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Promoting Perceived Competence in Youth: Examining the Interaction Between Leaders' Facilitation Style and Youths' Autonomy Orientation

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PROMOTING PERCEIVED COMPETENCE IN YOUTH: EXAMINING THE
INTERACTION BETWEEN LEADERS' FACILITATION STYLE AND YOUTHS'
AUTONOMY ORIENTATION

A Dissertation
Presented to
the Graduate School of
Clemson University

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

by
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ABSTRACT

In high ropes courses, there are many different types of facilitation styles that are effective. It is unclear how the environment that is created through particular facilitation styles impacts the outcomes participants experience. The tenets of Self-Determination Theory (SDT) provide useful direction in understanding how two styles of facilitation interact with clients' personality in promoting positive outcomes such as perceived competence. The purpose of this study was to examine how the learning environment created through either an autonomy supportive or controlling facilitation style affects the perceived competence of at-risk youth participants in relation to their level of autonomy. Eighty-eight economically disadvantaged youth between the ages of 8 and 13 were evaluated using a pre- and post-test quasi-experimental design with random assignment. Analysis of covariance and multiple linear regression was used to test the effects of the two facilitation styles. The findings reveal that depending on level of autonomy there is a significant influence of facilitation style on youths' perceived competence.

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CHAPTER ONE

INTRODUCTION

Certified Therapeutic Recreation Specialists (CTRSs) are faced with the challenge of creating optimal environments used to bring about changes in their clients. The following scenario takes place at a fictitious outdoor adventure course and provides one example of such challenge. The events outlined in this scenario are frequently observed in real life settings. This scenario follows the experience of two youth participants who are experiencing a high ropes course for the first time.

As Lucy and I walk with our cabin mates down a well beaten path to a series of wires bolted to huge trees in the midst of a tall forest, the two instructors ask if anyone has ever done a ropes course or adventure challenge course before. Lucy turns to me and says “ropes course, adventure challenge, what are those?” I think to myself that the only adventure or challenge, depending on how you look at it, I have in my life is not getting pregnant in my teenage years, staying away from the drugs that the other kids are using, and not getting stuck like my mom with no education and working a dead end, low paying job just to put food on the table. The instructors continue talking about safety and how we are suppose to wear these stupid diaper-like harnesses. I turn to my friend Lucy and say “I’m not wearing that stuff.”

One of the instructors approaches both Lucy and I and attempts to get us to put on the equipment. He’s one of those types that talks a lot, is quite demanding and for some reason insists on holding his clip board. I wonder what that’s all about. As he gives us specific directions on what we should be doing and that everyone has to at least try, I start to tune him out. I look over to see if Lucy is following along and see that she is starting to get her equipment on. I think to myself that he is not making me do this no matter what! I mean what’s with this guy all of sudden telling me I should be doing this and I must do that and now he’s criticizing others for not listen carefully and for putting the equipment on wrong. He is not even listening to some of the questions some of the other kids are asking, what a guy! I focus again on Lucy. It doesn’t seem to bother her in fact she seems to like the way he tells her directly what she should be doing and how much time she has to do it. That’s not for me though!

As I mentally start to question my ability to do what the man is asking, I sit down on the bench. The other instructor approaches me and strikes up a conversation

asking me if the ropes course looks at all interesting to me and if I would like to try it. He takes the time to listen to my concerns of not knowing what I'm doing or how to use the equipment and then shows me again how to put on the harness and other equipment. I still don't feel ready to climb into those trees. What if I can't do it? He smiles and tells me that I am a strong individual who will have no trouble finishing the rope course. I am still not sure and he allows me some time to think it over. In a few minutes he approaches me again with the same compassion and from what he is saying, I know he knows where I am coming from. Somehow he manages to encourage me to at least try the first element. After talking with him for a few more minutes I feel a little better, like I may in fact be able to do this. He shows me how to put on the equipment again and attach myself to the wire above my head and I step up on the incline log. Here I go!

If this scenario were true, the first facilitator may not have been the right fit for the one particular youth participant; however, he did meet the needs of the other participant, Lucy. The environment the first staff member created through his facilitation techniques worked well with Lucy and was effective for her, although it did not mesh well with the personality of the other youth in this scenario and therefore may not have yielded the intended outcomes of the ropes course for that participant. The second facilitator, on the other hand, who had a different facilitation style was more conducive to the other youth participant's personality and was therefore viewed in a different manner by that participant. By matching staff's facilitation style with the youths' personality there becomes a greater chance of generating the intended outcomes for the high ropes course (e.g., Howe-Murphy & Charboneau, 1987). The question then should not be how does the participant's personality impact the outcomes of a ropes course, but how do facilitators provide an environment that supports individual personality differences in relation to his/her preferred learning environment? Thereby, beginning to understand how the match between the person's personality and the environment brings about positive outcomes.

Adventure challenge therapy is “an active approach to psychotherapy for people seeking behavioral change, either voluntary or through some-court ordered coercion, that utilizes adventure activities, be they group games and initiatives or wilderness expeditions (with some form of real or perceived risk), as the primary therapeutic medium to bring about such change” (Gillis, 1995, p.5). In adventure challenge courses there are many different types of facilitation techniques that are effective; however, many facilitators fail to realize that some techniques work for some people but not others and vice versa. Facilitators need to question how the environment they create through their facilitation style impacts the outcomes that youth participants experience. In the case described above the unnamed participant’s perception of her competence for completing the ropes course was low. The first facilitator’s approach further decreased the participant’s perception of her competence; whereas, the second facilitator’s approach seemed more fitting to the participant’s personality. The second facilitator’s approach increased this participant’s perceived competence enough for her to at least attempt the course. Whereas for Lucy the direct approach of the first ropes course facilitator was just what she needed in a leader for her to feel competent in her abilities. Therefore, if the learning environment is not conducive to a person’s personality then it is unlikely that the desired outcomes will be achieved.

In therapeutic recreation, adventure challenge therapy such as high ropes courses has increasingly become one of the most popular modality used in the field (Austin, 2001). As cited in Autry (2001), Austin outlines “as in other therapeutic recreation contexts, the facilitator’s role in adventure therapy is vital for therapeutic change;

however, the emphasis remains on the client being able to increasingly become more responsible for changes in him/herself and in the treatment process” (p.292). Thus far, the research on this type of therapy, specifically high ropes courses, has not examined how facilitator styles impact the desired outcomes or therapeutic change. What is known from past research is that “adventure therapy can provide empowering outcomes for those who experience low self-perceptions and who engage in self-destructive behaviors” (Autry, p.290). The facilitation style in the high ropes context is thought to play a role in the achievement of desired outcomes such as perceived competence.

For many youth who are at-risk, experiential learning can be very effective especially in its relation to perceived competence and self-esteem (e.g., Berman & Davis-Berman, 1995, Groff & Dattilo, 2000). Children who in reality are academically capable yet do not perceive themselves in this positive and accurate manner may someday find themselves inadequately positioned for future scholastic avenues requiring perseverance, confidence in their achievements, and the ability to be attuned to the amount of energy they put forth (Phillips, 1984). Phillips concludes in her study on youth in the school setting that children with low perceived competence exhibit marked differences in their perceptions and behaviors compared to those who have a more optimistic perception of their capabilities. Those who have a low perceived competence set lower achievement standards, assume lesser expectancies for achievement, view their teachers as anticipating minimally from them, and relate their success to the energy they put forth and not to their abilities. Therefore, it is important to consider how conducive the environments CTRSs

create through their facilitation styles in the high ropes course settings are with participants' personality and the affect this has on their perceived competence.

This study examined the impact of two facilitator styles used by high ropes course facilitators on at-risk youths' perceived competence, while taking into consideration youths' level of autonomy. This study utilized a pretest-posttest quasi-experimental design with a follow-up test in order to examine the impact of two types of facilitator styles, autonomy supportive and controlling, on a group of at-risk youth participants. This chapter will address the following: (1) Self-Determination theory, (2) perceived competence, (3) statement of purpose, (4) hypotheses, (5) limitations, and (6) definition of terms.

Self-Determination Theory (SDT)

To date, the research in therapeutic recreation on adventure challenge courses has not been theoretically grounded (e.g. Pommier & Witt, 1995, Voight, 1988). The tenets of SDT may provide useful direction in terms of understanding how facilitator styles may interact with clients' personality in promoting positive outcomes. Ryan & Deci's (2002) writings on SDT outline the theory as focusing on two main concepts: (a) that people have an innate tendency toward growth and integration of a unified sense of self and (b) that social environments either support or thwart people's efforts to perfect and integrate their experiences. According to SDT, an environment that supports healthy functioning ultimately supports the satisfaction of a person's basic psychological needs of competence, relatedness, and autonomy. A social context that supports these basic needs in return supports a person's motivation, performance, and well-being.

The social context of an environment can impact the satisfaction of the three basic needs mentioned above. Situations that are autonomy supportive have been regarded as those that provide options and support of a person's ideas and encourage a person's competence, all of which endorse autonomous motivation (Gagne, 2003). Previous research by Grolnick, Ryan, and Deci (1991) demonstrates the role that autonomy supportive parenting plays in a child's perceived competence. Their findings indicate that perceived parental autonomy support was linked to a child's perceived competence. Similar findings occurred in the academic setting. Vallerand, Fortier, and Guay (1997) reported that the autonomy support of parents, teachers, and school supervisors was linked to the student's perceived competence in the academic setting. Although the children's personality was not measured in these studies, it is plausible that if the type of support matched the children's personality there would be higher perceived competence.

It is important to note that there are significant variations in the way a person's behavior is regulated whether it be intrinsically or extrinsically and how that regulation characterizes autonomous (self-determined) or controlled behaviors. In SDT, for autonomous behavior, intrinsic motivation is the ideal. Those individuals who are intrinsically motivated are said to be self-determined. Activities that are extrinsically motivated are considered to be increasingly controlled and therefore are not as autonomous. Within SDT, extrinsic motivation is distinguished by the extent of its internalization (The Self-Regulation Questionnaires, 2006). Internalization has been defined within SDT as "the natural tendency to strive to integrate (or take into one's self) socially-valued regulations that are initially perceived as being external" (Koestner &

Losier, 2002, p.101). The greater the degree of internalization of extrinsic motivation and the incorporation of extrinsic motivation to a person's inner self lends itself to a stronger foundation for autonomous activity (The Self-Regulation Questionnaires).

There are four kinds of behavior regulations as seen in Figure 1 (ranging from the lowest to the most fully internalized) are; external regulation, introjected regulation, identified regulation, and integrated regulation (The Self-Regulation Questionnaires, 2006). The first behavioral regulation is external regulation. External regulated behaviors are actions that are completed to gratify a demand from an outside source or for the possibility of a reward and are thought to be controlled. The second behavior regulation is introjected regulation. Here the behavior is moderately controlled and actions are completed in order to evade guilt or anxiousness or to build up one's ego. The third behavioral regulation is identification regulation. This form of regulation is considered slightly more autonomous and is demonstrated through a more mindful importance being placed on intended behaviors which are acknowledged and possessed by the person. The fourth and final behavioral regulation is integrated regulation. Integration is said to have been achieved once identified regulations are completely incorporated into one's character and resemblance occurs with their values system and their needs. Internalizing extrinsically motivated behaviors is also linked to our perceived competence in that we are more likely to do activities that we are successful in which are valued by others in our peer group (Ryan & Deci, 2000a).

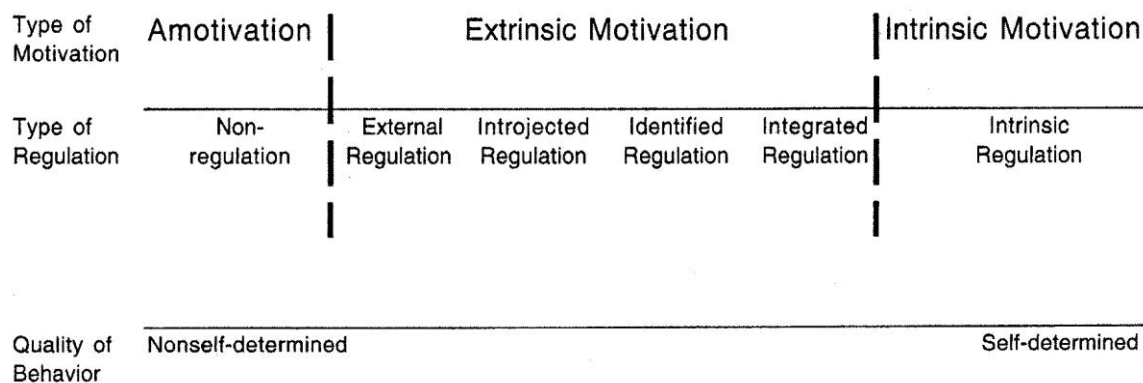


Figure 1: The Self-Determination Continuum, with Types of Motivation and Types of Regulation (Ryan & Deci, 2000a)

Perceived Competence

Past research indicates the importance of cultivating perceived competence in youth, especially in the younger age groups. “Research has shown that positive perceptions of self-competence at an early age results in children’s success in a variety of tasks, continued positive perception of self-competence later in life, adjustment and success in school, and higher peer and social acceptance.” (as cited in Jambunathan & Counselman, 2004, p.18-19). As a result of these documented benefits, those CTRSs working in the youth development arena are questioning the efficacy of TR programs that claim to yield perceived competence as an outcome.

There are two schools of thought pertaining to the concept of perceived competence. One being that the perception of self-competence is said to be multidimensional (perception of competence is thought to be comprised of separate skill domains) and the other being one-dimensional (perceived competence is considered as one score) (Jambunathan & Burtis, 2003; Jambunathan & Counselman, 2004). Thomson

and Zand (2002) noted a shift in how appropriately unidimensional models were viewed by researchers. Through the years researchers have come to regard unidimensional models as disguise the differences that individuals construct pertaining to the attributes in specific domains.

Harter (1982) ascribed to the multidimensional concept of perceived competence and was interested in the relationship between the youth's perception of their competence and their true competence. This relationship lends itself to the ascertainment of a confident and rational concept of personal competence and self worth (Lee, Super & Harkness, 2003).

Summary

There is a limited amount of information pertaining to the impact that adventure challenge facilitation, specifically high ropes courses, has on the learning environment and on how the learning environment affects the outcomes of the course for at-risk youth. Additionally, adventure challenge therapy is atheoretical yet this modality speaks well to the concepts found in the Self-Determination Theory. SDT couples feelings of competence with the social context (e.g., Miserandino, 1996) and it is felt that adventure challenge therapy would be a good milieu to study this relationship because it has been noted for its capability for targeting levels of perceived competence. There is a need for further research on the affects of an autonomy supportive environment within a high ropes course, as well as how their level of autonomy affects their feelings of perceived competence.

Statement of Purpose

The purpose of this study was to examine how the learning environment created through either an autonomy supportive or controlling facilitation style in a high ropes course affected perceived competence for at-risk youth participants in relation to their level of autonomy (See Figure 2 for logic model).

Hypotheses

Research Question 1: Are youth who are high in their level of autonomy, who participate in an autonomy supportive high ropes course environment, more likely to show an increase in their perceived competence compared to those low in their level of autonomy?

Ho1: Youth who are high in their level of autonomy, who participate in an autonomy supportive high ropes course environment, will not show a significant increase in their perceived competence compared to those who are low in their level of autonomy.

Research Question 2: Are youth who are high in their level of autonomy, who participate in a controlling high ropes course environment, more likely to show an increase in their perceived competence compared to those who are low in their level of autonomy?

Ho2: Youth who are high in their level of autonomy, who participate in a controlling high ropes course environment, will not show a significant increase in their perceived competence compared to those who are low in their level of autonomy.

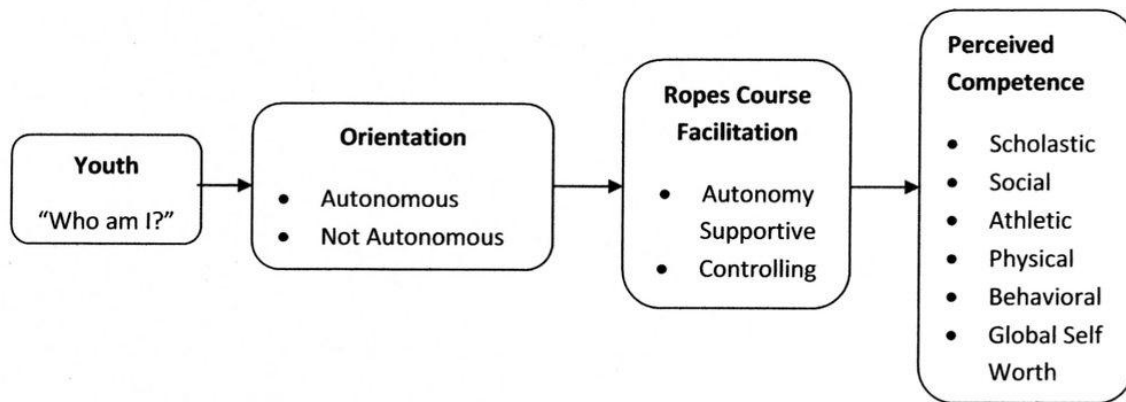


Figure 2: Logic Model

Definition of Terms

The definitions of terms that are used throughout this research study are as follows:

At-risk Youth:

Those youth who live in economically disadvantaged environments (poverty) who are more likely to be at risk for health and behavioral problems such as; poor overall health, illness/injury related missed school days, doing poorly in school, premature sexual contact, limited use of birth control, and early pregnancy (Burt, Resnick, & Novick, 1998).

High Ropes Course:

“Utilizes structures (components) made with rope, steel cable and wood. The environment of these challenge course programs is a series of components, usually installed in a wooded area at ground level or up off the ground in trees or on pole structures. The components are walls, beams, cable and rope traverses, nets, bridges, ladders, platforms, etc” (“*Team Ventures Training Manual*”, 2003, p.4).

Perceived Competence: “Perception of self-competence according to Harter (1983) is the ability of children to identify their competencies in certain tasks” (as cited in, Jambunathan & Burts, 2003, p.651)

Autonomy:

A term that refers to one being self-regulated; where one behaves based on their inner self’s desires. Autonomy refers to one being the source of his/her own actions and behaviors which they choose and are responsible for (Deci & Ryan, 1990; Deci & Ryan, 1987; Ryan & Deci, 2002; Williams & Deci, 1998).

Controlling:

Controlling events refers to “events that pressure people towards specific outcomes, thereby denying them the experience of choice [and] have repeatedly been shown to undermine intrinsic motivation” (Deci, Spiegel, Ryan, Koestner, & Kauffman, 1982, p.852).

Autonomy Supportive Environment:

An autonomy supportive environment is an environment where the authority figure (e.g., the facilitator) reduces pressure and demands and is able to identify with the other’s (e.g., the participant’s) point of view, recognizes their outlook, and presents them with significant information and choice (Black & Deci, 2000).

Controlling Environment:

A controlling environment is an environment where the authority figure (e.g., the facilitator) attempts to control and pressure the other (e.g., the participant), through

coercive methods, to tailor their behavior. These coercive methods usually include inherent or overt incentives or retributions (Black & Deci, 2000).

Relative Autonomy Index (RAI):

The RAI is a score which is comprised of the combination of four subscales: external, introjected, identified, and intrinsic regulation with the controlled subscales (external and introjected) being weighted negatively and the autonomy subscales (identified and intrinsic) being weighted positively (The Self-Regulation Questionnaires, 2006, ¶ 4).

CHAPTER TWO

LITERATURE REVIEW

Introduction

“The use of outdoor experiences for educational purposes has a rich history. Plato extolled the virtues of outdoor experiences for developing healthy bodies, which lead to healthy souls. Like many outdoor adventure programs, Plato considered that the aim of physical education was not primarily to enhance physical skills and that it had a higher educational value” (Hattie, Marsh, Neill & Richards, 1997, p.43). Over the years there has been considerable amount of research on the benefits of adventure challenge courses (e.g., Chakravorty, Trunnell, Ellis, 1995; Hattie, Marsh, Neill, & Richards; Lindenmeier, Long, & Robertson, 2004; Sottile Jr., Parker, & Watson, 2000); however, there has been some indication that the role the facilitators or the environment they create (autonomy supportive vs. controlling) could be an important contributor to these outcomes. Even though there has been attempts made to thoroughly comprehend the various aspects of leadership styles and facilitation techniques, a minimal amount of research has examined these dynamics on their own or in the adventure challenge settings, in particularly with at-risk youth. The environment in which adventure challenge courses are conducted makes this type of research challenging; therefore, previous researchers have looked at ongoing adventure challenge programs in their totality rather than in parts (Lindenmeier, Long, & Robertson).

According to the literature, “when teachers [and in this case facilitators] are more supportive of autonomy and less controlling, students demonstrate higher levels of

intrinsic motivation and self-determination” (Pelletier, Sequin-Levesque, Legault, 2002, p.186). A large amount of research has been done regarding self-determination and autonomy supportive environments and its impact on individuals within those environments (e.g., Reeve, 2002; Vansteenkiste, Simons, Lens, Sheldon, Deci, 2004; Vallerand et al., 1997; Williams & Deci, 1996); however; it is not only important to examine the type of environment which an adventure challenge course is conducted in, but also important to look at the personality types of the participants, in this case, at-risk youth. Not only does the environment, which the facilitator provides, affect the outcomes of an adventure challenge course, but the personalities of participants also impact the results.

