ABSTRACT

SCHWAMBERGER, B. <u>Comparisons of processing in elementary school, middle school, and high school adventure-based physical education programs.</u> MS in Exercise and Sport Science-Physical Education Teaching, May 2009, 71pp. (J. Steffen)

Processing during an adventure education experience is difficult and currently little information exists regarding processing adventure-based activities at the elementary, middle, and high school levels. This study compared individuals' knowledge and perceptions of processing in adventure education to determine if processing is done differently at the elementary, middle, and high school levels. A secondary purpose of the study was to assess university level educators and others regarding processing in adventure education. Physical education teachers from the Wisconsin Association for Health, Physical Education, Recreation, and Dance (WAHPERD) served as subjects in this study (N = 85), the overall return rate was 11.6 percent. The adventure education survey (17 questions) was used to obtain data for the study. A Pearson Chi-Square statistical test was used to test for independence. No significant differences were found while comparing data (p ≤ .016). It is recommended that physical education teachers specializing in teaching adventure-based activities devote time to processing with students and continue to learn new methods in the area of processing.

UNIVERSITY OF WISCONSIN-LA CROSSE

Graduate Studies

COMPARISONS OF PROCESSING IN ELEMENTARY SCHOOL, MIDDLE

SCHOOL, AND HIGH SCHOOL ADVENTURE-BASED

PHYSICAL EDUCATION PROGRAMS

A Chapter Style Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Science

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College of Science and Health
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By Benjamin Schwamberger

We recommend acceptance of this thesis in partial fulfillment of the candidate's requirements for the degree of Master of Science in Exercise and Sports Science– Physical Education Teaching
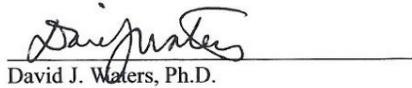
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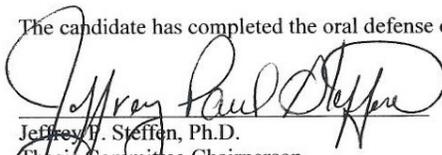
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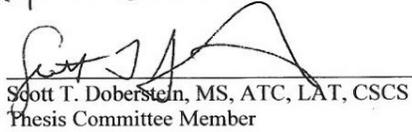
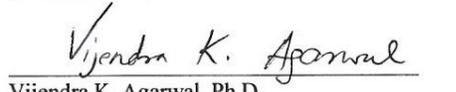Scott T. Doberstein, MS, ATC, LAT, CSCS
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CHAPTER I

INTRODUCTION

Background

Adventure education is developing into a popular alternative to traditional education. The world of adventure learning is vast and rapidly evolving, and it is at the cusp of becoming a dominant mode of education in this century (Prouty, Panicucci, & Collinson, 2007). It is becoming increasingly more well known in the public school setting. The general appeal for adventure education may be due to its ability to accept and engage all students. Putting students into a unique situation that involves definite risk and allowing them to collectively work as team members to problem-solve, helps to build on the affective, cognitive, and psychomotor domains.

One important aspect in adventure education is the facilitation process, which is led by the facilitator or leader, who much of the time in a public school setting is the physical education teacher. To effectively lead a group through an adventure education activity, a facilitator must get students to process what they have learned in an adventure activity (e.g., rock climbing, ropes course, rappelling, etc.). During this time, the facilitator's goal is to get students to reflect on the activity, relate it to past and present experiences, and allow students to see the meaning involved; how might their experiences in an adventure education activity relate to their everyday lives?

Since this aspect of facilitation is extremely important in adventure education, facilitators must understand how to effectively guide students through it. The adventure education facilitator should choose a facilitation style based on the situation, clients' readiness and abilities, and facilitators' skills and experience level. For adventure programs to obtain the best outcomes, clients' needs must be the focus for guiding reflection on adventure experiences (Prouty et al. 2007). My research study examined physical education teachers' knowledge and perceptions regarding processing in adventure education to determine if processing is done differently between the elementary, middle, and high school levels. A secondary purpose of the study was to assess adventure-based university instructors and others regarding processing in adventure education.

To effectively process in adventure education, leaders must possess specific skills. First and foremost, they must be prepared, which includes making sure time is given for processing and addressing key issues or goals which may develop during an experience. Secondly, communication is extremely important in processing; leaders should understand how to appropriately use non-verbal communication such as eye-contact, facial expression, and body posture. An individual's questioning and feedback skills are also important when focusing on communication skills. Leaders should create an environment that makes the participants feel comfortable. Some ways of doing this include treating all participants as equals, being respectful of an individual's limits, and allowing participants the opportunity to speak their mind and be honest. One last critical skill involved with processing is the ability to sequence; transferring events that may

have occurred during an adventure experience to life situations, addressing all types of learning (i.e., psychomotor, cognitive, affective), and making sure to provide closure for participants (Luckner & Nadler, 1997).

Need for the Study

Currently, little information exists on how teachers process information in physical education settings. Even less information exists when the focus is narrowed to adventure-based activities in the physical education setting within the elementary, middle, high school, and university levels. While much attention has been paid to what students learn in outdoor education settings, little has been paid to the process through which that learning occurs (Sibthorp, Paisley, Gookin & Furman, 2008). Many studies with respect to processing have focused on primarily the different ways to process (e.g., frontloading, debriefing, use of metaphors). Aspects of processing are often overlooked because the focus tends to be put into other areas of adventure education, such as technical skills, risk management, trip planning, and issues dealing with liability.

Purpose of Study

This study examined physical education teachers' knowledge and perceptions regarding processing in adventure education to determine if processing is done differently between the elementary, middle, and high school levels. A secondary purpose of this study was to assess adventure-based university instructors and others regarding processing in adventure education.

Hypotheses

The following null hypotheses were tested:

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- There will be no significant differences between grade level taught and how often an individual processes adventure education experiences with students.

- There will be no significant differences between grade level taught and how important participants feel it is to get students to reflect and draw personal meaning from an experience.

- There will be no significant differences between grade level taught and the specific types of responses a facilitator looks for during the reflection process.

Assumptions

The following assumptions were made:

1. Teachers understand the aspect of processing in adventure education.

2. Teachers honestly reported information while completing the survey.

Delimitations

The delimitations for the study were:

1. The format presented to the participants taking part in the study was the same for all participants.

2. The survey completed was the same for all subjects.

3. Subjects involved in this study are all physical education teachers from the state of Wisconsin.

Limitations

The limitations for the study were:

1. Participants represented in the survey came from one region throughout the country (Midwest, specifically Wisconsin), so a coverage error may occur.

2. Participants were self-selected.

3. The sample size involved in this study was small.

4. Participants may have misinterpreted the items on the adventure education survey, which may have skewed the data.

Definition of Terms

Adventure Education- Direct, active, and engaging learning experiences that involve the whole person and have real consequences, including educational activities and experiences usually involving close interaction with the natural environment and within a small group setting that contain elements of real or prescribed risk. The outcome, while uncertain, focuses on the intrapersonal and interpersonal development of the individual or group (Prouty, Panicucci, & Collinson, 2007).

Debriefing- Verbal discussion that takes place after an adventure experience in order to facilitate clients' learning and transfer to life beyond the adventure program.

Facilitation- To smooth the progress of and guide a group toward achieving their goals during an adventure program. The process of facilitation covers everything before, during, and after the experience to enhance clients' reflection, integration, and continuation of lasting change that occurs through the adventure experience (Priest, Gass, and Gillis, 2000).

Frontloading- In direct frontloading, the adventure facilitator directs the clients to address one or more of the five functions (revisiting, objectives, motivation, function, and dysfunction) before the activity begins so the clients can make connections and learn both during and after the experience (Prouty et al. 2007).

Processing- An activity that is structured to encourage individuals to plan, reflect, describe, analyze, and communicate about experiences (Gass, 1993b; Knapp, 1990; Nadler & Luckner, 1992; Quinsland & Van Ginkel, 1984). Processing can occur prior to, during or after the experience. Processing activities can be used to: (a) help individuals focus or increase their awareness on issues prior to an event or to the entire experience; (b) facilitate awareness or promote change while an experience is occurring; (c) reflect, analyze, describe, or discuss an experience after it is completed; and/or (d) reinforce perceptions of change and promote integration in participants' lives after the experience is completed (Gass, 1993a).

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This chapter examines literature related to processing and group facilitation in adventure education as well as the role adventure education plays in physical education. For the purpose of organization, the literature is presented under the following topic areas: adventure education, facilitation, processing, and the role of adventure education in physical education.

Adventure Education

Both experiential and adventure education have become very prominent alternatives to more traditional forms of education. In North America today, the adventure-based experiences or experiential education have come of age (Nadler, 1995). Adventure education is well on its way to becoming one of the dominant pedagogies of the 21st century (Prouty, Panicucci, & Collinson, 2007). Many educational and therapeutic programs use outdoor adventure education activities as a catalyst for change and growth (Gass, 1993b). Adventure education can be defined as direct, active, engaging learning experiences that involve the whole person and have real consequences (Prouty et al. 2007). Experiential education encompasses learning methods that occur in less active modes such as the classroom. The definitions of experiential and adventure education are merging and becoming less distinguishable because the elements that

makes experiential education an adventure is not just how active or physically risky the activity is, but what is the learners overall state of mind (Prouty et al. 2007).

