

Item	$\bar{x}$	*SD*	*Range*
Built relationships with campers	4.52	0.59	2
Utilized teachable moments	4.07	0.89	4
Facilitated learning and growth	4.24	0.61	2
Modeled good character for campers	4.38	0.63	2
I gave campers opportunities to make choices	4.06	0.76	4
I used "describe label praise"	3.12	1.06	4
Introduced tasks incrementally	3.54	0.87	4
Activities were organized to arouse curiosity	3.64	0.85	3
Activities had natural consequences	4.00	0.81	4
Camper challenges were easily identifiable	4.00	0.78	3
Camp experience was holistic (mind/body/spirit)	4.34	0.62	2
Campers interacted with nature	4.34	0.62	2
Campers were actively engaged in learning	4.11	0.68	2
We took time to talk about what we've learned	3.87	0.95	4

Discussion

Resilience

The purpose of this study was to measure the relationship between an organized camping experience with adventure education components and resilience in youth between the ages of 11-16 years. The results indicate that this camp experience was significantly positively related to resilience in the campers who participated in the study. This finding is consistent with the results of similar studies where investigators found significant change in resilience after participation in an AE program (Ewert & Yoshino, 2011; Green et al., 2000). At the same time, the results contradict the findings of other authors (Beightol et al., 2012; Russell & Walsh, 2011; Winsett et al., 2010). As mentioned earlier, the lack of consistency in findings may be due to research design, measurement tools, duration or design of the AE programs, or other confounding factors.

In addition, the mixed results could be an indicator of the lack of understanding of the many factors that contribute to youth development, particularly as related to resilience (Bialeschki et al., 2007). For example, the supportive relationships and skill development achieved in camp programs exceed that provided by community and school programs (ACA, 2006b). The new, wilderness environment and educational skill areas, as well as the opportunities to grow into leadership roles in AE have also been shown to contribute to outcomes associated with resilience (McKenzie, 2003). Changes in self-esteem, relationships, independence, and leadership are common outcomes of youth participation in camp programs (ACA, 2006a). Thus, considering the results of this exploratory study camp experiences that include AE components may be useful in fostering resilience in youth.

While most studies on resilience focus on improving the outcomes of individuals considered at-risk due to ethnic minority or low socioeconomic status, a greater understanding of

the process of developing resilience may broaden the implementation of resilience interventions for all. While the population in this study was noted through observation as being primarily white and of a high socioeconomic status, camper PSS scores were in the expected range; thus, indicating that this group may benefit from increased intentional resilience development activities. Further, investigators have reported that boys-only camps, like that in this study, provide the highest levels of skill building and supportive relationships when compared to co-ed or single girls only camps. For-profit and faith-based camps appear to excel in areas of overall safety and camper involvement (ACA, 2006a). The camp utilized in this study was an all-boys, nonprofit, faith-based camp. Thus, these factors may have contributed to the development of resilience among the youth in this camp, regardless of participation in AE activities.

Resilience through Adventure Education

While the data sample was small and we are cautious about making generalizations to larger populations or other camps, we do believe the information learned from this research provides a basis from which to begin focused study. We acknowledge that the increase in resilience among the study participants may have been influenced by the Hero's Journey model embedded within this camp. Stephenson (2006) pointed to the need for youth to be allowed to refine their skills and test themselves in order to grow. The structure and opportunities at this and many other camps provide a variety of opportunities for youth to experience logical consequences and "here and now" lessons with support from caring adults. In addition, camp settings can enable youth to take risks that may be unavailable to them at home or in school, and which provide valuable opportunities for growth. All of these factors can enhance the development of resilience.

We found that youth who participated in AE programs at this camp increased their resilience over the two-week camp program. We noted that only campers who participated in a higher number of adventure education activities experienced a significant increase in resilience. This result was not surprising in light of between the processes to develop resilience and outcomes of AE.

The Hero's Journey process of learning through challenging experiences was used intentionally by staff, and likely contributed to the change in resilience. Further, the opportunities for campers to engage in outdoor pursuits that held perceived risks may have contributed to increased resilience in this group. It is important to note that characteristics of the camp environment, such as supportive counselors, a community setting, and feeling free to experiment with new skills and interests may also contribute to the growth of resilience in ways that were not measured.

For those campers whose resilience scores did not increase, confounding or inhibiting events may have occurred that influenced this result. It may be that these campers were not challenged enough to experience disorganization, which is necessary to build resilience. Another possibility is that theses boys may have attended camp numerous times and knew what to expect from the high-adventure activities. This could reduce their sense of perceived risk, thereby decreasing the opportunity to enhance resilience. In addition, the two-week camp session may not have been long enough to determine the extent of enhanced resilience in the youth.

In addition to speculating about why or why not resilience increased over the camp session, it is important to note that individuals who participated in a higher number of AE activities reported lower CD-RISC scores both pre- and post-camp. While differences may be expected in individuals who seek out adventure experiences, Richardson et al. (2002) suggested

individuals with more resilience typically seek out increased challenges. This may indicate that individuals who self-select challenging activities perceive more room for personal growth, and rated themselves lower on this scale. The results may also reflect difficulties noted by Ewert and Yoshino (2011) in finding appropriate non-equivalent comparison groups for studies involving adventure programming.

Through their self-selection of instructional skill areas, campers accepted opportunities to solve problems and received help improving in skill areas they found challenging. A balance of success and challenge as campers progress is an advantage of the multi-week immersive camp environment. Nei (2003) identified this type of setting as contributing to the environment of AE. Camp involves the use of multiple senses, creates a comfort zone for learners, and models group development. At this camp in particular, activities were framed with an attitude of growth. The program model encouraged counselors to hold individual conversations with campers to assess and guide their learning, helping campers process and transfer experiences to their lives.

Counselor Intentionality

In addition to the camp program providing opportunities for adventure education, a high level of counselor intentionality may have contributed to changes in camper resilience. Counselors reported that they were intentional in how they related to and supported campers as they faced various problems. Counselors were engaged in actions that facilitated learning, were holistic, and engaged campers in learning. These practices reflect the Stress Inoculation Training with counselors guiding campers through the learning process, thereby contributing to the development of resilience (Meichenbaum, 1985).

While the Counselor Intentionality Survey indicated activities were not always sequenced from easy to more difficult, on-site observations indicated the program utilized camp-wide

sequencing by age-appropriate challenges, as well as within skill areas. The campers talked each week with their counselors and worked on one personal growth area at a time, with the long-term goal of being invited into elite servant leadership opportunities. Progressive activities provided an individualized level of challenge for campers of different ages. The program enabled campers to demonstrate responsibility and independence beyond what the primary camp program involved, which can also be beneficial for growth. According to Ungar (2012), the sense of control and new abilities to manage situations contribute to a perception that a camper is able to solve problems on their own.

Counselors reinforced the idea that individual failures did not define campers, but successes meant that they had grown in specific skill areas and self-confidence. Rather than prepare campers for stressful events, the camp program is designed to help move campers through them. Through a series of small learning experiences, campers were sent home knowing they were capable of more than they had previously believed. Other researchers have found that the outcomes of organized camping and AE are maintained or continue to grow for at least six months after the experience (ACA, 2005; Hattie et al., 1997).

Another technique utilized as part of this camp program that likely impacted resilience was to cultivate language among counselors about male adolescent development. In addition, camp staff educated camper parents about the growth process through educational blogs on the camp website. Helping parents understand and grow with their boys was viewed by camp staff as important to the overall success of the program.

Future Research: Qualities of Adventure

We recommend that future studies in the area of AE be more specific in identifying and naming the attributes of adventure or AE. Initial results from the AQA showed activities such as

guitar and Bible study as more active, nature-related, and engaging (all traits ascribed to AE throughout the literature) than what we might logically construe as AE (e.g., kayaking, rock climbing). Blacksmithing, which includes a measure of risk but a low level of camper involvement, was consistently scored by leadership staff as being one of the most adventurous activities on the list of activities offered at camp.

Thus, while the AQA did an adequate job of sorting activities by their theoretical qualities related to AE, it was not completely in line with more widely accepted views of adventurous versus creative or sport-based activities. This may indicate a need to reassess the qualities professionals attribute as being inherent in adventure programs, and how adventure is defined. When we revaluated the AQA we found that activities with unexpectedly high scores had been rated highly on a single attribute not uniquely related to AE (e.g., novel, progressive, relatable). This contributed to significant increases in the mean score for those activities, thereby falsely identifying an activity as high in adventure. For instance, guitar was perceived as having a natural progression, Bible Study had a high level of collaboration and group thinking, and Blacksmithing had a high level of novelty. Combined, the attributes may contribute to defining an activity as AE, but as a stand-alone attribute the ratings confounded the results. As the activities were rated on each attribute independently of one another, there was no standard for what constituted staff perceptions of adventurous. Perhaps a factor analysis or linear regression model might contribute to understanding the weightings of the AE characteristics, which would aid in future research.

In addition to the independent ratings of each AE trait, staff completing the assessment may not have adequately understood the qualities being assessed, or the activities and programs offered. For instance, staff rated lacrosse as having the highest level of interaction with nature

among all the activities, followed by the whitewater rafting trip, and basketball. Bible study ranked sixth for interaction with nature, fifth for being actively engaging (physically and mentally), and first for the attributes of progressive and relatable. Researchers and practitioners alike may need to reevaluate the attributes that contribute to defining activities as adventurous.

Qualities of adventure often include a small group setting, uncertainty, interpersonal development, and a direct learning experience (Prouty et al., 2007). These qualities could easily be attributed to activities not typically classified as adventurous. An important question then is whether these qualities, when present in other activities, still contribute to participant development as related to increasing resilience. While the AQA did not perform as expected, it provided valuable insight into how camp staff may view different activities as more adventurous than do AE professionals.

While more research is needed to distinguish between the effect of adventure activities, the qualities of adventure, and staff contribution to camper growth, the program design utilized in this study appears to be effective. The current trends in the resilience literature indicate that rather than one overarching principle, resilience is viewed as a collection of small milestones and processes. Therefore, studies focused on understanding or defining specific resilience indicators within particular contexts will play a vital role in the overall understanding of resilience and how it develops in youth.

Limitations

Not surprisingly camp is a complex environment that includes environmental, social, emotional, cognitive, and spiritual elements. Due to these potentially confounding variables, it is difficult to distinguish which aspects of a camp experience may be most related to fostering the capacity for resilience. Further, generalization to broad populations is not possible.

In this camp, participation in skill periods accounted for twenty hours out of a two-week period, which may be inadequate to identify differences in camper growth. With the lower than anticipated response rate, it was difficult to distinguish how the research design may have been effective in assessing the impact of participation in the individual skill areas. Further, the survey methodology was difficult to implement. This was due in part, to limited access to the camper database, program understanding, and time for staff to complete surveys. Lastly, due to time constraints the investigators were unable to follow up with individuals who did not complete surveys to account for potential response bias.

The camp at which the study was conducted had a well-established program with an intentional focus on resilience, which may have had a significant impact on the results. In addition, as with all settings, individual staff have an unknown influence on camper growth and represent a degree of variability within the program, which is difficult to measure. Further, we were unable to control for how consistent staff were in various sessions or in working with different skill areas. A counselor's experience with youth in various skill areas may have impacted their effectiveness in impacting camper growth differently than another staff member. Similarly, campers may have had previous experience in skills or a predisposition to adventurous skill areas; these factors were not addressed in this study.

Conclusion and Recommendations

Although it is difficult to establish the effects of individual attributes of AE on increased resilience through this study, we do have indications that organized camping experiences likely contribute to an increase in camper resilience. Although the results of this study are not generalizable, the findings provide some rationale to utilizing intentionally developed camp programs as resilience interventions. Practitioners may wish to incorporate clearly defined

adventure education experiences into existing offerings, or design programs to incorporate a broader range of the characteristics associated with adventure.

Based on the findings of this study, it is clear that additional research in this area is necessary. Research that distinguishes between components and qualities (which may or may not be inherent in adventure activities) distinctive to AE, camper dispositions toward resilience, and program staff influence on the resilience process will be useful in understanding the ability of camps and other youth organizations to influence outcomes. In addition, the conceptual framework was designed around the impact of adventure experiences on resilience, rather than outcomes more commonly studied in camp experiences. Additional research is recommended to examine how the qualities of adventure or positive youth development align with existing summer camp programs (thereby fostering resilience). It may be beneficial to study individual indicators of resilience, as camp programs may be more effective in some areas than others. Further testing of models for the development of resilience in the context of adventure education and camp programming may assist in program development. Finally, ongoing site-specific evaluations and assessments to determine camper outcomes are necessary to determine the impact of programs.

Organized camping experiences certainly are valuable for the experiences they provide youth and staff. The camp program in this study goes beyond simply providing camp experiences and utilizes intentional and embedded developmental tools to enhance resilience in youth. The camp environment provides youth with experiences in an uncommon setting, with a social group outside of the home or school, activities with outcome-oriented challenges, and trained counselors all geared toward enhancing positive development. Overcoming individual

challenges, or rites of passage, in an organized camping environment provides youth with a dose of inoculation that may prepare them for challenges in life.

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Appendix A: Extended Literature Review

Introduction

One of the greatest predictors of success in life is an individual's resilience (Tough, 2012). This ability, to overcome difficult life circumstances and continue at a reasonable level, is a capacity within us all. Resilience research has grown from inquiry into the reasons children at-risk were doing well despite trying circumstances, to the study of risk and protective factors to dynamic processes, and now to resilience as an innate capacity. While people cannot make others more resilient, research suggests that we can foster a capacity for resilience.

Resilience research is often focused on studying traumatic experiences, difficult medical conditions, or individuals considered at-risk for lower academic achievement or in the workforce. Intervention programs may be targeted to youth at-risk, for whom society sees an immediate need. However, because of the substantial developmental growth occurring in childhood and adolescence, this may be an ideal time to implement broader intervention programs. To reach a wider population, outcome-oriented recreation programs may be used as a tool to build positive life habits (Ellis, Braff, & Hutchinson, 2001). Similarly, summer camp programs may be utilized as a resilience intervention with little modification.