At-Risk Youth

There has been an increased concentration on at-risk youth for those specializing in the field of recreation (McCready, 1997). For many youth who are at-risk, experiential learning can be very effective especially in its relation to perceived competence (e.g., Berman & Davis-Berman, 1995, Groff & Dattilo, 2000); however, the notion of “at-risk youth” can be very ambiguous and requires clarification. The medical field outlines the notion of “risk” as representing the idea that experiencing certain conditions or factors that put a person at risk, enhances the possibility that a person will face some unfavorable outcomes based on these experiences (Finn & Rock, 1997). However, in the field of education and in working with youth it is impossible to map out the precise beginning point of the phrase “at-risk”. Over the past 30 years this phrase has emerged in multiple contexts on the federal level and in the field of education (Capuzzi & Gross, 2004).

Furthermore, Schonert-Reichl (2000) supports the notion of the ambiguous origins of the phrase at-risk youth; however, she claims it has its basis in the medical field in addition to the aforementioned educational field. Additionally, within the ERIC library database listings, a somewhat novel term “at-risk student” is not listed separately, but is linked and redirects users to the phrase ‘high risk students’ which is a phrase that has only been in the database since 1980. Moreover, terms like low achievement, underachievement, and disadvantaged which are considered to be related to the phrases “at-risk student” and “high risk student” have been part of the ERIC listings since its inception in 1966. Therefore one can conclude that “at-risk” is merely a novel name for a preexisting trend with significant history (Richardson, Casanova, Placier, & Guilfoyle, 1989).

Through the examination of the literature it has become apparent that the phrase at-risk youth has various definitions depending on the source and many people are interested in understanding and defining the phrase at-risk youth. According to Burt, Resnick, and Novick (1998), there are three reasons for this interest based on emerging developments within child development and in the theory of prevention. The first reason for this increased curiosity is the recognition and support of human development theories such as Bronfenbrenner’s model which describes the environment’s responsibility in youth development. The second reason for such an increased interest in attempting to understand the concept of at-risk youth is the results from previous studies surrounding early intervention. These studies revealed that programs conducted in early childhood can decrease some of the negative impacts youth experience as a result of low income, poor schooling and lack of social skills. The third and final reason pertains to the current

movement of considering separate problems that youth face today such as drug and alcohol abuse, teen pregnancy, and doing poorly in school as universal rather than separate and original causes.

When trying to understand the trends in the interests for defining at-risk youth, it remains difficult to delineate the phrase at-risk youth. The literature indicates that the use of the word “risk” has multiple meanings and is used in different ways and in different settings. There are two main reasons as to why defining the term “risk” is so challenging. First, once youth workers become aware of the specific problems that put youth at-risk they are past the point of being at-risk. Second, current evaluations used with youth do not measure their abilities and therefore resulting in a lack of information relating to the potential defence mechanisms youth may have which could help them in dealing with potential risk factors (Burt, Resnick, & Novick, 1998).

Some authors have taken the liberty of summarizing “risk” in their own way. For example, Dryfoos (1990a) nicely summarizes “risk” in terms of behavior, which helps to provide more clarity to the situation. She writes, “risk behavior may have minor or major, short- or long-term consequences. In defining risk, those youngsters for whom there is a high probability (risk) that the negative consequences will occur would make up the primary targeted population” (p.5). Dryfoos continues stating, “this means that some young people may not have initiated the behavior yet, but their demographic, personal, or social characteristics predict that they are vulnerable” (p.5).

According to Burt et al. (1998), four definitions of risk have been revealed in the literature; risk as sensation seeking, living in a risky environment, antecedents and

markers, and risk as certainty. Risk as sensation seeking involves understanding youth's behavior based on the ideology that it is the interchange between norms in our culture and the stage of adolescents where youth are searching for novel events or interactions which may hold some risk or lack approval from others in society. The definition of living in a risky environment places emphasis not on the youth's behavior but on their environment itself and its impact on the youth. "Such environments would include neighborhoods with high levels of familial and community violence, drug abuse, crime, unemployment, inadequate housing, and the like; communities with many negative peer and adult role models and few positive ones; little or no parental support and monitoring; and few opportunities for future employment" (p.30-31). Viewing risk in this manner assumes that living in environments such as these can influence youths' behavior and ultimately setting them up for severe and harmful outcomes. The antecedent and markers approach to defining risk includes antecedents such as socio-economic and neighborhood aspects as well as markers such as academic achievement or information of abuse/neglect and are used in timing interventions strategies appropriately. Finally, the risk as certainty approach to defining at-risk youth takes on a more reactive approach where services or assistance is not provided unless problem behaviors have been indicated by the youth and they have been labeled as at-risk.

The Profile of At-Risk Youth

It has been "estimated that seven million young people in the United States, one in four of those ages ten to seventeen, are currently at high risk of not being able to enter the labor force, be effective parents, or participate in society as voters and community

members” (Dryfoos, 1990b, p.227). It is commonly known that investigators of youth and their behavior have unfortunately limited their understanding by focusing only on race, level of income and the family composition resulting in the stereotype that youth who have a greater probability of delinquency are typically from low income dysfunctional families and are primarily African American (Marks, 2000).

The literature and the available data depict the at-risk youth profile as primarily males living in metropolitan areas with families who are low income and poorly educated. Typically, African American and Hispanic youth are often equated with teen pregnancy resulting from early and unprotected sexual contact, doing poorly in school and other aspects of delinquency. Interestingly, at-risk Caucasian youth supersede those African American and Hispanic youth who are of the same age group (Dryfoos, 1990b). Statistically, “about 3.3 million white non-Hispanic, 1.9 million primarily white Hispanic, and 1.7 million black” (Dryfoos, p.227) youth are at-risk. Dryfoos comments on the data presented as being only approximations which assist in clarifying the widespread misunderstanding that delinquency is solely a characteristic of marginalized youth. Clearly, the majority of youth who are at-risk for problem behaviors reside in environments which are seriously deprived such as “severely disadvantaged households and neighborhoods; in fact, roughly 10 percent are homeless or live on the streets” (Dryfoos, p.227). Furthermore, researchers who spotlight conventional demographics such as race may in fact unintentionally miss other causal attributes to problem behaviors and simplifying causal relationships this way could potentially classify certain youth as at-risk and not others (Marks, 2000).

Self-Determination Theory

Self-determination theory (SDT) is a large umbrella-like theory that is comprised of several smaller theories. SDT examines personal motivation in conjunction with one's personality and their social environment. Behaviors that are considered to be self-determined are freely chosen, fully supported and accepted by the individual.

According to Ryan and Deci (2000a), SDT "is the investigation of people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes" (p.68). Deci and Ryan have identified three basic needs: autonomy, competence, and relatedness. These needs "appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development" (Ryan & Deci, p.68). Basically, "self-determination theory focuses on the dialectic between the active, growth-oriented human organism and social context that either support or undermine people's attempts to master and integrate their experiences into a coherent sense of self" (Ryan & Deci, 2002, p.27). "One aim of SDT is, indeed, to specify necessary conditions for promoting growth (intrinsic motivation), integrity (integration), and well-being" (Ryan & Deci, 2000b, p.336).

SDT is broken up into "four mini-theories that share the organismic-dialectical metatheory and the concept of basic needs. Each of the metatheories was developed to explain a set of motivationally based phenomena that emerged from laboratory and field research and focused on different issues" (Ryan & Deci, 2002, p.27). The four mini theories; cognitive evaluation theory, organismic integration theory, causality orientation

theory and basic needs theory all help to clarify motivational trends. Specifically, cognitive evaluation theory focuses on intrinsic motivation and how one's social environment impacts this type of motivation; organismic integration theory focuses on extrinsic motivation and how a person internalizes based on this type of motivation; causality orientation theory addresses individual ways in which people adjust to their environment which maintain their self-determination and to their self-determined behavior itself; and basic needs theory focuses on overall health and well-being and how they are connected to a person's basic needs (Ryan & Deci; The Theory, n.d.). The mini theory that will be addressed later and more in depth is the organismic integration theory (OIT) which, "is based on the assumption that people are naturally inclined to integrate their ongoing experiences" (Ryan & Deci, p.15).

Autonomy Supportive and Controlling Environments

Autonomy supportive environments have been described as providing choice and maintaining individual's ideas as well as encouraging competence. These types of environments have been described as those that endorse autonomous motivation versus controlled motivation (Gagne, 2003). Within SDT, motivated behaviors are distinguished by the level in which they are autonomous or controlled. Those behaviors that are deemed as autonomous in nature have been defined as having an internal perceived locus of causality, are done because they are interesting and because they are important to and are derived from one's self. Quite the opposite are controlled behaviors which have been defined as having an external perceived locus of causality, are participated in as a result of pressure or demand from others (Black & Deci, 2000).

In terms of the social context, SDT suggests that it is the relationships with others that impacts whether persons are autonomous or controlled. The notion of autonomy support essentially refers to those who are viewed as authority figures (e.g., a facilitator) who are able to empathize with another person (e.g., students or campers) as well as recognize their feelings, present information, choice and capitalize on the limited pressures and demands that are used. Additionally, a divergent social context exists where the authority figure is more controlling. In this context pressure is used to control another person to act in a certain manner. This is achieved through using coercive methods or through using rewards and punishments (Black & Deci, 2000). A supporting argument has been made for the use of autonomy supportive environments as these contexts are likely to sustain and to increase intrinsic motivation (e.g., Deci, Schwartz, Sheinman, & Ryan, 1981) as well as encourage recognition with external regulations and promote internalization (e.g., Grolnick & Ryan, 1989). In contrast, controlling contexts have opposite affects as they are likely to weaken intrinsic motivation and hinder internalization (Black & Deci); however, some cultures such as African Americans have the tendency for enhanced academic achievements when educators were increasingly direct with their instructions (Jambunathan & Burts, 2003). Additionally, “studies in several domains have found the effects of autonomy-supportive versus controlling social contexts on learning and well-being outcomes to be mediated by participants’ autonomous motivation while engaging in the behavior (e.g., Williams, Grow, Freeman, Ryan & Deci, 1996).....many studies have shown a correlation between intrinsic goal content and autonomous motivation (e.g., Sheldon, Ryan, Deci & Kasser, 2004)”

(Vansteenkiste, Simons et al., 2004, p.247). As seen in many classroom settings, teachers who utilize autonomy support techniques essentially foster their students' intrinsic motivation and internalization (Reeve, 2002). Furthermore, research has discovered that those students who had teachers' with teaching techniques that were considered controlling in nature had lower perceived competence, self-worth and intrinsic motivation (Ryan & Grolnick, 1986). Additionally, autonomy supportive environments have been noted by Reeve as endorsing identified regulation of one's behavior compared to controlling environments which encourage introjected regulation which is more external in nature.

As the literature within SDT expands so do the contexts in which the various concepts such as the social environments are examined (i.e., medical and health field, the work environment, sports and exercise domains, and with parental support and parenting styles); however, research is still limited in these areas. While the majority of literature focuses solely on perceived autonomy support rather than controlling contexts, a large amount of this research is done in the field of education. Vansteenkiste, Simons et al. (2004) conducted a series of studies that examined whether intrinsic and extrinsic goals along with autonomy supportive and controlling learning environments increased learning, performance, and persistence. The initial study was comprised of 200 female preschool education majors located in Belgium. Each were randomly assigned to either a group where instructions were geared towards intrinsic or extrinsic goals and then again to an autonomy supportive or controlling learning environment. The results of this study revealed that there was a significant effect for the autonomy supportive environment on

learning, performance, and persistence. Furthermore, when intrinsic goals were presented in an autonomy supportive fashion there was an increase in engagement and acceptance. This study was replicated for the purpose of generalization by the researchers using male and female marketing students also from Belgium with the intrinsic goal being slightly modified. The sample consisted of 181 males and 196 females who randomly received written materials based on the goal content and learning environment combination similar to the groups in Study 1. The results of the second study were consistent with the initial findings supporting that learning is increased when material was presented in an autonomy supportive manner and was influential to intrinsic goals. Vansteenkiste, Simons et al. extended their research even further by replicating Study 1 a third time. This time the sample was younger in age (high school students) and focused on learning Tai-bo with different intrinsic and extrinsic goals in place. The two learning environments were kept the same. The results indicate the same findings as Study 1 and Study 2.

In an additional study conducted by Vallerand et al. (1997), 4,537 students in grade 9 and 10 were examined on their motivations for dropping out of high school. The main hypothesis in this study was “that teachers’, parents’, and school administration’s autonomy-supportive behaviors towards students influence their perceptions of competence and autonomy” (Vallerand et al., p.1169). The findings disclosed that students who had dropped out of school viewed their parents’, teachers’ and administration with having a lesser amount of autonomy support compared to those who

stayed in school. Also, when it came to their behaviors in school they viewed themselves as having a reduced amount of competence and autonomy.

Self-Regulation

The concept of self-regulation is emphasized within Organismic integration theory (OIT) which focuses on the internalization of values and regulations of one's behavior. OIT centers on the composite of extrinsic motivation such as how a person perceives autonomy during an activity that is extrinsically motivated or how people assimilate to values of a particular group or culture, in essence how they internalize the values and mores of that particular group or person (Ryan & Deci, 2002).

OIT "views internalization not in terms of a dichotomy but rather in terms of a continuum. The more fully a regulation (or the value underlying it) is internalized, the more it becomes part of the integrated self and the more it is the basis for self-determined behavior" (Ryan & Deci, 2002, p.15). Along this continuum there are six points. On the one end is amotivation which has been defined as a person lacking motivation to take action for reasons such as low perceived competence. At the opposite end of the continuum is intrinsic motivation which reflects activities or behaviors entered into based on innate fulfillment or interest. The four points in between refer to types of regulation of extrinsic motivation and consist of external regulation, introjected regulation, identified regulation and integrated regulation (Ryan & Deci).

External regulation is defined as extrinsically motivated behaviors that contain the smallest amount of autonomy as these behaviors are governed by rewards and the need to evade retribution. Essentially these types of behaviors or activities are entered into for the

satisfaction of the demands of others. Introjected regulation is the second type of extrinsic motivation on the SDT continuum. It involves only slightly internalizing a regulation but not fully allowing it to be part of one's self. This type of extrinsic motivation is considered to be a relatively controlled regulation where the behaviors are carried out to elude anxiety and guilt and to protect a person's pride and ego. The third type of extrinsic motivation is identified regulation which has been described as being more autonomous than the previous two and therefore more self-determined. Here a person values or feels that the behavior being regulated is important to them personally. The last form of regulated extrinsic motivation and the most autonomous in nature is integrated regulation. At this point along the SDT continuum the regulation is fully integrated into one's self. The regulated behaviors and actions are now viewed by the person as similar to their other values and needs. It is important to note that this continuum is not intended to reflect a development process of concrete stages in which a person must move through chronologically, but rather a person can be at any point along this continuum (Ryan & Deci, 2002). Additionally, in order to aid internalization and self-regulation of those activities that are extrinsically motivated there is a need to feel competent in behaviors which others, who are deemed as significant, partake in and value themselves. Furthermore, external regulation is feasible when one feels competent in a valued and socially approved behavior. It is only when one's environment supports autonomy that integration of extrinsic motivation regulation is possible which ultimately provides the basis for self-determined behavior (Ryan & Deci).

Previous studies (e.g., Gronlick & Ryan, 1989; Miserandino, 1996; Ryan & Connell, 1989) reveal that there are “varied advantages to being autonomously motivated, relative to controlled, including more volitional persistence, better relationships in one’s social groups, more effective performance, and greater health and well-being” (Ryan & Deci, 2002, p.19). The majority of research which utilize or examine the concept of self-regulation are conducted in the realm of academics, the work environment and in health related contexts. Black and Deci (2000) conducted a study involving 137 university students which revealed that students who began a course with a higher autonomous motivation experienced the course more positively, as measured by their perceived competence. Also, students’ initial level of autonomy was linked to continuation in compared to dropping out of the course. According to Grolnick and Ryan in a study that examined 114 parents (64 mothers and 50 fathers) of elementary school children (grades 3 to 6), parent styles, specifically those highly autonomy supportive, were significantly association with children’s autonomous self-regulation. Also, in the academic realm, Walls and Little (2005) conducted a study that looked at 786 grade 7 and 8 students and reported that there was a robust consequence from agency beliefs and motivational self-regulation on youths’ school adjustment.

Several studies examining self-regulation have been conducted within work environments or with issues in relation to work. Vansteenkiste, Lens, De Witte, De Witte, and Deci. (2004), reported on two separate studies that looked at people who were unemployed and their motivation to search for work placement. In these two studies self-regulation was used to evaluate autonomous versus controlled motivation in searching for

work. In the first study, 254 people completed a questionnaire with the results indicating that autonomously motivated job searching behavior accurately predicted self-reports of job searching intensity. Also, experiencing negativity during unemployment was connected to controlled motivation and amotivation in job seeking behavior. In the second study, 227 participants completed a questionnaire package revealing similar results to study one. Furthermore, Vansteenkiste, Lens, De Witte, & Feather (2005) continued this research by examining a sample of 446 people who were unemployed revealing that more autonomously motivated job searchers had increased self-assurance in finding employment compared to those with increased controlled motivation for seeking work.

In the health context, self-regulation has been linked to studies pertaining to smoking cessation, compliance with medication regimens, control of diabetes, and overall health related behaviors. Williams, Rodin, Ryan, Grolnick, & Deci (1998) led a study exploring the motivation behind complying with prescription medications. One hundred and twenty-six adults were interviewed on their adherence to medication and completed a questionnaire on their regulation, motivation and perceptions of support. The results indicate that autonomous regulation was significantly correlated to self-reported compliance with prescription medication. Williams, Cox, Kouides, Deci (1999), conducted a study with 400 adolescents (grade 9 to grade 12) to investigate whether an autonomy supportive versus a controlling approach to smoking prevention was more effective in encouraging autonomous behavior for not smoking and limiting smoking. The findings indicate that an autonomy supportive approach had a significant relationship

with increased autonomy motivation and therefore predicted smoking decline. Williams, McGregor, Zeldman, Freedman, & Deci (2004) furthered the research connected to self-regulation in the health context by examining how autonomy support impacts autonomous motivation and perceived competence. The results from a sample of 159 individuals with badly managed Type 2 diabetes indicated that in fact autonomy support forecasted transformations in both autonomous motivation as well as perceived competence.

Based on the supporting literature, the internalization of activities and behaviors that are extrinsically motivated is associated with perceived competence as individuals tend to assume socially accepted behaviors when they feel successful in doing them (Ryan & Deci, 2000a). This internalized belief of success of extrinsically motivated behaviors has been referred to as perceived competence (Grolnick & Ryan, 1989).

Self-Perception of Competence

The vocabulary surrounding the concept of the self is abundant and often times confusing. Words such as “self-representation”, “self-perceptions” and “self-descriptions”, to name a few have been used in a similar manner within the literature (Harter, 1999). In the broadest sense these terms have been collectively described as “attributes or characteristics of the self that are consciously acknowledged by the individual through language – that is, how one describes oneself” (Harter, p.3).

Over the years there has been a movement from a unidimensional view of self-perception (perception of competence or adequacy is considered as one score) to a multidimensional view where domain-specific self-perceptions are valued (Harter, 1999;

Jambunathan & Burtis, 2003; Jambunathan & Counselman, 2004). There has also been a shift in the instrument used to measure children's perceptions of their competence.

Originally, the Perceived Competence Scale for Children (Harter, 1982) was used to measure children's self-judgements of their competence along with their perception of the global self-worth. In more recent years the conceptualization has been expanded to include not only perceived competence but also self adequacy. Therefore, the instrument's name has been changed to the Self-Perception Profile for Children (Harter, 1985) and the focus shifts to both self-evaluation judgements of a child's perceived competence and their adequacy across the specific domains (Harter, 1985).

These specific domains that comprise the multidimensional view of self-perception of competence consist of the following; scholastic competence, social acceptance, athletic competence, physical appearance, behavioral conduct and global self worth. Of these six domains, scholastic competence, athletic competence and social acceptance as well as global self worth were part of the original scale yet have been modified slightly. Scholastic competence after being renamed from the original cognitive competence refers to the perception of performance competence in the academic realm. Social acceptance, renamed from social competence, does not measure competence in social skills directly, but rather the degree that one is accepted by their peers or their feelings of popularity. Athletic competence, relabelled from the original physical competence, refers to all sports and outdoor games and was renamed so as not to confuse this domain with the newly added physical appearance domain (Harter, 1985).

The two new domains that were added to the revised scale are; as aforementioned, physical appearance and behavioral conduct. Physical appearance examines the extent to which a child is happy with their looks such as weight, height, hair, body etc. Past research has indicated that a child's physical appearance is significant to their self-concept particularly in elementary/middle school years. Behavioral conduct looks at the amount to which children like their behaviour and manners such as being well behaved (Harter, 1985). The sixth and final domain that was part of the original instrument has been retained in the most current version of the scale is global self worth. This domain looks at the degree at which a child likes themselves as a person. It examines how happy a child is with how they are leading their life (Harter). It is important to note that this is a "global judgement of one's worth as a person, rather than a domain specific competency or adequacy" (Harter, p.6).