It is very important that every participant or student involved in an adventure education experience understand that while an experience should be challenging and fun, risk is always involved. Behavior in an adventure recreation experience is based in part on perception of risk and competence. If incorrectly perceived, an unexpected condition may result, the outcomes of which may be socially, mentally or physically negative (Priest, 1992). Ewert and Hollenhorst (1989) described adventure recreation as a "search for competence" (p. 125) coupled with "the valuation of risk and danger" (p. 127). To clearly understand the interactions between risk and competence we must look at the Adventure Experience Paradigm (Martin & Priest, 1986), which is a model of the interactions of risk (the potential to lose something valuable) and competence (a combination of skill, knowledge, attitude, behavior, confidence, and experience). This model was developed from the works of Ellis, Csikszentmihalyi, and Mortlock and is essentially a restatement of their theories in concert with one another (Priest, 1992).

The Adventure Experience Paradigm is a chart of situational risk versus personal competence, where the blend of these leads to five varying conditions of challenge. Ewert (1988) stated that fear is a reaction to perceived risks and real dangers. The five conditions of challenge include Exploration & Experimentation, which occurs when an individual's competence is high and risk is low. When the risk increases and/or competence decrease the condition of Adventure occurs. Peak-Adventure occurs when both competence and risk are equal. Misadventure occurs as risk begins to surpass

competence. The final condition is Devastation & Disaster and this occurs when risk is high and competence is low (Carpenter & Priest, 1989).

Any participant involved in an adventure education experience should develop a correct perception of the risks inherent in the adventure experience and be competent in their own abilities to deal with those risks. All things being equal, an individual who is a novice rock climber (low competence) will choose an easier route (low risk) than an individual who is an expert rock climber (high competence) who will choose a harder route (higher risk) in an effort to achieve peak adventure and match up the values of risk and competence (Priest, 1992). Individuals who go into an experience timid and fearful will select levels of risk and competence thought to be equivalent and will expect a peak adventure, but because risks are in reality lower and competence is actually higher, a challenging condition on the safe side will likely occur (Priest & Baillie, 1987). At the other end of this spectrum you have individuals who are considered arrogant and fearless; they perceive themselves to be more competent than in reality and perceive the situation to be less risky than it actually is. A challenging condition on the dangerous side may result (Priest & Baillie, 1987).

Adventure education as described by Priest and Gass (2005) is the branch of outdoor education concerned primarily with interpersonal and intrapersonal relationships. Interpersonal has to do with the relationships you build with others, such as the relationship a participant has with other members of his/her group while involved in an adventure education experience. Intrapersonal relationships have to do with what is occurring within an individual's mind or self. The aspect of interpersonal and

intrapersonal relationships involves the affective learning domain which involves emotional or social development. The product of most adventure programs are people who understand themselves more completely and relate to others more effectively (Priest & Gass, 2005).

One very important aspect of getting individuals to understand themselves more fully is through a key component in adventure education called processing. Quinsland and Van Ginkel (1984) defined processing as an activity that is used to encourage individuals to reflect, describe, analyze, and communicate what they recently experienced. While every component of an outdoor-adventure experience is important, there are many writers and researchers who would argue that the processing/transfer elements is the most essential (i.e., Gass, 1993b; Knapp, 1993; Nadler & Luckner, 1992).

Adventure education involves many different aspects. It is very important that the leader or facilitator properly plan and implement every aspect of an experience to effectively meet the intellectual as well as safety needs of each participant. "During a typical experience, students must learn many different skills competently to live and travel efficiently, effectively, and comfortably in outdoor settings. Some of the skills that they may need to master include packing a backpack, caring for the environment, setting-up camp, traveling safely, and solving interpersonal problems" (Luckner, 1994).

Since many students have never had an opportunity to participate in an adventure education experience, their basic knowledge with respect to what is involved may be low. Because of this it is up to the facilitator to effectively teach the skills necessary for students to succeed in an experience. Instructors who choose from a variety of

pedagological approaches and who are aware of the strengths and weaknesses of each approach are likely to be highly effective educators (Luckner, 1994). By providing effective skill instruction, educators and therapists not only can enhance the quality of the students' immediate experiences during the course, but also promote self-discovery, confidence, and transfer of practical skills to home environments (Luckner, 1994).

Facilitation

A facilitator has a variety of different roles to play throughout an adventure or experiential education experience. A facilitator that is deliberate about what they are doing and can provide rationales for their action is said to be acting intentionally. If that same facilitator is not able to articulate a clear rationale for their actions, but can still facilitate effectively they are said to be acting intuitively (Thomas, 2008). Intentionality and intuition play a very critical role when it comes to facilitating groups.

The body of facilitation literature is growing and numerous authors describe the importance of facilitating intentionally (Thomas, 2008). Schwarz (2002) stated that a facilitator's effectiveness or ineffectiveness stems from the core values and assumptions that he or she holds. Heron (1999) emphasized the importance of developing facilitator style which he defined as "the distinctive way that a person leads any group," and this style is a "function of the facilitator's values and norms, psychological make-up, degree of skill and development, of the objectives and composition of the group, and of a wider cultural context" (p.13).

Much of what teachers and others do, in the heat of the moment, is not premeditated; it is intuitive. A situation arises; the teacher responds, and only later, if at

all will she or he pause to "figure out" what was going on, and why they did what they did (Claxton, 2000, p. 2). Intuitive processes can be observed in everyday learning experiences and the use of intuition by teachers need not be considered obscure, mythical, or grandiose (Claxton, 2000). Schon's (1988) concept of knowing-in-action suggested that not all professional practice can be justified by using a verbal description, and that it is perhaps not useful to always require it. Schon noted that sometimes the "meanings of publicly observable performance remain stubbornly ambiguous" (p. 301) and that undiscussability and indescribability can reinforce each other. More recently, Ghais (2005) encouraged facilitators to use their intuition to offer hypothetical insights and she argued that a facilitator's intuitive capacity is a "remarkable human ability that's waiting to be tapped in helping groups deal with extreme challenges" (p. 229). Facilitators must use their intuition at times during an experience because of how many things actually occur in any one given experience. Hunter, Bailey, and Taylor (1999) also acknowledged that "being connective with and using your intuition is essential as a facilitator" (p. 76) and those facilitators will need to act in the moment, without the luxury of time to think and reflect rationally.

Along with the benefits, literature also cautions the use of intuition. Claxton (2000) suggested that intuition has the potential to be extremely useful, but that the information it brings should be treated as a hypothesis, rather than "the truth". Claxton (2000) agreed that although intuition can be misleading, it can still be of value and people can be taught how to make it more reliable and perceptive.

Linking and containment are two other very important roles a facilitator should understand when leading an experience. Linking refers to the existence of links at both conscious and unconscious levels. These links involve each group member, the group-as-a-whole, the leader, and the primary task of the group (Ringer, 1999). For example, in a high school setting, a group of tenth-grade students would represent the group members, the physical education teacher would represent the leader, and the primary task may involve getting students to build trust within each other while participating in a ropes course experience. Containment refers to group members having the conscious and unconscious sense of being firmly held in the group and its task, and yet not immobilized by the experience (Ringer, 1999). Ringer (1999) stated that linking and containment are necessary for all types of group, ranging in purpose from therapy, through development and education, to recreation.

Looking at containment specifically, it involves creating boundaries around the group that enable it to conduct its business with a reasonable sense of security and without interference or harm (Ringer, 1999). It is developed under the idea that the group is purposeful, bounded, and safe and it is usually up to the designated leader to be responsible for establishing and maintaining all of the elements necessary for containment to occur (Ringer, 1999). As groups begin to develop, group members will take a more active role in the containment process.

Linking involves creating and maintaining the links that hold the internal "structure" of the group together and create the potential for high quality interaction in the group (Ringer, 1999). One important characteristic regarding groups is the

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interconnection between the group leader and his or her connection with group members

and the task. Ringer (1999) talked about how at the start of any group the leader can

facilitate the development of six different kinds of links that directly assist in building an

effective group. These six links include:

1. Leader with task
2. Group with task
3. Leader with individuals
4. Leader with group
5. Individuals with group and
6. Individuals with other individuals

In leader with task, it is up to the leader or facilitator to show to the group that

he/she understands the primary task of the group and that they have the capability to

effectively work towards that primary task. Group with task involves the leader assisting

participants to connect themselves emotionally and subjectively to the task at hand which

the group is trying to achieve. For example, the physical education teacher that was

leading the tenth-grade students through a ropes course might explain to his students that

"the ropes course is a motivation for building trust within each other. To properly

achieve this goal, we need to work together as a cooperative unit, so that we can put trust

in one another to complete the task." Leader with individuals emphasizes the importance

that every facilitator or group leader must develop a relationship with each group

member. Some ways that effective facilitators accomplish this is through being

conscientious and receptive to the individual needs of group members. This aspect is

always ongoing, it starts the minute you introduce yourself to group members and does

not end until the experience is over. Leader with group refers to the leader developing an

understanding that although each group has specific group members, there is also a single

collective group that has assembled to achieve a shared purpose and is gathered in a group space with some form of interdependence that involves every group member. Individuals with group refer to the leader's role in assisting to facilitate the building of bonds between individuals and the group-as-a-whole (Ringer, 1999). Neri (1998) explained that linking of individuals with group-as-a-whole is one of the most powerful factors in group cohesion, but one that many leaders have difficulty conceptualizing, let alone working with. The final link is individuals with other individuals; this occurs as an end result of the previous five links. Ringer (1999) explained that even if each thread (link) is not particularly strong, the end result is that every participant is held firmly as a member of the group and cannot easily be pulled away. Successful groups are bounded, purposeful and safe. Key components of such groups are the level of containment and the degree to which effective links have been developed in the group (Ringer, 1999).