In life, resilience may be built through facing difficulties that cause disorganization and force individuals to reintegrate at a similar/resilient, or higher level (Richardson, Neiger, Jensen, & Kumpfer, 1990). Similar qualities are present in adventure recreation experiences as participants leave their comfort zone for the unknown, intentionally face challenges, and return with potential gains. This process is somewhat inherent in the nature of adventure activities and may be further utilized with trained staff (Nei, 2003). With the growing popularity of adventure

components in traditional summer camp programs, this may be a valuable way to intentionally foster resilience in youth.

Background

Life is full of problems, from daily mundane nuisances to global natural disasters. How these difficulties affect individuals, families or communities, is a consistent and troubling part of life. In the 1950s, researchers unveiled a phenomenon in children who were born into high-risk environments and performed well despite difficult circumstances; these first studies brought forth the intentional study of resilience. Resilience is one's capacity to recover and continue on after adverse life events. People demonstrate the quality of resilience in everyday situations: overcoming bullying, poverty, divorce, illness, and so on. Individuals who demonstrate resilience learn from stressful situations and become stronger.

The periods of childhood and adolescence, school age through late puberty, are often a focus of resilience research. These time periods contain numerous developmental milestones and challenges, and are periods where youth are rapidly learning how to do things for themselves (Masten, 2004). Teaching young people how to overcome challenges that increase their capacity for resilience may serve them throughout their lives (Tough, 2012).

While there is an abundance of literature discussing resilience as an individual trait, dynamic process, specific outcome, or set of factors protecting an individual from risks, the literature is still developing and progressing. Recently, work in resilience has recognized the concept as an innate capacity of an individual to utilize individual and social capital to progress through adverse life events with minimal developmental disruption. Resilience is highly dependent on the relativity of adversity, situational context, and appropriate developmental

milestones. Therefore, resilience cannot be seen as one overarching concept, but an ability to apply resources to certain problems.

Studies conducted on resilience often lack clarity regarding how to foster this capacity intentionally. Intervention programs have demonstrated the capacity to increase resilience in certain contexts and outcomes (Allen et al., 2006), but their availability is limited and further studies are needed to increase understanding of the efficacy of these programs. Recreation programs with an intentional focus on positive development may foster resilience in their participants (Green, Kleiber, & Tarrant, 2000). One such setting is organized camping.

Recreation programs, capable of reaching a broad audience, provide "real-life" experiences. With some directed attention, they are often shown to increase skills and abilities commonly associated with resilience (Allen et al., 2006). Organized camping programs have been particularly effective in utilizing intentionality to facilitate life skills and experiences that foster the capacity for resilience, and are widely available through several organizations. Several researchers have shown the effectiveness of camp experiences and adventure education on indicators of resilience (Green et al., 2000; Ewert & Yoshino, 2011). As an intervention, research has shown that adventure programs have more effect on self-concept, and that wilderness programs have higher follow-up effects over time than traditional programs (Hattie, Marsh, Neill, & Richards, 1997). Adventure education experiences may provide a prepackaged intervention program by engaging participants in challenges that develop the internal capacities of youth, and prepare them for future life events.

While too little is known about which program attributes most effectively foster the capacity for resilience, several models are available that help to paint a coherent picture of how youth obtain the common characteristics or indicators associated with resilience. This study

draws from the Resilience Model (Richardson et al., 1990), Stress Inoculation Training (Meichenbaum, 1985), Walsh and Golins' (1976) "Outward Bound Process", often labeled the Walsh and Golins Model, and "The Hero's Journey", adapted from Joseph Campbell's work (Stephenson, 2006). Together, these models demonstrate how intentional programming guides learning and increases individual capacities to handle challenges. In each model, individuals work their way through challenges, developing skills for themselves with minimal guidance, and become stronger and better prepared for the next challenges. The application of these models to camp experiences may help refine current program ideas and provide direction for future research.

Definitions

Adventuresomeness: A measure of how well a given activity exhibits qualities associated with adventure.

Adventure Education: Adventure Education is used to describe programs that use adventure as a means through which participants learn or develop (Sibthorp, 2003).Qualities often associated with adventure education include interaction with nature, perceived risk, natural consequences, active engagement, and recognizable challenges.

Experiential Education: The process of learning through experiences and self- or guided-reflection.

Individual Capital: An individual's capacity for achievement through traits such as skill, talent, or enterprise.

Inoculation: A biological and physiological process in which early exposure to small amounts of a stressor trigger the protective process, increase resistance, and provides support against later exposure.

Life Events: Experiences, stressors, challenges, difficulties, and other displacing experiences that cause an individual to leave a state of homeostasis and become disorganized (Richardson et al., 1990).

Organized Camping: "The essential trinity of camping--community living; away from home; in a natural, recreational setting" (ACA, 2006a, p. 17).

Protective Factors: The opposite of risk, protective factors are those things that exert a positive and protective influence against stressors and negative life events.

Resilience: An individual's capacity to engage individual and social capital to resist and overcome stress and adversity of life events.

Risk factors: Circumstances in the environment associated with an increased likelihood of negative or dysfunctional outcomes. The opposite of protective factors.

Social Capital: The benefits gained through social networking and collaboration.

Literature Review

Resilience is a dynamic and interdisciplinary concept that, while it has been studied for over fifty years, still lacks conceptual clarity. It is not in itself a theory, but a conceptualization of the process toward positive outcomes, inferred from observations of individuals thriving under adversity (Rutter, 2012). Resilience researchers aim to study the individual differences in response to the same events (Rutter, 2006). It is not simply about risk and protective factors, but how individuals react above and beyond what their life circumstances provide (Rutter, 2006). This internal self-righting mechanism and the ability to function positively despite adversity may be one of the greatest predictors of success in society, but we need to understand more about how it works in order to foster its development. This section aims to provide a brief overview of resilience research, including current models and definitions, its development in psychology as

well as neurobiology, and conceptualization of the domains and indicators. It will conclude by examining existing resilience interventions and how they may suggest the use of benefits based recreational programing as a natural approach to fostering resilience.

Overview of Resilience Research

One of the most famous studies on resilience, the Kauai Longitudinal Study, monitored every child born on the Hawaiian Island of Kauai in 1955. A team of researchers studied biological and psychological factors from prenatal care until the participants were in their 40's, checking in at key developmental stages (Werner & Smith, 1997). The researchers found that certain protective factors can act as buffers to negative events and can have a greater impact than risk factors or stress towards healthy outcomes. When one-third of those in the most at-risk population demonstrated resilience, a search began for the protective factors that moderated adversity and demonstrated the need for effective intervention programs (Werner & Smith, 1997). Since then, several models of resilience have emerged, as well as various definitions and the importance of context.

Resilience has been perceived as the capacity to cope (Connor & Davidson, 2003), sustain normal development (Friborg, Hjemdal, Rosenvinge & Martinussen, 2003), achieving positive outcomes (Gartland, Bond, Olson, Buzwell & Sawyer, 2011), and maintaining or regaining positive levels of functioning (Ryan & Caltabiano, 2009, p. 39) despite stressors or sustained stress in an individual's life. Resilience includes qualities of the individual and the environment (Ungar & Liebenberg, 2011), promotes adaptation (Wagnild & Young, 1993), and is seen as a dynamic capacity within an individual (Block & Kremen, 1996). Hjemdal, Friborg, Stiles, Martinussen and Rosenvinge (2006) described resilience as "The protective factors, processes, and mechanisms that, despite experiences with stressors shown to carry significant

risk for developing psychopathology, contribute to a good outcome" (p. 84). Others have defined resilience as "bouncing back" from a challenging event (Smith, Dalen, Wiggins, Tooley, Christoper, & Benard, 2008). Resilience has been viewed as a multidimensional and phenomenological characteristic that includes an individual's disposition as well as access to external support (Friborg et al., 2003; Hjemdal et al., 2006). Individuals who are coping better than expected or improving through adversity, have demonstrated resilience (Tusaie & Dyer, 2004).

Masten (2001) attributes resilience to "ordinary magic", suggesting resilience is part of normal adaptive functioning and quite common. Resilience is a dynamic process wherein individual and environmental factors fluctuate across time, personal developmental stage, outcome, and context. Individuals may be resilient in one time or environment, or in regard to one outcome or indicator, and not others (Rutter, 2006; Tusaie & Dyer, 2004). Life transitions may reveal new opportunities or vulnerabilities, and adolescents may be a particular "hot spot" for growth and development (Masten, 2004). Because youth have an influence on their own lives and social environment, their own choices, as well as indirect environmental consequences, have a cascading effect on their lives. Masten explains that regardless of starting points individuals lives take distinct courses, and that there is a complex interplay of factors in development (2004). In view of that, it is important that researchers assess all aspects of the environment, interaction, adaptation, processes, and outcomes. Rutter (2012) suggests that researchers need to investigate beyond individual outcomes to the dynamic processes involved in developing resilience.

The Development of Resilience

Interdisciplinary Research. Resilience is important across many biological and physiological systems, and the importance of collaborative interdisciplinary studies has often

been noted (Masten & Obradovic, 2008; Richardson, 2002; Rutter, 2006; 2012). Studies in positive psychology, ecology, genetics, neurobiology, and immunology, and others contribute to current knowledge of resilience.

Adding to this interdisciplinary study, Lyons, Parker, Katz, and Schatzberg (2009) reviewed past studies about the stress neurobiology of squirrel monkeys and the cascade effect of early life stressors, or stress inoculation. They suggest that inoculation, a commonly understood immunization process of introducing enough of a stressor to the body that it learns to respond without causing a significant threat, triggers positive effects across multiple domains of adaptive functioning. The brief intermittent separations used in the study enhanced arousal regulation and resilience, and responses in neurobiology suggest transformations across cognitive, motivational, and emotional situations. The authors suggest that there is a developmental cascade in which stress inoculation induces resilience. The researchers demonstrated prefrontal neuroplasticity, expanding the region of the brain responsible for resilience. This supports other conclusions that reactions to life are not isolated, but outcomes of what has gone on before (Rutter, 2012; Tusaie & Dyer, 2004).

Other investigators have discussed how high levels of arousal interfere with executive functioning, resilience as a state of mind, and correlations of psychoneuroimmunology, biology, physics, and Eastern Medicine (Masten & Obradovic, 2008; Richardson, 2002; Rutter, 2012; Tusaie & Dyer, 2004). Tusaie & Dyer (2004) noted that researchers cannot deny the complex interrelationships of coping, temperament, social supports, genetics or biology in understanding resilience.

Correlates and Indicators of Resilience. The operationalization of resilience varies significantly between studies. Luthar, Cicchetti and Becker (2000) drew attention to several problems with the scientific study of resilience. Some of the shortcomings include multiple definitions, measurement approaches, and difficulties with specific measurements for risk and adaptation.

The various correlates and indicators of resilience can be divided into individual, family, and community domains. In the Kauai Longitudinal Study, individuals showed distinct temperamental differences as infants and toddlers, by preschool had autonomy and asked for assistance when needed, and as youth showed self-efficacy, responsibility and self-esteem (Werner & Smith, 1997). At the family level, resilient youth in the study had established bonds with a parent or caregiver and were adept at recruiting surrogate parents. They held religious beliefs that provided meaning and stability. At the community level, resilient individuals were able to rely on others for support, often making school a second home.

Separate from how resilience is defined, are the individual traits or resources being measured within the scales. While the majority of the resilience scales used a factor analysis to group the components studied by their scale (Connor & Davidson, 2003; Hjemdal et al., 2006; Ryan & Caltabino, 2009), Ungar and Liebenberg (2011) conceptualized the aspects of resilience as tensions. Other researchers have investigated protective factors (Baruth & Carroll, 2002), characteristic dimensions (Hurtes & Allen, 2001), or had too few questions to perform a factor analysis (Sinclair & Wallston, 2004; Smith et al., 2008). For the purpose of this study, the groupings of qualitative characteristics, tensions, dimensions, factors, correlates, and predictors have been collectively referred to as indicators of resilience.

Indicators must be developmentally and situationally appropriate, and the idea of overall resilience is questionable (Tusaie & Dyer, 2004). Researchers have discussed the need for standardized operational criteria, as resilience is an interdisciplinary science, and the value of resilience measures including normal, abnormal, and resilient outcomes (Luthar, Cicchetti, & Becker, 2000). As the idea of resilience varies so much through time and context it may be difficult to choose a specific list of indicators for which to test. Therefore, in the interest of this study, existing resilience indices have been evaluated for their common characteristics.

While longitudinal studies have contributed to an understanding of three higher order aspects, including individual dispositional attributes, family support and cohesion, and external support systems (Hjemdal et al., 2006; Werner & Smith, 1997); the indicators vary within this outline. In an analysis of the indicators of resilience based upon wording of questions, description of concept, and definition of verbiage, the strongest commonalities were a rating of personal competence or self-efficacy, and acceptance of change including flexibility and adaptation (Connor & Davidson, 2003; Friborg et al., 2003; Hjemdal et al., 2006; Ryan & Caltabiano, 2009; Wagnild & Young, 1993). Commonalities were observed with an internal locus of control, independence, or personal structured style (Connor & Davidson, 2003; Friborg et al., 2003; Hjemdal et al., 2006; Hurtes & Allen, 2001; Ryan & Caltabiano, 2009). External support, while not on every scale, included the existence of social resources and family cohesion, social competence and adeptness, and spiritual influences (Baruth & Carroll, 2002; Connor & Davidson, 2003; Friborg et al., 2003; Gartland et al., 2011; Hjemdal et al., 2006; Hurtes & Allen, 2001). Being able to utilize social support systems as an element of resilience have been noted as being more common among women than men (Friborg et al., 2003; Hjemdal et al., 2006).

An analysis of published resilience scales showed common links in determination or perseverance (Block & Kremen, 1996; Connor & Davidson, 2003; Friborg et al., 2003; Ungar & Liebenberg, 2011; Wagnild & Young, 1993), laughter and being a "people person" and having goals, plans, or a purpose (Connor & Davidson, 2003; Friborg et al., 2003; Wagnild & Young, 1993). While trusting one's own strengths was not consistent across measures, when combined with a perspective on faith or a belief system in a greater being, trust was an element of resilience. (Block & Kremen, 1996; Connor & Davidson, 2003; Friborg et al., 2003; Ryan & Caltabiano, 2009; Ungar & Liebenberg, 2011; Wagnild & Young, 1993).

The most common and repeated indicators of resilience include self-efficacy, internal locus of control, a desire to accept change and adapt, intrapersonal structure and purpose, usability of external support systems, and social competence. These indicators are in line with resilience as a multidimensional characteristic relying not only on personal traits, but family support and access to community resources as well (Connor & Davidson, 2003; Friborg et al., 2003).