Interestingly, "the quality of caregiving, beginning with the role of parents, has a tremendous impact on the content of the self-system (e.g., how favorably one evaluates the self)...parents who are nurturing, responsive, and approving but demanding of standard will produce children with positive self-evaluations (Harter, 1999, p.171). Generally, support from any person that is deemed as significant to another is essential to their global self worth. Those individuals with low perceived support have been reported as having the lowest self worth compared to those who experience high support who have reported high levels of self worth. Furthermore, stronger competence in domain specific areas is imperative as it too has been noted as contributing to higher self-worth. Even though support from those who are considered significant in our lives is important and

yields positive outcomes on self worth, perceived competence or adequacy in domains had also been considered as a strong contributor to one's self worth. Studies have shown that after examining the five competence/adequacy domains, those individual who benefited from support from a significant other had higher scores in each domain. However, this type of support from significant others may be lacking for those youth whose parents provide limited support and those youth who feel either incompetent or inadequate; therefore, other interventions which set goals of improving personal weaknesses and increasing certain skill sets are imperative to target their self worth (Harter).

In a study by Grolnick, Ryan and Deci (1991), 456 students between grades three and six were examine on their awareness of their parents' autonomy support and involvement in connection with their perceived competence, control understanding and perceived autonomy. The findings indicated that parents support was connected to perceived competence and autonomy. Specifically, a mother's autonomy support, as perceived by the youth, was noted as being related to youths' perceived competence, control understanding and perceived autonomy. Similarly, and in support of the sustained impact of autonomy support on perceived competence, is a study conducted by Williams and Deci (1996). In this longitudinal study with a sample size of 56 medical students, it was discovered that those students who viewed their teachers as autonomy supportive were not only more autonomous in their own learning, but had enhanced perceived competence as well as psychosocial beliefs. This in turn led to greater autonomy support in their interviewing style six months following and to increased

psychological beliefs after two years. A more current study by Black and Deci (2000) looked at the reasons students' enrolled in a specific course as well as how they viewed the autonomy support from their teachers in that course. The sample for this study consisted of 137 university students enrolled in an organic chemistry class. The results revealed that those students who began the course with a high level of autonomy had increased perceived competence, interest and enjoyment, and a decrease in anxiety. Also, those students who started the course with a high level of autonomy tended to remain in the course for its duration versus dropping out. The results also demonstrated that students who viewed their teachers as more autonomy supportive showed higher autonomy for taking the course, higher perceived competence, interest and enjoyment, a decrease in anxiety, and overall enhanced achievement in the class.

In addition to learning in the traditional environment, research has also indicated that learning through experience in the outdoor setting has many benefits such as the modification or improvement in perceptions of locus of control, self-concept, perceived competence, self-efficacy, and self-esteem (Groff & Dattilo, 2000). According to Priest (1992), through participation in adventure challenge courses, otherwise known as ropes courses, a person's perceived competence increases. With their enhanced level of competence there comes a shift in their locus of control from extrinsic to more intrinsic. Furthermore, Garst, Scheider & Baker (2001) suggest youths' self-perceptions are positively impacted when adventure programs contain concepts of experiential learning (e.g., Hazelworth & Wilson, 1990; McDonald & Howe, 1989; Schoel, Prouty, & Radcliffe, 1988). Should adventure challenge programs maintain the systematic process

used in therapeutic recreation there is a possibility that Harter's (1999) and Bruyere (2002) concerns about interventions/adventure programs failing to make use of program evaluation approaches when measuring program outcomes may be successfully addressed.

In a study conducted by Pommier and Witt (1995), which examined self perception, behavioral, and family functioning of 105 youth status offenders who participated in an Outward Bound School program, Harter's self perception profile for adolescents (SPPA) was used to gather data on the eight perceived competence domains and global self worth. This study utilized a pre-, post-test, control group design with repeated measures at four weeks and four months post-test. The results for the SPPA demonstrated that at the four week post-test the treatment group's scores were significantly increased for scholastic competence, behavioral competence and close friendship compared to those in the control group. However, these differences were not sustained over time as indicated by the four month post-test.

The Adventure Challenge Course

Experiential education has been defined "as a learning theory that combines direct experience with reflection....In the camp setting, there is the potential to create high impact, youth development tools by combining experiential education theory with adventure activities....Whatever the adventure activity, experiential education theory plus adventure activities equals adventure education" (Nei, 2003, ¶ 2).

According to Lindenmeier et al. (2004), support for adventure challenge programs has typically been based on the knowledge that participation in these types of courses

render inter and intrapersonal benefits. Although previous literature outlines such benefits, these studies have not explained specifically how positive outcomes are obtained. There are postulates of facilitation such as the environment, adaptation of the activity, personal interactions, front-loading and debriefing techniques that may influence these outcomes. Overall, the literature suggests, “that adventure programs can obtain notable outcomes and have particularly strong, lasting effects” (Hattie, Marsh, Neill, & Richards, 1997, p.77).

For an activity to be authentically adventurous it needs to be entered into freely, be intrinsically motivated, and it must have an outcome that is tentative (Lindenmeier, et al., 2004). The literature pertaining to the idea of using the outdoor setting and elements for learning and therapy is called by many names, which lends itself to some confusion. To clarify, in the field of therapeutic recreation, a well known phrase for this type of programming is adventure therapy. Groff and Dattlio (2000) outline the specifics of adventure therapy as being more of an action-centered modality rather than the more verbally grounded treatment process. Adventure therapy is said to be a set of activities that generates an environment where the participants’ engagement, both physically and cognitively, enables them to challenge and change their behaviors and ways of thinking. The types of activities used in an adventure therapy program typically includes camping, games, initiatives, family therapy, adjunctive therapy, backpacking, rock climbing, canoeing, ropes courses, and wilderness therapy (Groff & Dattilo; Davis-Berman & Berman, 2000).

Berman & Davis-Berman (1995) discuss why using the outdoors is beneficial as a treatment modality. They feel that the more traditional environments actually hinder the growth and education of its participants; whereas, outdoor programs position at-risk youth in settings that are novel. These unusual surroundings are said to decrease the defensiveness and alter relationships that these youth have with adults. Additionally, through adventure therapy, perceptions of locus of control, self-concept, perceived competence, self-efficacy, and self-esteem can be modified and improved. Also, aggressive behaviors, inappropriate social interactions, and truant behaviors have been the target for change in many adventure challenge programs (Groff & Dattilo, 2000).

Research by Chakravorty et al. (1995), studied how a ropes course impacted adults who were diagnosed and hospitalized for depression. The sample consisted of 25 adults whose moods were evaluated at six different times (pre, post activity, right after processing, and on the day following at the same times as the day of the course). The findings indicated that transient depressed mood was significantly lower right after the ropes course session; however, there was no significant change in the depressed moods right after processing was completed, or on the following day. An additional study by Sottile Jr., Parker and Watson (2000) also reveals the benefits of ropes course participation. In this study, two groups of 11 students, both male and female between the ages of 18 and 26, were observed, kept journals on their experience, completed survey data, responded to open ended questions on their experience, as well as were interviewed to determine the effect of a ropes course. Also, data collected (journal entries and observations) from a one credit course the following semester were used. The

quantitative results demonstrated lower stress levels in the students. The qualitative findings revealed four themes: trust, friendship, community, and communication, as part of problem solving. These findings indicate that university students' problem solving skills, ability to trust, interpersonal, social and physical skills, as well as their ability to integrate into a strong community can be augmented through experiential settings like ropes courses.

Although previous literature examines the outcomes of adventure challenge courses (e.g., Chakravorty et al., 1995), other findings suggest that only a limited amount of positive outcomes are favorable to the challenge environment itself (e.g., Voight, 1988) and that additional benefits call for elaborate interventions from the course facilitators (Lindenmeier et al., 2004). Priest and Gass (2005) address the idea of a flexible outdoor leadership style which is comprised of autocratic (authoritarian), democratic (cooperative) and abdicratic (laissez-faire) leadership styles. In order for a leader to be flexible he/she must choose which style to use based on his/her concern for the task at hand, relationships that are present in the group and the conditions that impact the environment, group, individuals, leader and decisions made i.e. weather, skills of group members, cooperation within the group. Priest and Chase (1989) developed the conditional outdoor leadership model which integrates these leadership styles with concern for task, relationships and conditions. Flexible leadership is a result of the analysis of one's style in relation to the task, relationship and conditions and adapting one's style based on the current situation. In a study conducted by Priest and Dixon (1991), 100 outdoor adventure instructors from Canada and the USA were surveyed in

order to examine relationships between the three variables from the Conditional Outdoor Leadership Theory (task, relationship and condition) and the three outdoor leadership styles (autocratic, democratic and abdicratic). The results indicated that condition was the strongest predictor of which outdoor leadership style was demonstrated.

Furthermore, a leaders concern for the task at hand was directly related to the leadership style that was demonstrated. Specifically, those who had an increased concern for the task at hand were more inclined to be autocratic. While those leaders who had an increased concern for relationships in the group were more likely to be abdicratic. These findings support the idea of a flexible leadership style based on situational aspects that may or may not be present.

Other literature outside of adventure programs surrounding leadership styles focuses predominantly on Avolio and Bass's Full Range Leadership Model. According to Barbuto Jr. and Cummins-Brown (2007), this model stems from a century's worth of research in the leadership field and addresses both transactional and transformational leadership behaviors. Specific transactional leadership styles are: laissez-faire (hands off approach), management by exception (reaction to problems approach), and contingent rewards (reward system approach). Specific transformational leadership styles are: individualized consideration (caring approach), intellectual stimulation (creative thinking approach), inspirational motivation (motivating and clarification approach), and idealized influence (modeled reinforcement approach). The overall premise of this model suggests that the laissez-faire and management by exception styles are more passive in nature and have been viewed as ineffective; however, consistent use of the four transformational

behaviors (individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence) yields more active and effective leaders. The contingent reward style is viewed as a middle ground of sorts as it has been noted as being effective but the outcomes will never exceed the effort put in by the leader.

Research conducted on these two leadership behaviors has been primarily in the health context and on outcomes of group settings. For example, Spinelli (2006) assessed the perception lower level managers had on the leadership styles of CEOs in five different health care environments. The specific outcomes Spinelli examined consisted of satisfaction with the CEO, the CEO's effectiveness, and the lower level manager's eagerness to put forth more effort. The findings from a sample of 101 questionnaires revealed that the higher the lower level managers perception of their CEO's transformational leadership style, the more they were willing to put forth extra effort, had increased satisfaction with their CEO, and thought that their CEO had increased effectiveness compared to those CEOs that demonstrated a more transactional or laissez-faire leadership style.

Another example pertaining to creativity in the group setting is demonstrated by Jung (2000-2001). In this study, 194 university undergraduates participated in a 2 x 2 experiment where leadership style (transformational compared to transactional) and group (real compared to nominal) were evaluated to demonstrate the impact on creative thinking. Two leadership styles were utilized in this study (transformational and transactional). The results indicated that those students in the group with a

transformational leader demonstrated greater creativity by generating an increased amount of novel ideas compared to those with a more transactional leader.

Although no research demonstrating these types of leadership styles in the adventure challenge setting has been found at this time, the role facilitators have in an adventure challenge course can be directly related to the type of learning environment they provide for the participants. As indicated by the literature within self determination on autonomy supportive environments (e.g., Deci, et al., 1981), there are several benefits to the participants if an autonomy supportive environment is provided such as an increase in intrinsic motivation. Those environments which are considered controlling tend to lower perceived competence, self-worth, and intrinsic motivation (Ryan & Grolnick, 1986); however, there has been some support for the controlling environment especially with the African American culture. From the academic perspective, African American students are more likely to respond more positively when their instructors utilize commands and directives (Jambunathan & Burts, 2003).

In a study by Astroth (1996), Deci's adult's orientation measure was used to determine those clubs with highly controlling and highly autonomy supportive leaders. Of the five clubs that were selected, three clubs had highly autonomy supportive leaders and two clubs had highly controlling leaders. All were examined over a one year period to study the effect of leadership on youths' self esteem, satisfaction, leadership, life skill development, and practical skill development. The quantitative findings showed that those youth in clubs with more controlling leaders were very displeased with their experience in those particular 4-H clubs; however, there was no significant difference in

youths' self-esteem based on leadership styles in each club. From the qualitative perspective, the findings support the satisfaction and self esteem data as there was much discussion surrounding how unorganized and frenzied the clubs with controlling leadership were and there was limited amounts of responses that addressed the affect 4-H had on their self esteem. The qualitative data did support the 4-H clubs ability to help youth develop leadership and life skills; however, in both cases greater skill development occurred in youth with clubs who had autonomy supportive leaders compared to those with more controlling leaders. When it came to practical skill development, leadership style in either club had no differing effect on the youth.

Conclusion

There is a limited amount of information pertaining to the impact that adventure challenge facilitation, specifically in high ropes courses, has on the learning environment and on how the learning environment affects the outcomes of the course for at-risk youth. According to the literature much of the research that has been done on the benefits of an adventure challenge course does not indicate how these benefits are brought about; however, studies have indicated that facilitators can impact the outcomes of the programs. Therefore, it is imperative that an adventure challenge course facilitator provides an accommodating environment to elicit such benefits. As stated earlier, there is also a need for further research on the affects of an autonomy supportive and controlling environment within an adventure challenge course, and the feelings of perceived competence of the participants related to their level of autonomy.

CHAPTER THREE

METHODOLOGY

This study examined how the learning environment created through either an autonomy supportive or controlling facilitation style in a high ropes course affected perceived competence for at-risk youth participants in relation to their level of autonomy. This study utilized a pretest-posttest quasi-experimental design with a follow-up test in order to examine the impact of two types of facilitator styles on the perceived competence of a group of at-risk youth participants. In order to gain permission to conduct this study, a review from Clemson University's Institutional Review Board was attained. This chapter addresses the following: (1) participants and site, (2) research design, (3) instrumentation, (4) data collection procedures, (5) facilitator and counselor training, (6) data collection procedures, (7) manipulation check, and (8) data analysis.

Participants

The participants consisted of 95 youth who were between 8 and 13 years of age, and who were part of the Camp Sertoma program based out of Clemson University's Outdoor Laboratory in Clemson, South Carolina. The Camp Sertoma program is subsidized by the Sertoma Clubs of South Carolina. This camping program is designed for youth between the ages of 7-13 who are economically disadvantaged. As a sponsoring body, Sertoma Clubs from around the state of South Carolina fund all their campers each year (Camps & Programs, 2003). In order for the campers to qualify for the Camp Sertoma program "the Sertoma reps work with people in the community (usually teachers, school counselors, Department of Social Services and children's home

representatives) to determine kids who cannot afford to go to camp...they come by recommendation of a teacher or other youth service person that knows their family situation” (L.Conrad, personal communication, January 22, 2008).

Site

The site for this research study was Clemson University Outdoor Laboratory which is located in Clemson, South Carolina. The Outdoor Laboratory is home to many meetings, conferences, various residential camps, and the adventure challenge course and program, Team Ventures.

The Team Ventures facilitates individual and group work through various elements and activities promoting teamwork, communication, bonding, and trust. The Team Ventures Experience is comprised of three components; group initiatives, high ropes course, and climbing tower. For the purpose of this research study, only the high ropes course was utilized to examine the impact on perceived competence of at-risk youth participants as it focused on the individual more than group initiatives which focus on group work and teambuilding. The high ropes course at Clemson’s Outdoor Laboratory consists of a series of ropes, steel cable and wood in a forested area that are high above the ground in trees or telephone poles. Many of these elements include such things as wooden beams, steel cables, rope crosses, rope nets, rope and wood bridges, ladders, platforms (“*Team Ventures Training Manual*”, 2003). There are a total of nine elements that make up the high ropes course and participants are often given a choice of whether they take what is known as the short way or the long way. The short way is technically only two elements less and consists of the Incline log, Burma bridge,

Postman's walk, Catwalk, Thrand, and finishes with the Zipline. The long way starts off with the same two elements and finishes with the identical three elements. The two additional elements in the middle are Heebie Jeebie, Bridge too far, and Grapevine; notice that the Postman's walk is only a part of the short course (see Appendix A for full description).

As aforementioned, this study examined Camp Sertoma campers during their summer camp program at the Outdoor Laboratory. Since this was a previously established camp program much of the design of this study followed the schedule the Camp Sertoma administrative staff arranged. For example, the campers arrived on Sunday afternoon and were then organized by age into cabin groups of eight campers each. According to the Outdoor Laboratory's guidelines and the camp schedule, only the oldest and middle boys along with the oldest and middle girls participated in the high ropes course sessions during their week at camp. It is important to note that due to the lack of female campers each year, the oldest girls and middle girls groups are collapsed into one cabin of 8 campers. Furthermore, through adhering to the camp activity schedule the high ropes course sessions were therefore scheduled for Monday (oldest boys), Wednesday (middle and oldest girls), and Thursday (middle boys) morning between the times of 9:30 am and approximately 12 noon. Since the campers arrive on Sunday afternoon and most had never met each other before, the Monday group of oldest boys did not have as much time to get to know one another compared to those groups who participated in the ropes course session later on in the week.

During each high ropes session the campers arrived at the high ropes course and the two facilitators for that day explained the course elements in detail to them while the researcher took the camp counselors aside and briefed them on the facilitation style being used for that day. The researcher then quizzed the counselors for competency in using the prescribed facilitation style. Once the facilitators explained the course to the campers, they then reviewed all the equipment and the safety instructions before anyone was allowed on the course. The graduate student observers who were present to conduct the manipulation check, which will be described in further detail later, were assigned to one of the two facilitators and were provided with a checklist (content based on Reeve & Jang, 2006, see Appendix B) for use throughout the course.

A typical ropes course session commenced with a facilitator asking for a volunteer to go up on the course first while the other campers put on their equipment. The campers were able to select in what order they attempted the course in addition to selecting whether they wanted to take the long way or the short way on the course. Once the participants completed the course they were asked to support their cabin mates from the ground and then share what they learned during their experience. Some campers were asked to help on the ground with the ladder and rope which aided those getting off the course.

Research Design

This research study was conducted utilizing a pretest-posttest quasi-experimental design with random assignment and a follow-up test. This study employed two types of facilitation styles: autonomy supportive and controlling, which were administered to

separate groups at different times. Characteristics of the autonomy supportive facilitation style are increased listening, finding out what the participants want by asking them, giving justifications, suggesting hints and providing encouragements as well as avoiding directives and critiques to name only some (Reeve, 2002; Reeve & Jang, 2006). Where some of the characteristics of the controlling facilitation style are providing solutions, giving directives and commands, evaluate performance using critiquing and often using and making known deadlines to name a few (Reeve; Reeve & Jang).

As mentioned, the two types of facilitation style were administered to separate groups at different times. The study duration was four weeks in length with the first two weeks utilizing the autonomy supportive facilitation style and the last two weeks employing the controlling facilitation style. It is important to note that the two pairs of male/female facilitator teams were alternated each week so that both facilitator teams lead their high ropes course sessions using both facilitation styles respectively. Figure 3 diagrams the research design and Figure 4, the functioning model, illustrates all variables and their linkages.

Instrumentation

The pretest questionnaires consisted of the Modified Self- Regulation Questionnaire and the Self Perception Profile for Children while the posttest consisted only of the Self Perception Profile for Children. This section addresses each of the measurement tools utilized in this study.