In any adventure education experience, groups tend to advance through a series of progressive stages. Tuckman & Jenson (1977) developed a model known as the five stages of group development. It is up to the facilitator to properly lead students through the various stages involved. The five stage model includes forming, storming, norming, performing, and adjourning. I will provide a brief synopsis of each stage as well as explain the role of the facilitator during each stage.

The first stage (forming) involves group members coming together for the first time. During this stage, members typically work towards getting acquainted with each other. As a facilitator encouraging exploration and involvement in relation to how the group wishes to approach its needs and goals is important. A facilitator may also have to

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clarify goals and group expectations as well as clearly getting students to understand that group differences are acceptable (Priest & Gass, 2005). Storming is the second stage and occurs when participants begin to meet the needs of the group, question authority, and feel more comfortable about themselves and their relationships (Priest & Gass, 2005). As a facilitator, you need to realize that group struggles may occur, but that it is completely normal and should be allowed. While this is occurring a facilitator should be ensuring that the group atmosphere remains open and secure. The third stage, norming, involves members addressing appropriate and necessary standards of behavior through which a greater sense of order prevails (Priest & Gass, 2005). It is the responsibility of the facilitator to allow an increased amount of accountability of group members as well as the ability to be flexible with respect to the goals and activities of their own needs. Group members should depend less on the facilitator and see them more as a resource than their leader. Performing is the fourth stage and occurs when groups collectively come together to perform the task at hand while group members support and interact with each other. The facilitator must continue to encourage members to take on increasing responsibility for their actions. It is the facilitator's goal to reach a point at which the group is able to achieve complete independence from them (Priest & Gass, 2005). The final stage is adjourning which provides closure of the task, including the looming end of relationships. A facilitator should help group members by encouraging them to review and evaluate what the group has learned. Effective leaders often help the group summarize areas of progress; helping individual members transfer newly acquired knowledge to other situations outside of the group (Priest & Gass, 2005). The idea of

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getting an individual to transfer what they have learned from one experience (e.g., adventure education experience) to another aspect of their life is known as processing. We will look more in-depth at processing and why it is so important in any adventure education experience in the next section.

<center>**Processing**</center>

Processing is an extremely critical component of the adventure education experience. In fact research reported by Witman (1993) suggested that adolescents participating in outdoor adventure programs, as well as experts in the field of adventure programming, value process over content. Gass (1993a, p. 219) defined processing as "those techniques that are used to augment the therapeutic qualities of the adventure experience based on accurate assessment of client's needs." Processing activities can be used to: (a) help individuals focus or increase their awareness on issues prior to an event or the entire experience; (b) facilitate awareness or promote change while an experience is occurring; (c) reflect, analyze, describe, or discuss an experience after it is completed; and/or (d) reinforce perceptions of change and promote integration in participants' lives after the experience is completed (Gass, 1993a). The following literature explains various aspects of processing, and the importance and intricacy of processing in adventure education.

Processing is an activity that is used to encourage individuals to reflect, describe, analyze, and communicate what they recently experienced (Quinsland & Van Ginkel, 1984). Nadler and Luckner (1992) state that processing "is the cornerstone of an effective adventure based learning experience" (p.1). Processing aids individuals in

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interpreting experiences into structured words and concepts. It provides an opportunity to give the experience personal meaning, which may in turn lead to changes in attitude and behavior of individuals (Nadler & Luckner, 1992). It is critical for the facilitator to successfully get participants to process what they have experienced during an activity. At its most basic, experiential education has two overall components, one is the action and the other is the reflection. Another term for the reflection is processing. Nadler and Luckner suggest that processing is an activity that encourages participants to plan, reflect, describe, analyze, and communicate about experiences. Processing can be viewed as an activity, cognitive in nature, where people recall their experience, think about it, mull it over, and evaluate it. Both of these definitions capture the key point that processing is a facilitator's decision to not leave reflection to chance. In other words, processing is a planned activity that gives meaning to the action (Simpson, Miller, & Bocher, 2006).

Looking specifically at different aspects involved in processing, one known as frontloading occurs at the beginning of an experience. Frontloading is a term used for highlighting, or loading, the learning prior to, or in front of, an activity (Hutchinson & Datillo, 2001). Frontloading is done to get students or participants to focus on a specific area that the facilitator feels is of importance. For example, an adventure education facilitator working with a group of at-risk students may want the group to focus on communication skills. By talking to the group in advance of the actual activity, they set the stage for what is about to occur and identifies specific issues to be discussed following the activity or during the debriefing portion.

"By loading the learning up front, debriefing simply becomes 'direction with reflection,' reemphasizing the learning rather than reacting to events" (Priest & Gass, 2005, p. 183). According to Priest and Gass, "this type of prebriefing that occurs before people participate in an activity can serve five functions: (a) review learning and commitments from previous activities; (b) review the aims of the activity and what can be learned or gained from the experience; (c) encourage reflection on motivations—why the experience may be important to them and how it relates to people's lives; (d) anticipate what behaviors will result in success and, conversely, (e) identify what behaviors will hinder success" (p. 183).

As mentioned above, frontloading occurs at the beginning of an adventure education experience, another aspect of processing is debriefing, which occurs at the end of an adventure experience. For more than a century, educators, philosophers, facilitators, and practitioners have promoted debriefing as an essential part of learning (Cain, Cummings, & Stanchfield, 2005). Debriefing has been termed "learning through reflection" (Priest & Gass, 2005, p. 178); it is "a process of guiding reflection on experience" (Priest & Naismith, 1993, p. 16) occurring after the activity to bring about change (Hutchinson & Datillo, 2001). Debriefing incorporates the use of reflective questioning and actively guiding discussion and analysis of the experience to help people "provide order and meaning to their experiences" (Priest & Naismith, 1993, p. 16). For example, the goal for a physical education teacher working with middle school students on the spider web (low element) may be to build trust and communication skills within the class. As part of debriefing the experience, a physical education teacher may ask key

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questions (e.g., "how did trust play a role in this activity," "was communication an important factor during this activity, why or why not") to get students to critically think about the experience and whether or not they felt that communication and trust were an important aspect in the activity.

When debriefing is used, the leader provides participants with feedback, asks them probing questions, and talks with them about their experiences. The rationale for debriefing is that, if people discuss issues and state personal commitments to change based on what they had experienced, "then they would assume ownership of such issues, becoming more likely to follow through on change" (Priest & Gass, 2005, p. 194). In this way it is expected that people who reflect on and interpret their participation in an activity would be more likely to assume ownership of the learning experience (Hutchinson & Datillo, 2001).

One of the more fundamental forms of communicating with program participants that can be offered at any point in an adventure education experience is through feedback. Feedback can be as simple as providing supportive comments (e.g., "great job" or "keep it up") during an activity about participants' involvement in a combined activity. Feedback, intentionally used, is expected to be descriptive (rather than evaluative), specific, well intended, directed toward change, solicited (rather than imposed), well-timed, and checked with sender and receiver (Ivey, 1987; Priest & Gass, 2005). Hutchinson and Datillo (2001) stated that feedback "requires that leaders avoid evaluative, judgments, focus on strengths of participants, direct their comments to reinforcing behaviors the individual can do something about, and use feedback

judiciously because people may not believe we are sincere if we say 'great job' to each of them much of the time" (p. 46). Feedback can be a valuable tool in an adventure education setting to validate self-affirming statements or behaviors and to reinforce learning.

The final aspect which will be discussed is use of metaphors. A metaphor is an idea or description used in place of a different idea or description to symbolize similarities between them (Priest & Gass, 1993). Nadler and Luckner (1992) wrote about metaphor use as being similar to creating a map for people. The process begins by orienting the map so that it accurately represents the learning objective to which the leader wants the individual to direct her efforts and attentions. A metaphor symbolizes, often, not only the path and direction to take (the process) but the destination (the desired outcome) (Hutchinson & Datillo, 2001).

According to Priest & Gass (1993), metaphoric transfer requires the leader to frame the actual experience in such a way that it reflects relevant problematic daily issues. The goal then is to have the metaphor match a person's needs, mind-set, and objectives with an experience in such a way that successful completion of the experience mirrors successful resolution of the individual's issue. Similarly, Bacon (1987) acknowledged that four key components must occur in order for the metaphor to be effective. The metaphor must: 1) be persuasive enough to grab the individuals' attention, 2) have a different successful ending/resolution from the matching real-life experience, 3) be isomorphic, and 4) be related in enough detail so that the individual can attach personal meaning to the experience. When these four conditions occur, adventure

experiences have a greater chance to provide successful opportunities that can result in therapeutic change for the individuals. Effective use of metaphors within a learning context requires leaders who are trained and skilled in their use (Luckner & Nadler, 1997).

Frontloading, debriefing, feedback, and use of metaphors are all forms of processing that are intended to extend activity participation. The goal in all cases is to assist simplification and transfer of learning from the activity experience to other life experiences. As Nadler and Luckner (1992) indicated, "an individual's real gain in a [program] should be measured by how much has been learned and if it can be sustained and applied after the experience" (p. 3). The facilitator must understand which processing techniques are appropriate for the participants' experience. Along with this, getting a participant to transfer learning relies primarily on the skills and abilities of the facilitator.