Resilience Models. The first resiliency model makes key observations about research trends to support the process through which individuals, with or without facilitation, undergo a process from biopsychospiritual homeostasis through disorganization and reintegration to one of four adaptive or maladaptive states (Richardson et al., 1990). The authors share perspectives on the value of disruption to use and develop skills, reintegrate at a higher level, and be increasingly prepared for subsequent life events. Their discussion of the literature moves understanding from resilience as a trait to a process that is common and necessary for development throughout life. The authors perceive resilience as the opposite of vulnerability, and a resilient person as someone who does not fall as far after "life events" and who recovers more readily than

expected. “Life events” is used inclusively of experiences, stressors, challenges, bifurcations, risks, crises, and other displacing experiences that cause an individual to fall out of homeostasis and become disorganized. The objective is resilient reintegration with new skills and understanding. Other levels include a return to homeostasis, suggesting the lessons were not learned and problems will continue; maladaptive reintegration, where the world view and functioning are decreased; and dysfunctional reintegration. The model suggests that high functioning individuals seek out challenges to let the process of disorganization change their world view and help them strengthen their skills in life. The process is similar to strength building exercises. In this model the role of any intervention is to facilitate learning at any of the key points in the process. This may include encouragement, teaching, buffering, keeping mentees from falling too far, and supporting the reintegration process (Richardson et al., 1990).

Resilience has moved from a phenomenological trait, to a balance of risk versus protective factors, a dynamic process, and more recently being viewed as a capacity to use said trait, utilize protective factors, and undergo aforementioned processes. Masten notes that the problems adolescents face may be due to poor skills, poor resources, or poor choices (2004). The most recent model was drawn from the positive development literature and reflects the history of resilience research, depicting resilience inclusively as the process, capacity, or patterns of positive adaptation (Masten & Obradovic, 2008). This model is more inclusive of the variety of patterns involved throughout development. Resilience does not require superior functioning, but is a measure relative to the adversity, variables, and adaptation (Masten, 2001; Rutter, 2012).

There is growing evidence about the protective effects of previous stress or adversity, and that the protection may come from learned coping mechanisms and self-efficacy (Rutter, 2006). This “steeling” effect is similar to the familiar biological notion of immunization or inoculation,

where controlled exposure rather than avoidance helps individuals physically and psychologically prepare themselves without being overcome by the trigger. It is important to recognize situations that may prepare us versus those that sensitize us, and the development of protective resources that are of no benefit or detrimental in varying circumstances (Rutter, 2006, 2012).

Most researchers view resilience as a collection of small milestones and processes rather than one overarching principle. Each process serves a purpose in different context and are collectively attributed to a capacity to overcome differing adversities. Resilience should not be seen as one skill set, but instead as a collection of smaller contextual assets that interplay toward an increased capacity for resilience across multiple times, adversities, contexts, and outcomes. Therefore, studies focused on understanding or increasing specific indicators for specific context still play a vital role in the overall understanding of resilience.

Stress Inoculation. Meichenbaum (1985) described a training process used with counseling patients for dealing with stress and anxiety that served to "inoculate" them against future stressors. Although stress inoculation training (SIT) was originally designed for counseling psychology, it utilizes a simple three phase process that is simple may adapt to varying circumstances. The first phase, conceptualization, builds a collaborative relationship between the client and practitioner, where they discuss problems and expectations. The practitioner collects information and assesses behavior, and the client re-conceptualizes their initial problem while understanding the transactional nature of stress and coping. This may take from one-sixth to one-third of the process, and the three phases begin to work together with a lock and key approach where they may overlap, but function to support each other. The second phase, skill acquisition and rehearsal, takes the bulk of the time commitment. This phase works

to utilize a collection of established therapy techniques to walk the client through the process of discovering how to deal with their problems, as this connection and ownership of the process will reinforce learning. This didactic teaching paradigm may utilize Socratic discussion, cognitive restructuring, problem solving, relaxation, self-monitoring, life-style changes, prioritizing, mobilizing supports, and self-reinforcement to learn and practice emotional self-regulation. When the practitioner sees that the client can execute coping responses, they move on to the third phase. Phase three is about application and follow-through. The client may see the practitioner less often, and works with role playing and graded homework to continue practicing skills. In this way, individuals may utilize the skills they have learned while still receiving support and feedback. "SIT is designed to build "psychological antibodies," or coping skills, and to enhance resistance through exposure to stimuli that are strong enough to arouse defenses without being so powerful as to overcome them" (p. 21). It is a system of "learned resourcefulness" through facilitated learning and experiences.

Recreation and Resilience

Recreation is a unique contributor to youth's positive development (Allen et al., 2006). In 1995 the National Recreation and Park Association initiated significant work with Benefits Based Programming (BBP) and awareness in recreation and park programming (Allen & Cooper, 2003). Outlined in a curriculum manual, the four step process outlines the development of outcome-oriented goals, the process of designing programs specifically to address these goals, measuring the benefits, realizing the impacts and communicating successes (Allen & Cooper, 2003). The Resilience Attitudes and Skills Profile (RASP), measures seven aspects of resilient individuals and was specifically designed for recreation programs (Hurtes & Allen, 2001).

In an effort to validate the outcomes of recreation participation, the Benefits Based Programming model utilizes resiliency framework for assessing multiple benefits of recreation participation on an individual level (Allen & Cooper, 2003). Testing the effect of the BBP model, Allen et al. (2006) randomly selected two urban summer day camp programs as a treatment and control group. The treatment camp staff were given an eight hour training on the BBP model, which included establishing program plans for objectives from the RASP. Each week of camp focused on a different skill resilient individuals commonly possess, which was incorporated into the daily objectives and activity sheets and further drawn out through guided discussion and journaling. Comparison of pre and post-test scores showed significant changes on five of the seven indicators, including humor, independence, insight, relationships, and values orientation (Allen et al., 2006). Researchers concluded that intentional program design in recreation programs was effective in developing resilience.

Ellis et al. (2001) examined several models of therapeutic recreation and youth development to demonstrate the effectiveness of outcome-based programs. A program was then designed to address social competence, problem solving, autonomy, and a sense of purpose in youth by integrating a certified therapeutic recreation staff member into the program. The program was designed to involve the youth in peer representation, program design, ownership, and entrust the youth with responsibilities; these qualities helped develop positive self expectations for the youth and their future. In treating the city recreation program as a branch of therapeutic recreation, a largely outcome-focused discipline; the staff were able to increase programs focusing on resilience to more youth. The authors demonstrated how recreation can lend itself to the development of resilient qualities in youth.

Investigators undertook a similar study and examined a small sample from a summer youth program and explored the effects of high and low ropes experiences by measuring protective factors in low income, minority youth (Green et al., 2000). In a series of four-hour experiences, once a week, for four to six weeks, the adventure-education activity utilized the inherent challenges and perceived risk to improve individual as well as group assets. The protective factors chosen for measurement were selected from the overlap between indicators of resilience and common benefits of adventure programs identified by Hattie et al. (1997). Of the nine protective factors measured, eight showed significance with the highest ratings for "interested and caring adults", "ability to work out conflicts", "sense of acceptance", and "value on achievement" (Green et al., 2000).

A more recent study examined an Anti-Bullying Initiative offered through an outdoor center that combined a series of two-hour classroom or playground sessions with a culminating three full-days on low and high ropes elements (Beightol, Jevertson, Carter, Gray, & Gass, 2012). The mixed method study showed limited results in the resilience measurement, but through interviews, students reported valuable experiences and perspective.

Ewert and Yoshino (2011) built their study upon the belief that the components in AE programs corresponded to resilient-enhancing variables, and explored how resilience scores changed through short-term AE experiences, and what participants remembered years later to correspond to the growth on specific items. Participants in the treatment group were members of a three-week expedition. Utilizing previously validated scales, researchers developed a 37-item self-report, and conducted telephone interviews two to three years after the expedition until saturation was reached and six themes emerged. Subjects recalled items relating to perseverance, self-awareness, social support, confidence, responsibility to others, and achievement. This study

extends the emerging research linking resilience to inherent processes of AE programs, and suggests that future research look at the contexts for which AE experiences most prepared people.

Organized Summer Camp Experiences. Organized camping has grown since 1861 to promote youth development and to compliment the benefits of traditional youth programs (ACA, 2006a). Each year an estimated 12 million campers are entrusted to the care of professional camp professionals across the country, putting camps among schools and churches as one of the largest organized interventions for positive youth development (Bialeschki, Henderson, & James, 2007). A community of dedicated camping professionals started the American Camp Association (ACA) in 1910, and it now functions to promote professional training and provide accreditation for camps (ACA, 2006a). The ACA has a focus on continuing research related to the best practices for camps, as well as identifying opportunities to develop strength and resilience in youth (ACA, 2005; 2006a; Henderson, Bialeschki, & James, 2007). Over the last few years several important studies have emerged that greatly impact our knowledge of camp outcome processes and aid in guiding future research and benchmarking.

Over the 2002 and 2003 summer seasons the ACA collected surveys from over 5,000 campers, their parents, and staff at 80 camps nationwide in a pioneering study of camper outcomes. This landmark study provided evidence to support a long held belief that camp is an important, positive force in youth development. As the first in a series of large-scale studies, "Directions", researchers looked at four domains and ten constructs in pre-post and follow up surveys. The multi-responder format showed significant growth in self-esteem, peer relationships, independence, adventure and exploration, leadership, environmental awareness, friendship skills, values and decisions, social comfort, and spirituality (ACA, 2005).

The ACA's next study, "Inspirations" provided benchmarks for program effectiveness by measuring camper perceptions of supports and opportunities believed foundational for developmental success (ACA, 2006a). In 2004, employing Youth Development Systems, Inc. (YDSI) and their Community Action Framework for Youth Development, 7,645 campers were surveyed at 80 ACA camps nationwide. Rather than assessing outcomes, this study assessed variations in type of camp, characteristics of camper, and "developmentally optimal" or "developmentally sub-optimal" camp experiences. Testing four domains and thirteen dimensions, the findings showed that nearly 70% of campers reported "developmentally optimal" levels of support and opportunity at camp, which is significantly higher than that found in youth organizations and schools (40% and 20%, respectively). While camps are known to excel at providing supportive relationships, the findings showed an opportunity for growth in decision making and leadership opportunities, particularly for younger campers.

More recently, ACA staff undertook a study on "Innovations," which involved 23 of the 80 camps from the 2004 study "Inspirations" and utilized YDSI's Program Improvement Process to explore what contributed to quality supports and opportunities for youth to develop at camp (ACA, 2006b). The process addressed changes in nine organizational practice areas across structure, policy, and activities, showing that improvements at all levels increased success rates and satisfaction with efforts to change. The researchers recommended utilizing both camper and staff surveys, as well as continued feedback, to ensure buy-in and to provide involvement with leadership and decision-making around camp.

Across multiple supports and opportunity areas, training helped ensure goals were met. In the area requiring the most growth, staff were challenged to provide more leadership and decision-making opportunities to foster campers' growing sense of independence and

responsibility. This involved the use of more free time, activity choices, program flexibility, and increased youth involvement in planning. While staff found it difficult to improve many opportunities at the same time, improving one area affected others. For example, increasing youth involvement in decision-making increased campers' sense of safety. While some strategies were quick and simple to implement, others required directed attention to staff hiring and training, equipment, facilities, lesson plans, and planning for progressive learning. The best strategies were camp specific, using local feedback to address individualized needs, goals and missions.

In a more recent overview of camp research, Henderson and colleagues (2007) outlined the historical importance of understanding camp processes and outcomes. Their work outlined studies from various camping agencies and The Search Institute, which identified foundational assets for positive development. The assets were then used to help multiple camping organizations develop assessment toolkits to aid in meeting their own goals.

Camp Program Strengths. In 1988, King talked to close to 150 people discussing the role of adventure in experiential learning. Some of the preliminary statements pointed to how all learning is experiential but that several key factors including direct action, use of the five senses, immediate and personal consequences, ownership, perceived risk (often in emotion) uncommon or remarkable activity, and an attempt to reflect are indicative of an adventure experience. The experience is typically in an uncomfortable environment (as perceived by the participant), uses both halves of the brain, and is safe, indicating the participant may be willing to repeat it. It also facilitates emotional reactions, which provide information from which individuals can learn. The instructors' job is to create safe experiences in which the learner can learn (King, 1988).

Camps and positive youth development go hand in hand, because fun accelerates learning and campers are more open to this type of intervention (ACA, 2006a). Residential camp programs immerse children and adolescents in an intentional community, offer full engagement in the learning process, and are important opportunities to experience supportive relationships outside the family (ACA, 2006a). Sibthorp and Morgan (2011) "advocate for adventure-based programming as a model for positive youth development" (p. 105).

As society has demanded more accountability, the ACA has worked to compile information on the efficacy and value of camp experiences (Henderson et al., 2007). Some of the most studied outcomes of group camping experiences are and may be categorized as self-constructs, social relationships, skill building, and spirituality (Bialeschki et al., 2007). A study by ACA staff found that camp programs far exceed community and school programs in providing supportive adult relationships and skill building opportunities for campers, while also providing an intentional community in a natural setting; these elements are commonly viewed as providing a necessary foundation for growth (ACA, 2006a). Additionally, growth may be maintained or further realized in a six-month follow up, with the exception of adventure and exploration levels which reverted to pre-camp levels or below (ACA, 2005).

Bialeschki et al. (2007) noted that camp opportunities seem to accelerate youth development, as youth are receptive to interesting and engaging intervention programs. Camp may be a catalyst for positive youth development. The camp atmosphere provides youth control over their environment, appropriate responsibilities and autonomy, new skills and competencies, and opportunities to make a genuine contribution to their community. Camps may be uniquely suited in their ability to control the culture, let participants get caught up in the excitement, and provide valuable authentic learning opportunities. Campers have often reported that "Camp

teaches you so many things that you use in everyday life" (p. 8). Children gain self-esteem, develop social skills, gain independence and leadership qualities, and become more willing to try new things (ACA, 2005).