Week One: Autonomy Supportive Facilitation Style – Facilitator Team One			
<i>Monday:</i>	Pretest (Mon. morning)	Ropes Session	Posttest (Immediately following)
<i>Wednesday:</i>	Pretest (Tues. afternoon)	Ropes Session	Posttest (Immediately following)
<i>Thursday:</i>	Pretest (Wed. afternoon)	Ropes Session	Posttest (Immediately following)
Week Two: Autonomy Supportive Facilitation Style – Facilitator Team Two			
<i>Monday:</i>	Pretest (Mon. morning)	Ropes Session	Posttest (Immediately following)
<i>Wednesday:</i>	Pretest (Tues. afternoon)	Ropes Session	Posttest (Immediately following)
<i>Thursday:</i>	Pretest (Wed. afternoon)	Ropes Session	Posttest (Immediately following)
Week Three: Controlling Facilitation Style – Facilitator Team One			
<i>Monday:</i>	Pretest (Mon. morning)	Ropes Session	Posttest (Immediately following)
<i>Wednesday:</i>	Pretest (Tues. afternoon)	Ropes Session	Posttest (Immediately following)
<i>Thursday:</i>	Pretest (Wed. afternoon)	Ropes Session	Posttest (Immediately following)
Week Four: Controlling Facilitation Style – Facilitator Team Two			
<i>Monday:</i>	Pretest (Mon. morning)	Ropes Session	Posttest (Immediately following)
<i>Wednesday:</i>	Pretest (Tues. afternoon)	Ropes Session	Posttest (Immediately following)
<i>Thursday:</i>	Pretest (Wed. afternoon)	Ropes Session	Posttest (Immediately following)
Two Month Follow Up For All Groups			

Figure 3: Research Design

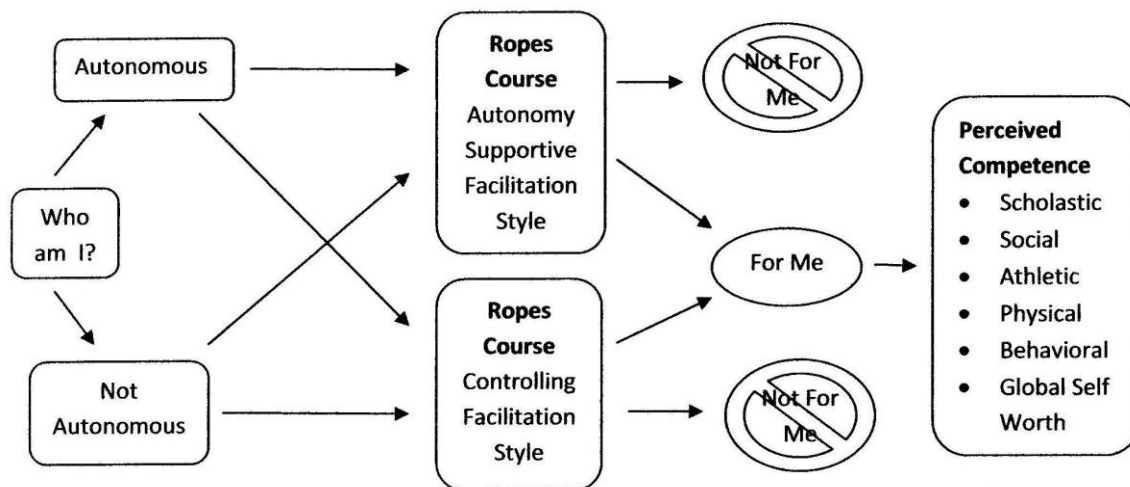


Figure 4: Functioning Model

Self-Regulation Questionnaire

A modified Self-Regulation Questionnaire (MSRQ) (Appendix C, modified from The Self-Regulation Questionnaires, 2006) was used in this study. Adaptations were made to both the Academic Self-Regulation Questionnaire (ASRQ, The Self-Regulation Questionnaires, 2006) and the Exercise Self-Regulation Questionnaire (ESRQ, The Self-Regulation Questionnaires, 2006) and were combined to make up the MSRQ. More specifically, the main question stem from the ASRQ was changed from “why I do my homework” to “why do I do camp activities?” Also, the question responses from the ESRQ were modified slightly to fit the camp setting. For example, one question response was changed from “because I enjoy exercising” to “because I enjoy doing camp activities.” Furthermore, the 4-point Likert scale used in the ASRQ was mirrored in the MSRQ as the SDT literature indicates scales containing more than 4 potential answers are not the most favorable for youth (The Self-Regulation Questionnaires).

The various Self-Regulation Questionnaires (SRQ) evaluate people’s different types of motivations or regulations of one’s behavior in specific domains, such as exercising regularly, doing school work and in the case of this study, doing camp activities. Each of the questions in an SRQ addresses why a person does a particular set of actions or behaviors. Although the regulatory styles are measured on an individual basis, they are not considered traits because they are not general in nature; however, they are not considered predominantly stable either. Moreover, they are not regarded as states either because they are considered more stable than a person’s usual states that vary. There are several different types of SRQ questionnaires and each focus on different areas

e.g. academics, prosocial behavior, learning, exercising, religion, friendship and treatment), all of which have items that assess a type of regulation (e.g. external regulation, introjected regulation, identified regulation, and intrinsic motivation). Each of the various SRQ questionnaires can be scored by calculating the four subscales and reporting them individually (external regulation, introjected regulation, identified regulation, and intrinsic motivation) or the subscales can be combined using the prescribed formula ($2 \times \text{Intrinsic} + \text{Identified} - \text{Introjected} - 2 \times \text{External}$) to report a single score signifying one's level of autonomy called the Relative Autonomy Index (RAI) (The Self-Regulation Questionnaires, 2006). The range of possible scores for the Relative Autonomy Index can be between 16 and 64.

According to Deci (E.L. Deci, personal communication, June 5, 2007), the SRQs are easy to adapt when using them in a new domain as the questions stems for the items can be changed in order to tailor an SRQ to a particular setting. Deci had suggested reviewing both the academic and exercise SRQ to develop an SRQ for the camp environment. Therefore, the MSRQ is a reflection of both. Since this is a newly developed SRQ, no psychometrics are available; however, the ASRQ from which the MSRQ was developed has satisfactory psychometric properties. The alpha reliabilities for the various subscales of the ASRQ range from .75 to .88 (Grolnick & Ryan, 1989) with Connell and Ryan reporting construct validity for the scale itself (Grolnick, Ryan, & Deci, 1991). Currently there are some studies that utilize the ESRQ; however, no scholarly work has been published at this time. Essentially the SRQ scales as well as their validity and reliability “are the same across domains with only small changes in the

wording to make it domain relevant” (E.L. Deci, personal communication, January 17, 2008).

The Harter Self- Perception Profile for Children

The original version of this scale titled the Perceived Competence Scale for Children (SPPC) examined children’s perceptions of their competence in various domains. This initial version includes 28 items and 4 subscales: cognitive, physical, and social competence as well as general self worth. The revised version used in this research study tailors the original version by adding two additional competence domains; physical and behavioral competence. Additionally, the title of the scale was modified as the original version paid particular attention to how children judge their competence. The updated version expanded its conceptualization to involve not only competence, but diverse constructions of self adequacy as well (Harter, 1985).

This version utilizes 36 items with 6 subscales: social acceptance, athletic competence, physical appearance, scholastic competence, behavioral conduct, and global self worth. Each of the 36 items is scored on a 1-4 scale, with 1 being low perceived competence and 4 being high perceived competence. The SPPC (Appendix D) is scored by calculating a mean score from the 6 items that make up each domain. The range of possible scores for each domain can be between 1 and 4.

According to Harter (1985), the psychometric properties for the SPPC indicate that the internal consistency reliabilities for all the domains are satisfactory. The results concluded from four samples indicate satisfactory reliability scores ranging from 0.71 to 0.86.

Facilitator and Counselor Training

Prior to data collection, each of the ropes course facilitators attended two separate two hour training sessions on each of the two facilitation styles (autonomy supportive and controlling) conducted by the research investigator. Each facilitator team was trained in both the facilitation styles because of the concern for diverse personality characteristics of the facilitators impacting the results. The researcher decided to keep the facilitators consistent across the facilitation styles in order to maintain internal validity. The first and second weeks of the study were randomly assigned using a random table of numbers to one of the facilitation styles and the facilitators were trained in the corresponding facilitation style for that week. Both the first and second weeks were assigned to the autonomy supportive facilitation style and therefore the selected facilitators for those weeks were trained to use the autonomy supportive facilitation style. The remaining two weeks of the study were assigned to the controlling facilitation style and the facilitators were trained in the controlling facilitation style and utilized that facilitation style while leading the corresponding groups for those weeks.

During the training sessions, guidelines pertaining to behaviors specific to each of the learning environments were outlined by the training staff and practiced and rehearsed by the facilitators themselves prior to data collection. The training session consisted of a PowerPoint presentation (see Appendix E) on SDT and the specific facilitation style that each group was assigned to, which specifically addressed the rationale for using the particular facilitation style, what each environment looked like, how the facilitators could create each environment, and research supporting the use of each environment. A list of

specific behaviors were outlined, with a reference card (content based on Reeve & Jang, 2006, Appendix F) given to the facilitators for their use during their facilitation sessions. The second half of the training consisted of walking through each stage (introduction, teaching about equipment, and debriefing) and each element of the high ropes course and discussing typical behaviors at each stage or element and what specifically could have been done to facilitate in a way that would create each environment. The facilitators then practiced their facilitation skills specific to their facilitation style on a mock ropes course using each other as the participants. Further discussion on the specific facilitation techniques helped to address any concerns and to clarify any expectations as well as provide feedback from the training staff to the facilitators.

During the mock ropes course portion of the training, the research investigator evaluated the facilitators' competency in displaying the facilitation behaviors and phrases required to create each environment. The researcher evaluated each facilitator on six competencies that are specific to each type of facilitation style. For example, when facilitators were trained in the autonomy supportive facilitation style they were evaluated on whether they asked the participant what they wanted, provided explanatory statements to any instructions that they give to the participant, provided statements of praise to the participant, provided encouragement statements, provided hints to the participants, and whether they demonstrated that they were able to take the participant's perspective (Reeve & Jang, 2006). When the facilitators were evaluated on their training competencies for the controlling facilitation style, each facilitator was evaluated on their holding of equipment, provision of solutions, the use of commands and directives, their

utilization of deadlines or time shortages, the praise given and critiquing (Reeve & Jang). In order for the facilitators to be considered proficient in each facilitation style, they had to have displayed five out of the six competencies during the mock ropes course facilitation portion of the training session. If a facilitator did not demonstrate the necessary level of competency, additional training was provided until they meet the requirement.

As part of the camp experience and because of the familiarity between the campers and counselors, the high ropes facilitators often called on the counselors to assist them with watching transfers, help the campers put on their equipment, manage campers' behaviors, and assist on the course itself, specifically at the decision pole and when campers needed help on specific elements. Due to this, it was important to also train the counselors in the facilitation styles as they too had interaction with the campers during the ropes session. Prior to the first week of camp, the Outdoor Laboratory scheduled a week long training session to ensure that the counselors were prepared for their various roles at camp. During that week the counselors were trained in both facilitation styles through an hour long training session. The training session consisted of a review of the ropes course and equipment and a PowerPoint presentation (see Appendix G) on autonomy supportive and controlling facilitation styles, which specifically addressed the rationale for using the particular facilitation style, what each environment looked like, how the facilitators could create each environment, and research supporting the use of each environment. After the presentation, the researcher and the counselors discussed further examples of how each facilitation style could be used and common experiences

they had and how to incorporate each facilitation style into those typical experiences. Additionally, there was a question and answer period which allowed for further discussion and understanding of the researcher's expectations. The counselors were also informed that the researcher would provide a brief refresher prior to the session they would be working, along with providing them with reference cards (content based on Reeve & Jang, 2006, see Appendix F) for them to refer to if they had any questions. The briefing prior to the ropes course session consisted of a review of the reference card which outlined the specifics of the facilitation style being used. To ensure competency in each counselor, a short multiple choice quiz specific to the facilitation style for that day (see Appendix H) was given and scored for accuracy. Any missed questions were discussed amongst the counselors present at that time.

Data Collection Procedures

Preceding data collection, all documents pertaining to the research study such as letters to the parents, consent forms, and the questionnaires were submitted and approved by Clemson University's Institutional Review Board. The youths' parents or legal guardians, as well as the youth themselves were asked to review the parental consent form and youth assent form respectively prior to data collection and participation in the high ropes course session.

During data collection, the day before the commencement of each high ropes course session (except for those groups on Monday who did the pretest the morning of their ropes session), each group of participants were asked to meet with the researcher to complete the pretest. At that time the researcher introduced herself and provided a brief

introduction of the research study. She then distributed the package of questionnaires, each containing an assent form, demographic questions such as age, gender, race, and level of schooling, the Modified Self-Regulation Questionnaire and the Self-Perception Profile for Children Scale. The researcher read aloud the assent form which again outlined the research study. At that time the participants were invited to ask any questions that they had pertaining to the study.

Once all questions had been fielded, the campers were instructed to complete group, as the researcher read each question aloud, the package of questionnaires as a group. The researcher read each question aloud in order to keep everyone on task and to help understanding of the measurement tool. Upon completion of the high ropes course, the group of participants congregated at the benches at the ropes course area and each participant was given the Self-Perception Profile for Children Scale again for completion in the same manner as the pretest was given in order to gather posttest scores.

Approximately two months following the completion of the high ropes course sessions, the SPPC was mailed to the participants in order to gather data on the lasting effects of high ropes courses on a youth's perceived competence. As part of the mailing, a letter to the parents was written and signed by the Outdoor Laboratory staff and the Sertoma chairman. Additionally, a letter was sent by the researcher to the participants which invited them to complete the questionnaire as well as to gave them instructions on how to do so. A self-addressed, stamped envelope was included in the mailing along with a notation on the incentives that could be won through a drawing for all those participants who completed and returned the questionnaire to the researcher.

Manipulation Check

In order to ensure that the facilitators were creating the intended environment through the designated facilitation style, a manipulation check was used to handle some of the threats to internal validity. By doing this, the researcher increased the certainty that it was the relationship between facilitation style and the youths' personality that was being examined.

The manipulation check consisted of each facilitator being monitored by a previously trained graduate student observer during their facilitation of the high ropes course sessions. In order to keep the manipulation check manageable, each observer was responsible for recording the number of occurrences of four specific competency areas and marked them on a check sheet (content based on Reeve & Jang, 2006, see Appendix B). These four competencies were chosen because of their ease in measuring and straightforwardness as the others were more difficult to understand for those who were not proficient in the SDT literature and were more challenging to measure. For example, the observers of the autonomy supportive facilitation style watched for the number of times the facilitator asked the participants what they wanted, the number of times they provided encouragement or praise, the number of hints given, and the number of times perspective taking was demonstrated on the behalf of the facilitator (Reeve & Jang). Whereas, observers of the controlling facilitation style monitored how many times solutions were given by the facilitator, the number of commands or directives used by the facilitator, how often deadlines were used, and the number of verbal disapprovals used by the facilitator (Reeve & Jang). It is important to note that the student observers were

responsible for observing and recording only those behaviors on their check sheet. It was then the responsibility of the researcher to ensure that characteristics of the other facilitation style were not present. If they were, the researcher extinguished them immediately either by subtly cuing the facilitator while they were on the course or by pulling them aside to gently remind them of the appropriate behavior when it was convenient. Also, the researcher was responsible for prompting the facilitator if they faltered on any of the specific behaviors or forgot to utilize them under the appropriate circumstances.

Data Analysis

The data was analyzed using SPSS v. 15.0 for windows. Initially the data was cleaned for any strange and missing scores to which there were none. The dependent variable (perceived competence scores) were not screened for outliers because they were hierarchical in nature and it would be too difficult to perform this as an outlier may occur at any point in the repeated measures and it would be too difficult to determine. The independent variables were screened for outliers using Mahalanobis distance with $df = 2$, $p < .001$, critical value of $\chi^2 = 13.816$. One outlier was detected, case number 4 with a value of 20.051. It was not deleted at this point as further screen was necessary. Next, the independent variables were screened for outliers using Cook's D for a more global influence (should not be greater than 1.0) and were between .000 and .199. Also, the Studentized Deleted Residuals were examined (outlier if outside $+3$ or -3) were -1.711 and 1.745 respectively. Since only one screening procedure showed an outlier and

because this case was not considered an outlier using the other two procedures, no cases were deleted at this time.

Due to the problem of incomplete questionnaires from missed questions, a small portion of the scores on both the SPPC and the MSRQ were missing. For the missing SPPC scores, where in all cases with missing values only one of the six responses was missing, the average was calculated out of the five remaining scores (S. Harter, personal communication, January 24, 2008). Specifically, there were 6 individual cases in the pretest and 6 individual cases in the posttest where one score in a single domain was missing. For the three missing RAI scores, the values used were calculated by doing an expectation-maximization imputation in EQS v.6.1.

Although no cases were deleted initially when the data were cleaned, two cases were deleted due to no data either because a youth did not want to participate or because a youth was unable to participate. Also, five additional cases were deleted due to no data on the pretest because some youth completed the questionnaire incorrectly making their responses invalid and not useable. Once all deletions were made the final sample size was 88 youth participants.

Initially, descriptive statistics were computed using SPSS v.15 in order to gain information pertaining to the demographic makeup of the participants. Next, the two groups (those in the ropes course led by either the autonomy supportive or controlling facilitation style) were compared on their demographics. Then Analysis of Covariance (ANCOVA) was used to test the two hypotheses which examined level of autonomy and the significant impact of facilitation style on perceived competence from pretest to

posttest. Additionally, Multiple Linear Regression was used to distinguish between the specific impact of each facilitation styles, autonomy supportive and controlling.

It is important to note that initial analysis of the statistical results was done using the .05 alpha level; however, this proved to be too rigorous for this particular study and therefore the alpha level was raised to .08 to help ensure that a type II error was not being made. Additionally, due to the small effect size and insufficient power, the slightly higher alpha level of .08 was more appropriate. This decision was made based on the literature that addressed the controversy of appropriate alpha levels to be used in research, specifically exploratory research. Garson (2008) stressed how it is important to assign a significance level that matches with the purpose of one's research. For example, a .10 alpha level in an exploratory study is suitable compared to a more stringent alpha level which has been viewed as unacceptable for this type of research. Furthermore, Stevens (2002) supported the notion that it is a subjective judgment by the researcher as to which significance level is used. It is appropriate for studies with small sample sizes and power issues to use a higher alpha level such as .10 or even .15. Additionally, Kline (2004) addressed how the simple guidelines of testing null hypotheses have caused researchers to become automated and dichotomous in their thinking, it should not be an all or nothing approach. For example, when the alpha level is set at .05, results yielding a p value of .06 should not be discounted or viewed much differently than those with a p value of .04. However, this does not typically occur in practice as many researchers view the later as significant and the former as only approaching significant and not the reverse.

CHAPTER FOUR

RESULTS

The purpose of this study was to examine how the learning environment created through either an autonomy supportive or controlling facilitation style in a high ropes course affected perceived competence for at-risk youth participants in relation to their level of autonomy. Hypotheses specific to each facilitation style were posed and are addressed within this chapter. A summary of the statistical analysis results of this research study have been reported.

Description of the Sample

As Table 1 specifies, the sample was comprised of 88 participants with 67% males and 33 % female. Their mean age was 11.26 years (range = 8 – 13) with a mean grade in school of grade 6. The groups were generally divided by chronological age with some exceptions based on youths' maturity and the need to keep the cabin groups the same size (oldest boys = 12 – 13 years old, oldest/middle girls = 10 – 13 years old, middle boys = 10 – 11 years old). The ethnic makeup of the sample was 54.5% Caucasian, 37.5% African American, 3.4% Hispanic, 3.4% other, and 1.1% Asian with the facilitation style groups differing by ethnicity (59.5% of African Americans in the autonomy supportive group and 71.7% of Caucasians in the controlling group, see Table 2 for further details). Those participants who reported having previous ropes course experience was 46.6%. The mean pretest RAI score was 46.87 with the scores ranging from 35 to 62.6. This variable was kept as a continuous variable rather than dichotomizing it in to high and low RAI. The mean pretest scores for each of the six

Table 1: Means and Standard Deviations of Age, Grade, RAI and Competence Scales

Variable	Mean	SD
Age	11.26	.988
Grade	5.99	1.189
RAI (level of autonomy)	46.87	5.77
<i>Pretest:</i>		
Scholastic Competence Score	*2.77	.576
Social Acceptance Score	*2.78	.577
Athletic Competence Score	*2.69	.541
Physical Appearance Score	*2.85	.572
Behavioral Conduct Score	*2.81	.534
Global Self Worth Score	*3.04	.513
<i>Posttest:</i>		
Scholastic Competence Score	*2.90	.591
Social Acceptance Score	*2.83	.591
Athletic Competence Score	*2.74	.582
Physical Appearance Score	*3.01	.550
Behavioral Conduct Score	*2.85	.618
Global Self Worth Score	*3.18	.488

* Perceived competence means scores calculated on a scale of 1- 4.

Table 2: Group Differences by Ethnicity

Facilitation Style	African American	Asian	Hispanic	Caucasians	Other
Autonomy Supportive: % within Facilitation Style	59.5	0	4.8	35.7	0
Controlling: % within Facilitation Style	17.4	2.2	2.2	71.7	6.5

perceived competence domains were as follows: scholastic competence ($M = 2.78$, range = 1.333 - 3.667), social acceptance ($M = 2.78$, range = 1.500 – 3.667), athletic competence ($M = 2.69$, range = 1.333 – 3.667), physical appearance ($M = 2.85$, range = 1.167), behavioral conduct ($M = 2.81$, range = 1.500 – 3.667) and global self worth ($M = 3.04$, range = 1.500 – 4.000). The mean posttest scores for the six perceived competence domains are: scholastic competence ($M = 2.90$, range = 1.500 – 3.833), social acceptance ($M = 2.83$, range = 1.333 – 3.833), athletic competence ($M = 2.74$, range = 1.333 – 3.667), physical appearance ($M = 3.01$, range = 1.667 – 3.833), behavioral conduct ($M = 2.85$, range = 1.500 – 3.833), and global self worth ($M = 3.18$, range = 1.833 – 3.833).