Because processing in adventure education relies on students to reflect affectively as well as cognitively on their experiences, it is vital for facilitators to provide time for students to critically reflect on their experience. Many times during an experience the facilitator does not provide enough time for proper reflection of an experience. This may be due in part because more time is being given to other aspects of the experience (e.g., technical skills, safety and risk management, etc.) inadvertently. Some facilitators may simply feel that processing is a difficult task and as a result put more emphasis on the action rather than the reflection.

"Processing is difficult. It is as simple as that. In fact, it is a truism within experiential education that processing is the most difficult part of the facilitator's workload" (Simpson et al. 2006, p. 25). No matter where you are at in your experience as a facilitator, processing is one aspect that can always be improved upon. "In comparison to other facilitation skills such as introducing a group initiative, belaying a high element on a ropes course, or leading a nature hike, processing is the one component of facilitation that never feels quite good enough" (Simpson et al. 2006, p. 25).

Identifying the difficulties associated with processing an experience validate the need to analyze how physical education teachers process adventure education experiences within the elementary, middle, high school, and university levels. Simpson et al. (2006) offer a thorough description of why processing is difficult which suggests why processing in adventure education is critical.

A. Leading a processing session is intimidating.
B. No processing session is exactly the same.
C. Facilitators often do no prepare adequately for their processing sessions.
D. The purposes for processing are numerous, maybe too numerous to keep straight.
E. Facilitator training sometimes slights processing.
F. People are naturally reflective.
G. Not everything merits reflection.
H. The bar is set unreasonably high.
I. The positive results of processing may not be apparent.

Another very important aspect in regards to processing is how the information is presented to the student. Does the facilitator take a more student-centered approach or teacher-centered approach? Experiential educators claim to value student-centered learning, yet the values, as evidenced in practice, are often teacher-centered (Estes, 2004). When a teacher directs student reflection by telling them what they learned, students are

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not expected (or required) to think for themselves about what the experiences could mean. Therefore, they are not empowered to learn *how to learn* from their experiences (Estes & Tomb, 1995). Teacher control of what is learned, no matter how well intentioned, conveys a message of control over students rather than student empowerment (Vokey, 1987). Estes and Tomb (1995) stated that the increasing emphasis on leader-directed processing in adventure education may be devaluing both the learning experience and the promotion of self-reliance among participants. They suggested that over-processing can be problematic as it is the leader rather than the student who decides what was learned and its relative value. Hovelynck (1999) expressed concern that facilitators may take too active a role in passing on their own meaning that is to be attached to an activity. One challenge is to move beyond the leader-directed approaches, and find new ways in which students can "remain the 'agents' of their experience and their learning" (Hovelynck, 1999, p. 22). A very important aspect for any facilitator to understand when processing is to allow students the opportunity to critically reflect on their own. It should be the goal of every facilitator to progress toward the student-centered learning approach rather than the teacher-centered.

The role of adventure education in physical education

Adventure education is gaining more and more popularity within school systems. Convention sessions are continuously putting emphasis on adventure education which is aimed at teachers. For example, at the 2001 American Alliance for Health, Physical

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Education, Recreation, and Dance (AAHPERD) convention, one session involved adventure education. By 2005, there were twelve; adventure education activities appear to be becoming more common place in physical education (Clocksin, 2006).

Physical education has historically been a field in which the goal was to educate the whole person. There were objectives pertaining to an individual's mental, emotional, and social well being. At times this holistic goal seems to have been lost to an emphasis on physical fitness and skill development alone (Bunting, 1989). Although areas such as skill development and physical fitness are extremely important in any physical education program, developing an overall student holistically should always be the main premise. We tend to see aspects that do not focus on the affective domain typically in physical education programs that push the "traditional" team sports. Fortunately, the trend of a holistic approach was carried into the 1990's by the implementation of the outdoor adventure area as a category of teaching physical education. In 1991 the National Association for Sport and Physical Education (NASPE) enacted benchmarks for the national standards in curriculum of physical education curriculum. These standards were revised in 2004 and stated that at the end of eighth grade, "students are expected to participate with skill in a variety of areas including outdoor pursuits" (e.g. backpacking, rock climbing, hiking, canoeing, cycling, and ropes courses" (NASPE, 2004 p. 18). By the twelfth grade, students are expected to "demonstrate an ability to perform basic and advanced skills and tactics to participate in a variety of activities including outdoor pursuits" (NASPE, 2004 p. 19).

Rink (2009) pointed out that affective and cognitive outcomes are understood in a unit. Physical educators often presume that if students are working in activities such as team sport units, that cooperation and teamwork will automatically occur. In reality affective and cognitive objectives need to be taught clearly.

Bunting (1989) suggested that if a school desires a holistic physical education program, then having an outdoor/adventure education component can greatly assist in accomplishing that objective. Outdoor education emphasizes learning in all domains through physical activity as well as for physical well being and fitness.

A majority of students involved in any adventure education experience leave with an excitement of what they have just accomplished. Teachers, as well, feel that excitement because they understand the potential for enhancing communication and problem-solving skills, improving teamwork and trust, and developing goal setting and responsibility. There are opportunities for students to demonstrate motor skill competency, as well as cognitive development, and provide them with alternative leisure time physical activities (Clocksin, 2006).

Our society provides distractions that more students find interesting and attractive than learning at school. Generally, speaking, most students faced some major obstacles in their quest for personal development. Musson and Gibbons (1988) explained these obstacles as follows:

1. Urbanization and technology are depriving students of opportunities for natural learning (play). Places to play are disappearing and ways of playing are changing radically.

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2. Students are becoming over-programmed and passive because of television, crowded schools, over-structured recreation, and such electronic pastimes as computer and video games that may usurp human imagination and creativity.

3. The rise of the single parent family, the stresses of a two-career household, mothers entering the workforce while the students are still young, and the increasing incidence of open conflict and abuse at home have all contributed to chaotic changes in the home environment (p. 10-11).

An adventure education program in the school setting provides students the opportunity to set their own goals, develop positive feelings about themselves as well as others. In the process of confronting challenging activities (e.g., participating in a high element activity) experiencing challenge itself, and taking ownership of their challenges, students' self-esteem and desire for learning are enhanced. An adventure education program helps students to become self-directed persons who are responsible and independent and feel in control of their own lives.

Adventure education serves a variety of purposes: respect, trust, self-esteem, leadership, social skills, cooperation, communication as well as others. Many of these aspects are not as easily teachable in a traditional physical education program. Westheimer, Kahne, and Gerstein (1992) have suggested that teachers in schools should recognize the inherent qualities of adventure education, which utilizes the experiential learning process.

Adventure education has the unique ability to be very individualistic for every student. This type of curriculum gives the participants a chance to push past their

comfort zones to see how far they can go, as they experience new activities in a supportive environment of peers (Project Adventure, 1991). "Traditional approaches rely on abstraction and result in student passivity, experiential approaches encourage active participation in meaningful task oriented activities" (Westheimer, Kahne, & Gerstein, 1992, p. 45). The experiential approach also allows educators to put emphasis into a variety of areas (communication skills, critical thinking skills, team building, sense of empathy, problem solving skills, self-confidence, trust, perseverance, and strategies to resolve conflict) which will hopefully result in societal contributions (Henton, 1996).

CHAPTER III

METHODS AND PROCEDURES

Introduction

This study examined physical education teachers' knowledge and perceptions regarding processing in adventure education to determine if processing is done differently between the elementary, middle, and high school levels. A secondary purpose of this study was to assess adventure-based university instructors and others regarding processing in adventure education. The subjects involved in this study were all from the state of Wisconsin who specialized in teaching adventure education. The following null hypotheses were tested in the study:

- There will be no significant differences between grade level taught and how often an individual processes adventure education experiences with students.

- There will be no significant differences between grade level taught and how important participants feel it is to get students to reflect and draw personal meaning from an experience.

- There will be no significant differences between grade level taught and the specific types of responses a facilitator looks for during the reflection process.

Participants

Male and female physical education teachers, who specialize in teaching adventure-based courses within the elementary, middle school, high school, and university levels, were eligible to participate in this study on a volunteer basis. All participants involved in the study were from the state of Wisconsin. There were 85 participants involved in the study. Thirty-seven (n = 37) participants (43.5%) taught at

the elementary level, 15.3% of participants (n =13) taught at the middle school level, and

28.2% of participants (n =24) taught at the high school level. The remaining 12.9% of

participants indicated either teaching at the university level (n =8) or other (n =3). All

members of WAHPERD were sent the adventure education survey, but not all of the

members were asked to complete the survey, only those who have a background in

teaching adventure education courses were asked to participate. This may have resulted

in the low return rate of 11.6%. Surveyed participants have from one to over sixteen

years of experience instructing adventure-based activities.

Instrumentation

The study used the Adventure Education Survey (see Appendix B) as its testing

instrument. The Adventure Education Survey consisted of two parts, part one focused on

processing in adventure education, while the part two focused on training in adventure

education. The Adventure Education Survey was created by the researcher with the help

of professionals within the field of adventure education at the university level. The

survey consisted of 17 questions concerning an instructor's knowledge and perception

with respect to facilitator processing in adventure education. The survey was devised

initially by compiling a list of questions considered to be both reliable and valid with

respect to content in processing of adventure-based experiences for the survey

population. The questions were then piloted with five university professionals within the

field of adventure education for content and clarity. This process led to the refining of

questions, the omission of some considered unreliable, the breaking down of questions

into their constituent parts to allow clearer interpretation and answers, and the elimination

of vagueness. Following this, a second pilot was sent to the adventure education professionals for final review. The Adventure Education Survey was sent through Select Survey.