Adventure Education Process. The various processes through which individuals cope with and adapt to stressors are similar to models of adventure education and, most notably, the Outward Bound (OB) process. This process "presents the kinds of problems the human being is designed to solve" (Walsh & Golins, 1976, p. 13). Through the OB process participants are taught skills and increasingly challenged to recognize their own resources and overcome through determination, cooperation, and the use of these new skills (Hattie et al., 1997). Many of the components of the Walsh and Golins model are supported through literature related to camp programs, adventure education, and positive youth development. While the complete process has not been empirically validated, individual components have demonstrated importance throughout the literature.

The foundation of Outward Bound (OB) is credited to Kurt Hahn, who believed that we should take from the educational system the things that work and give students opportunities to learn, whether through failure or success. Hahn wanted students to get outside and experience the world directly. He founded a series of schools where students would learn to overcome the declines of modern society. These declines (fitness, initiative, care and skill, self-discipline, and compassion) were fought in his schools through physical fitness training, expeditions, craftsmanship projects, and training in rescue service. Hahn focused the life skills he taught into a short, 28-day course. It was so successful that others urged him to create a shorter version and the program developed into what we now know as Outward Bound (OB).

In 1976, Walsh and Golins mapped the process with which current AE is commonly associated (Sibthorp, 2003). This model of AE includes the primary factors including a motivated learner, unique social and physical environment, characteristic problem-solving tasks, and mastery. Through the process an individual is led toward "reorganizing the meaning and direction of his [*sic*] experience" (Walsh & Golins, 1976, p. 4).

McKenzie (2003) linked many of the AE course components to positive outcomes and offered an updated version of the OB model. Her research supported five specific components most contributing to positive outcomes. These include the physical environment, social environment, course activities, instructors, and service, all of which have played an important role within OB. In an earlier review of the literature McKenzie (2000) suggested that processing and participant characteristics are important contributors to course outcomes.

Characteristics of the learner. Sibthorp (2003) reviewed past studies to demonstrate the proposed relationships between components of the Walsh and Golins OB model and outcomes. Antecedent variables such as demographics and psychographics often impact the benefits an individual receives from a program. While he did not find direct links between the outcomes and the antecedent variables, Sibthorp suggested that perceptions may change enough during the AE program that role of demographics and psychographics in the model is supported.

Age, gender, race, and camp sponsorship all influenced levels of perceived support and opportunity in different ways, and affected various outcomes (ACA, 2006a). Single gender (particularly boys-only) camps provide higher levels of supportive relationships and skill building than do coed camps (ACA). ACA staff also found that independent, for-profit camps were rated highest on overall supportive relationships and skill building, while religiously affiliated camps provided the highest level of perceived safety to campers (2006a).

Insights and connections are held longer when individuals discover lessons for themselves (Stephenson, 2006). Adults, who are potentially in a program with more personal motivation and are looking for personal reassessment, often see greater gains than youth, who may not have chosen to attend (Hattie et al., 1997). The more time campers spent at camp the greater the impact became; this was true for residential campers, returning campers, and youth attending multi-week camp programs (ACA, 2006a). A meta-analysis of adventure programs showed similar results, where programs longer than 20 days showed greater effects than shorter programs (Hattie et al.).

Social Environment. According to King (1988), learning and adventure both place participants into uncomfortable situations with the expectation that they will learn how to react appropriately the next time they are in uncomfortable situations. However, Howden (2012) reported that learning takes place after there is a level of comfort and confidence. A new social environment provides room for youth to "experiment in a microcosm that may not directly affect their other lives" (Sibthorp & Morgan, 2011). A social environment consists of individuals, the group, and leaders. Years after a 28-day OB course, individuals recalled their responsibility to others, and how being responsible for each other helped the group push to achieve their goals. Participants found support from the group to be important to overcoming challenges. "Participants realize that their behaviors have consequences for others and that the group's performance is directly tied to individual action or inaction" (Sibthorp & Morgan, 2011, p. 111).

Sibthorp (2003) found support for the importance of the instructor's role in programing and guiding the experience on group experiences. Staff can help participants learn by processing with a series of open ended questions moving from concrete to abstract and metaphorical (Green et al., 2000). Camp staff can use what was learned from this feedback, reflection, and debriefing

as part of developing intentionality in their programs (Sibthorp & Morgan, 2011). “Camps do not build resiliency, camp staff build resiliency” (Allen et al., 2006, p. 23). Adaptation requires regulatory control, and while peer relationships help individuals regulate in stressful situations, positive adults and community mentors typically model how to self-regulate (Masten & Obradovic, 2008).

Walsh and Golins (1976) described a novel social environment that aids in perspective and generality. The social environment is large enough and small enough to have diverse behavior and conflict, while disallowing cliques and encouraging collaboration, it allows reciprocity. “Camps provide the opportunity for youth to come together, live and work together, build “community” with each other, and relate to adults in a non-competitive, non-graded environment” (ACA, 2006b). Campers need time to adjust to the newness of camp experiences, and their cabin group often becomes a new family (ACA, 2006b). Residential camping offers opportunities to learn about community living, character building, and healthy living. Staff work to create cultures that are positive for every child, providing an inclusive environment with good role models and conflict mediation. The relationship opportunities youth need are at the core of camp experiences (ACA, 2005).

Sibthorp’s (2003) analysis of research on group empowerment, involvement, and relationships support the prescribed social environment and importance of adult relationships for youth development. His research has shown students who felt supported realized greater self-regulation and developmental gains than students who did not. It is important to remember that camp is not inherently good, but that good comes from intentional direction and support from staff (Bialeschki et al., 2007; Henderson et al, 2007). “Supportive relationships consist of adults who make a commitment of time and interest, communicate a positive affect to youth, support

youth's personal responsibility, set clear and consistent expectations, and deliver consequences that promote competence rather than emphasize failure" (ACA, 2006b, p. 6). In recent research, instructors were noted as playing a role in learning participants greatest lessons almost half the time (Sibthorp et al., 2011). Lastly, according to Walsh & Golins (1976), the instructor must facilitate the learning process, restating problems and connecting what is learned throughout the course to real life and individual growth. "No educative experience can stand by itself, no matter how worthwhile" (p. 15).

Henderson et al. (2007) outlined two dimensions of a camp experience: the immediate experience and transference of the experience impacts to one's home life. A truly camper-centered approach with developmentally appropriate activities and challenges are more important to camper growth than camper satisfaction with a camp experience (ACA, 2006b). To facilitate this approach, camp leaders can facilitate open communication among staff and campers; enable increased camper participation in setting rules, consequences, and consistent enforcement; and applying simple and widely applicable rules to help campers understand limits (opportunities and supports; ACA, 2006b).

Physical Environment. The natural environment provides straightforward tasks that must be mastered to be truly successful, and a host of experiential educational opportunities. It provides natural consequences and rules, which "encourage self-awareness and self-responsibility" (Walsh & Golins, 1976, p. 4). These unpredictable challenges typically require that participants modify behaviors and maintain self-control. The challenges of the natural environment are real and necessitate concrete solutions; these demands facilitate participants to utilize their personal strengths and resources to negotiate the new experiences (Hattie et al., 1997). Movement and a combination of senses can increases how much information is taken in,

increasing transference and later implementation (Howden, 2012; Nei, 2003). The logical consequences of outdoor experiences provide lessons that individuals compel individuals to be fully present and ready to learn (Stephenson, 2006).

Characteristic tasks that lead to mastery. In their model, Walsh & Golins (1976) called for adaptive dissonance and the therapeutic use of anxiety to overcome obstacles. Staff introduce problem-solving tasks common to adventure education for incrementally to allow a needs assessment and learner growth. Facilitators help learners to organize tasks and make them concrete, manageable, and consequential—all of which increase concentration and absorption. "The mechanics of back-country expedition uniquely position adventure-based programs to supply an abundance of experiences that are authentically goal relevant, engaging, and challenging to participants" (Sibthorp & Morgan, 2011, p. 110). The characteristic tasks of experiential education engage learners physically, mentally, and socially so that challenges have a greater impact on future actions (Howden, 2012). The holistic nature of outdoor experiences exercises mental, emotional, and physical resources on the cognitive, affective, and psychomotor domains (Walsh & Golins, 1976).

The enquiry/discovery approach to learning represents a cyclical process through questioning, investigating, analyzing, interpreting, understanding, and answering, which often leads to new questions (Hammerman & Priest, 1989). Four learning styles within this approach move from guided learning, where the teacher walks learners through question and answer process; shared learning, where the leader asks questions that lead towards mutual understanding; consultative learning, in which the learners investigate and seek answers that the teacher verifies; and self-learning, in which the participants both ask and answer their own questions. Through this process, the teacher must acknowledge the value of learning from

participant responses and if participants are gaining experience to overcome problems. Through skill mastery, the process aims to induce new attitudes and values that make the learner better equipped for future problems in other settings (Walsh & Golins, 1976).

Adventure Education Outcomes. Hattie et al. (1997) examined adventure-based programs, which often use the Outward Bound style as a program example, in a meta-analysis of 96 studies. The analysis identified the outcomes most influenced by adventure programs, as well as shed light on programmatic differences and processes involved in these outcomes. The authors identified 40 outcomes in categories of leadership, self-concept, academic, personality, interpersonal, and adventuresomeness. The internal assets consisted of independence, confidence, self-efficacy, self-understanding, internal locus of control, social competence, organizational ability, goals, achievement motivation, and decision making (Hattie et al., 1997). Later studies noted perseverance, leadership, self-concept, motivation, and interpersonal skills as being gained through adventure programming (Goldenberg et al., 2005; McKenzie, 2003).

Qualitative interviews have demonstrated the importance of interaction, expeditions, challenges, responsibilities, adaptation to the wilderness setting and unfamiliar environment, success, skills, and group support. (McKenzie, 2003). Using a laddering system to assess the relationship between course attributes, outcomes, and values, Goldenberg, McAvoy, and Klenosky (2005) showed similar results. In their study, participants often attributed learning to interactions and activities like rock climbing or expeditions, campcraft, or course challenges. There is a limited amount of research connecting particular course components with specified outcomes (McKenzie, 2000).

Resilience Scales

Many resilience scales have been developed for varying populations, with limited applicability to adventure education. While existing reviews examine the applicability and quality of resilience measures (Ahern, Kiehl, Sole, & Byers, 2006), the purpose of this section is to review the broad concept of resilience by examining how it is measured, identify common indicators of resilience, and evaluate resilience scales for use in the current study. Scales were included based upon availability of the original literature and general applicability. The included resilience scales demonstrate reasonable reliability and validity, with minor limitations.

The scales emerged to address such issues as usability in recreational settings (Resilience Attitudes and Skills Profile, RASP; Hurtes & Allen, 2001), establishing reference values for resilience (Connor-Davidson Resilience Scale, CD-RISC; Connor & Davidson, 2003), usability in different life stages (Resilience in Midlife, RIM; Ryan & Caltabiano, 2009), a need for more theoretical and uniform methods (Resilience Scale for Adolescents, RSA; Hjemdal et al., 2006), measuring the body's ability to "bounce back" from physical ailment (Brief Resilient Coping Scale, BRCS; Sinclair & Wallston, 2004), and to establish measurement uninfluenced by values of the developed, western culture (Child and Youth Resilience Measure, CYRM-28; Ungar & Liebenberg, 2011).

Many of the questionnaires were developed based upon extensive literature review and adapted from concept analysis of other studies and resilience scales (Baruth & Carroll, 2002; Friborg et al., 2003; Gartland et al., 2011; Ryan & Caltabiano, 2009). The key exceptions to this include the earliest studies, and those aimed at a theoretical understanding. For example, the 1993 study by Wagnild and Young (Resilience Scale, RS) began with a qualitative analysis of older women known to have adapted after stress. The questionnaire included verbatim statements

and although it was originally created and validated only with older women, it aimed for broad applicability and continued to show validity across a variety of populations (Wagnild, 2009). One researcher included characteristics of resilient individuals in family counseling from the qualitative work of a separate study (RASP; Hurtes & Allen, 2001). The CD-RISC augmented the research with a qualitative analysis of Shackleton's famous expedition (Connor & Davidson, 2003), noting that his crew must have shown extreme resilience and were therefore good examples of the trait. Most notably, Ungar and Liebenberg (CYRM-28, 2011) developed a mixed methodology study conducting research at 14 sites in 11 countries. They used qualitative interviews to assess cross-cultural resilience characteristics before they created and tested applicable questions.

Many of the resilience scales utilize a five-point Likert-type scale, where a higher score represents more resilient individuals (Baruth & Carroll, 2002; Connor & Davidson, 2003; Hjemdal et al., 2006). One researcher intentionally created an instrument that used an even numbering system to force choice in one direction or another (RASP, Hurtes & Allen, 2001). The scale developed by Gartland et al. (Adolescent Resilience Questionnaire, ARQ; 2011) left space for comments. In the scales pertaining to adolescents, reading level was taken into consideration and items were reworded to account for vocabulary and conceptual understanding at a younger age level (ARQ; Gartland et al., 2011). Researchers in cross-cultural study read questions aloud to eliminate reading as a barrier to participation (CYRM-28; Ungar & Liebenberg, 2011). The Resilience in Midlife Scale (Ryan & Caltabiano, 2009) consists of questions central to midlife issues, making it more applicable to that age group over others.

Limitations of Commonly Used Scales

While the published resilience scales all showed validity, authors identified limitations and ideas for improvement for the instruments. In each case, validity tested true to the population and study design, and questionnaires vary because of this (Ryan & Caltabiano, 2009; Ungar & Liebenberg, 2011). While the process of developing resilience requires an individual to overcome a major stressor (Luthar et al., 2000), the validation of these studies assumed individuals to be dealing with normal life stress, and no measureable events were tested as examples of being resilient (Connor & Davidson, 2003; Friborg et al., 2003; Hjemdal et al., 2006; Ryan & Caltabiano, 2009). While Ungar and Liebenberg (2011) examined degrees of being "at-risk" they were not uniform in their analysis of that construct. Demographics, when deemed significant, were taken into consideration and as a trend more female participants were involved in studies or responded to surveys than males (Baruth & Carroll, 2002; Ryan & Caltabiano, 2009). Further, research findings suggest that females use social resources in different ways than males, and male participants rely on personal competence for success more so than females (Friborg et al., 2003; Hjemdal et al., 2006; Wagnild & Young, 1993; Werner, 1993). None of the studies included physiological comparisons, although its inclusion in future research was noted (Connor & Davidson, 2003).