Manipulation Check

The manipulation check used to handle threats to internal validity and to ensure that the facilitators were creating the intended environment through the designated facilitation style assisted in providing increased certainty that it was the relationship between facilitation style and the youths’ personality that was examined. Specifically, the observers of the autonomy supportive facilitation style watched for the number of times

the facilitator asked the participants what they wanted, the number of times they provided encouragement or praise, the number of hints given, and the number of times perspective taking was demonstrated on the behalf of the facilitator (Reeve & Jang, 2006). Observers of the controlling facilitation style monitored how many times solutions were given by the facilitator, the number of commands or directives used by the facilitator, how often deadline were used, and the number of verbal disapprovals used by the facilitator (Reeve & Jang). It was the researcher who ensured that characteristics of the other facilitation style were not present. If they were, the researcher extinguished them immediately. Also, the researcher was accountable for prompting the facilitator if they faltered on any of the specific behaviors or forgot to utilize them under the appropriate circumstances. No formal count was tabulated as to how many times the researcher intervened; however, it was never more than twice per session for each of the facilitators. Table 3 summarizes the results of the total number of times per session behaviors specific to each facilitation style were observed in the facilitators. Appendix I outlines the results specific to each of the observation measurements. The variations in the number of observations were due to the unique behavioral characteristics of the individuals in each group and the leader's response to them. For instance, in some groups the individuals maneuvered through the course with ease and because of this required less interaction with the facilitators. Other groups had one or more individuals who struggled on some of the elements that make up the course. This demanded more interaction from the facilitators and therefore resulted in a higher recorded number of observations.

Table 3: Manipulation Check: Total Summary

Facilitation Style/Facilitator	Number of Times Behaviors Observed
Autonomy Supportive/ Jack	
Week One (Mon) Group 1	74
Week One (Wed) Group 2	184
Week One (Thurs) Group 3	305
Autonomy Supportive/ Mary	
Week One (Mon) Group 1	281
Week One (Wed) Group 2	387
Week One (Thurs) Group 3	157
Autonomy Supportive/ Beth	
Week Two (Mon) Group 4	92
Week Two (Wed) Group 5	340
Week Two (Thurs) Group 6	328
Autonomy Supportive/ Sean	
Week Two (Mon) Group 4	384
Week Two (Wed) Group 5	153
Week Two (Thurs) Group 6	139
Controlling/ Jack	
Week Three (Mon) Group 7	274
Week Three (Wed) Group 8	124
Week Three (Thurs) Group 9	139
Controlling/ Mary	
Week Three (Mon) Group 7	167
Week Three (Wed) Group 8	185
Week Three (Thurs) Group 9	213
Controlling/ Beth	
Week Four (Mon) Group 10	163
Week Four (Wed) Group 11	285
Week Four (Thurs) Group 12	305
Controlling/ Sean	
Week Four (Mon) Group 10	131
Week Four (Wed) Group 11	110
Week Four (Thurs) Group 12	471

Statistical Analyses

Prior to testing the two research hypotheses and in order to establish if there was a significant interaction between the levels of autonomy the participants started the ropes course with and the specific facilitation style used for each of the perceived competence domains, analysis of covariance (ANCOVA) was performed. As Table 4 illustrates, the results indicated that there were no significant interactions between facilitation style and level of autonomy for five of the six domains (scholastic competence $p = .165$, social acceptance $p = .285$, athletic competence $p = .237$, physical appearance $p = .955$ and behavioral conduct $p = .452$) and therefore no further investigation was done.

There was a significant interaction between level of autonomy and facilitation style for global self worth. More specifically, ANCOVA results (Table 5) for the main effects of global self worth revealed that the overall model was significant ($p < .001$, $F = 17.543$, $R^2 = .385$) which included the following independent variables: facilitation style,

Table 4: ANCOVA of Facilitation Style by Level of Autonomy Interactions

	F	Sig.
Scholastic Competence	1.961	.165
Social Acceptance	1.156	.285
Athletic Competence	1.421	.237
Physical Appearance	.003	.955
Behavioral Conduct	.572	.452
Global Self Worth	3.190	.078

* $p < .08$

Table 5: ANCOVA for Global Self Worth

	F	Sig.	R ²	Sr ²
Main Effects:				
Overall Model	17.543	.000	.385	
Facilitation Style	1.842	.178		
RAI (level of autonomy)	1.907	.171		
Pretest Global Self Worth	49.928	.000		
Interaction Effect:				
Overall Model	14.298	.000	.408	
Facilitation Style* RAI	3.190	.078		.023

*p < .08

RAI, and the pretest for global self worth and the posttest for global self worth as the dependent variable. The R² of .385 demonstrates that this model accounts for 39% of the variance. The main effect of facilitation style did not have a significant effect on posttest scores for global self worth (p = .178, F = 1.842). The main effect of RAI did not have a significant effect on posttest scores for global self worth (p = .171, F = 1.907). Also, the main effect of the pretest (global self worth) did have a significant effect on posttest scores for global self worth (p < .001, F = 49.928). Due the fact that there were no significant main effects other than the expected pretest, no further interpretation was needed at this point.

Next, a second ANCOVA was run which included the following independent variables: facilitation style, RAI, and pretest scores for global self worth and the interaction term facilitation style by RAI with posttest scores for global self worth. The

results revealed that the overall model was significant ($p < .001$, $F = 14.298$) which included the R^2 of .408 demonstrating that this model accounts for 41% of the variance. The interaction between facilitation style and RAI was significant ($p < .08$, $F = 3.190$) and therefore requires follow up tests and interpretation of the simple effects which will address the two research questions and hypothesis specifically. The unique effects size of the model was small (strength of the association) at 2.3% ($Sr^2 = .023$) and the Power was low $< .06$ (power = .57). Therefore, there is a 40% chance of making a Type II error (accepting the null hypothesis when it is false). Therefore, further interpretation was done so as to not accept the null hypothesis in error.

In order to test the two research hypotheses, further investigation of the simple effects of the interaction was required. To test the simple effects the file was split by facilitation style (autonomy supportive and controlling) and then a multiple linear regression was run.

Research Question One

Research Question 1: Are youth who are high in their level of autonomy, who participate in an autonomy supportive high ropes course environment, more likely to show an increase in their perceived competence compared to those low in their level of autonomy?

Ho1: Youth who are high in their level of autonomy, who participate in an autonomy supportive high ropes course environment, will not show a significant increase in their perceived competence compared to those who are low in their level of autonomy.

Data were analyzed using multiple linear regression (Table 6) with the file split by facilitation style in order to examine the effects of the autonomy supportive facilitation style specifically. The autonomy supportive facilitation style by level of autonomy interaction was significant (while controlling for the pretest scores on global self worth) ($p < .05$, $t = 3.042$) and had a unique effect size of 9 % ($Sr^2 = .090$). The data revealed that for every unit increase in level of autonomy, global self worth increased by .022 units (see Figure 5). Therefore, for those participants in the ropes course with an autonomy supportive facilitation style, those with a higher level of autonomy at the beginning of the course had increased global self worth scores. Therefore, the null hypothesis for research question one was rejected according to these data.

Research Question Two

Research Question 2: Are youth who are high in their level of autonomy, who participate in a controlling high ropes course environment, more likely to show an increase in their perceived competence compared to those who are low in their level of autonomy?

Ho2: Youth who are high in their level of autonomy, who participate in a controlling high ropes course environment, will not show a significant increase in their perceived competence compared to those who are low in their level of autonomy. Data were analyzed using multiple linear regression (Table 6) with the file split by facilitation style in order to examine the effects of the controlling facilitation style specifically. The controlling facilitation style by level of autonomy interaction was not

Table 6. Multiple Linear Regression with Split File by Facilitation Style

Facilitation Style	t	Sig.	Sr ²	B
Autonomy Supportive:				
RAI (level of autonomy)	3.042	.004	.090	.022
Controlling:				
RAI (level of autonomy)	-.364	.718	.002	

*p < .08

significant for global self worth (while controlling for the pretest scores on global self worth) (p =.718, t =-.364) and had a unique effect size of 0.2% (Sr² =.002). However, for every unit increase in level of autonomy, global self worth decreased by .005 (see Figure 5). Therefore, for the controlling facilitation style, a participant’s level of autonomy at the beginning of the ropes course was unrelated to their global self worth. As a result, the null hypothesis for research question two was accepted (See Figure 6 for the findings model where the darker pathway indicates the significant findings).

Follow Up

A follow up test was conducted utilizing the SPPC approximately two months after the completion of the high ropes course sessions in order to gather data on the lasting effects of high ropes courses on a youth’s perceived competence. Initially the follow up yielded a 43% return rate; however, even though instructions accompanied the measurement tool only 19 questionnaires were useable. Due to the limited number of correctly completed questionnaires, no further analysis was possible.

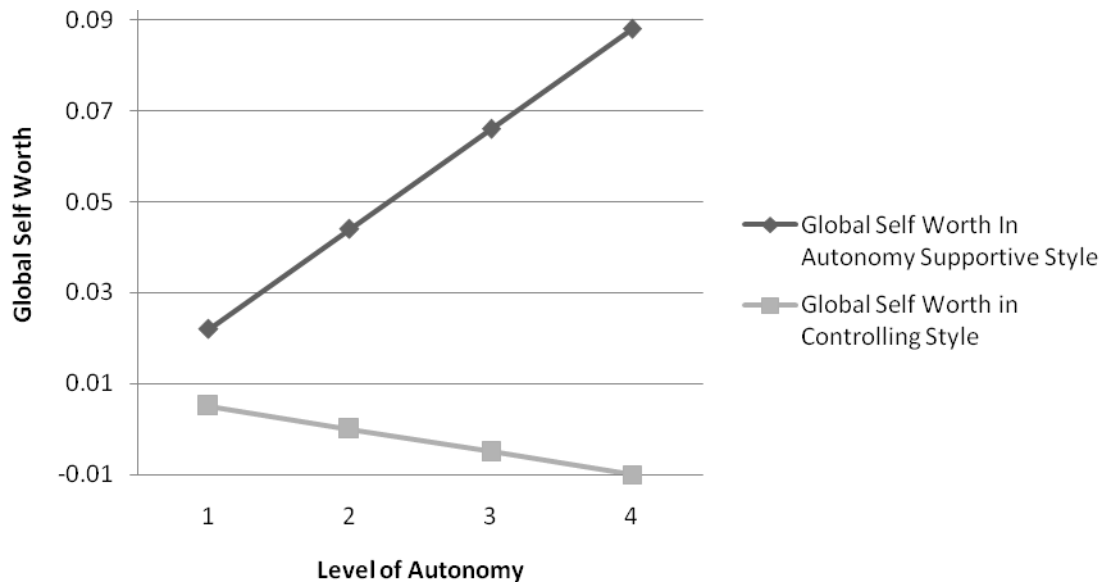


Figure 5: Global Self Worth Scores in Each Facilitation Style

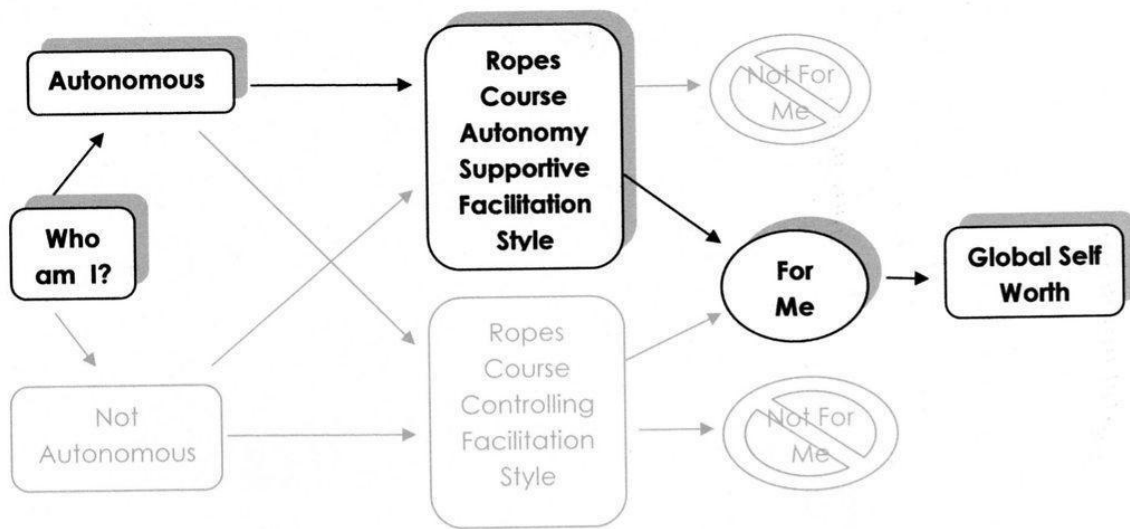


Figure 6: Findings Model

The analyses of the research questions and hypotheses demonstrated that the effect of a participant's level of autonomy was qualified by facilitation style. The findings presented here will be discussed in further detail in the following chapter.

CHAPTER FIVE

DISCUSSION

This study intended to determine how the learning environment created through either an autonomy supportive or controlling facilitation style in a high ropes course affected perceived competence for at-risk youth participants in relation to their level of autonomy. In this chapter the discussion of this research study will be presented through the following sections: (1) summary of findings, (2) discussion, (3) limitations, (4) future research, (5) practical implications, (6) theoretical implications, and (7) conclusions.

Summary of Findings

Through the utilization of analysis of covariance to analyze the impact of youths' level of autonomy at the beginning of a high ropes course and the specific facilitation style used on their perceived competence, it was found that there was a not a significant interaction between level of autonomy and facilitation style for five of the six perceived competence domains (scholastic competence, social acceptance, athletic competence, physical appearance, and behavioral conduct). However, the results did indicate that there was a significant interaction between level of autonomy and facilitation style for the sixth perceived competence domain; youths' global self worth.

More specifically, multiple linear regression revealed that there was a not a significant interaction between youths' level of autonomy and the controlling facilitation style for the participants' global self worth; however, a significant interaction was found for the autonomy supportive facilitation style. Therefore, the current research study

provides support for the hypothesis that youth who started a high ropes course with a high level of autonomy had significantly higher scores in their global self worth at the conclusion of the ropes course session but only for those ropes courses conducted with an autonomy supportive facilitation style and not the controlling facilitation style.

Discussion

The data analyses reveal that global self worth was the variable that was most strongly affected by a youth's level of autonomy and facilitation style. Although the data indicated that there was a significant interaction between level of autonomy and facilitation style, when facilitation styles were compared, differences were found. Interestingly, only the autonomy supportive facilitation style was significant. Global self worth scores improved from pretest to posttest for those youth in the high ropes course facilitated using the autonomy supportive style. The global self worth scores did not significantly improve for those youth in the high ropes course facilitated using the controlling facilitation style regardless of their level of autonomy.

Since this current research study was exploratory in nature it was decided that a higher significance level should be utilized. At the .08 alpha level, only the facilitation style by level of autonomy interaction for the global self worth variable was significant ($p < .08$). With small sample sizes such as this ($n = 88$), the power in the statistical analysis becomes an issue. The power in this study was considered to be low at .57 (57%) as sufficient power would be .8 (80%). However, with exploratory research significance levels such as this should not be discounted easily as there becomes a risk in making a Type II error of accepting the null hypothesis when it is incorrect.

The affects of the study fall in line with the theoretical expectations and the previous research (e.g., Reeve, 2002, Ryan & Grolnick, 1986) which indicate that autonomy supportive environments support positive outcomes such as perceived competence and align with more self-determined (intrinsically motivated) behavior; whereas, a controlling environment has been connected to hindering positive outcomes and are associated with more external motivations. The findings of this study demonstrated that high ropes courses with autonomy supportive environments positively influence youth's global self worth for those youth who are more self-determined (have a high level of autonomy). Additionally, the results on the effect of a high ropes course with a controlling environment also remain true to the theoretical foundation of the study in that this particular environment did not support a positive outcome in any of the perceived competence domains regardless of the youths' level of autonomy. If the controlling environment is more conducive to those who are more extrinsically motivated than it is difficult to explain why there was no significant interaction between the controlling facilitation style and those with lower levels of autonomy. It would be reasonable to think that the controlling environment would be more conducive for those with low levels of autonomy as it supports their extrinsic motivation, perhaps influencing perceived competence in one way or another. Some of the possibilities for this will be addressed later in the implications section of this chapter.

Practical Implications

In the field of therapeutic recreation, TR is viewed as a specific process that is not setting specific as it is practiced in a variety of diverse situations (Stumbo & Folkerth,

2005). The A.P.I.E process (assessment, planning, implementation and evaluation) needs to be addressed in conjunction with the study's findings since two of the phases in this process are directly targeted. The first is client assessment, which is critical in order to gather information specific to the person a CTRS is working with. Knowing characteristics about individuals before a CTRS works with them can have benefits such as understanding their needs. This study supports the importance of considering clients' needs prior to implementing a program with them. As a prime example, this study revealed that those youth who were high in their level of autonomy required an autonomy supportive environment in the high ropes course in order to increase their global self worth. Knowing a client's autonomy level before a group starts allows the facilitator or CTRS to recognize how to appropriately lead each member and how to interact with them in a way that will help yield favorable therapeutic outcomes.

The second phase that is looked at through this study is the implementation phase which explicitly deals with intervention techniques. Again, the techniques used by CTRSs in this stage depend on a client's needs. If a client is evaluated as having a high level of autonomy, based on the current study's findings, CTRSs should be using a more autonomy supportive leadership style with them to bring about the targeted behavioral change. Unfortunately, the results of the present study do not provide guidance as to what facilitation styles work with those youth who are not as self-determined (have low level of autonomy). Only two specific styles were examined in this study and future research is needed to examine if any other style would be more appropriate for those youth with low levels of autonomy to increase their perceived competence.

Since this research emphasizes the facilitators' leadership styles and how they interact with those they work with, this ultimately sheds light on the impact CTRSs have on their clients and the program outcomes. This therefore challenges their accountability in deriving positive outcomes from the programs they initiate. These results now challenge CTRSs to tailor their facilitation style or the environment they create through facilitation to meet the needs of their participants. Furthermore, CTRSs take such care in thoroughly assessing their clients and selecting programs to meet the needs of their clients. It is now known that they simply cannot just lead these programs without carefully considering the facilitation style that would be most appropriate for their clients.

With a focus of this research being the environments that are created through specific facilitation techniques and the impact they have on youths' perceived competence, this provides some practical implications that need to be considered by adventure challenge programmers, specifically high ropes course facilitators. The results of this study imply that facilitators should become aware of the personal characteristics of their participants as each one has his or her own preferred learning environment. Also, high ropes course facilitators need to understand that in order to create this favorable learning environment they have to respond to the participant not only in a manner that matches with the participant's learning preference but with his or her specific needs throughout the course itself.

Theoretical Implications

The impact that specific facilitation styles (autonomy supportive and controlling) have on youth participants should continue to be examined as this study supports previous empirical findings on the positive outcomes associated with the autonomy supportive environments (Deci et al., 1981; Ryan & Grolnick, 1986; Grolnick & Ryan, 1989; Reeve, 2002). Although the SDT literature focuses predominantly on the outcomes related to autonomy supportive environments there are a few studies which address the controlling environment and report on negative impacts such as lowering intrinsic motivation and hampering internalization (Black & Deci, 2000), as well as encouraging introjected regulation that is more external in nature (Reeve). The results of this study indicated that in a controlling environment, level of autonomy is unrelated to the specific global self worth score; however, Ryan & Grolnick's research reported that teachers who use more controlling techniques had students with lower perceived competence, self worth and intrinsic motivation. That being said, if one's level of intrinsic motivation is lower that would ultimately mean he or she has a lower level of autonomy in addition to the reported decrease in his or her perceived competence. These findings contradict the results of this study which indicated that level of autonomy, whether high or low, did not impact perceived competence scores such as global self worth. Therefore, the impact of controlling environments, especially in relation to youths' perceived competence, needs to be addressed in future research in order to examine further the affects of this type of environment as the previous literature and the current findings are not in agreement. By increasing the research in this area, scholars may be able to tease out the true relationship

between the controlling environment, level of autonomy and its affect on certain outcomes such as perceived competence.

Previous research examines the effect of self regulation on particular outcomes such as perceived competence (Black and Deci, 2000), school adjustment (Walls & Little, 2005), motivation and job seeking (Vansteenkiste, Lens et al., 2004) and compliance with medication (Williams & Deci, 1998) while other research addresses the impact of the social context on self regulation but focuses on the affect of autonomy supportive environments only (Grolnick & Ryan, 1989; Williams et al., 1999; Williams et al., 2004). There is no empirical research that specifically addresses level of autonomy, the controlling environment and positive or negative outcomes. Even those studies that focus on autonomy supportive environments with self regulation as an outcome or as a predictor to other outcomes, the controlling aspect is often not addressed thoroughly.

The interaction effect between facilitation style (autonomy supportive and controlling) and level of autonomy (one's self regulation) has not been carefully examined by SDT researchers in the past. One study by Williams et al. (1996) studied the effect of autonomy supportive/controlling environments and autonomous motivation on positive outcomes such as learning and well-being; however, the study design was somewhat different compared to this study. In the William et al. research the sample was older and therefore utilized the general causality orientation whereas in the current study with the sample being between the ages of 8 and 13, the self regulation questionnaire was more appropriate, yet both measured level of autonomous motivation. Also, instead of

assigning the staff to a particular environment to be created by their leadership (autonomy supportive and controlling) the sample was surveyed on their perception of autonomy support from the staff. Although the William et al. research examined autonomous motivation and autonomy supportiveness from the staff, the study looked at these aspects in two ways that were different from this research: (1) as separate predictors of positive engagement in a diet program and remaining in the program for its duration and (2) in the way that the perceived autonomy support of the staff would result in greater autonomy motivation for the diet program which they felt related to increased weight loss and weight loss maintenance over time. No interaction between autonomous motivation and the social context was examined in this reported study and no other studies have been found that address this type of interaction effect; therefore, the current study helps to further develop aspect of the SDT literature in a way that is novel and unique as it pairs components of SDT together in a way that has not been done in previous research.