Procedures

This survey instrument was approved by the University of Wisconsin-La Crosse Institutional Review Board for the Protection of Human Subjects (IRB) on November 25th, 2008. Following IRB approval, permission was obtained from the executive director of the Wisconsin Association for Health, Physical Education, Recreation, and Dance (WAHPERD) to survey members within the organization on December 5th, 2008. All members of WAHPERD were sent an initial survey/informed consent letter (see Appendix A) by electronic mail on December 18th, 2008. The letter indicated the intent of the research project, as well as an informed consent section. Individuals that chose to participate would then click the link which took them directly to the Adventure Education Survey (see Appendix B). A secondary letter was sent by electronic mail to members of WAHPERD on January 8th, 2009 to remind them to complete the survey if they had not already done so.

Statistical Analysis

A Pearson Chi Square statistical test was used to test for independence. Additionally a Monte Carlo simulation found the p-value; this was done because the requirement that expected frequencies is greater than or equal to five necessary for the chi-square distribution to apply was not upheld. A Bonferonni correction was used to maintain a 5% significance level across all three tests. The three tests were divided

across the 5% significance level, and the new significance value became .016. Software

from the Statistical Package for the Social Sciences (SPSS) 16.0 was used to organize

and analyze data.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

A total of 984 members of WAHPERD were e-mailed the adventure education survey. Out of those, 85 (11.6%) chose to participate in the survey. Individuals participating in the adventure education survey included physical education teachers that specialized in teaching adventure-based activities at the elementary, middle, high school, and university levels. Questions from the survey related to educators' individual abilities and perceptions regarding processing in adventure education, a student's ability to understand processing in an adventure education experience, and specific processing techniques used by educators.

Response percentages from each question are given and comparison responses between certain questions are made with respect to their relevancy during the study. The results of the data analyses are presented under the following headings: results, discussion, and implications.

Results

The response rate for the survey was 11.6% (see Table 1). The adventure education survey and specific percentage responses are displayed in Table 2. The descriptive statistics for three separate comparisons are given in this section. A Pearson

Chi-Square statistical test for independence was used to test the following null

hypotheses:

- There will be no significant differences between grade level taught (Q3) and how often an individual processes adventure education experiences with students (Q4).

- There will be no significant differences between grade level taught (Q3) and how important participants feel it is to get students to reflect and draw personal meaning from an experience (Q15).

- There will be no significant differences between grade level taught (Q3) and the specific types of responses a facilitator looks for during the reflection process (Q16).

To maintain a 5% significance level across all tests, a Bonferonni correction was

used. The new significance level was .016 for all statistical calculations.

Table 1. Adventure Education Survey Return Rate

Organization	Approximate Number of Distributed Surveys	Survey Responses	Return Rate%
WAHPERD	984	85	11.6

Wisconsin Association for Health, Physical Education, Recreation and Dance

Table 2. Adventure Education Survey Responses

Question 1: Please select the answer that best represents your experience teaching adventure education

Answers	Response
1-5 years	(44) 51.8%
6-10 years	(28) 32.9%
11-15 years	(9) 10.6%
16 years or more	(4) 4.7%
Total	(85) 100%

Question 2: Please select the answer that best represents the total years of teaching experience

Answers	Response
1-5 years	(22) 25.9%
11-15 years	(21) 24.7%
6-10 years	(19) 22.3%
21 years or more	(17) 20%
16-20 years	(6) 7.1%
Total	(85) 100%

Question 3: Please indicate what level you currently teach at

Answers	Response
Elementary (K-5)	(37) 43.5%
High School (9-12)	(24) 28.2%
Middle/Junior High (6-8)	(13) 15.3%
College	(8) 9.4%
Other	(3) 3.5%
Total	(85) 100%

Question 4: How often do you process activities with students

Answers	Response
Daily	(36) 42.4%
Monthly	(25) 29.4%
Weekly	(17) 20%
I do not process with my students	(7) 8.2%
Total	(85) 100%

Question 5: On average how long are your processing sessions

Answers	Response
0-5 minutes	(53) 62.4%
6-10 minutes	(19) 22.3%
16 minutes or more	(8) 9.4%
Other	(4) 4.7%
11-15 minutes	(1) 1.2%
Total	(85) 100%

Question 6: How effectively do your students understand the concept of processing

Answers	Response
Effective	(44) 51.8%
Neutral	(33) 38.8%
Very Effective	(4) 4.7%
Ineffective	(3) 3.5%
Very Ineffective	(1) 1.2%
Total	(85) 100%

Question 7: How effective do you feel your processing skills are

Answers	Response
Effective	(48) 56.4%
Neutral	(25) 29.4%
Very Effective	(10) 11.8%
Ineffective	(1) 1.2%
Very Ineffective	(1) 1.2%
Total	(85) 100%

Question 8: What aspect of adventure education do you feel is more important

Answers	Response
Both are equally as important as each other	(67) 78.8%
Participating in the activity	(11) 13%
Processing the activity	(7) 8.2%
Total	(85) 100%

Question 9: How important is processing adventure experiences in health and physical education

Answers	Response
Important	(49) 57.6%
Very Important	(29) 34.1%
Neutral	(6) 7.1%

| Unimportant | (1) 1.2% |
| Total | (85) 100% |

Question 10: Do you feel you have been trained in the skills and knowledge in regards to processing to effectively guide students through the processing experience

Answers	**Response**
Yes, but more training would benefit me	(47) 55.3%
Yes	(34) 40%
No	(4) 4.7%
Total	(85) 100%

Question 11: Please indicate the response below that best describes you when processing an activity

Answers	**Response**
I typically use a variety of different techniques for processing with the groups I am working with.	(61) 71.8%
I typically use the same technique for processing with all groups I am working with.	(16) 18.8%
I typically do not choose a processing technique until I have gotten to know the group I am working with.	(8) 9.4%
Total	(85) 100%

Question 12: As an adventure education instructor, how important is it for you to set specific time aside from each activity to allow for reflection and debriefing

Answers	**Response**
I feel that reflecting on and debriefing the experience is somewhat important and I try to set aside time during each experience, but I sometimes do not have enough time to reflect on and debrief with students.	(48) 56.5%
I feel that reflecting on and debriefing the experience is very important and I set aside time during each experience to reflect and debrief an experience.	(30) 35.3%
I feel that the activity is the most important aspect of the experience and if time permits, I will reflect and debrief	

with students. (6) 7%

I do not spend time reflecting on and debriefing experiences
with students. (1) 1.2%

Total (85) 100%

Question 13: How much time would you say you spend involved in the activity vs.
processing the activity

Answers	**Response**
I spend more time involved in the activity than I do processing the activity.	(81) 95.3%
I spend an equal amount of time involved in the activity and processing the activity.	(4) 4.7%
I spend more time processing the activity than I do involved in the activity.	(0) 0%
Total	(85) 100%

Question 14: Would you say that when you are reflecting on and debriefing an
experience you allow

Answers	**Response**
A more participant directed approach to processing where the students decide what meaning is attached to an activity or experience.	(49) 57.6%
A more teacher directed or didactic approach, where you are leading the reflection and the students are providing you with direct feedback.	(36) 42.4%
Total	(85) 100%

Question 15: How important is it for you to get students to reflect and draw personal
meaning from an experience

Answers	**Response**
Important	(50) 58.8%
Very Important	(29) 34.1%
Neutral	(6) 7.1%

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Unimportant	(0) 0%
Very Unimportant	(0) 0%
Total	(85) 100%

Question 16: When questioning students, what types of responses do you look for during the reflection process

Answers	**Response**
I look for both specific answers as well as open ended.	(46) 54.1%
I look for open ended answers that rely on the student's ability to seriously reflect on the experience	(32) 37.6%
I look for specific answers to the questions I ask.	(7) 8.2%
Total	(85) 100%

Question 17: How important do you feel it is for students to transfer what they have learned in an activity to "life" situations

Answers	**Response**
Very Important	(58) 68.2%
Important	(25) 29.4%
Neutral	(2) 2.4%
Unimportant	(0) 0%
Very Unimportant	(0) 0%
Total	(85) 100%

The comparison of responses between question three (Q3) and question four (Q4) indicated that teachers tended to process daily at nearly all grade levels. Table 3 displays the comparison of responses and gives the percentage comparisons of question three (Q3) and question four (Q4).

Table 3. Comparison of Responses of (Q3) "Please indicate what level you currently
teach at", to (Q4) "How often do you process activities with students"

Grade level	Daily	Weekly	Monthly	Does not Process	Total
Elem. (K-5)	16(43.2%)	4(10.8%)	14(37.4%)	3(8.1%)	n = 37
Middle/ J.H. (6-8)	9(69.2%)	1(7.7%)	3(23.1%)	0(0%)	n = 13
H.S. (9-12)	6(25%)	9(37.5%)	6(25%)	3(12.5%)	n = 24
College	3(37.5%)	3(37.5%)	1(12.5%)	1(12.5%)	n = 8
Other	2(66.7%)	0(0%)	1(33.3%)	0(0%)	n = 3
Total					n = 85

The Chi-Square test for independence analyzed grade level taught (Q3) to how often an individual processes adventure education experiences with students (Q4) (see Table 4). There was no significant difference found, therefore we failed to reject the null hypothesis. This suggests that individuals teaching at different grade levels (elementary, middle school, and high school) were similar in their feelings about how often an individual processes adventure education experiences with students.