Outlying Scales

Several studies stood out for their unique approach to and measurement of resilience. The authors of the cross-cultural Child and Youth Resilience Measure (CYRM-28) found seven factors that contributed to resilience in individuals in the less developed world population. These included access to material resources, relationships, identity, power and control, cultural adherence, social justice, and cohesion (Ungar & Liebenberg, 2011). While content validity was

demonstrated in their methodology, convergent validity was not studied because it would have involved using existing measures and would bring in outside influences.

In 2007 Sun and Stewart assessed a population-based resilience measure for use with children in primary schools. The authors compiled questions from various measurement tools into three separate questionnaires. One was designed for the student, one for a parent or caregiver (mostly mothers responded), and one for the teacher or school worker involved with the child. Through this design they were able to measure the multidimensional aspects of resilience.

Two sets of investigators assessed resilience from a medical standpoint as the ability to "bounce back" or recover after an illness or stressor (Sinclair & Wallston, 2004; Smith et al., 2008). The questionnaires were brief and direct in approaching the ability to deal with or recover from negative health events. Brevity is a known limiting factor in these studies, with the instruments including four and six questions respectively.

Another resilience measure, Ego-Resiliency, is based upon the connection of resiliency to intelligence; it measures Ego-Resilience as a personal characteristic that contributes to the process of resilience (Block & Kremen, 1996). A short questionnaire was administered with standard IQ testing to identify correlations in character and resilient ability. Participants were given an observation-based test to validate and correlate characteristics. The questions were chosen on a conceptual basis stemming from the first author's previous work in Ego-Resiliency. The researchers used a sample from an existing longitudinal study of cognitive and ego development.

Evaluation for Use

After comparing the available resilience scales, an examination of the most commonly used scales helped in selecting the most suitable instrument for use with recreation program outcomes. Of the four most studied scales, Ego-Resiliency (Block & Kremen, 1996) is distinctly different as it connects ego-resiliency to IQ and personality characteristics, and was not considered for use in this study. The Connor-Davidson Resiliency Scale (CD-RISC; Connor & Davidson, 2003), Resilience Scale for Adults (RSA; Friborg et al., 2003), and the Resilience Scale (RS; Wagnild & Young, 1993) were evaluated for their theory, validity, ease of use applicability to recreation programs, and measurement of indicators. These were not originally designed for youth; thus, for the purpose of this study a more commonly used and tested scale was warranted.

The Connor-Davidson Resilience Scale (Connor & Davidson, 2003) evaluates personal qualities as well as the ability to thrive and cope with stress. The authors proposed a resilience scale that is valid and reliable, may create reference values for comparison between the general population and clinical samples, and can help assess responses to treatment. It exhibits validity and utilizes a simple 25-question, self-evaluation loading on five factors—1) personal competence, high standards and tenacity; 2) trust in instincts, tolerance of negative effect, and the strengthening effects of stress; 3) positive acceptance of change and secure relationships; 4) control; and 5) spiritual influences.

The Resiliency Scale for Adults (Friborg et al., 2003) measures protective resources that promote resilience. While the scale exhibits validity, convergent validity was not tested. Dividing the indicators of resilience into dispositional, family cohesion, and external support, the study includes 45 items testing 1) personal competence, 2) social competence, 3) personal

structure, 4) social support, and 5) family coherence. It is an easy to administer test and covers all six indicators of resilience identified earlier in this review.

The Resiliency Scale (RS; Wagnild & Young, 1993) considers resilience a personality characteristic that moderates stress and promotes adaptation. It has demonstrated validity on the widest range of audiences, from the older women on whom it was based through youth populations (Wagnild, 2009). The RS has 25 questions that load on two factors, personal competence and acceptance of self and life (Wagnild & Young, 1993). It also includes other indicators of resilience within those factors, including "self-reliance, independence, determination, invincibility, mastery, resourcefulness, and perseverance" (p. 174), as well as "adaptability, balance, flexibility, and a balanced perspective of life" (p. 175). Through a survey of the databases, it appeared to be the most utilized and validated resiliency scale.

Instruments

For this study, the CD-RISC was chosen for its sensitivity to treatment, previous use with adolescents, and broad utilization in other studies. It has been studied with test-retest reliability, internal consistency, convergent and divergent validity, and shown usefulness in measuring outcomes of various interventions (Connor & Davidson, 2003). Due to the popularity of the scale, there are reference values for youth in the general population as well as Post Traumatic Stress Disorder and Generalized Anxiety Disorder patients. This scale has demonstrated usefulness for quantifying resilience characteristic.

The CD-RISC (Connor & Davidson, 2003) evaluates personal qualities as well as the ability to thrive and cope with stress. As mentioned earlier, the instrument utilizes a simple 25-item questionnaire that includes five factors. For each item, participants are directed to mark a box indicating how much each statement has applied to them over the last month. Ratings vary

on a five-point Likert scale from “not true at all (0)” to “true nearly all the time (4)”. As per the scoring manual, responses were summed for a total possible score of 100.

The Perceived Stress Scale was used to measure the applicability of resilience to the study population (PSS; Cohen, Kamarck & Mermelstein, 1983). The PSS was designed as a self-report measure of how one’s life events are perceived as stressful. It has shown reliability and validity through correlation with existing scales measuring life-events perceived as stressful. For this study, the 10 item version was used (Cohen & Williamson, 1988). Participants responded to questions concerning how they felt over the last month on a five point Likert scale with responses ranging from never (0) to very often (4).

The Activity Quality Assessment (AQA) was created for this study to rate skills, trips, and program activities offered at the camp on ten qualities. The selected qualities being rated were derived from the literature as being commonly associated with AE experiences (interaction with nature, perceived risk, natural consequences, actively engaging, novel, progressive, holistic, relatable, recognizable challenges, and collaboration). After reading a description of each quality, respondents were asked to rate each activity on level of adventuresomeness on a scale of 1 (much less than average) to 5 (much more than average). Responses for each activity and quality were averaged.

A Counselor Intentionality Survey (CIS) was created specifically for this study to ascertain the level of intentionality of camp staff on behaviors to enhance camper development. The questionnaire asked about age and experience, and included fourteen items relating to camper experiences, and common practices in youth development and AE. Counselors were asked how often they engaged in various behaviors and types of communication with campers; the variables had been identified in the literature as facilitators to the development of resilience.

Items included modeling good character, facilitating learning and growth, and camper interactions with nature. Counselors rated themselves on demonstrating skills or providing experiences in the last 48 hours. Responses were placed on a five point Likert scale ranging from rarely or never (1) to almost all of the time (5).

Methodology

Pre- and post- camp surveys assessed camper resilience, demographics, and experiences relating to involvement in adventure education programs. Staff surveys provided a basis to establish program integrity by measuring counselors' intentionality in key instructional areas. Camp staff assisted in determining which activity areas were included as indicative of adventure education experiences.

The pre-camp instrument included demographic information, frequency of past and present skill-based activity participation, and five questions to assess expectations of camp; examples include, "I want to make new friends at camp" or "I'm not sure I'm ready for camp". Participants were asked to respond on a five point Likert-scale ranging from (1) not true at all to (5) completely true. Both surveys included questions asking about who completed the survey (camper or parent), how much help was received from an adult in the home, and ease of understanding the items.

Campers were asked about their skill levels in various camp activities by rating how often they participated in a skill area at camp; choices were none, 1-2 times, or 3 or more times. They were also asked if they had participated in each skill as one of their four self-chosen skill areas at camp. In addition, a fifteen-item instrument was created to address areas identified through the literature as important to resilience. These included camper desires and experiences such as wanting to try new things, involvement in decision-making, perceptions of counselor support,

facing challenges, and talking about activities. Participants were asked to respond to these items on a five-point Likert scale ranging from (1) never to (5) almost all of the time.

Data Cleaning

Participants were asked to enter a unique user name to enable matching of pre- and post-camp surveys. Campers did not follow instructions and the researchers were able to match very few pre- and post- camp surveys. Thus, time stamps from the e-mail collection process were matched to the pre-camp survey responses and self-selected user names. E-mail addresses were then matched to post-camp user name. Next, pre- and post- camp responses were matched and given a unique identifying number. Data were imported to the Statistical Package for Social Sciences (SPSS) for analysis.

Variables containing old identifiers, time stamps, non-response items, or which contained no responses were removed from the study sample. Items concerning past skill and activity participation were removed as they did not directly address the research questions and no longer held theoretical value to the study. In addition, one participant was 17 years of age and part of the camp "catalyst leadership" training program; he was eliminated from the data set.

The PSS results were uploaded into Excel and the negatively worded items were reverse coded (e.g., 0=4, 3=1). The final PSS scores were categorized as a new variable in SPSS. Following instructions, CD-RISC scores were calculated by summing the 25 response values and change scores were calculated by subtracting the pre-test score from the post-test score. The change score was categorized as a new variable in SPSS.

Five campers did not indicate that they had participated in any skill areas while at camp (all campers must participate in four areas), four youth responded with fewer than the required four skill areas, and an additional nine responded indicating that they had participated in five or

more skills, which was not possible given the camp structure. The camp maintained a database that included information about the skill areas in which campers participated in any given session. Thus, we used the supplied e-mail addresses and verified the campers' skill choices. Three e-mail addresses were not in the camp database, but were easily matched to camper last names. Two respondents did not have matching e-mail addresses in the system and were eliminated from the study. To confirm accurate pre- and post- camp matching, five participants were selected using systematic random sampling and their skills were verified with the camp database. All of those selected responded accurately to skill selection.

Respondents indicating that a parent/guardian, rather than the camper completed the survey were eliminated from further analysis (n=4). Additionally, one participant did not complete the CD-RISC and was excluded from analysis. Fifty participants completed both pre- and post- camp surveys. Due to the elimination of surveys completed by parents and those with incomplete resilience or skill responses, 42 surveys were available for further analysis.

Results

Demographics

The majority of participants (69.1%) were 11 or 12 years old, with the oldest being 16 years old. Most survey participants attended camp during the second (42.9%) and third (45.2%) two-week summer sessions, which was expected given the survey release dates. A small number of participants attended camp during the first, or first and second sessions (11.9%). Thirty participants had been to camp before (71.4%), and 34 (81%) knew at least one other camper in their camp session (see Table 1 for complete demographic data).

When asked how easy the survey was to understand, at the pre-test, 32 participants (76.1%) responded between *Somewhat Easy* and *Very Easy*. Post-camp responses were similar (*n*

= 30, 71.5%). When asked how much help was received in completing the survey, six participants (14.3%) responded *Help on most of the items* pre-camp, and only four participants (9.5%) received this level of help post-camp. The remaining respondents received no help, or help on only one or two items (see Table 2).

Camper Expectations and Experiences

The survey addressed camper expectations and experiences. On a scale of 1-5, with 5 representing *completely true, c*ampers' indicated they *want to learn new skills at camp* ($\bar{x}$ = 4.69, SD = 0.47), and *can't wait to get there* ($\bar{x}$ = 4.61, SD = 0.63). A more detailed overview of expectations is in Table 3. Average camp experiences ranged from 3.98 to 4.88, indicating that camper experiences aligned with the qualities identified through the literature as important for development. Results indicated that the camp program included opportunities identified as being important for fostering resilience in an adventure setting (see Table 4).

Counselor Intentionality

Results of the Counselor Intentionality Survey indicate the average age of counselors was 21.14 (*SD* = 2.84) years, with an average 2.19 (*SD* = 1.93) years of experience in this or similar programs (see Table 5). Overall, counselors reported engaging in only four of the intentionality items less than "often" (4). These included *using* "*describe label praise*" ($\bar{x}$ = 3.12, *SD* = 1.06); *Introducing tasks incrementally* ($\bar{x}$ = 3.54, *SD* = 0.87); *activities were organized to arouse curiosity* ($\bar{x}$ = 3.64, *SD* = 0.85); and *we took time to talk about what we've learned* ($\bar{x}$ = 3.87, *SD* = 0.95). Ratings for the other ten items ranged from 4.00 to 4.52, indicating that counselors reported demonstrating the skills often or almost all of the time over the 48 hours before the survey was administered. This supports the idea that counselors were integrating these important qualities into the program.

When examining responses by cabin age groups, the counselors with the younger groups responded just under "often" (4) for *I utilized teachable moments* ($\bar{x}$ = 3.76, SD = 0.99), *activities had natural consequences* ($\bar{x}$ = 3.83, SD = 0.80) and *camper challenges were easily identifiable* ($\bar{x}$ = 3.93, SD = 0.84).

Using independent samples t-tests the Counselor Intentionality Survey responses were analyzed by time and by age group. Only one item changed significantly as a factor of time, where *modeled good character for campers* measured during the B2 session ($\bar{x}$ = 4.54, SD = 0.56) and C session, the last two weeks of the summer ($\bar{x}$ = 4.17, SD = 0.66); t (64) = 2.46, p = 0.02. In this instance, responses indicated that counselors reported that they used the sought-after behaviors at least "often". When counselor responses were compared by age groups with which they worked, *utilized teachable moments* differed significantly; worked with younger campers ($\bar{x}$ = 3.76, SD = 0.99), and worked with oldest campers ($\bar{x}$ = 4.26, SD = 0.75); t (61) = -2.31, p = 0.02.