It has been established through the previous literature that there are various contexts in which both autonomy supportive and controlling environments as well as one's level of autonomy (self-regulation) have been examined such as in academics, the work environment and in health related contexts (e.g., Grolnick and Ryan, 1989; Vallerand et al., 1997; Vansteenkiste, Simons et al., 2004; Vansteenkiste et al., 2005). However, these aspects of SDT have not been looked at in adventure challenge programs, specifically in the high ropes course setting which contributes to this study's uniqueness. The findings of this research support the literature which addresses a benefit of adventure challenge therapy as being increased perceived competence (Groff & Dattilo, 2000) yet,

this study lends its attention to specific facilitation styles not addressed or ever examined in high ropes course environments. Merging adventure challenge therapy with SDT constructs is a novel way of examining how positive outcomes of a ropes course are brought about. In fact no research has been conducted on the specific details of facilitation styles in high ropes courses in this manner. Therefore, this study appears to be the first of its kind to address not only the role that facilitators have in bringing about positive outcomes but what exactly they need to do in terms of their facilitation style to help ensure that they occur.

Limitations

As with most exploratory research, this study encountered several difficulties that may have affected the results of this research and have been viewed as limitations. In attempting to decrease the variability in the study surrounding the participants, the facilitators and with the course itself, the sample size was restricted in its numbers (N = 88) and was viewed as a limitation especially in relation to the power of the analysis. In order to have sufficient power (.8) which could potentially yielded more significant results, the sample size would have had to have been at least 145 participants; however, in order to obtain such a number, participants from alternate sources would have to have been used therefore resulting in a potential internal validity issue. Another implication of the small sample size was that it made the examination of differences based on specific variables such as gender, age and ethnicity challenging because the groupings within each category became too small for statistical analysis. Increasing the sample size in

future research would help to ease this constraint and allow for further investigation of these variables.

Another limitation was the setting itself. The high ropes course setting is a novel learning environment unlike the traditional classroom setting where a large proportion of the previous research on autonomy supportive and controlling environments has been conducted. Therefore, the impact of the facilitation style on youths' perceived competence may have been affected by the different learning environment and youths' personal preferences for that environment. Replicating this study in a different setting may help to address how real this concern may actually be to the outcomes being studied.

It is important to mention the possibility that high ropes courses are designed more favorably for those who are more self-determined (having a high level of autonomy) and therefore have more inherent appeal to these types of individuals compared to their counterparts with low levels of autonomy. Perhaps a plausible reason for inconclusive results in connection with the controlling environment is due to the specific setting used. The plan for this study was to use it as a spring board towards other therapeutic settings in that the design and core principles of facilitation would be used and replicated in other TR situations. The thought being that autonomy supportive and controlling facilitation styles can and should be used and examined in TR settings other than a high ropes course.

Since the research design reflected the predetermined camp schedule for each week, the pretest was administered at slightly different times for the oldest boys' cabin groups who had their ropes session on Monday mornings. The other two ropes sessions

that were held on Wednesdays and Thursdays had their pretest administered the afternoon before. Due to the arrival time of all the campers at the commencement of each week (Sunday afternoon), the pretest for the Monday groups (oldest boys) was not possible and was therefore conducted Monday morning immediately prior to their ropes session which may have impacted the study outcomes. In addition to the timing of the pretest, the timing of the ropes session itself may have affected the results. Again, because the researcher agreed to adhere to the predetermined camp schedule the ropes session were held throughout the week; Monday, Wednesday and Thursday. Those youth participants who had their ropes session on Mondays had little time to bond and get to know one another as group; whereas, those youth participants who had their ropes experience later in the week had more time to become more cohesive as a group. This may have impacted their feeling of perceived competence in ways that were not examined in this research study.

Additionally, the facilitators were selected based on their years of experience and familiarity with the specific ropes course and were prescribed to use the facilitation styles under examination regardless of their innate style. Although the facilitators did a notable job in creating each environment, perhaps the facilitation style least like their own was more of a challenge for them to execute and may have been less affective which may have impacted the results of this study.

Having to rely on student observers who had little to no knowledge of either a ropes course or the theoretical foundation of the study posed some difficulties that may have impacted the study's results. Although the observers attempted to be meticulous

with their recordings of the facilitators' behaviors in each session, the research observed that there was some underestimation that occurred regarding the number of times facilitation style specific behaviors occurred as some observations were missed. Although this is a limitation of the study it is not important to the study conclusions because specific facilitation style behaviors that occurred were actually omitted rather than recording those that did not occur. This in fact could potentially mean that the observation results were stronger than what is currently reported. Also, due to their limited knowledge and the complexity of the study they were not able to record how many times the behaviors that should have occurred did not or if other facilitation styles were presented when they should not have been.

Another limitation to this research study was the participants' ability to understand and complete the self-perception profile for children questionnaire. Although the researcher set up the study design to help alleviate any problems with understanding the questionnaires by reading them aloud altogether as a group, some youth were unable to follow along and completed the questionnaires incorrectly. Also, with the mailed out follow up, instruction on how to complete the questionnaire accompanied the SPPC; however, there was no way to know whether the instructions were reviewed as many of the questionnaires were completed incorrectly and therefore no follow up tests were possible which was another limitation in and of itself.

Future Research

Since utilizing SDT, specifically autonomy supportive environments and controlling environments in the high ropes course setting, has not been done in the past,

future research should examine replicating this study design in different settings and with different modalities to reveal the influence of the ropes course environment itself. In the future the researcher may also want to change the outcome variable to include the level of autonomy (RAI) as well in order to examine any changes that may take place as a result of one's experience with either of the two aforementioned environments (autonomy supportive and controlling). Ultimately, the core principles that underlie this study are thought to be transferable to different therapeutic environments and staff. That being said, CTRSs in different settings may want to examine the affect of autonomy supportive and controlling facilitation styles with their clients.

In order to increase the sample size of this particular study design, future researcher should replicate this study utilizing a larger cross section of youth at a different ropes course setting that has access to a great number of youth participants such as a correctional facility or residential treatment center. These two examples would provide a larger group of homogeneous youth and in most cases house their own ropes course on site.

The facilitators in this study were selected based on their experience and familiarity with the specific ropes course used. The facilitation styles were then prescribed to them regardless of how they facilitated naturally. Most of the facilitators in this study commented on how challenging the facilitation styles were to execute which may have impacted the study outcomes. Modifying how the facilitators are selected may be another effective adaptation of this present study to be used in the future research. Facilitators could be selected based on their innate facilitation style by using one of the

two motivators orientation questionnaires found in the self determination literature.

“Each assesses whether individuals in a position of authority, whose job is, in part, to motivate others, tend to be oriented toward controlling the behavior of those others versus supporting their autonomy” (The Motivators’ Orientation Questionnaires, 2007).

Regarding the difficulty experienced in completing the self perception profile for children, perhaps restructuring the question format for future research may allow for a greater usability rate of those questionnaires completed. An alternate thought is that perhaps the study could be designed in a way where the youth can get together as group and complete the follow up by having it read aloud in a group format, similar to the way the pre and posttest were done. Since many of the follow up questionnaires were completed incorrectly no further analysis was possible at this time. Either modifying the question format or adapting the follow up administration techniques may alleviate this concern as future research may benefit from examining any long term impacts of not only a ropes course but a ropes course facilitated using specific styles. As a way of increasing the amount of follow up data obtained in future studies it would be beneficial to modifying the research setting. For example, a residential treatment setting would provide greater continued access to youth as they often live there full time. This would also allow the researcher to adapt the administration technique of the follow questionnaire as he/she would be able to bring the participants together as a group one last and read the instrument aloud similar to the way the pretest was conducted.

Finally, a qualitative approach in addition to the quantitative analyses could potentially be beneficial in understanding the impact on the youth of the various

facilitation styles as well as understanding the thoughts and challenges the facilitators' experienced while creating these environments. During the present study, remarks were made by the facilitators regarding the facilitation styles used with lots of personal anecdotes after each session. Unfortunately, no discussions were possible with the youth participants after each session due to time constraints. It would be informative to hear feedback from the youth participants on their experiences with each facilitation style. In the future, formal interviews or focus groups could be conducted to gather this type of information.

Conclusion

The data collected from this study did not substantiate the hypothesis concerning the controlling facilitation style and youth perceived competence; however, it did provide support for the autonomy supportive facilitation style but for only the global self worth domain. Even if only one dimension of youths' perceived competence can be influenced positively by coordinating facilitation style and an aspect of youths' personality (level of autonomy) then it valuable to modify intervention strategies to include this accommodation.

Certified therapeutic recreation specialists need to be made aware of the influence they have on not only their clients, but in the program outcomes themselves. The major implications of this study include (1) the appropriateness of evaluating not only clients' needs but aspects of their personality such as level of autonomy prior to implementing a program, (2) the calling for professional accountability on behalf of all CTRSs to critically examine the environments they create through their facilitation styles in the

programs they provide for their clients, (3) therapeutic recreation specialists in various settings, who work with diverse clients should increase their awareness of how to facilitate using the specific styles conducive to their clients' preferences, and (4) the need to replicate this study design in various TR settings and with different modalities to reveal the influence of the ropes course environment itself.

APPENDICES

Appendix A

Ropes Course Description

Clemson University Outdoor Laboratory High Ropes Course

Clemson University Outdoor Laboratory's high ropes course consisted of several elements that are all linked together, meaning that a participant gets on the course at one end, maneuvers through a series of elements and gets off the course at the other end. This is commonly called a static course. Not all courses are designed the same way and often contain different elements. The following is a description of the various elements and belay systems that make up this particular ropes course. This is only one example of many high ropes courses available for use. Clemson University Outdoor Laboratory's high ropes course has two variations: the short way or the long way. The short way consists of the Incline log, Burma Bridge, Postman's walk, Catwalk, Thrand and the Zipline. The long way consists of the Incline log, Burma Bridge, Heebie Jeebie, Bridge too far, Grapevine, Catwalk, Thrand and the Zipline. Below is an explanation of each of the elements and the belay system that is used with each.

Belay Systems:

This particular course at the Outdoor lab utilizes two types of belay systems; static and dynamic belay. The static belay system uses something called "lobster claws" which consists of three carabineers attached to a ropes system. One carabineer attaches the ropes system to the participant's harness, the ropes then split into two separate adjustable ropes each with a carabineer on the end. These two carabineers are used to attach separately to support cables that are above each element. Should the participant fall he/she are able to pull themselves up back on the course. Keep in mind, falling does not mean hitting the ground. It simply means swinging safely in the air from the over head cable. The dynamic belay system attaches a rope that runs from the facilitator through a pulley system attached to a large tree and then to the participant's harness. As the participant moves through the element, the slack in the rope is taken up by the facilitator on the ground. Should the participant fall, the facilitator has control of the rope to prevent them from falling further, to assist them in getting back on the course, or to lower them slowly to the ground.

Incline Log:

The incline log is essentially what it sounds like. It is a long telephone pole or log that has one end resting on the ground and the other propped up on an angle, attached securely to a tall supporting tree. The participant walks, with the security of the static belay coupled with a dynamic belay line, along the angled log up to the supporting tree where he/she transfers to the next element.

Burma Bridge:

The Burma bridge is a long single steel cable bridge that has single rope handrails on each side. Participants walk along the steel cable while holding onto the rope handrails. They must be careful to lift their feet over the supporting rope structures that angle down from the rope handrails and attach to the steel cable. At the end of this element the participants must transfer to the next element. The static belay system is the only belay system used on this element.

Postman's Walk:

The postman's walk is series of two cables that are vertically parallel to one another with the higher cable being about waist high. The participants must walk along the lower cable utilizing only the higher cable that is waist high for support. At the end, the participants must transfer to the next element. The static belay system is the only belay system used on this element.

Heebie Jeebie:

The heebie jeebie consists of a single cable strung between two large trees. The only support the participants have is two crisscrossing thin ropes that link the two trees together. The participant must make their way from one tree to another by walking along the single cable while holding on to the crossing thin ropes that reach from one tree to the other forming a large "x". At the end, the participant must transfer to the next element. Again, the only belay system in place here are the lobster claws.

Bridge Too Far:

The bridge too far is a wooden bridge that is suspended high in the air that has unevenly spaced out wooden planks so the participant must step out over open air to reach them. In the middle one plank is purposefully broken to challenge the participant to step out even further. At the end, the participant must transfer to the next element. Lobster claws are the only belay system used on this element.

Grapevine:

The grapevine (sometimes called the Tarzan walk) is a long single cable stretched between two large trees that has thin ropes unevenly spaced apart hanging down from a single cable over head. The participant must walk from one end to the other on the single cable using only the Tarzan like jungle vines (ropes) that hang down from above. Although the participant is not allowed to swing on the ropes that hang like vines from above, the participant is permitted to hang on tightly and use the rope vines to steady him/herself as the participant makes his/her way across to the other side. At the end, the participant must transfer to the next element. Lobster claws are the only belay system used on this element.

Catwalk:

The catwalk is a single large, long telephone pole suspended between two large trees high above the ground. The participant must walk across the pole from one end to the other

unassisted by any handrails or supportive structures. At the end, the participant must transfer to the next element. Lobster claws are the only belay system used on this element.

Thrand:

The thrand consists of two extremely large, thick ropes that reach from one large tree across to another large tree and crisscross in the middle making an “x” formation with the ropes. Each participant must make their way from one tree to the other in any way he/she can (walking, inch worming, army crawling). The tricky part is in the middle where the two ropes cross one another. At the end, the participant climbs up to a platform to prepare for the zipline decent. Lobster claws are the only belay system used on this element.

Zipline:

The zipline marks the end of the ropes course for both the short and long way. Essentially the zipline is a single cable that is attached securely to a large tree and angles down on a gradual slope to a lower tree further off in the distance. The participant stands on a small platform built high up in a tree while the ropes course facilitator attaches the zipline pulley system to the participant’s harness. Once the participant is ready he/she steps off the platform, sit in the harness and slides down along the cable towards the lower tree off in the distance. At the end, a ladder is available to help the participant off the zipline cable.

Appendix B

Manipulation Checklist

(Content adapted from Reeve & Jang, 2006, p.211)

Facilitator: _____

Observer: _____

Manipulation Check: Controlling Facilitation Style Checklist

Giving Solutions	Commands/Directives
Deadline Statements	Verbal Disapproval

Facilitator: _____

Observer: _____

**Manipulation Check: Autonomy-Supportive Facilitation Style
Checklist**

Ask What Student Wants	Praise or Encouragement Statements
Hints	Perspective Taking

Appendix C

Modified Self-Regulation Questionnaire

(Modified from The Self-Regulation Questionnaires, 2006)

Motivation for Camp Activities

There are a variety of reasons why people do camp activities. Please indicate by circling one number how true each of these reasons are for why you do camp activities. The scale is:

Why do I do camp activities?

1. Because I would feel bad about myself if I did not do them.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

2. Because others would be angry at me if I did not.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

3. Because I enjoy doing camp activities.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

4. Because I will feel really proud of myself if I do well.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

5. Because I want to learn new things.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

6. Because people would think I'm a good camper.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

7. Because I feel like I have no choice about doing camp activities; others make me do it.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

8. Because I enjoy doing camp activities.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

9. Because I believe doing camp activities helps me feel better.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

10. Because it's fun.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

11. Because I worry that I would get in trouble if I don't.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

12. Because it feels important to me to do the camp activities.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

13. Because I feel ashamed if I do not do the camp activities.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

14. Because I might get an award if I do well.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

15. Because it is interesting to see me get better at camp activities.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

16. Because it is important to me to try to do well in the camp activities.

1	2	3	4
Not at all true	Not very true	Sort of true	Very true

Appendix D

Self-Perception Profile for Children

Name: _____

What I Am Like

	Really True for me	Sort of True for me	Sample Sentence		Really True for me	Sort of True for me	
(a)	<input type="checkbox"/>	<input type="checkbox"/>	Some kids would rather play outdoors in their spare time	BUT	Other kids would rather watch T.V.	<input type="checkbox"/>	<input type="checkbox"/>
1.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids feel that they are very <i>good</i> at their school work	BUT	Other kids <i>worry</i> about whether they can do the school work assigned to them	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids find it <i>hard</i> to make friends	BUT	Other kids find it's pretty <i>easy</i> to make friends	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids do very <i>well</i> at all kinds of sports	BUT	Other kids <i>don't</i> feel that they are very good when it comes to sports	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are <i>happy</i> with the way they look	BUT	Other kids are <i>not</i> happy with the way they look	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids often <i>do not</i> like the way they behave	BUT	Other kids usually <i>like</i> the way they behave	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are often <i>unhappy</i> with themselves	BUT	Other kids are pretty <i>pleased</i> with themselves	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids feel like they are <i>just as smart</i> as other kids their age	BUT	Other kids aren't so sure and <i>wonder</i> if they are as smart	<input type="checkbox"/>	<input type="checkbox"/>

Harter, 1985

	Really True for me	Sort of True for me			Really True for me	Sort of True for me
8.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have <i>a lot of</i> friends	BUT	Other kids <i>don't</i> have very many friends	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids wish they could be a lot better at sports	BUT	Other kids feel they are good enough at sports	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are <i>happy</i> with their height and weight	BUT	Other kids wish their height or weight were <i>different</i>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids usually do the <i>right</i> thing	BUT	Other kids often <i>don't</i> do the right thing	<input type="checkbox"/>
12.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids <i>don't</i> like the way they are leading their life	BUT	Other kids <i>do</i> like the way they are leading their life	<input type="checkbox"/>
13.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are pretty <i>slow</i> in finishing their school work	BUT	Other kids can do their school work <i>quickly</i>	<input type="checkbox"/>
14.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids would like to have a lot more friends	BUT	Other kids have as many friends as they want	<input type="checkbox"/>
15.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids think they could do well at just about any new sports activity they haven't tried before	BUT	Other kids are afraid they might not do well at sports they haven't ever tried	<input type="checkbox"/>
16.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids wish their body was <i>different</i>	BUT	Other kids <i>like</i> their body the way it is	<input type="checkbox"/>
17.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids usually act the way they know they are <i>supposed</i> to	BUT	Other kids often <i>don't</i> act the way they are supposed to	<input type="checkbox"/>
18.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are <i>happy</i> with themselves as a person	BUT	Other kids are often <i>not</i> happy with themselves	<input type="checkbox"/>

Harter, 1985

	Really True for me	Sort of True for me			Really True for me	Sort of True for me	
19.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids often <i>forget</i> what they learn	BUT	Other kids can remember things <i>easily</i>	<input type="checkbox"/>	<input type="checkbox"/>
20.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are always doing things with <i>a lot</i> of kids	BUT	Other kids usually do things by <i>themselves</i>	<input type="checkbox"/>	<input type="checkbox"/>
21.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids feel that they are <i>better</i> than others their age at sports	BUT	Other kids <i>don't</i> feel they can play as well	<input type="checkbox"/>	<input type="checkbox"/>
22.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids wish their physical appearance (how they look) was <i>different</i>	BUT	Other kids <i>like</i> their physical appearance the way it is	<input type="checkbox"/>	<input type="checkbox"/>
23.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids usually get in <i>trouble</i> because of things they do	BUT	Other kids usually <i>don't</i> do things that get them in trouble	<input type="checkbox"/>	<input type="checkbox"/>
24.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids <i>like</i> the kind of person they are	BUT	Other kids often wish they were someone else	<input type="checkbox"/>	<input type="checkbox"/>
25.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids do <i>very well</i> at their classwork	BUT	Other kids <i>don't</i> do very well at their classwork	<input type="checkbox"/>	<input type="checkbox"/>
26.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids wish that more people their age liked them	BUT	Other kids feel that most people their age do like them	<input type="checkbox"/>	<input type="checkbox"/>
27.	<input type="checkbox"/>	<input type="checkbox"/>	In games and sports some kids usually <i>watch</i> instead of play	BUT	Other kids usually <i>play</i> rather than just watch	<input type="checkbox"/>	<input type="checkbox"/>
28.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids wish something about their face or hair looked <i>different</i>	BUT	Other kids <i>like</i> their face and hair the way they are	<input type="checkbox"/>	<input type="checkbox"/>

Harter, 1985

	Really True for me	Sort of True for me			Really True for me	Sort of True for me	
29.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids do things they know they <i>shouldn't</i> do	BUT	Other kids <i>hardly ever</i> do things they know they shouldn't do	<input type="checkbox"/>	<input type="checkbox"/>
30.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are very <i>happy</i> being the way they are	BUT	Other kids wish they were <i>different</i>	<input type="checkbox"/>	<input type="checkbox"/>
31.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids have <i>trouble</i> figuring out the answer in school	BUT	Other kids almost <i>always</i> can figure out the answers	<input type="checkbox"/>	<input type="checkbox"/>
32.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids are <i>popular</i> with others their age	BUT	Other kids are <i>not</i> very popular	<input type="checkbox"/>	<input type="checkbox"/>
33.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids <i>don't</i> do well at new outdoor games	BUT	Other kids are <i>good</i> at new games right away	<input type="checkbox"/>	<input type="checkbox"/>
34.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids think that they are good looking	BUT	Other kids think that they are not very good looking	<input type="checkbox"/>	<input type="checkbox"/>
35.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids behave themselves well	BUT	Other kids often find it hard to behave themselves	<input type="checkbox"/>	<input type="checkbox"/>
36.	<input type="checkbox"/>	<input type="checkbox"/>	Some kids <i>are</i> not very happy with the way they do a lot of things	BUT	Other kids think the way they do things is <i>fine</i>	<input type="checkbox"/>	<input type="checkbox"/>

Harter, 1985

Appendix E

Autonomy Supportive Facilitation Training Presentation

Autonomy-Supportive Facilitation Style

Facilitator Training

Why am I looking at facilitation styles?