Table 4. Chi-Square Test of Independence: (Q3) "Please indicate what level you
currently teach at", to (Q4) "How often do you process activities with students"

	Value	df	Asymp. Sig(2-sided)	Sig.
Pearson Chi-Square	16.489	12	0.17	0.165

$*p < .016$

The comparison of responses between question three (Q3) and question fifteen (Q15) indicated that teachers tended to feel getting students to reflect and draw personal meaning from an experience was important at all grade levels. Table 5 displays the comparison of responses and gives the percentage comparisons of question three (Q3) and question fifteen (Q15).

Table 5. Comparison of Responses of (Q3) "Please indicate what level you currently teach at", to (Q15) "How important is it for you to get students to reflect and draw personal meaning from an experience"

Grade level Total	Very Important	Important	Neutral	
Elementary (K-5)	12(32.4%)	20(54.1%)	5(13.5%)	n = 37
Middle/ Junior High (6-8)	3(23.1%)	10(76.9%)	0(0%)	n = 13
High School (9-12)	8(33.3%)	15(62.5%)	1(4.2%)	n = 24
College	5(62.5%)	3(37.5%)	0(0%)	n = 8
Other	1(33.3%)	2(66.7%)	0(0%)	n = 3
Total				n = 85

The Chi-Square test for independence analyzed grade level taught (Q3) to how important participants feel it is to get students to reflect and draw personal meaning from an experience (Q15) (see Table 6). There was no significant difference found, therefore we failed to reject the null hypothesis. This suggests that individuals teaching at different grade levels (elementary, middle school, and high school) were similar in their feelings

about the importance of getting students to reflect and draw personal meaning from an

experience.

Table 6. Chi-Square Test of Independence: (Q3) "Please indicate what level you
         currently teach at", to (Q15) "How important is it for you to get students to
         reflect and draw personal meaning from an experience"

	Value	df	Asymp. Sig(2-sided)	Sig.
Pearson Chi-Square	8.123	8	0.422	0.424

*p < .016

The comparison of responses between question three (Q3) and question sixteen

(Q16) indicated that teachers tended to look for both specific and open ended answers

when questioning students at all grade levels. Table 7 displays the comparison of

responses and gives the percentage comparisons of question three (Q3) and question

sixteen (Q16).

Table 7. Comparison of Responses of (Q3) "Please indicate what level you currently
         teach at", to (Q16) "When questioning students, what types of responses
         do you look for during the reflection process"

Grade level	Specific Answers	Open Ended Answers	Both	Total
Elementary (K-5)	4(10.8%)	13(35.1%)	20(54.1%)	n = 37
Middle/ Junior High (6-8)	0(0%)	6(46.2%)	7(53.8%)	n = 13
High School (9-12)	2(8.3%)	7(29.2%)	15(62.5%)	n = 24
College	0(0%)	5(62.5%)	3(37.5%)	n = 8

Other	1(33.3%)	1(33.3%)	1(33.3%)	n = 3
Total				n = 85

The Chi-Square test for independence analyzed grade level taught (Q3) to the specific types of responses a facilitator looks for during the reflection process (Q16) (see Table 8). There was no significant difference found, therefore we failed to reject the null hypothesis. This suggests that individuals teaching at different grade levels (elementary, middle school, and high school) were similar in their feelings about the specific types of responses a facilitator looks for during the reflection process.

Table 8. Chi-Square Test of Independence: (Q3) "Please indicate what level you currently teach at", to (Q16) "When questioning students, what types of responses do you look for during the reflection process"

	Value	df	Asymp. Sig(2-sided)	Sig.
Pearson Chi-Square	7.380	8	0.496	0.504

*p < .016

Discussion

Processing is only one aspect of the adventure education experience, but looking at the level of its importance is not always easy, especially in an environment that may only allow a certain amount of time to participate in an experience as well as process that experience, much like what a physical education class would be. Physical education teachers have limited time during each class period, which can make participating in and processing an activity more difficult. This study examined physical education teachers'

knowledge and perceptions regarding processing in adventure education to determine if

processing is done differently between the elementary, middle, and high school levels. A

secondary purpose of this study was to assess adventure-based university instructors and

others regarding processing in adventure education.

Based on the results from the study and analyzed comparisons completed, the

following null hypotheses failed to be rejected:

- There will be no significant differences between grade level taught and how often
  an individual processes adventure education experiences with students.

- There will be no significant differences between grade level taught and how
  important participants feel it is to get students to reflect and draw personal
  meaning from an experience.

C. There will be no significant differences between grade level taught and the
   specific types of responses a facilitator looks for during the reflection process.

The analyzed data from the study did not indicate statistical significance. The

study did demonstrate that processing in adventure education is an important part of the

adventure education experience in the physical education setting. For example, out of the

85 participants involved in the study, 79(93%) felt that processing was either "very

important" or "important" in an experience. These findings lend support to Nadler and

Luckner (1992) who reported that every component of an outdoor-adventure experience

is important.

If the overall goal of an adventure education experience is for participants to take

what they have learned in that experience and apply it to their everyday lives, then

processing should be a top priority of an experience. Seventy-four (87%) of the

participants surveyed agreed that processing was either the most important aspect of the

experience or that both processing and participating in the experience were equally important. Priest and Gass (2005) pointed out that "people simply don't learn, grow, or change without reflection on their experiences; without evaluation of the good and bad; without analysis of mistakes, failures, or successes; without considering the impact of actions and decisions; without anticipating consequences or committing to new behaviors; and without understanding how they can use new learning, growth, and change. You can facilitate these gains by escorting people through the process and by accelerating it" (p. 174). Luckner (1994) also stated in his research on effective skill instruction in outdoor adventure education, that by providing effective skill instruction, educators and therapists not only can enhance the quality of the students' immediate experiences during the course, but also promote self-discovery, confidence, and transfer of practical skills to home environments.

A majority of participants indicated wanting to improve their processing skills. As an educator, always looking to improve as a teacher is extremely important and is needed to continuously keep up with an ever-changing educational environment. Effectively processing experiences is challenging and it is an area of adventure education that does not stay the same. When asked whether participants had been trained in the skills and knowledge in regards to processing to effectively guide students through an experience (Q10), 34 (40%) indicated they felt they did have the skills to effectively process experiences with students. While 47 (55%) felt they could effectively process experiences with students, more training in how to effectively process would be beneficial. Six (5%) of the participants indicated that they did not have the skills and

knowledge to effectively process experiences with students. This is not just K-12, but university instructors and others as well and is evidence that processing, as important as it may be, needs to be continuously learned. According to Simpson, Miller, and Bocher (2006), nearly all experiential educators want to improve their processing skills.

Getting students to reflect and draw personal meaning while processing an experience is very important. Deciding on how to process an experience is just as important. Educators can either choose a student-directed approach, where the participant decides what meaning is attached to an experience or a teacher-directed approach, where the teacher leads the reflection and the student provides direct feedback to them. When asked whether a more student-directed approach or a teacher-directed approach to processing was used (Q14), 49 (57.6%) indicated using a more student-directed approach while 36 (42.4%) indicated a more teacher-directed approach. The percentages to Q14 were similar to each other, which may be further indication that processing is not easy whether it be at the elementary level or all the way up to the university level.

These findings are similar to those of Estes (2004) in her study concerning student-centered learning in experiential education. Estes indicated that as adventure educators, we claim to value student-centered reflection, yet our values, as evidenced in practice, are often teacher-centered. Estes predicts that student-centered processing techniques will become more common in future experiential education programs. Brown (2004) found similar findings in his study on the balance of power during debriefing sessions with an adventure education program in Australia. Brown observed that the

teacher created his chosen version of reality through the use of formulations and public re-voicing of presumably student-created knowledge during debriefing sessions. He called for educators to critically reflect on practice with a view to exploring other ways [than talk circles] for facilitating learning, "if the aim was to provide opportunities for student's to express and articulate learning that reflects their lived experience" (p. 170). He concluded that his confirmation of "what is being done" (in terms of teacher-centered learning) could serve as a pre-cursor to understanding what should be done (in terms of student-centered learning).

Thomas (2008) studied facilitator educators and found that using intentionality and intuition during the facilitation process is important. To effectively develop a hypothesis regarding the groups you work with, facilitators must use intentionality and intuition. University instructors and others who will be teaching those students who will become teachers need to recognize that processing is not easy and for it to be effective, facilitators must create the right environment. This may involve doing things intentionally for the betterment of the group experience or going with the flow at times and using intuition. Participants within the university level and other, tended to have views similar to that of the elementary, middle, and high school physical education teachers in the study.

One important aspect in any physical education classroom is for educators to develop a holistic student. NASPE has created six standards for all national physical education programs to use as a guide. The six standards emphasize the psychomotor, affective, and cognitive domains, indicating that all three domains need to be met in

every physical education program which will lead to the development of a holistic student. Focus needs to be made not only on the psychomotor domain, but the cognitive and affective domains as well. To effectively do this, adventure educators need to spend time both participating in the activity and processing the activity. When asked what was more important, participating in or processing an activity, 67 (78.8%) of the participants felt both were equally important. Bunting (1989) agreed with the idea of developing a holistic student and suggests that if a school desires a holistic physical education program, an outdoor/adventure education component can greatly assist in accomplishing that objective.

Due to the non-significance of the findings and limitations of the study which included participants only representing the state of Wisconsin, self selection of participants, and the possibility of data being skewed because of misinterpreting of questions, further research in determining the importance of processing at the elementary, middle school, and high school levels is encouraged. Further assessment at the university level and within other adventure-based organizations is also encouraged.