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Tables

Table 1

Demographic information. (N = 42)

Demographic	Frequency	Percentage*
Age		
11-12	29	69.1
13-14	12	28.6
16	1	2.4
Has been to camp before		
Yes	30	71.4
No	12	28.6
Years at this camp		
1	0	0
2	10	23.8
3	6	14.3
4	5	11.9
5	4	9.5
Knows other campers		
Yes	34	81.0
No	8	19.0
Number of other campers known		
1-2	15	35.7
3-4	7	16.7
5 or more	10	23.8

Table 2

Level of Survey Understanding. (N = 42)

	Pre-Camp		Post-Camp	
Item	Frequency	Percentage*	Frequency	Percentage*
Ease of understanding				
Very Difficult	1	2.4	0	0
Difficult	2	4.8	1	2.4
Somewhat Difficult	3	7.1	6	14.3
Neutral	4	9.5	5	11.9
Somewhat Easy	8	19.0	6	14.3
Easy	19	45.2	13	31.0
Very Easy	5	11.9	11	26.2
How much help was received				
None	21	50.0	25	59.5
Help on one or two items	15	35.7	13	31.0
Help on most of the items	6	14.3	4	9.5

Table 3

Camper expectations—Pre-camp. (N* = 41; N = 42)

Item	$\bar{x}$	SD
I'm not sure I'm ready for camp	1.64	1.12
I'm excited, can't wait to get there*	4.61	0.63
I'm going because my parents want me to	1.69	1.14
I want to make new friends at camp	4.64	0.53
I want to learn new skills at camp	4.69	0.47

Table 4

Camper experiences—Post-camp. (N = 42)

Item	$\bar{x}$	SD	*Range*
I wanted to try new things at camp	4.38	0.76	3
I learned more by being away from home	4.40	0.67	2
I took responsibility for myself at camp	4.67	0.57	2
I was involved in decision making at camp	4.33	0.79	3
I learned how to solve problems with my friends	4.33	0.72	2
I supported my group members in our activities	4.43	0.67	2
I used my mind, body, and spirit in our activities	4.50	0.63	2
The activities fit my goals and interests	4.36	0.66	2
I learned things that will help me after camp	4.45	0.63	2
My counselor was supportive of me	4.88	0.33	1
Challenges were difficult, but solvable	4.29	0.64	2
Challenges got harder as my skills improved	3.98	0.90	3
When I didn't do well, someone helped me figure out how to improve	4.19	0.67	2
I would enjoy coming to camp again	4.62	0.73	2
My group talked about activities we had completed	4.02	0.95	3

Table 5

Counselor Intentionality N = 67 (over two sessions)

Item	N	$\bar{x}$	SD
Built relationships with campers	67	4.52	0.59
Utilized teachable moments	67	4.07	0.89
Facilitated learning and growth	66	4.24	0.61
Modeled good character for campers	66	4.38	0.63
I gave campers opportunities to make choices	66	4.06	0.76
I used “describe label praise”	66	3.12	1.06
Introduced tasks incrementally	65	3.54	0.87
Activities were organized to arouse curiosity	66	3.64	0.85
Activities had natural consequences	65	4.00	0.81
Camper challenges were easily identifiable	67	4.00	0.78
Camp experience was holistic (mind/body/spirit)	67	4.34	0.62
Campers interacted with nature	67	4.34	0.62
Campers were actively engaged in learning	66	4.11	0.68
We took time to talk about what we’ve learned	67	3.87	0.95

Table 6

Paired sample t-test of pre- and post-camp CD-RISC scores, by item. (N = 42)

Item	Pre-Camp		Post-Camp				95% CI	
	$\bar{x}$	SD	$\bar{x}$	SD	t(41)	p	UL	LL
1. Able to adapt to change	3.17	0.73	3.40	0.70	-1.88	0.07	-0.49	0.02
2. Close and secure relationships	3.36	0.69	3.52	0.67	-1.64	0.11	-0.37	0.04
3. Sometimes fate or God can help	2.90	1.03	3.31	0.75	-2.59	0.01*	-0.72	-0.09
4. Can deal with whatever comes	2.76	0.76	3.05	0.70	-2.22	0.03*	-0.55	-0.03
5. Past success gives confidence for new challenge	3.31	0.68	3.52	0.55	-1.94	0.06	-0.44	0.01
6. Can see the humorous side of things	2.90	0.93	3.07	0.92	-1.15	0.26	-0.46	0.13
7. Coping with stress strengthens	2.20	0.84	2.93	0.72	-4.37	0.00*	-1.07	-0.40
8. Tend to bounce back after illness or hardship	3.26	0.83	3.38	0.73	-0.84	0.41	-0.41	0.17
9. Things happen for a reason	3.38	0.91	3.26	0.94	0.84	0.41	-0.17	0.41
10. Best effort no matter what	3.00	0.80	3.14	0.65	-1.14	0.26	-0.40	0.11
11. You can achieve your goals	3.29	0.74	3.29	0.71	0.00	1.00	-0.23	0.23
12. When things look hopeless, I don't give up	3.05	0.76	3.02	0.75	0.21	0.84	-0.21	0.26
13. Know where to turn for help	3.05	0.85	3.12	0.67	-0.65	0.52	-0.29	0.15
14. Under pressure, focus and think clearly	2.71	0.94	2.93	0.87	-1.42	0.16	-0.52	0.09
15. Prefer to take the lead in problem solving	2.98	0.81	3.10	0.82	-0.96	0.34	-0.37	0.13
16. Not easily discouraged by failure	2.63	1.11	3.10	0.86	-3.12	0.00*	-0.76	-0.16
17. Think of self as strong person	2.73	0.95	3.15	0.76	-3.30	0.00*	-0.67	-0.16
18. Make unpopular or difficult decisions	2.81	0.77	2.81	0.77	0.00	1.00	-0.24	0.24
19. Can handle unpleasant feelings	2.81	0.77	2.88	0.77	-0.62	0.54	-0.31	0.16
20. Have to act on a hunch	2.81	0.83	2.83	0.82	-0.17	0.87	-0.31	.264
21. Strong sense of purpose	3.19	0.83	3.33	0.72	-1.29	0.21	-0.37	0.08
22. In control of your life	3.14	0.75	3.12	0.80	0.23	0.82	-.188	0.24
23. I like challenges	3.17	0.82	3.10	0.79	0.68	0.50	-0.14	0.28
24. You work to attain your goals	3.14	0.93	3.17	0.88	-0.17	0.87	-0.31	0.26
25. Pride in your achievements	3.60	0.54	3.52	0.71	0.72	0.47	-0.13	0.27

Note. CI = confidence interval; LL = lower limit; UL = upper limit. * $p \leq .05$

Appendix B Letter of Support

A SUMMER OF ADVENTURE...A LIFETIME OF VALUES

May 21, 2013

Sharon E. Tessneer
Department of Recreation and Leisure Studies
East Carolina University
Greenville, NC 27858

Dear Miss Tessneer,

Camp Rockmont for Boys is pleased to be working with you on the evaluation of our summer camp program and its effectiveness at increasing youth's capacity for resilience. As part of this effort, Rockmont will allow you access to names and email addresses within our CampMinder system for the purpose of contacting parents of enrolled campers. You will have access to that database as a Rockmont employee. You are asked to keep all personal information, including contact information, as well as all individual research data (i.e. any one camper's survey input) confidential so that the research in no way affects a camper's experience this summer or violates their expectations of privacy. We will also support your efforts to survey staff members and study how their level of intentionality affects camper resiliency.

We expect that this project will strengthen the way we present our mission to others. We strongly believe that the camp experience builds a number of non-cognitive skills within our youth, resiliency being one of the more noticeable and more valuable skills. The camp setting provides an especially opportune environment for the development of resiliency. Your research will help refine the way we speak about building resiliency so that we are speaking from a firmer research base.

We are grateful that you are partnering with us, and we look forward to supporting you along the way. Please let us know how we may be of assistance throughout your project.

Sincerely,

Dan

Dan Davis
Director

Glad you'll be working with us this summer!

375 Lake Eden Road • Black Mountain, North Carolina 28711 • Phone: (828) 686-3885 • www.rockmont.com

Appendix C: Institutional Review Board Approval

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · **www.ecu.edu/irb**

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB
To: Sharon Tessneer
CC:
Deb Jordan
Date: 6/25/2013
Re: UMCIRB 13-001146
Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) is for the period of 6/25/2013 to 6/24/2014. The research study is eligible for review under expedited category #7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Name	Description
Cabin Counselor.docx	Surveys and Questionnaires
Camper post.docx	Surveys and Questionnaires
Camper pre.docx	Surveys and Questionnaires
data collection, consent.assent, and security outlines.docx	Additional Items
LIFE INOCULATION 4.0.docx	Study Protocol or Grant Application
Online consent.assent.docx	Consent Forms
Parent consent e-mail, pre, pre-reminder, post, post-reminder.docx	Consent Forms
Program Staff.docx	Surveys and Questionnaires
Staff cover letter, consent information.docx	Consent Forms

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

Appendix D: Parent Emails, Counselor and Staff Cover Letters

Pre-camp, Parent, First Contact E-mail

A SUMMER OF ADVENTURE...A LIFETIME OF VALUES

East Carolina UNIVERSITY

Dear *parent*

This summer, Camp Rockmont has partnered with the Department of Recreation and Leisure Studies at East Carolina University to better understand how camp experiences help children grow, and develop the capacity for resilience. We are inviting your child to participate in this **research** study, titled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences". It is hoped that this information will assist us to better understand what parts of the camp experience help young people develop the capacity for resilience, and allow us to share our program strengths with other camping professionals.

The goal is to survey 500 individuals at Camp Rockmont in the weeks before and days right after camp. The survey will take approximately 10-20 minutes to complete each time. As a **thank you** for participating, campers who complete both surveys will be sent a link to the photo slideshows from each summer session. Each slide show is typically presented to campers the last night of camp, and then mailed out on a DVD closer to Christmas. By participating in this research study and completing both surveys, they will have **exclusive, early access** to this great collection of camp memories.

In order for your child to participate, you must follow the link below to provide your **consent**. The format will then ask your son to agree to the process before continuing on to the survey. The survey is **confidential** and you will be asked to create a unique ID to match your son's two surveys from before and after camp. After completing the survey, you will be redirected and asked to provide an e-mail address. This information will not be part of your son's survey, and will only be used to ensure you receive the post-camp survey and slideshow link. While you may wish to supervise your child's participation in the survey, it is important that your child answer as much as possible from his perspective, and that his responses reflect his own, honest opinions.

Participation in the research is **voluntary**. Your son may choose not to answer any or all questions, and may stop at any time. There is **no penalty for not taking part** in this research study and it will not change his experience at camp. Please call Dr. Deb Jordan, Department Chair of the Department of Recreation and Leisure Studies at 252-737-2990 for any research related questions; you may also contact the Office for Human Research Integrity (OHRI) at 252-744-2914 for questions about your child's rights as a research participant. In addition, you may also contact Camp Rockmont directly at 828-686-3885 with any questions.

If you would like to participate, please follow the link to give consent for your child to participate.

survey link

Looking forward to seeing you at camp!
-The Rockmont Gang

Pre-camp, Parent, Reminder E-mail

Dear *parent*
We are writing to remind you of the opportunity for your child to participate in a research study about Camp Rockmont. The survey will take 10-20 minutes of their time, and as a thank you they will be eligible to receive exclusive, early access to a photo slideshow from their camp session.

This summer, Camp Rockmont has partnered with the Department of Recreation and Leisure Studies at East Carolina University to better understand how camp experiences help children grow, and develop the capacity for resilience. We are inviting your child to participate in this **research** study, titled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences". It is hoped that this information will assist us to better understand what parts of the camp experience help young people develop the capacity for resilience, and allow us to share our program strengths with other camping professionals.

The goal is to survey 500 individuals at Camp Rockmont in the weeks before and days after camp. The survey will take approximately 10-20 minutes to complete each time. As a **thank you** for participating, campers who complete both surveys will be sent a link to the photo slideshows from each summer session. Each slide show is typically presented to campers the last night of camp, and then mailed out on a DVD closer to Christmas. By participating in this research study and completing both surveys, they will have **exclusive, early access** to this great collection of camp memories.

In order for your child to participate, you must follow the link below to provide your **consent**. The format will then ask your son to agree to the process before continuing on to the survey. The survey is **confidential** and you will be asked to create a unique ID to match your son's two surveys from before and after camp. After completing the survey, you will be redirected and asked to provide an e-mail address. This information will not be part of your son's survey, and will only be used to ensure you receive the post-camp survey and slideshow link. While you may wish to supervise your child's participation in the survey, it is important that your child answer as much as possible from his perspective, and that his responses reflect his own, honest opinions.

Participation in the research is **voluntary**. Your son may choose not to answer any or all questions, and may stop at any time. There is **no penalty for not taking part** in this research study and it will not change his experience at camp. Please call Dr. Deb Jordan, Department Chair of the Department of Recreation and Leisure Studies at 252-737-2990 for any research related questions; you may also contact the Office for Human Research Integrity (OHRI) at 252-744-2914 for questions about your child's rights as a research participant. In addition, you may also contact Camp Rockmont directly at 828-686-3885 with any questions.

If you would like to participate, please follow the link to give consent for your child to participate.
survey link
Looking forward to seeing you at camp!
-The Rockmont Gang

Post-camp, Parent, First Contact/Reminder E-mail

Dear *parent*

This summer, Camp Rockmont has partnered with the Department of Recreation and Leisure Studies at East Carolina University to better understand how camp experiences help children grow, and develop the capacity for resilience. Earlier this summer, your child completed the first of two surveys in this **research** study, titled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences". This second survey should be completed shortly after returning from camp, within the first 72 hours. It is hoped that this information will assist us to better understand what parts of the camp experience help young people develop the capacity for resilience, and allow us to share our program strengths with other camping professionals.

Our goal is to survey at least 500 campers at Camp Rockmont in the weeks before and days after camp. Now that your child has returned from camp, we are inviting them to fill out the second survey for an exclusive, early access link to the photo slideshows from each summer session. Each slide show is typically presented to campers the last night of camp, and then mailed out on a DVD closer to Christmas. By participating in this research study and completing this second survey **within the next three days**, you will receive a link to this great collection of camp memories.

In order for your child to participate, you must follow the link below to renew your **consent**. The format will then ask your son to agree to the process before continuing on to the survey. The survey is **confidential** and you will be asked to include the unique ID you created for the first survey to match to this second survey. We recommended that you use the first three letters of your son's middle name and the last four digits of your phone number as the unique ID. Participation in the research is **voluntary**. Your son may choose not to answer any or all questions, and may stop at any time. There is **no penalty for not taking part** in this research study and it will not change any future experiences at camp.

If you would like to participate, please follow the link to renew consent for your child to participate. While you may wish to supervise your child's participation in the survey, it is important that your camper answer as much as possible from his perspective, and that his responses reflect his own, honest opinions. *survey link*

Please call Dr. Deb Jordan, Department Chair of the Department of Recreation and Leisure Studies at 252-737-2990 for any research related questions; you may also contact the Office for Human Research Integrity (OHRI) at 252-744-2914 for questions about your child's rights as a research participant. In addition, you may also contact Camp Rockmont directly at 828-686-3885 with any questions.