- In adventure challenge courses there are many different types of facilitation styles that are effective; however, many facilitators fail to realize that some styles work for some participants but not others.
- Facilitators need to question how the environment they create through their facilitation style impacts the outcomes that youth participants experience.

What does a Autonomy-Supportive facilitation look like?

- This “means that an individual in the position of authority [e.g. the facilitator] takes the other [e.g. the participants] perspective, acknowledges the other’s feelings, and provides the other with pertinent information and opportunities for choice, while minimizing the use of pressures and demands” (as cited in Black & Deci, 2000, p.742).

Other characteristics:

- “Autonomy-supportive facilitators distinguish themselves by:
 - Listening more,
 - Spending less time holding instructional materials such as equipment, notes, [clipboards],
 - Giving students time for independent work,
 - Giving fewer answers to problems” (Reeve, 2002, p.186).
 - Autonomy-supportive facilitators avoid:
 - Directives and commands,
 - Criticism,
 - Pressuring,
 - Being demanding,
 - Giving solutions.
- (Reeve, 2002)

Ultimately...

- An autonomy supportive ropes course environment is one where the facilitator is:
 - “Responsive (e.g., spend time listening),
 - Supportive (e.g., praise the quality of performance),
 - Flexible (e.g., give students time to work in their own way),
 - Motivate through interest (e.g., support intrinsic motivation)” (Reeve, 2002, p.186).

How do I create this environment?

- “[Spend] time listening” (Reeve & Jang, 2006, p.211).
- “Ask what the student wants [e.g. “who wants to start”, “which direction do you want to go?”] (Reeve & Jang, 2006, p.211)
- Invite the students to work independently and to do the elements their own way. (Reeve & Jang, 2006)

How do I create this environment?

- Allow the students to talk (Reeve, 2006)
- Provide rationales such as “explanatory statements as to why a particular course of action might be useful” [e.g., how about we try the shorter course as it’s the easiest to complete]” (Reeve & Jang, 2006, p.211).
- “[Provide] praise as informational feedback... communicate positive effectance feedback about the student’s improvement or mastery, such as ‘Good job’ and ‘That’s great’” (Reeve & Jang, 2006, p.211).

How do I create this environment?

- “Offer encouragements [such as]...statements to boost or sustain the student’s engagement, such as ‘Almost,’ ‘You’re close,’ and ‘you can do it’” (Reeve & Jang, 2006, p. 211).
- “Offer hints [such as]...suggestions about how to make progress when the student seemed to be stuck”[†] (Reeve & Jang, 2006, p.211) (e.g. “moving the lobster claws along with you/pushing them out in front seems to work better”, and “it might be better if you push the wires away from you”)

How do I create this environment?

- “Be responsive to student generated questions...[Reply to] student generated comments and questions, such as ‘Yes, you have a good point’ and ‘Yes, right, that was the second one’” (Reeve & Jang, 2006, p.211).
- “Communicating perspective taking statements [such as]... use empathic statements to acknowledge the student’s perspective or experience, such as ‘Yes, this one is difficult’ and ‘I know it is sort of difficult’” (Reeve & Jang, 2006, p.211).

Research has shown that:

- Youth in environments with autonomy-supportive leaders are more likely to:
 - “Higher perceived competence,
 - Greater creativity,
 - A preference for optimal challenge,
 - Greater conceptual understanding,
 - More positive emotionality,
 - Higher self-esteem,
 - Greater flexibility in thinking,
 - More active information processing”[†](as cited in Reeve, 2002, p.184).

Our goal and objective for this weekend:

- *Goal:* To facilitate the high ropes course sessions using the autonomy-supportive facilitation style
- *Objective:* Each facilitator will facilitate at least 3 high ropes course sessions this week using the autonomy-supportive facilitation style

Controlling Facilitation Training Presentation

Controlling Facilitation Style

Facilitator Training

Why am I looking at facilitation styles?

- In adventure challenge courses there are many different types of facilitation styles that are effective; however, many facilitators fail to realize that some styles work for some participants but not others.
- Facilitators need to question how the environment they create through their facilitation style impacts the outcomes that youth participants experience.

What does a controlling facilitation style look like?

- This means that an individual in the position of authority (e.g. the facilitator) is “controlling [and] pressures the others [e.g. the participants] to behave in particular ways, either through coercive or seductive techniques that generally include implicit or explicit rewards or punishments” (as cited in Black & Deci, 2000, p. 742).

Other characteristics:

- Controlling facilitators distinguish themselves by:
 - Spend more time talking
 - Give Solutions
 - Demonstrate approval of compliance
 - And disapproval of non-compliance
 - Ask directive questions (can you hook like this)
- Controlling facilitators avoid:
 - Asking what the participants wants
 - Spend less time listening to the participants
 - Allowing participants to work independently
 - Allowing participants to figure out solutions on their own

(Reeve, 2002; Reeve & Jang, 2006)

Ultimately...

- A controlling ropes course environment is one where the facilitator is:
 - “take charge (e.g., hold instructive materials, use directives and commands),
 - Shape students towards the right answer (e.g., give solutions),
 - Evaluate [e.g., critique behavior],
 - Motivate through pressure (e.g., seem demanding and controlling)” (Reeve, 2002, p.186).

How do I create this environment?

- Spend a lot of time talking (Reeve & Jang, 2006).
- Physically hold ropes equipment (e.g. clipboard, equipment without letting students touch) (Reeve & Jang, 2006).
- Give the solutions and answers (e.g. give solutions at specific difficult points of course, don't let the students try to figure stuff out themselves) (Reeve & Jang, 2006)

How do I create this environment?

- “[Use] commands [and] directives... such as ‘Do it like this,’ ‘Flip it over,’ or ‘Put it on its side’” (Reeve & Jang, 2006, p. 211).
- “Made should [or] ought to statements... [such as] should, must, has to, go to, or ought to do something, such as ‘You should keep doing that,’ and ‘You ought to do...’” (Reeve & Jang, 2006, p. 211).
- Ask controlling questions... such as ‘Can you move it like I showed you?’ and ‘Why don’t you go ahead and show me?’” (Reeve & Jang, 2006, p. 211).

How do I create this environment?

- “[Use] deadline statements [illustrating]... shortage of time, such as ‘A couple of minutes left’ and ‘We only have a few minutes left’” (Reeve & Jang, 2006, p. 211).
- “[Use] praise as a contingent reward... [Use] verbal approvals of the student or of the student’s compliance with the [facilitator’s] directions, such as ‘You’re smart’ or ‘You are really good at...’” (Reeve & Jang, 2006, p. 211).
- “[Provide] verbal disapproval of student or the student’s lack of compliance with the [facilitators] directions, such as ‘No, no, no, you shouldn’t do that’” (Reeve & Jang, 2006, p. 211).

Research has shown that:

Research as shown that traditionally most leaders (e.g. teachers):

- “The more disengaged students are the more they pull out controlling behaviors from their teachers” (Reeve, 2002, p. 191).
- “Parents and students rate controlling teachers as significantly more competent than autonomy-supportive teachers” (Reeve, 2002, p. 191).
- Some don’t believe in autonomy-support as they feel chaos would break loose if attempted (Reeve, 2002).
- Typically African-American parents are more authoritative in nature and their children have been reported to fair better in academics when educators were increasingly direct with their instructions. (Jambunathan & Burts, 2003)

Our goal and objective for this weekend:

- **Goal:** To facilitate the high ropes course sessions using the controlling facilitation style
- **Objective:** Each facilitator will facilitate at least 3 high ropes course sessions this week using the controlling facilitation style

Appendix F

Reference Cards

(Reeve & Jang, 2006, p. 211)

Controlling Environment:
1. Spend time talking
2. Physically hold materials (clipboard, equipment without letting students touch)
3. Give the solutions and answers (give solutions at specific difficult points, don't let the students try to figure stuff out themselves)
4. Use commands and directives (do it like this, flip it over, put it here)
5. Make should or ought to statements (you should keep doing that, you ought to do....)
6. Ask controlling questions (can you move it like I showed you?, and why don't you go ahead and show me?)
7. Use deadline statements illustrating shortage of time (a couple of minutes left, we only have a few minutes left)
8. Use verbal approvals of the students compliance with the facilitators directions (you're smart, you are really good at....)
9. Provide verbal disapproval of student or the students lack of compliance with the facilitators directions (no, no, no, you shouldn't do that)

Autonomy-Supportive Environment:
1. Spend time listening
2. Ask what the student wants (“who wants to start”, “which direction do you want to go?”)
3. Invite the students to work independently and to do the elements their own way
4. Allow the students to talk
5. Provide rationales such as explanatory statements as to why a particular course of action might be useful (how about we try the shorter course as it’s the easiest to complete)
6. Provide praise as informational feedback. Communicate positive effectance feedback about the student’s improvement or mastery (good job, that’s great)
7. Offer encouragements such as statements to boost or sustain the student’s engagement (“almost, you’re close”, and “you can do it”)
8. Offer hints such as suggestions about how to make progress when the students seemed to be stuck (“moving the lobster claws along with you/pushing them out in front seems to work better”, and “it might be better if you push the wires away from you”)
9. Be responsive to student generated questions. Reply to student generated comments and questions (“yes, you have a good point”, and “yes, right, that was the second one”)
10. Communicating perspective taking statements such as use empathic statements to acknowledge the student’s perspective or experience (“yes, this one is difficult” and “I know it is sort of difficult”)

Appendix G

Counselor Training Presentation

Autonomy-Supportive & Controlling Leadership Styles
Counselor Training

Why am I looking at leadership styles?

- In adventure challenge courses there are many different types of facilitation styles that are effective; however, many facilitators fail to realize that some styles work for some participants but not others.
- Facilitators need to question how the environment they create through their facilitation style impacts the outcomes that youth participants experience.

What does each leadership style look like?

Autonomy-Supportive: <ul style="list-style-type: none">• This "means that an individual in the position of authority (e.g. the facilitator) takes the other (e.g. the participants) perspective, acknowledges the other's feelings, and provides the other with pertinent information and opportunities for choice, while minimizing the use of pressures and demands" (as cited in Black & Deci, 2000, p. 742).	Controlling: <ul style="list-style-type: none">• This means that an individual in the position of authority (e.g. the facilitator) is "controlling (and) pressures the others (e.g. the participants) to behave in particular ways, either through coercive or seductive techniques that generally include implicit or explicit rewards or punishments" (as cited in Black & Deci, 2000, p. 742).
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Other characteristics of autonomy-supportive styles:

<ul style="list-style-type: none">• "Autonomy-supportive facilitators distinguish themselves by:<ul style="list-style-type: none">• Listening more,• Spending less time holding instructional materials such as equipment, notes, [clipboards],• Giving students time for independent work,• Giving fewer answers to problems" (Reeve, 2002, p.186).	<ul style="list-style-type: none">• Autonomy-supportive facilitators avoid:<ul style="list-style-type: none">• Directives and commands,• Criticism,• Pressuring,• Being demanding,• Giving solutions. (Reeve, 2002)
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Other characteristics of controlling styles:

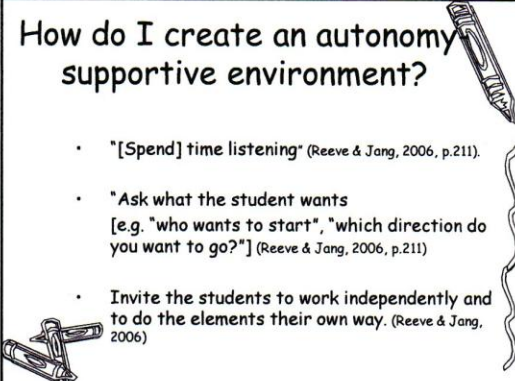
<ul style="list-style-type: none">• Controlling facilitators distinguish themselves by:<ul style="list-style-type: none">• Spend more time talking• Give Solutions• Demonstrate approval of compliance• And disapproval of non-compliance• Ask directive questions (can you hook like this)	<ul style="list-style-type: none">• Controlling facilitators avoid:<ul style="list-style-type: none">• Asking what the participants wants• Spend less time listening to the participants• Allowing participants to work independently• Allowing participants to figure out solutions on their own
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(Reeve, 2002; Reeve & Jong, 2006)

Creating an Autonomy-Supportive Environment
Specific Leadership Techniques

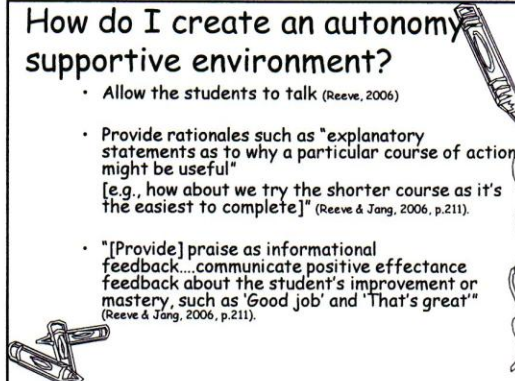
How do I create an autonomy supportive environment?

- "[Spend] time listening" (Reeve & Jang, 2006, p.211).
- "Ask what the student wants [e.g. "who wants to start", "which direction do you want to go?"]" (Reeve & Jang, 2006, p.211)
- Invite the students to work independently and to do the elements their own way. (Reeve & Jang, 2006)



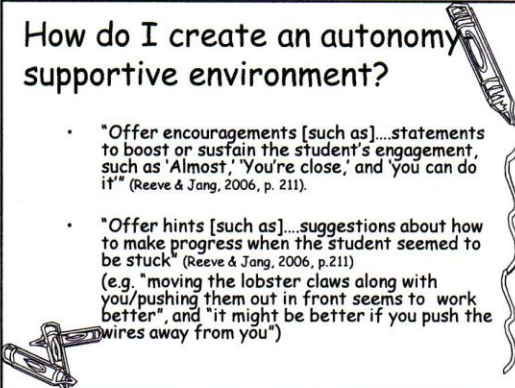
How do I create an autonomy supportive environment?

- Allow the students to talk (Reeve, 2006)
- Provide rationales such as "explanatory statements as to why a particular course of action might be useful" [e.g., how about we try the shorter course as it's the easiest to complete]" (Reeve & Jang, 2006, p.211).
- "[Provide] praise as informational feedback....communicate positive effectance feedback about the student's improvement or mastery, such as 'Good job' and 'That's great'" (Reeve & Jang, 2006, p.211).



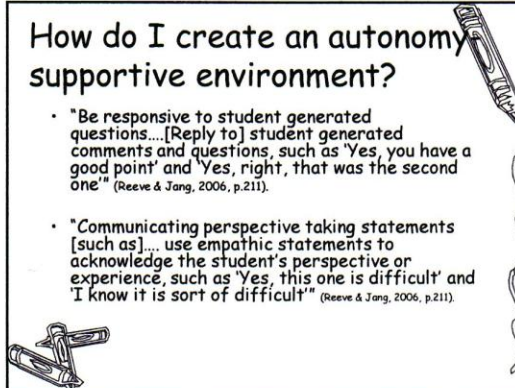
How do I create an autonomy supportive environment?

- "Offer encouragements [such as]....statements to boost or sustain the student's engagement, such as 'Almost,' 'You're close,' and 'you can do it'" (Reeve & Jang, 2006, p. 211).
- "Offer hints [such as]....suggestions about how to make progress when the student seemed to be stuck" (Reeve & Jang, 2006, p.211) (e.g. "moving the lobster claws along with you/pushing them out in front seems to work better", and "it might be better if you push the wires away from you")



How do I create an autonomy supportive environment?

- "Be responsive to student generated questions....[Reply to] student generated comments and questions, such as 'Yes, you have a good point' and 'Yes, right, that was the second One'" (Reeve & Jang, 2006, p.211).
- "Communicating perspective taking statements [such as]... use empathic statements to acknowledge the student's perspective or experience, such as 'Yes, this one is difficult' and 'I know it is sort of difficult'" (Reeve & Jang, 2006, p.211).



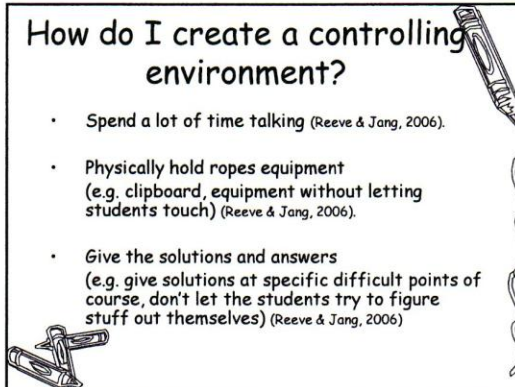
Creating a Controlling Environment

Specific Leadership Techniques



How do I create a controlling environment?

- Spend a lot of time talking (Reeve & Jang, 2006).
- Physically hold ropes equipment (e.g. clipboard, equipment without letting students touch) (Reeve & Jang, 2006).
- Give the solutions and answers (e.g. give solutions at specific difficult points of course, don't let the students try to figure stuff out themselves) (Reeve & Jang, 2006)



How do I create a controlling environment?

- "[Use] commands [and] directives....such as 'Do it like this,' 'Flip it over,' or 'Put it on its side'" (Reeve & Jang, 2006, p. 211).
- "Made should [or] ought to statements....[such as] should, must, has to, go to, or ought to do something, such as 'You should keep doing that,' and 'You ought to do...'" (Reeve & Jang, 2006, p. 211).
- Ask controlling questions....such as 'Can you move it like I showed you?' and 'Why don't you go ahead and show me?'" (Reeve & Jang, 2006, p. 211).



How do I create a controlling environment?

- "[Use] deadline statements [illustrating]....shortage of time, such as 'A couple of minutes left' and 'We only have a few minutes left'" (Reeve & Jang, 2006, p. 211).
- "[Use] praise as a contingent reward...[Use] verbal approvals of the student or of the student's compliance with the [facilitator's] directions, such as 'You're smart' or 'You are really good at...'" (Reeve & Jang, 2006, p. 211).
- "[Provide] verbal disapproval of student or the student's lack of compliance with the [facilitators] directions, such as 'No, no, no, you shouldn't do that'" (Reeve & Jang, 2006, p. 211).



Appendix H

Counselor Competency Training: Autonomy Supportive & Controlling

Counselor Competencies: Autonomy-supportive facilitation

1. You are helping the campers get their equipment on when one of your campers approaches you and tells you that they don't want to go up on the high ropes course. Using the autonomy-supportive facilitation techniques, you would:
 - a) Pressure the camper into participating and would be critical of their choice to not at least attempt the high ropes course.
 - b) **Provide encouragement to them and challenge them to at least try the first element. You let them know that you understand how scary this can be but that they can do it!**
 - c) Reassure the camper that the high ropes course is safe. Maybe they will at least try the ropes course.

2. While watching a camper transfer from one element to another, you notice them struggling to reach, with their lobster claws, the cable overhead. Using the autonomy-supportive facilitation techniques you were taught, you:
 - a) **Don't give the solution but give the camper time to work through the situation and see if they notice and stand on the staples placed strategically in the side of the tree, which are there for them to boost themselves up to reach the overhead cable.**
 - b) Ask them if they want to come down and get longer lobster claws. Depending on their height that might help and make things easier for them.
 - c) You spend a lot of time talking them through the situation and tell them the solution, just to help them along since you noticed they were so frustrated.

3. You are the lucky counselor that has been chosen to be up on the ropes course manning the decision pole today. This particular week you are supposed to be using the autonomy-supportive facilitation techniques you were taught in training. When the first camper arrives at the decision pole you:

- a) Never take your eyes off the camper while they are transferring to the next element and always use their name when responding to them.
 - b) Ask them which direction they want to go from there and praise them on how well they have been doing on the past two elements.**
 - c) You would assess their abilities on the previous two elements and tell them which way they should or ought to go from the decision pole (the longer or shorter way)
4. Again, you are standing and helping out a camper maneuver around the decision pole. Once they have completed the transfer, using the autonomy-supportive facilitation techniques, you:
- a) Ask them to shorten their lobster claws and provide the rationale that they are a little too long and should they fall it would be easier for them to get back on the element if the lobster claws were shorter rather than longer.**
 - b) Tell them to shorten the lobster claws. Once they have done that successfully, you tell them that they are good to go!
 - c) Critique in a positive manner how they maneuvered around the pole and then direct them adjust their lobster claws.