Implications

This study examined physical education teachers' knowledge and perceptions regarding processing in adventure education to determine if processing is done differently between the elementary, middle, and high school levels. A secondary purpose of this study was to assess adventure-based university instructors and others regarding processing in adventure education. The results did not indicate any significant differences.

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Prospective and current physical education teachers who specialize in teaching adventure education may want to continue training on how to develop techniques for processing with students. University instructors and others may want to clearly communicate to the student teachers that an emphasis on continued training in how to better process activities with students is very important. Processing is not something that remains the same, but consistently changes with each group. Educators need to plan accordingly, get to know the groups they are working with, and decide on which processing technique is best. Current educators as well as university instructors and others may want to compare their processing techniques to those of other educators or individuals within the field of adventure education to expand on their knowledge. Inexperienced adventure educators usually find processing to be the most difficult aspect of an adventure experience because they do not understand how to get students to critically reflect and relate what they have just learned or are learning in an experience to "life" situations. As a result, the students may not make that cognitive connection between the activity and their everyday lives. A continued knowledge in how to effectively process experiences with students may help in connecting what a student has learned to their everyday life.

Physical education teachers specializing in teaching adventure education experiences should devote time during each experience to processing with students. Processing an experience can be done in a variety of ways. Luckner and Nadler (1997) suggested that processing could occur in the form of dialogue or discussion in group settings and through activities such as journaling, writing activities, drawing, or drama.

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University instructors should also spend time communicating the difference between student-centered and teacher-centered processing and the benefits of both.

Finally, physical education teachers must make sure that they allow students to reflect on their own. University instructors and others must also make a point to critically emphasize the importance of processing in adventure education, as well as the difficulty that it brings. It is critical that the student draw his or her own meaning from an experience if we want the student to transfer what he or she has learned to their everyday life. Therefore, educators should take a more participant (student)-centered role while processing an experience no matter what level they are teaching.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study examined physical education teachers' knowledge and perceptions regarding processing in adventure education to determine if processing is done differently between the elementary, middle, and high school levels. A secondary purpose of this study was to assess adventure-based university instructors and others regarding processing in adventure education. Eighty-five participants took part in this study.

Participants involved in the study were physical education teachers within the state of Wisconsin, and members of WAHPERD. Participation was strictly voluntary, and confidentiality was assured. All participants involved in the study were asked seventeen questions regarding processing in adventure education. The survey was devised initially by compiling a list of questions considered to be appropriate for the survey population with regard to processing in adventure education experiences. The questions were then piloted with five university professionals within the field of adventure education for content and clarity. This process led to the refining of questions, the omission of some considered unreliable, the breaking down of questions into their constituent parts to allow clearer interpretation and answers, and the elimination of vagueness. Following this, a second pilot was sent to the adventure education professionals for final review. Once the

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survey had been finalized, it was sent through e-mail to members of WAHPERD. Data from the survey was then collected and statistically analyzed through the comparison of responses of specific questions. None of the comparison responses indicated significant differences.

The researcher feels that although the analysis of data indicated no significant differences among groups, the study still demonstrated that physical education teachers across all educational levels feel processing is an important aspect of adventure education and do participate in processing experiences with students. The study demonstrated that processing in adventure education is an important part of the adventure education experience in the physical education setting. Participation in the adventure education survey indicated that many physical education teachers feel they are able to effectively process, they also feel more training in how to become better processors would be beneficial. Also, a majority of participants feel that processing is an important aspect of the adventure education process. Processing cannot be something left to chance. To effectively process, educators must continuously work to become better. Educators at the university level must work with undergraduates to provide them with the appropriate skills to effectively lead adventure education experiences. Part of this experience, for a facilitator, is to lead students through the aspect of processing during an experience.

Establishing links is one way of doing this. Links are vital, and can be both conscious and unconscious with each individual in a group. All members of an adventure education group are interconnected, and it is up to the educator to be receptive to each group members needs. If this does not occur, members of the group may not be able to

critically reflect on their experience. Adventure educators must create a sense of security for individual group members without interference or harm. This is known as containment. Linking and containment are necessary for all types of group, ranging in purpose from therapy, through development and education, to recreation (Ringer, 1999).

The end goal for any educator is to develop a holistic student and to assist simplification and transfer of learning from the activity to other life experiences. Focus needs to be made not only on the psychomotor domain, but the cognitive and affective domains as well. To effectively do this, adventure educators need to spend time both participating in the activity and processing the activity. A majority of participants (78.8%) in the study indicated that both participating in and processing an experience were equally important. For processing to be effective in any experience, educators must continuously work at it; by spending time processing with participants during each experience.

University instructors and others who may be educating the soon to be teachers, should put an emphasis on the importance of processing and clearly reiterate the difficulty processing can bring. To become effective at processing, teachers must make an effort to train themselves in how to effectively process. This may be through adventure education seminars, or just communicating with other educators to share thoughts and ideas on how to better process with students.

Adventure educators that effectively lead experiences will have students leave that experience with positive feelings about themselves, and other group members. Students will also become more responsible, confront challenging tasks, problem-solve,

and develop greater self-awareness and an ability to take control of their own lives, but most importantly take what they have just learned and relate it to their everyday lives.

Conclusions

Based on the results of this study, the following null hypotheses failed to be rejected:

- There will be no significant differences between grade level taught and how often an individual processes adventure education experiences with students.

- There will be no significant differences between grade level taught and how important participants feel it is to get students to reflect and draw personal meaning from an experience.

- There will be no significant differences between grade level taught and the specific types of responses a facilitator looks for during the reflection process.

Recommendations

Based on the conclusion of this study, the following recommendations for future studies were presented:

- Conduct a similar study with individuals who train educators on how to process experiences with individuals (i.e., professors, facilitation coordinators, etc).

- Conduct a similar study for specific members of adventure-based education organizations such as the Association for Challenge Course Technology (ACCT) or the Professional Ropes Course Association (PRCA).

- Conduct a similar study, but instead of examining information from the teachers or facilitators, examine information from the students who have completed an experience.

- Conduct a similar study, but observe subjects while they are processing to obtain

  real data.

- Repeat the study with a larger sample size.

- Repeat the study with a larger geographical area, not just the state of Wisconsin.

REFERENCES

Bacon, S. (1987). *The evolution of the Outward Bound process*. Greenwich, CT: Outward Bound USA.

Brown, M. (2004). "Let's go round the circle:" How verbal facilitation can function as a means of direct instruction. *Journal of Experiential Education, 27*(2)*,* 161-175.

Bunting, C. (1989). The compatibility of physical education and outdoor education. *Journal of Physical Education, Recreation, and Dance. 60*(2), 35-39.

Cain, J., Cummings, M., & Stanchfield, J (2005). *A teachable moment.* Dubuque, IA: Kendall/Hunt.

Carpenter, G., & Priest, S. (1989). The adventure experience paradigm and non-outdoor leisure pursuits. *Leisure Studies*, *8*(1), 65-75.

Claxton, G. (2000). The anatomy of intuition. In T. Atkinson & G. Claxton (Eds.), *The intuitive practitioner: On the value of not always knowing what one is doing* (pp. 32-52)*.* Maidenhead, UK: Open University Press.

Clocksin, B. D. (2006). Sequencing low adventure activities in elementary physical education. *Teaching Elementary Physical Education 17*(3),16-22.

Estes, C. A. (2004). Promoting student-centered learning in experiential education. *Journal of Experiential Education*, *27*(2), 141-160.

Estes, C.A., & Tomb, S. (1995). Is cheese food really food? a.k.a some conscious alternatives to overprocessing experience. Cortland, NY: International Conference on Outdoor Recreation and Education. (ERIC Document Reproduction Service NO. ED 404 080).

Ewert, A. (1988). Managing fear in the outdoor experiential education setting. *Journal of Experiential Education*, *12*(1)*,* 19-25.

Ewert, A., & Hollenhorst, S. (1989). Testing the adventure model: Empirical support for a model of risk recreation participation. *Journal of Leisure Research, 21*(2), 124-139.

Gass, M. A. (1993a). The evolution of processing adventure therapy experiences. In M. A. Gass (Ed.), *Adventure therapy: Therapeutic applications of adventure programming* (pp. 219-229). Dubuque, IA: Kendall/Hunt.

Gass, M. A. (1993b). Enhancing metaphor development in adventure therapy programs. In M. A. Gass (Ed.), *Adventure therapy: Therapeutic applications of adventure programming* (pp. 245-258). Dubuque, IA: Kendall/Hunt.

Ghais, S. (2005). *Extreme facilitation: Guiding groups through controversy and complexity.* San Francisco: Jossey Bass.

Henton, M. (1996). *Adventure in the classroom: Using adventure to create a community of life long learners*. Dubuque, IA: Kendall/Hunt.

Heron, J. (1999). *The complete facilitator's handbook.* London: Kogan Page.

Hovelynck, J. (1999). Facilitating the development of generative metaphors: Re-emphasizing participants' guiding images. *Australian Journal of Outdoor Education, 4*(1), 12-24.

Hunter, D., Bailey, A., & Taylor, B. (1999). *The essence of facilitation: Being in action in groups.* Auckland, New Zealand: Tandem Press.

Hutchinson, S.L., & Datillo, J. (2001). Processing: Possibilities for therapeutic recreation. *Therapeutic Recreation Journal. 35*(1), 43-56.