-The Rockmont Gang

Post-camp, Parent, Reminder E-mail

Dear *parent*
We are writing to remind you of the opportunity for your child to participate in a research study about Camp Rockmont. The survey will take 10-20 minutes of their time, and as a thank you they will receive exclusive, early access to a photo slideshow from their camp session. Please have your son complete the survey as soon as possible, as the survey period will close on Friday.

This summer, Camp Rockmont has partnered with the Department of Recreation and Leisure Studies at East Carolina University to better understand how camp experiences help children grow, and develop the capacity for resilience. Earlier this summer, your child completed the first of two surveys in this **research** study, titled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences". This second survey should be completed shortly after returning from camp, and within the first 72 hours. It is hoped that this information will assist us to better understand what parts of the camp experience help young people develop the capacity for resilience, and allow us to share our program strengths with other camping professionals.

Our goal is to survey at least 500 campers at Camp Rockmont in the weeks before and days after camp. Now that your child has returned from camp, we are inviting them to fill out the second survey for an exclusive, early access link to the photo slideshows from each summer session. Each slide show is typically presented to campers the last night of camp, and then mailed out on a DVD closer to Christmas. By participating in this research study and completing both surveys, you will receive a link to this great collection of camp memories.

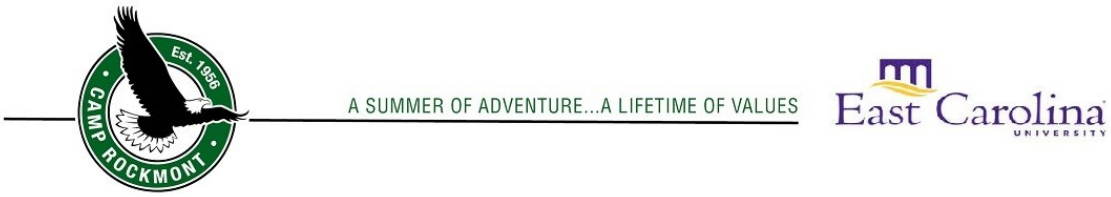
In order for your child to participate, you must follow the link below to renew your **consent**. The format will then ask your son to agree to the process before continuing on to the survey. The survey is **confidential** and you will be asked to include the unique ID you created for the first survey to match to this second survey. We recommended that you use the first three letters of your son's middle name and the last four digits of your phone number as the unique ID. Participation in the research is **voluntary**. Your son may choose not to answer any or all questions, and may stop at any time. There is **no penalty for not taking part** in this research study and it will not change any future experiences at camp.

If you would like to participate, please follow the link to renew consent for your child to participate. While you may wish to supervise your child's participation in the survey, it is important that your camper answer as much as possible from his perspective, and that his responses reflect his own, honest opinions. *survey link*

Please call Dr. Deb Jordan, Department Chair of the Department of Recreation and Leisure Studies at 252-737-2990 for any research related questions; you may also contact the Office for Human Research Integrity (OHRI) at 252-744-2914 for questions about your child's rights as a research participant. In addition, you may also contact Camp Rockmont directly at 828-686-3885 with any questions.

-The Rockmont Gang

Post-camp, Thank You E-mail



Thank you for participating in the survey, below you will find the link to the Camp Rockmont photo slideshow.

Link to Slideshow

-The Rockmont Gang

Counseling Staff Cover Letter, Intentionality Survey

Because of your role here at Camp Rockmont, you are being invited to participate in a **research** study titled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences" being conducted in partnership with the Department of Recreation and Leisure Studies at East Carolina University. The survey will take approximately 5 minutes to complete, and will be administered twice over the summer.

These surveys are being used as part of our larger research project to verify the level of intentionality among staff, which contributes to the growth and resilience of our campers. It is hoped that this information will assist us to better understand how our staff members foster resilience in campers. It may also allow you to see areas for further professional growth.

The survey is anonymous, so please do not write your name on it. Camp Rockmont will not have access to any results until after the camp season, and only aggregate data will be available for their review. Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is **no penalty for not taking part** in this research study and neither participation nor your answers may affect your job status. Please call Dr. Deb Jordan, Chair of the Department of Recreation and Leisure Studies at ECU at 252-737-2990 for any research related questions or the ECU Office for Human Research Integrity (OHRI) at 252-744-2914 for questions about your rights as a research participant. You may also direct questions to Sharon Tessneer directly.

Taking the time to honestly reflect on how well we do our jobs will help each of us grow and develop individually, and as a whole. If you wish to participate, please fill out the form on the next page and return it to the envelope along with the other surveys. If you do not wish to participate, or wish to stop, you may return the form incomplete.

Thank you for your participation and commitment here at camp,

-The Research Team

Program Staff Cover Letter, Activity Quality Inventory

Because of your role here at Camp Rockmont, you are being invited to participate in a **research** study titled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences" being conducted in partnership with the Department of Recreation and Leisure Studies at East Carolina University. The survey will take approximately 30 minutes to complete.

A small number of these questionnaires are being used as part of our larger research project to collaboratively identify which activities have higher levels of the aspects of adventure education being studied. It is hoped that this information can accurately portray qualities of our program that may be beneficial to campers.

As part of the larger study, it will help in comparing which aspects are related to larger growth in camper's resilience ratings. It may also help you see areas where different programs could improve. No identification information will be attached to the questionnaire.

It is important that your responses reflect your own understanding and reflection upon the different aspects being studied. These will later be averaged for use in the study. Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is **no penalty for not taking part** in this research study and it will not affect your job status.

Please call Dr. Deb Jordan, Chair of the Department of Recreation and Leisure Studies at ECU at 252-737-2990 for any research related questions or the ECU Office for Human Research Integrity (OHRI) at 252-744-2914 for questions about your rights as a research participant. You may also direct questions to Sharon Tessneer directly.

If you wish to participate, please follow the directions on the following page, and return the instrument to Sharon Tessneer in the envelope provided.

Thank you for your participation and commitment here at camp,

-Sharon Tessneer

Appendix E: Instruments

Camper, Pre-Camp Survey

Please create a unique ID for this camper that you will remember at the end of camp. As a suggestion, you could use the first three letters of his middle name, and the last four digits of a phone number. If there is no middle name you may use XXX. This ID will need to be entered again after camp to match the two surveys so it is important that you create an ID that you will remember.

As parent/guardian, I hereby allow my child to participate in the research study entitled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences", and allow him to complete the following survey.

☐ Yes, my child may participate
☐ No, I do not want my child to participate (Skip Logic to end of survey)

TO THE CAMPER:

Camp Rockmont is asking you to participate in a research study with East Carolina University to learn more about how camp helps young people grow into strong adults. We hope to learn more about what parts of your time at camp help you the most, and how we can make camp even better in the future. You have been chosen because of your age, and you are one of about 500 campers in the study. You will be asked to fill out two short surveys, one before camp, and another within three days after camp. The surveys will ask simple questions about you and your time at camp. It should take 10-20 minutes each time, and will be done online.

If you finish both surveys, you will get early access to the photo slideshow from Camp Rockmont. This is normally mailed out close to Christmas, but campers who finish both surveys will get it right away. If you finish this first survey, another will be e-mailed to your parents after camp, and you will get the slideshow link when you finish the second survey.

Your answers to the survey will not be kept with your name, and no one will know which answers are yours. If you do not wish to finish the survey, or wish to stop later, you can skip questions or stop. Camp will not know if you filled out the survey, and it will not change your experience at Camp. Please answer honestly; it is important to the success of the research.

If you have any questions, you may contact Dr. Deb Jordan (252-737-2990), Camp Rockmont (828-686-3885), or the East Carolina University Office for Human Research Integrity (OHRI) at 282-744-2914.

By clicking "yes, I agree to participate" below, you agree to participate in this research study.

☐ Yes, I agree to participate
☐ No, I do not wish to participate (Skip Logic to end of survey)

*For each item, please mark the box below that best indicates how much you agree with the following statements as they apply to you over the last **month**. If a particular situation has not occurred recently, answer according to how you think you would have felt.*

		not true at all (0)	rarely true (1)	sometimes true (2)	often true (3)	true nearly all the time (4)
1.	I am able to adapt when changes occur.	☐	☐	☐	☐	☐
2.	I have at least one close and secure relationship that helps me when I am stressed.	☐	☐	☐	☐	☐
3.	When there are no clear solutions to my problems, sometimes fate or God can help.	☐	☐	☐	☐	☐
4.	I can deal with whatever comes my way.	☐	☐	☐	☐	☐
5.	Past successes give me confidence in dealing with new challenges and difficulties.	☐	☐	☐	☐	☐
6.	I try to see the humorous side of things when I am faced with problems.	☐	☐	☐	☐	☐
7.	Having to cope with stress can make me stronger.	☐	☐	☐	☐	☐
8.	I tend to bounce back after illness, injury, or other hardships.	☐	☐	☐	☐	☐
9.	Good or bad, I believe that most things happen for a reason.	☐	☐	☐	☐	☐
10.	I give my best effort no matter what the outcome may be.	☐	☐	☐	☐	☐
11.	I believe I can achieve my goals, even if there are obstacles.	☐	☐	☐	☐	☐
12.	Even when things look hopeless, I don't give up.	☐	☐	☐	☐	☐
13.	During times of stress/crisis, I know where to turn for help.	☐	☐	☐	☐	☐
14.	Under pressure, I stay focused and think clearly.	☐	☐	☐	☐	☐
15.	I prefer to take the lead in solving problems rather than letting others make all the decisions.	☐	☐	☐	☐	☐

16.	I am not easily discouraged by failure.	☐	☐	☐	☐	☐
17.	I think of myself as a strong person when dealing with life's challenges and difficulties.	☐	☐	☐	☐	☐
18.	I can make unpopular or difficult decisions that affect other people, if it is necessary.	☐	☐	☐	☐	☐
19.	I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	☐	☐	☐	☐	☐
20.	In dealing with life's problems, sometimes you have to act on a hunch without knowing why.	☐	☐	☐	☐	☐
21.	I have a strong sense of purpose in life.	☐	☐	☐	☐	☐
22.	I feel in control of my life.	☐	☐	☐	☐	☐
23.	I like challenges.	☐	☐	☐	☐	☐
24.	I work to attain my goals no matter what roadblocks I encounter along the way.	☐	☐	☐	☐	☐
25.	I take pride in my achievements.	☐	☐	☐	☐	☐

The questions in this scale ask you about your feelings and thoughts during the last month. In each case you will be asked to indicate by marking how often you felt or thought a certain way.

		Never (0)	Almost Never (1)	Sometimes (2)	Fairly Often (3)	Very Often (4)
1.	In the last month, how often have you been upset because of something that happened unexpectedly?	*0*	*1*	*2*	*3*	*4*
2.	In the last month, how often have you felt that you were unable to control the important things in your life?	*0*	*1*	*2*	*3*	*4*
3.	In the last month, how often have you felt nervous and "stressed"?	*0*	*1*	*2*	*3*	*4*
4.	In the last month, how often have you felt confident about your ability to handle your personal problems?	*0*	*1*	*2*	*3*	*4*
5.	In the last month, how often have you felt that things were going your way?	*0*	*1*	*2*	*3*	*4*
6.	In the last month, how often have you found that you could not cope with all the things that you had to do?	*0*	*1*	*2*	*3*	*4*
7.	In the last month, how often have you been able to control irritations in your life?	*0*	*1*	*2*	*3*	*4*
8.	In the last month, how often have you felt that you were on top of things?	*0*	*1*	*2*	*3*	*4*
9.	In the last month, how often have you been angered because of things that were outside of your control?	*0*	*1*	*2*	*3*	*4*
10.	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	*0*	*1*	*2*	*3*	*4*

Which camp program are you attending? (Check all that apply)

☐ A: June 9 - June 28
☐ A2: June 16 - June 28
☐ B: June 30 - July 26
☐ B1: June 30 - July12
☐ B2: July 14 - July26
☐ C: July 28 - August 9
☐ Catalyst Leadership

Have you been to a summer session at Camp Rockmont in the past?

☐ No
☐ Yes

Including this year, how many years have you come to Camp Rockmont? (dropdown)
1, 2,3,4,5,6,7,8,9,10

What activities have you signed up for in PAST summer sessions? Check all that apply:
(Multiple response)

☐ Archery	☐ Fly Fishing	☐ Photography	☐ Stroke Development
☐ Basketball	☐ Fly Tying	☐ Riflery	☐ Swim-Tri Training
☐ Blacksmithing	☐ Guitar	☐ Rock Climbing	☐ Swim with the Lifeguards
☐ Canoeing	☐ Homesteading	☐ Rocketry	☐ Swim Sports
☐ Ceramics	☐ Horseback Riding	☐ Sailing/SUP	☐ Table Games
☐ Crafts	☐ Kayaking	☐ Soccer	☐ Tennis
☐ Disc Sports	☐ Lacrosse	☐ Swim Basics	☐ Trap Shooting
☐ Field Sports	☐ Nature	☐ Bible Study	☐ Yard Games
☐ Fitness for Life	☐ Outdoor Skills	☐ Mile Swim	☐ Solo 14

What 4 activities or trips are you signed up for THIS summer?
(Multiple response)

☐ Archery	☐ Fly Fishing	☐ Photography	☐ Stroke Development
☐ Basketball	☐ Fly Tying	☐ Riflery	☐ Swim-Tri Training
☐ Blacksmithing	☐ Guitar	☐ Rock Climbing	☐ Swim with the Lifeguards
☐ Canoeing	☐ Homesteading	☐ Rocketry	☐ Swim Sports
☐ Ceramics	☐ Horseback Riding	☐ Sailing	☐ Table Games
☐ Crafts	☐ Kayaking	☐ Soccer	☐ Tennis
☐ Disc Sports	☐ Lacrosse	☐ Swim Basics	☐ Trap Shooting
☐ Field Sports	☐ Nature	☐ Bible Study	☐ Yard Games
☐ Fitness for Life	☐ Outdoor Skills		☐ Stand up Paddleboarding
☐ Lake James Trip	☐ Horseback Trail Ride		☐ Whitewater Rafting Trip

Do you know other campers who will be at camp?

☐ No

☐ Yes

About how many other campers do you know at camp?

(dropdown) 1, 2, 3, 4, 5 or more

Rate the following statements by how much they are true for you. Not true at all (1); mostly untrue (2); not true nor untrue (3); mostly true (4); or completely true (5).

I'm not sure I'm ready for camp	1	2	3	4	5
I'm excited, and can't wait to get to camp	1	2	3	4	5
I'm going to camp because my parents want me to	1	2	3	4	5
I want to make new friends at camp	1	2	3	4	5
I want to learn new skills at camp	1	2	3	4	5

How old are you?

(dropdown) 11,12,13, 14,15,16

How hard was this survey to understand?

☐ Very Difficult

☐ Difficult

☐ Somewhat Difficult

☐ Neutral

☐ Somewhat Easy

☐ Easy

☐ Very Easy

Who was the person completing this survey?

☐ Camper

☐ Parent

☐ Older sibling

☐ Other

(If response is Camper)

How much help did the camper receive while they were filling out this survey?

☐ NONE

☐ Help on one or two items

☐ Help on most of the items

☐ Parent or someone else completed it

Camper, Post-Camp Survey

Please enter the user name that was created and entered before camp for this camper. You may have used the first three letters of their middle name, and the last four digits of a phone number. If there is no middle name you may use XXX. This is used to match the two surveys.

As parent/guardian, I hereby allow my child to continue to participate in the research study entitled "Life inoculation: Examining the relationship between adventure education components and resilience in summer camp experiences", and allow them to fill out the following survey.

☐ Yes, my child may participate
☐ No, I do not want my child to participate
(Skip Logic to end of survey)

To the Camper:

Earlier in the summer you filled out a survey as part of a research study between Camp Rockmont and East Carolina University. This is the second half of the research to learn more about how camp helps young people grow into strong adults. We hope to learn more about what parts of your time at camp helped you the most, and how we can make camp even better in the future. You have been chosen because of your age, and are one of about 500 campers in the study. The survey will ask simple questions about you and your time at camp. It should take 10-20 minutes, and will be done online.

If you finish this second survey, you will get early access to the photo slideshow from Camp Rockmont. This is normally mailed out close to Christmas, but campers who finish both surveys will get it right away.

Your answers to the survey will not be kept with your name, and no one will know which answers are yours. If you do not wish to finish the survey, or wish to stop later, you can skip questions or stop. Camp will not know if you filled out the survey, and it will not change your experience at Camp. Please answer honestly; it is important to the success of the survey.

If you have any questions, you may contact Dr. Deb Jordan (252-737-2990), Camp Rockmont (828-686-3885), or the East Carolina University Office for Human Research Integrity (OHRI) at 282-744-2914.

By clicking "yes, I agree" below, you agree to participate in this research study.

☐ Yes, I agree to participate
☐ No, I do not wish to participate
(Skip Logic to end of survey)

*For each item, please mark an "**x**" in the box below that best indicates how much you agree with the following statements as they apply to you over the last **month**. If a particular situation has not occurred recently, answer according to how you think you would have felt.*

		not true at all (0)	rarely true (1)	sometimes true (2)	often true (3)	true nearly all the time (4)
1.	I am able to adapt when changes occur.	*0*	*1*	*2*	*3*	*4*
2.	I have at least one close and secure relationship that helps me when I am stressed.	*0*	*1*	*2*	*3*	*4*
3.	When there are no clear solutions to my problems, sometimes fate or God can help.	*0*	*1*	*2*	*3*	*4*
4.	I can deal with whatever comes my way.	*0*	*1*	*2*	*3*	*4*
5.	Past successes give me confidence in dealing with new challenges and difficulties.	*0*	*1*	*2*	*3*	*4*
6.	I try to see the humorous side of things when I am faced with problems.	*0*	*1*	*2*	*3*	*4*
7.	Having to cope with stress can make me stronger.	*0*	*1*	*2*	*3*	*4*
8.	I tend to bounce back after illness, injury, or other hardships.	*0*	*1*	*2*	*3*	*4*
9.	Good or bad, I believe that most things happen for a reason.	*0*	*1*	*2*	*3*	*4*
10.	I give my best effort no matter what the outcome may be.	*0*	*1*	*2*	*3*	*4*
11.	I believe I can achieve my goals, even if there are obstacles.	*0*	*1*	*2*	*3*	*4*
12.	Even when things look hopeless, I don't give up.	*0*	*1*	*2*	*3*	*4*
13.	During times of stress/crisis, I know where to turn for help.	*0*	*1*	*2*	*3*	*4*
14.	Under pressure, I stay focused and think clearly.	*0*	*1*	*2*	*3*	*4*
15.	I prefer to take the lead in solving problems rather than letting others make all the decisions.	*0*	*1*	*2*	*3*	*4*

16.	I am not easily discouraged by failure.	*0*	*1*	*2*	*3*	*4*
17.	I think of myself as a strong person when dealing with life's challenges and difficulties.	*0*	*1*	*2*	*3*	*4*
18.	I can make unpopular or difficult decisions that affect other people, if it is necessary.	*0*	*1*	*2*	*3*	*4*
19.	I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	*0*	*1*	*2*	*3*	*4*
20.	In dealing with life's problems, sometimes you have to act on a hunch without knowing why.	*0*	*1*	*2*	*3*	*4*
21.	I have a strong sense of purpose in life.	*0*	*1*	*2*	*3*	*4*
22.	I feel in control of my life.	*0*	*1*	*2*	*3*	*4*
23.	I like challenges.	*0*	*1*	*2*	*3*	*4*
24.	I work to attain my goals no matter what roadblocks I encounter along the way.	*0*	*1*	*2*	*3*	*4*
25.	I take pride in my achievements.	*0*	*1*	*2*	*3*	*4*

How much did you participate in the each of the following activities at camp?

For each activity please circle none, 1-2 times, or 3 or more times to show how often you participated in these activities during your free time at camp, and skill for your skill areas.

Archery	***None***	***1-2 times***	***3 or more times***	***Skill***
Basketball	*None*	*1-2 times*	*3 or more times*	***Skill***
Bible study	*None*	*1-2 times*	*3 or more times*	***Skill***
Blacksmithing	*None*	*1-2 times*	*3 or more times*	***Skill***
Canoeing	*None*	*1-2 times*	*3 or more times*	***Skill***
Ceramics	*None*	*1-2 times*	*3 or more times*	***Skill***
Crafts	*None*	*1-2 times*	*3 or more times*	***Skill***
Disc sports	*None*	*1-2 times*	*3 or more times*	***Skill***
Field sports	*None*	*1-2 times*	*3 or more times*	***Skill***
Fitness for Life	*None*	*1-2 times*	*3 or more times*	***Skill***
Fly Fishing	*None*	*1-2 times*	*3 or more times*	***Skill***
Fly Tying	*None*	*1-2 times*	*3 or more times*	***Skill***
Guitar	*None*	*1-2 times*	*3 or more times*	***Skill***
Homesteading	*None*	*1-2 times*	*3 or more times*	***Skill***
Horseback Riding*	*None*	*1-2 times*	*3 or more times*	***Skill***
Kayaking	*None*	*1-2 times*	*3 or more times*	***Skill***
Lacrosse	*None*	*1-2 times*	*3 or more times*	***Skill***
Nature	*None*	*1-2 times*	*3 or more times*	***Skill***
Outdoor Skills	*None*	*1-2 times*	*3 or more times*	***Skill***
Photography	*None*	*1-2 times*	*3 or more times*	***Skill***
Riflery	*None*	*1-2 times*	*3 or more times*	***Skill***
Rock Climbing	*None*	*1-2 times*	*3 or more times*	***Skill***
Rocketry	*None*	*1-2 times*	*3 or more times*	***Skill***
Sailing	*None*	*1-2 times*	*3 or more times*	***Skill***
Stand up Paddleboarding	*None*	*1-2 times*	*3 or more times*	***Skill***
Soccer	*None*	*1-2 times*	*3 or more times*	***Skill***
Swim Basics	*None*	*1-2 times*	*3 or more times*	***Skill***
Stroke Development	*None*	*1-2 times*	*3 or more times*	***Skill***
Swim-Tri Training	*None*	*1-2 times*	*3 or more times*	***Skill***
Swim with the Lifeguards	*None*	*1-2 times*	*3 or more times*	***Skill***
Swim Sports	*None*	*1-2 times*	*3 or more times*	***Skill***
Table Games	*None*	*1-2 times*	*3 or more times*	***Skill***
Tennis	*None*	*1-2 times*	*3 or more times*	***Skill***
Trap Shooting	*None*	*1-2 times*	*3 or more times*	***Skill***
Yard Games	*None*	*1-2 times*	*3 or more times*	***Skill***
Zip-Line	*None*	*1-2 times*	*3 or more times*	***Skill***
Challenge Course	*None*	*1-2 times*	*3 or more times*	***Skill***
Mile Swim	*None*	*1-2 times*	*3 or more times*	***Skill***
Solo 14	*None*	*1-2 times*	*3 or more times*	***Skill***
Lake James Trip *(circle skill)*				***Skill***
Horseback Trail Ride *(circle skill)*				***Skill***
Whitewater Raft Trip *(circle skill)*				***Skill***

Looking back at your time at camp, how often were the following statements true?
Please mark a higher number if you think it's true for you, and a lower number if you do not. If you strongly disagree (1), never (2), hardly ever (3), sometimes (4), a lot of the time (5), almost all of the time.

1. I wanted to try new things at camp	1	2	3	4	5
2. I learned more by being away from home	1	2	3	4	5
3. I took responsibility for myself at camp	1	2	3	4	5
4. I was involved in decision making at camp	1	2	3	4	5
5. I learned how to solve problems with my friends	1	2	3	4	5
6. I supported my group members in our activities	1	2	3	4	5
7. I used my mind, body, and spirit in our activities	1	2	3	4	5
8. The activities fit my goals and interests	1	2	3	4	5
9. I learned things that will help me after camp	1	2	3	4	5
10. My counselor was supportive of me	1	2	3	4	5
11. Challenges were difficult, but solvable	1	2	3	4	5
12. Challenges got harder as my skills improved	1	2	3	4	5
13. When I didn't do well, someone helped me figure out how to improve	1	2	3	4	5
14. I would enjoy coming to camp again	1	2	3	4	5
15. My group talked about activities we had completed	1	2	3	4	5

How hard was this survey to understand?

- ☐ Very Difficult
- ☐ Difficult
- ☐ Somewhat Difficult
- ☐ Neutral
- ☐ Somewhat Easy
- ☐ Easy
- ☐ Very Easy

Who was the person completing this survey?

- ☐ Camper
- ☐ Parent
- ☐ Older sibling
- ☐ Other

(If response is Camper)

How much help did the camper receive while they were filling out this survey?

- ☐ NONE
- ☐ Help on one or two items
- ☐ Help on most of the items
- ☐ Parent or someone else completed it

Thank you for participating in the survey!

You will receive an e-mail with a link to the Camp Rockmont Photo Slideshow shortly.

Link to slideshow

Cabin Counselor Intentionality Survey

Circle Age Group: 11, 12, 13, 14, 15, 16, Catalyst

Please rate yourself on how much you've demonstrated the following skills, or provided these camper experiences in the last 48 hours at opportunities to do so arose. Circle a response from (1), rarely or never (2), a little (3), sometimes (4), often (5), almost all of the time. Responses will be confidential, so please answer honestly.

I built relationships with campers	1	2	3	4	5
I utilized "teachable moments"	1	2	3	4	5
I facilitated learning and growth	1	2	3	4	5
I modeled good character for campers	1	2	3	4	5
I gave campers opportunities to make choices.....	1	2	3	4	5
I used "Describe, Label, Praise"	1	2	3	4	5
I introduced tasks incrementally	1	2	3	4	5
Activities were organized to arouse curiosity	1	2	3	4	5
Activities had natural consequences	1	2	3	4	5
Camper challenges were easily identifiable.....	1	2	3	4	5
Camp experience was holistic (mind/body/spirit).....	1	2	3	4	5
Campers interacted with nature	1	2	3	4	5
Campers were actively engaged in learning.....	1	2	3	4	5
We took time to talk about what we've learned.....	1	2	3	4	5

How old are you? _____

Including this summer, how many years have you worked in this or similar programs? _____

Program Staff Activity Quality Assessment

Camp Activity Quality Assessment

Please reflect on each quality being studied, and on the following page rate each activity as they relate to one another. Place a number from 1-5, with 3 being average, to score whether it contains more or less of the given quality than other activities (1-much less than average; 2-less than; 3-average; 4-more than; 5-much more than average). Once each column is complete for a given activity, please move down this list and complete each column in its entirety for the next activity before moving on. Please place it in the envelope when you are finished.

A-Interaction with Nature: Activities with a high level of interaction with the natural environment allow participants to touch and feel nature around them.

B-Perceived Risk: Activities with perceived risk show some level of discomfort or danger for campers. They are seen as having a higher level of physical or emotional risk than they may actually entail.

C-Natural Consequences: Activities with natural consequences have “rules” that are enforced by nature or the activity itself.

D-Actively Engaging: Activities that are actively engaging are physically and mentally active, and campers are fully involved in the activity.

E-Novel: Activities which are novel, new, exciting, and amusing.

F-Progressive: Activities that allow a camper to progress through sequentially harder skills and challenges as they improve.

G-Holistic: Activities which engage the campers mind, body, and spirit simultaneously, and utilize all three for the highest level of success.

H-Relatable: Activities which easily relate to campers everyday lives, and include physical or social skills a camper can easily see application for.

I-Recognizable Challenges: How straightforward are the challenges in the activity? Will a camper easily see challenges which must be overcome or are they more abstract?

J-Collaboration: Activities which promote collaboration and group thinking. Perhaps it can be completed alone, and is an individual activity, but emotional support and group supportiveness may also be present.

Activity	A	B	C	D	E	F	G	H	I	J
Archery										
Basketball										
Bible study										
Blacksmithing										
Canoeing										
Ceramics										
Crafts										
Disc sports										
Field sports										
Fitness for Life										
Fly Fishing										
Fly Tying										
Guitar										
Homesteading										
Horseback Riding										
Kayaking										
Lacrosse										
Nature										
Outdoor Skills										
Photography										
Riflery										
Rock Climbing										
Rocketry										
Sailing										
Stand up Paddleboarding										
Soccer										
Swim Basics										
Stroke Development										
Swim-Tri Training										
Swim with the Lifeguards										
Swim Sports										
Table Games										
Tennis										
Trap Shooting										
Yard Games										
Zip-Line										
Challenge Course										
Lake James Trip										
Horseback Trail Ride										
Whitewater Raft Trip										
Mile Swim										
Solo 14										