Ivey, A. E. (1987). *International interviewing and counseling: Facilitating client development* (2nd ed.). Pacific Grove, CA: Brooks/Cole.

Knapp, C. E. (1990). Processing the adventure experience. In J. C. Mills & S. Priest (Eds.), *Adventure education* (pp.189-197). State College, PA: Venture.

Knapp, C. E. (1993). Designing processing questions to meet specific objectives. In Gass, M.A. (Ed.). (1993). *Adventure Therapy: Therapuetic applications of adventure programming.* (pp. 239-244). Dubuque, IA: Kendall/Hunt.

Luckner, J. (1994). Effective skills instruction in outdoor adventure education. *Journal of Physical Education, Recreation & Dance, 65*(1), 57-61.

Luckner, J.L., & Nadler, R.S. (1997). *Processing the experience: Strategies to enhance and generalize learning* (2nd ed.). Dubuque, IA: Kendall/Hunt.

Martin, P., & Priest, S. (1986). Understanding the adventure experience. *Journal of Adventure Education*, *3*(1), 18-21.

Musson, S., & Gibbons, M. (1988). The new youth challenge: A model for working with older students in school age childcare. (Report No. ISBN-0-917505-02-6). Ontario, Canada: Canada Employment and Immigration Commission. (ERIC Document Reproduction Service No. ED 376962).

Nadler, R.S. (1995). Edgework: Stretching boundaries and generalizing experiences. *Journal of Experiential Education, 18*(1), 52-55.

Nadler, R. S., & Luckner, J. L. (1992). *Processing the adventure experience: Theory and practice.* Dubuque, IA: Kendall/Hunt.

National Association for Sport and Physical Education. (2004). *Moving into the future: National standards for physical education* (2nd ed). Reston, VA: Tannehill, D., DeJong, G., & Hensley, L.

Neri, C. (1998). *Group.* London: Jessica Kingsley Publishers.

Priest, S. (1992). Factor exploration and confirmation for the dimensions of an adventure experience. *Journal of Leisure Research*, *24*(2), 127-139.

Priest, S. & Baillie, R. (1987). Justifying the risk to others: The real razor's edge. *Journal of Experiential Education. 10*(1), 16-22.

Priest, S., & Gass, M. A. (1993). Five generations of facilitated learning from adventure experiences. *The Journal of Adventure Education and Outdoor Leadership,10*(3), 23-25.

Priest, S., Gass, M., Gillis, L. (2000). *The essential elements of facilitation.* Dubuque, IA: Kendall/Hunt.

Priest, S., & Gass, M. A. (2005). *Effective leadership in adventure programming* (2nd ed.). Champaign, IL: Human Kinetics.

Priest, S. & Naismith, M. (1993). A model for debriefing experiences. *The Journal of Adventure Education and Outdoor Leadership, 10*(2), 16-18.

Project Adventure (1991). *Adventure programming workshop manual*. Dubuque, IA:

Prouty, D., Panicucci, J., & Collinson, R. (2007). *Adventure education: Theory and applications/Project Adventure.* Champaign, IL: Human Kinetics.

Quinsland. L. K., & Van Ginkel, A. (1984). How to process experience. *Journal of*

Experiential Education, 7(2), 8-13.

Ringer, M. (1999). Two vital aspects in the facilitation of groups: Connections and containment. *Australian Journal of Outdoor Education, 4*(1), 2-8.

Rink, J. (2009). *Designing the physical education curriculum: Promoting active lifestyles.* New York: McGraw-Hill Higher Education.

Schon, D. A. (1988). *Educating the reflective practitioner.* San Francisco: Jossey Bass.

Schwarz, R. (2002). The skilled facilitator: *A comprehensive resource for consultants, facilitators, managers, trainers, and coaches.* San Francisco: Jossey Bass.

Sibthorp, J., Paisley, K., Gookin, J., & Furman, N. (2008). The pedagogic value of student autonomy in adventure education. *Journal of Experiential Education, 31*(2), 136-151.

Simpson, S., Miller, D., & Bocher, B. (2006). *The processing pinnacle.* Oklahoma City, OK: Wood 'N' Barnes Publishing.

Thomas, G. (2008). Preparing facilitators for experiential education: The role of intentionality and intuition. *Journal of Adventure Education and Outdoor Learning, 8*(1), 3-20.

Tuckman, B., & Jenson, M. (1977). Stages of small group development. *Group and Organization Management, 2*(4), 419-427.

Vokey, D. (1987). *Outward Bound: In search of foundations*. Unpublished doctoral dissertation, Queen's University, Kingston, Ontario, Canada.

Westheimer, J., Kahne, J., & Gerstein, A. (1992). School reform for the nineties: Opportunities and obstacles for experiential educators. *The Journal of Experiential Education, 15*(2), 44-49.

Witman, J. P. (1993). Characteristics of adventure programs valued by adolescents in treatment. *Therapeutic Recreation Journal, 27*(1), 44-50.

APPENDIX A

SURVEY / INFORMED CONSENT LETTER

Dear Physical Education Professional,

The University of Wisconsin-La Crosse is currently conducting research on adventure education and would appreciate your consideration as a participant in this research. This two part study is being conducted by graduate students Ben Schwamberger and Justin Rice who represent the adventure education department at UW-L. The graduate research advisor for this study is Dr. Jeff Steffen. Participation in the survey is strictly voluntary and confidentiality is assured. No individual survey results, names of participants, or schools of participants will be released in the study. By completing and returning the survey electronically you give your consent to use your survey data in the study. The survey should take no more than 10 to 15 minutes to complete.

Thank you very much for your time and your support of research in our field. Wisconsin has led the nation in adventure programming and we recognize your contribution. WAHPERD will receive a copy of all results to be shared with the membership. Please contact us if you have any questions.

Sincerely,

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APPENDIX B

ADVENTURE EDUCATION SURVEY

Adventure Education Survey

1. Please select the answer that best represents your experience teaching adventure
    education:
    a. 1-5 years
    b. 6-10 years
    c. 11-15 years
    d. 16 years or more

2. Please select the answer that best represents the total years of teaching experience:
    a. 1-5 years
    b. 6-10 years
    c. 11-15 years
    d. 16-20 years
    e. 21 years or more

3. Please indicate what level you currently teach at:
    a. Elementary (K-5)
    b. Middle/Junior High (6-8)
    c. High School (9-12)
    d. College
    e. Other

4. How often do you process activities with students?
    a. Daily
    b. Weekly
    c. Monthly
    d. I do not process with my students

5. On average, how long are your processing sessions?
    a. 0-5 minutes
    b. 6-10 minutes
    c. 11-15 minutes
    d. 16 minutes or more
    e. Other, please specify

6. How effectively do your students understand the concept of processing?
    a. Very Effective
    b. Effective
    c. Neutral
    d. Ineffective
    e. Very Ineffective

7. How effective do you feel your processing skills are?
    a. Very Effective
    b. Effective
    c. Neutral
    d. Ineffective
    e. Very Ineffective

8. What aspect of adventure education do you feel is more important?
    a. Participating in the activity
    b. Processing the activity
    c. Both are equally as important as each other
    d. Neither

9. How important is processing adventure experiences in Health and Physical Education?
    a. Very Important
    b. Important
    c. Neutral
    d. Unimportant
    e. Very Unimportant

10. Do you feel you have been trained in the skills and knowledge in regards to processing to effectively guide students through the processing experience?
    a. I feel that I have the skills and knowledge to effectively process experiences with students.
    b. I feel that I can effectively process experiences with students, but more training in how to effectively process would benefit me.
    c. I do not feel that I have the skills and knowledge to effectively process experiences with students.

11. Please indicate the response below that best describes you when processing an activity.
    a. I typically use the same technique for processing with all groups I am working with.
    b. I typically use a variety of different techniques for processing with the groups that I am working with.
    c. I typically do not choose a processing technique until I have gotten to know the group that I am working with.

12. As an adventure education instructor, how important is it for you to set specific time aside from each activity to allow for reflection and debriefing?

a. I feel that reflecting on and debriefing the experience is very important and I set aside time during each experience to reflect on and debrief an experience.
b. I feel that reflecting on and debriefing the experience is somewhat important and I try to set aside time during each experience, but I sometimes do not have enough time to reflect on and debrief with students.
c. I feel that the activity is the most important aspect of the experience and if time permits, I will reflect and debrief on the experience with students.
d. I do not spend time reflecting on and debriefing the experience with students.

13. How much time would you say you spend involved in the activity vs. processing the activity?
a. I spend an equal amount of time involved in the activity and processing the activity.
b. I spend more time involved in the activity than I do processing the activity.
c. I spend more time processing the activity than I do involved in the activity.

14. Would you say that when you are reflecting on and debriefing an experience you allow…
a. A more participant directed approach to processing, where the students decide what meaning is attached to an activity or experience.
b. A more teacher directed or didactic approach, where you are leading the reflection and the students are providing you with direct feedback.

15. How important is it for you to get students to reflect and draw personal meaning from an experience?
a. Very Important
b. Important
c. Neutral
d. Unimportant
e. Very Unimportant

16. When questioning students, what types of responses do you look for during the reflection process?
a. I look for specific answers to the questions I ask.
b. I look for open ended answers that rely on the student's ability to seriously reflect on the experience
c. I look for both specific answers as well as open ended answers that rely on a student's ability to reflect on an experience.

17. How important do you feel it is for students to transfer what they have learned in an activity to "life" situations?
a. Very Important
b. Important
c. Neutral
d. Unimportant

e.   Very Unimportant