Counselor Competencies: Controlling facilitation

1. You are helping the campers get their equipment on and you notice that not everyone has put on the full equipment and some are just wearing their helmets. Using the controlling facilitation techniques you were taught, you would:
 - a) **Remind all of the campers that we only have three hours to do the ropes course today so they may want to put on their equipment soon. You also remind them that they at least have to have their helmet on if they are under the ropes course.**
 - b) You don't mention any kind of deadline but remind the campers to wear their helmets while standing under the ropes course.
 - c) Remind the campers to wear their helmets under the course and model this behavior by wearing yours at all times.

2. While watching a camper transfer from one element to another, you notice them struggling to reach, with their lobster claws, the cable overhead. Using the controlling facilitation techniques you were taught, you:
 - a) Don't give the solution but give the camper time to work through the situation and see if they notice and stand on the staples placed strategically in the side of the tree, which are there for them to boost themselves up to reach the overhead cable.
 - b) Ask them if they want to come down and get longer lobster claws.
 - c) **You spend a lot of time talking them through the situation and give them the solution, just to help them along since you noticed they were so frustrated.**

3. You are the lucky counselor that has been chosen to be up on the ropes course manning the decision pole today. This particular week you are supposed to be using the controlling facilitation techniques you were taught in training. When the first camper arrives at the decision pole you:
 - a) Never take your eyes off the camper while they are transferring to the next element and always use their name when responding to them.
 - b) Ask them which direction they want to go from there and praise them on how well they have been doing on the past two elements.

- c) **You watch them transfer to the next element but notice that they have clipped the carabineers in the opposite directions. You know this is not the correct way and therefore, verbalize your disapproval by telling them “no, no, no, you shouldn’t do it like that”.**
- 4. Again, you are standing and helping out a camper maneuver around the decision pole. Once they have completed the transfer, using the controlling facilitation techniques, you:
 - a) Ask them to shorten their lobster claws and provide the rationale that they are a little too long and should they fall it would be easier for them to get back on the element if the lobster claws were shorter rather than longer.
 - b) **Direct them that they should shorten their lobster claws. Once they have done that successfully, you tell them that they are good to go!**
 - c) Provide hints to the camper on how long they should make the lobster claws for the next element.

Appendix I

Manipulation Check Data

	Ask what student wants	Praise/encouragement Statements	Hints	Perspective Statements
A.S: Jack				
Wk 1 (Mon): Grp 1	8	46	12	8
Wk 1 (Wed): Grp 2	10	133	31	10
Wk 1 (Thr): Grp 3	13	194	80	18
A.S: Mary				
Wk 1 (Mon): Grp 1	9	138	121	13
Wk 1 (Wed): Grp 2	24	158	179	26
Wk 1 (Thr): Grp 3	10	100	39	8
A.S: Beth				
Wk 2 (Mon): Grp 4	5	70	15	2
Wk 2 (Wed): Grp 5	19	238	71	12
Wk 2 (Thr): Grp 6	9	189	116	14
A.S: Sean				
Wk 2 (Mon): Grp 4	18	209	151	6
Wk 2 (Wed): Grp 5	15	100	26	12
*Wk 2 (Thr): Grp 6	5	86	35	13
	Giving Solutions	Commands/Directives	Deadline statements	Verbal Disapproval
C: Jack				
Wk 3 (Mon): Grp 7	65	185	2	22
Wk 3 (Wed): Grp 8	23	93	4	4
Wk 3 (Thr): Grp 9	11	111	6	11
C: Mary				
Wk 3 (Mon): Grp 7	28	124	2	13
Wk 3 (Wed): Grp 8	40	122	5	18
Wk 3 (Thr): Grp 9	80	116	7	10
C: Beth				
**Wk 4 (Mon): Grp 10	18	123	5	17
Wk 4 (Wed): Grp 11	28	215	2	40
Wk 4 (Thu): Grp 12	35	209	7	54
C: Sean				
Wk 4 (Mon): Grp 10	39	92	0	0
Wk 4 (Wed): Grp 11	34	49	6	21
Wk 4 (Thu): Grp 12	15	423	2	31

*Facilitators: Jack and Sean switched out part way through session.

** Facilitators: Mary filled in for Beth for this session.

Appendix J

Informed Consent Forms

PARENTAL INFORMATION FORM FOR PARTICIPATION IN A RESEARCH STUDY

Promoting Perceived Competence in Youth: Examining the Interaction Between Leaders' Facilitation Style and Youths' Autonomy Orientation.

Your child is being invited to participate in a research study. Below you will find answers to some of the questions that you may have.

What is it for?

- This study is being conducted to determine how your child's participation in a high ropes course impacts them. Each year the campers participate in the high ropes course and we hope that they have fun participating, but we also hope that the ropes course is beneficial to them in other ways as well. The study will specifically focus on questions about what they are like and how they respond in group situations.

Why your child?

- Because your child is between the ages of 9 and 13 years of age and will be participating in high ropes course session at Clemson University's Outdoor Lab. Because we want to know how the ropes course impacts those who participate in it, we would like your child to be a part of our research study.

What Will My Child Have to Do?

- If your child participates in this research, we will ask them to fill out the same or a portion of the same survey three different times. The survey will have questions about your child's perceived competence which essentially looks at how they feel about their abilities in different activities and situations as well as their confidence levels. This is a survey and not a test. There are no right or wrong answers. The first survey will be right before they participate in the ropes course. The second will be right after the ropes session ends, and the third time will be three weeks after the program ends. It should take your child around twenty minutes to complete the survey each time.

Is There Any Risk to My Child Participating in This Research?

- There are minimal risks associated with this research. It is possible that some of the survey questions may cause some children to think about their feelings on their abilities in different activities and situations.

How Could My Child Benefit By This Research?

- Benefits from taking part in the research portion of the program may include success in a variety of tasks, continued positive perception of self-competence later in life, adjustment and success in school, and higher peer and social acceptance.

Who Will Be Helped By This Research?

- By completing this research, we will learn about the ways in which your child's participation in a high ropes course impacts them. Understanding the outcomes they received from participating in the ropes course will allow us to work on improving the ropes course experience for future participants, particularly youth just like your child. It is also possible that if your child returns to Camp Sertoma they could also benefit from what we learn.

What If My Child Wants to Stop? Will They Get In Trouble?

- Your child's participation in this study is completely voluntary. You may refuse to allow your child to participate in the study at any time without them being penalized in any way. **If you do not want your child to participate please call Angela Wozencroft 864.506.8168.** Also, your child may choose to stop participating in the study at any point without getting in trouble or having to stop participating in the high ropes course.
- This research will not be used in any way to positively or negatively impact your child's participation at Camp Sertoma or your child's continued participation in the high ropes course session.
- Your child's name and identity will be kept confidential and will not be used in any of the research findings.
- Before participation in the high ropes course, your child will also be asked to read over an information sheet similar to this one which will indicate their willingness to participate in the study.

Who can I contact if I have any questions?

- If you have any questions or concerns about this study or if any problems arise, please contact Angela Wozencroft at Clemson University at 864.506.8168. If you have any questions or concerns about your child's rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

MINOR ASSENT TO PARTICIPATE IN A RESEARCH STUDY

Promoting Perceived Competence in Youth: Examining the Interaction Between Leaders' Facilitation Style and Youths' Autonomy Orientation.

You are being invited to participate in a research study. Below you will find answers to some of the questions that you may have.

What is it for?

- This study is being conducted to determine how your participation in a high ropes course impacts you. We hope that you have fun participating, but we also hope that the ropes course is beneficial to you in other ways as well. The study will specifically focus on questions about what you are like and how you respond in group situations.

Why me?

- You are participating in high ropes course session at Clemson University's Outdoor Lab. Because we want to know how the ropes course impacts those who participate in it, we would like you to be a part of our research study.

What Will I Have to Do?

- If you participate in this research, we will ask you to fill out the same or a portion of the same survey three different times. The survey will have questions about how you feel about your abilities in different activities and situations as well as your confidence levels. This is a survey and not a test. There are no right or wrong answers. The first survey will be right before you participate in the ropes course. The second will be right after the ropes session ends, and the third time will be three weeks after the program ends. It should take you around twenty minutes to complete the survey each time.

Did My Parents Say It Was Okay?

- Yes. Your parents have already said that it is okay for you to participate in this study.

Who Will Be Helped By This Research?

- By completing this research, we will learn about the ways in which your participation in a high ropes course impacted you. Understanding the outcomes you received from participating in the ropes course will allow us to work on improving the ropes course experience for future participants, particularly youth just like you.

What If I Want to Stop? Will I Get In Trouble?

- Your participation in this study is completely voluntary. You may choose to stop participating in the study at any point without getting in trouble.
- This research will not be used in any way to positively or negatively impact your participation at Camp Sertoma or your continued participation in the high ropes course session.

REFERENCES

- Astroth, K. A. (1996, December). Leadership in nonformal youth groups: Does style affect youth outcome? *Journal of Extension*, 34. Retrieved February 8, 2006, from <http://www.joe.org/joe/1996december/rb2.html>.
- Autry, C. E. (2001). Adventure Therapy with Girls At-Risk: Responses to Outdoor Experiential Activities. *Therapeutic Recreation Journal*, 34, 289-306.
- Austin, D. R. (2001). *Therapeutic recreation: Processes and techniques* (4th ed.). Champagne, IL: Sagamore Publishing.
- Barbuto Jr., J. E., & Cummins-Brown, L.L. (2007). Full range leadership. *NebGuide*. Retrieved March 13, 2008, from <http://www.ianrpubs.unl.edu/epublic/pages/index.jsp?what=publicationD&publicationId=198>
- Berman, D. S., & Davis-Berman, J. (1995). Outdoor education and troubled youth. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED385425.)
- Berman, D. S., & Davis-Berman, J. (2000). Therapeutic uses of outdoor education (Report No. EDO-RC-00-5). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED448011).
- Black, A. E., & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education*, 84, 740-756.
- Bruyere, B. L. (2002). Appropriate benefits of outdoor programs targeting juvenile male offenders. *Journal of Experiential Education*, 25, 207-213.
- Burt, M. R., Resnick, G., & Novick, E. M. (1998). *Building Supportive Communities For At-Risk Adolescents: It Takes More Than Services*. Washington, DC: American Psychological Association.
- Camps & Programs. (2003). Retrieved January 24, 2008 from <http://www.clemson.edu/outdoorlab/camps.html#Sertoma>.
- Capuzzi, D., & Gross, D. R. (2004). *Youth At Risk: A Prevention Resource for Counselors, Teachers, and Parents* (4th ed.). Alexandria, VA: American Counseling Association.

- Chakravorty, D., Trunnell, E. P., & Ellis, G. D. (1995). Ropes course participation and post-activity processing on transient depressed mood of hospitalized adult psychiatric patients. *Therapeutic Recreation Journal*, 29, 104-113.
- Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior. *Journal of Personality and Social Psychology*, 53, 1024-1037.
- Deci, E. L., & Ryan, R. M. (1990). A motivational approach to self: Integration in personality. In R. A. Dienstbier (Ed.), *Nebraska symposium on motivation, 1990: Perspectives on motivation*. (pp. 237-288). Lincoln, NE, US: University of Nebraska Press.
- Deci, E. L., Schwartz, A. J., Sheinman, L., & Ryan, R. M. (1981). An instrument to assess adults' orientations toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology*, 73, 642-650.
- Deci, E. L., Spiegel, N. H., Ryan, R. M., Koestner, R., & Kauffman, M. (1982). Effects of performance standards on teaching styles: Behavior of controlling teachers. *Journal of Educational Psychology*, 74, 852-859.
- Dryfoos, J. G. (1990a). *Adolescents At Risk: Prevalence and Prevention*. New York, N.Y: Oxford University Press, Inc.
- Dryfoos, J. G. (1990b). Youth at risk: Prevention cannot wait. [Review of the book *Young People at Risk: Is Prevention Possible?*]. *Health Affairs*, Summer, pp.227-230.
- Finn, D., & Rock, D. (1997). Academic success among students at risk for school failure. *Journal of Applied Psychology*, 82, 221-234.
- Gagne, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion*, 27, 199-223.
- Garson, G. D. (2008). Significance. Retrieved February 13, 2008 from <http://www2.chass.ucsu.edu/garson/pa765/signif.htm>.
- Garst, B., Scheider, I., Baker, D. (2001). Outdoor adventure program participation impacts on adolescent self-perception. *Journal of Experiential Education*, 24, 41-49.
- Gillis, H. L. (1995). If I conduct outdoor pursuits with clinical populations, am I an adventure therapist? *Leisurability*, 22(4), 5-15.

- Groff, D., & Dattilo, J. (2000). Chapter 2: Adventure Therapy. In J. Dattilo (Ed.), *Facilitation Techniques in Therapeutic Recreation* (pp. 13-39). State College, PA: Venture Publishing, Inc.
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology, 81*, 143-154.
- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational Mediators of children's perceptions of their parents. *Journal of Educational Psychology, 83*, 508-517.
- Harter, S. (1982). The perceived competence scale for children. *Child Development, 53*, 87-97.
- Harter, S. (1983). Development perspectives of the self-system. In Hetherington, M. (Ed.), *Handbook of Child Psychology: Social and Personality Development* (vol.4). New York: Wiley.
- Harter, S. (1985). *Manual for the Self-Perception Profile for Children: Revision of the Perceived Competence Scale for Children*. Denver, CO: University of Denver.
- Harter, S. (1999). *The Construction of the Self: A Developmental Perspectives*. New York, NY: The Guilford Press.
- Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and outward bound: Out of class experiences that make a lasting difference. *Review of Educational Research, Spring, 67*, 43-87.
- Hazelworth, M. S., & Wilson, B. E. (1990). The effects of an outdoor adventure camp experience on self-concept. *Journal of Environmental Education, 21*(4), 33-37.
- Howe-Murphy, R. & Charboneau, B. G. (1987). *Therapeutic Recreation Intervention: An Ecological Perspective*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Jambunathan, S. & Burts, D. C. (2003). Comparison of perception of self-competence among five ethnic groups of preschoolers in the US. *Early Child Development and Care, 173*, 651-660.
- Jambunathan, S., & Counselman, K. P. (2004). Perception of self competence among Asian Indian preschoolers living in the USA and India. *International Journal of Early Years Education, 12*, 17-23.

- Jung, D. I. (2000-2001). Transformational and transactional leadership and their effects on creativity in groups. *Creativity Research Journal*, *13*, 185-195.
- Kline, R. B. (2004). *Beyond Significance Testing: Reforming Data Analysis Methods in Behavioral Research*. Washington, DC: American Psychological Association.
- Koestner, R. & Losier, G.F. (2002). Distinguishing Three Ways of Being Internally Motivated: A Closer Look at Introjection, Identification, and Intrinsic Motivation. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of Self-Determination Research* (pp.101-121). Rochester, NY: University of Rochester Press.
- Lee, J., Super, C. M., & Harkness, S. (2003). Self-perception of competence in Korean children: Age, sex and home influences. *Asian Journal of Social Psychology*, *6*, 133-147.
- Lindenmeier, D. K., Long, T. D., & Robertson, T. P. (2004). The effect of manipulating aspects of challenge course facilitation on participant perceived benefits. *The Cyber Journal of Applied Leisure and Recreation Research*. Retrieved November 11, 2004, from <http://www.nccu.edu/larnet/2004-02.html>.
- Marks, A. (2000). Clearer picture emerges of 'at-risk' youths [Electronic Version]. *Christian Science Monitor*, *93*(6).
- McCready, K. (1997). At-risk youth and leisure: An ecological perspective. *Journal of Leisureability*, *24*(2). Retrieved on January 18, 2006 from <http://www.lin.ca/resource/html/Vol24/v24n2a5.html>.
- McDonald, R. G., & Howe, C. Z. (1989). Challenge/initiative recreation programs as a treatment for low self-concept children. *Journal of Leisure Research*, *21*, 242-253.
- Miserandino, M. (1996). Children who do well in school: Individual differences in perceived competence and autonomy in above average children. *Journal of Educational Psychology*, *88*, 203-214.
- Nei, E. (2003). A primer on adventure education in the camp setting. *Camping Magazine*, *76*, 44-60.
- Pelletier, L. G., Seguin-Levesque, C., & Legault L. (2002). Pressure from above and pressure from below as determinants of teachers' motivation and teaching behavior. *Journal of Educational Psychology*, *94*, 186-196.
- Philips, D. (1984). The illusion of incompetence among academically competent children. *Child Development*, *55*, 2000-2016.

- Pommier, J. H., & Witt, P. A. (1995). Evaluation of an outward bound school plus family training program for the juvenile status offender. *Therapeutic Recreation Journal*, 29, 86-103.
- Priest, S. (1992). Factor exploration and confirmation for the dimensions of an adventure experience. *Journal of Leisure Research*, 24, 127-139.
- Priest, S., & Chase, R. (1989). The conditional theory of outdoor leadership: An exercise in flexibility. *Journal of Adventure Education and Outdoor Leadership*, 6(2), 10-17.
- Priest, S., & Dixon, T. (1991). Towards a new theory of outdoor leadership style. *Leisure Studies*, 10, 163-170.
- Priest, S., & Gass, M. A. (2005). *Effective Leadership in Adventure Programming*. Champaign, IL: Human Kinetics.
- Reeve, J. (2002). Self-determination theory applied to educational settings. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of Self-Determination Research* (pp.183-203). Rochester, NY: University of Rochester Press.
- Reeve, J., & Jang, H. (2006). What teachers say and do to support students' autonomy during a learning activity. *Journal of Educational Psychology*, 98, 209-218.
- Richardson, V., Casanova, U., Placier, P., & Guilfoyle, K. (1989). *School Children At-Risk*. Philadelphia: PA, The Falmer Press, Taylor & Francis Inc.
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, 57, 749-761.
- Ryan, R. M., & Deci, E. L. (2000a). Self-Determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.
- Ryan, R. M., & Deci, E. L. (2000b). The darker and brighter sides of human existence: Basic psychological needs as a unifying concept. *Psychological Inquiry*, 11, 319-338.
- Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of Self-Determination Research* (pp.3-33). Rochester, NY: University of Rochester Press.

- Ryan, R. M. & Grolnick, W. S. (1986). Origins and pawns in the classroom: Self-report and projective assessments of individual differences in children's perceptions. *Journal of Personality and Social Psychology*, 50, 550-558.
- Schoel, J., Prouty, D., & Radcliffe, P. (1988). *Island of Healing : A Guide to Adventure Based Counseling*. Hamilton, ME: Project Adventure Inc.
- Schonert-Reichl, K. A. (2000, April). *Children and Youth At Risk: Some Conceptual Considerations*. Paper presented at the Pan-Canadian Education Research Symposium, Ottawa, ON, Canada.
- Sheldon, K. M., Ryan, R. M., Deci, E. L., & Kasser, T. (2004). The independent effects of goal contents and motives on well-being: It's both what you pursue and why you pursue it. *Personality and Social Psychology Bulletin*, 30, 475-486.
- Stevens, J. (2002). *Applied Multivariate Statistics for the Social Sciences (4th ed.)*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Stumbo, N. J. & Folkerth, J. E. (2005). *Study Guide for the Therapeutic Recreation Specialist Certification Examination (3rd ed.)*. Sagamore Publishing, L.L.C.
- Sottile, J. M., Jr., Parker, S., & Watson, G. (2000, February). *The impact of an experiential instructional design on college student development*. Paper presented at the annual meeting of the Eastern Educational Research Association, Clearwater, FL.
- Spinelli, R. J. (2006). The applicability of Bass's model of transformational, transactional, and laissez-faire leadership in the hospital administrative Environment. *Hospital Topics: Research and Perspectives on Healthcare*, 84(2), 11-18.
- Team Ventures Training Manual. (2003). Unpublished training manual, Clemson University, Clemson, South Carolina.
- The Self-Regulation Questionnaires. (2006). Retrieved January 10, 2008, from <http://www.scp.rochester.edu/SDT/measures/selfreg.html>.
- The Motivators' Orientation Questionnaires. (2007). Retrieved January 10, 2008, from <http://www.scp.rochester.edu/SDT/measures/motivor.html>.
- The Theory. (n.d.). Retrieved January 10, 2008, from <http://www.psych.rochester.edu/SDT/theory.html>.

- Thomson, N. R., & Zand, D. H. (2002). The Harter self-perception profile for adolescents: Psychometrics for an early adolescent, African American sample. *International Journal of Testing, 2*, 297-310.
- Vallerand, R. J., Fortier, M. S., & Guay, F. (1997). Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology, 72*, 1161-1176.
- Vansteenkiste, M., Lens, W., De Witte, S., De Witte, H., & Deci, E. L. (2004). The 'why' and 'why not' of job searching behaviour: Their relation to searching, unemployment experience, and well-being. *European Journal of Social Psychology, 34*, 345-363.
- Vansteenkiste, M., Lens, W., De Witte, H., & Feather, N. T. (2005). Understanding unemployed people's job search behavior, unemployment experience and well-being: A comparison of expectancy-value theory and self-determination theory. *British Journal of Social Psychology, 44*, 269-287.
- Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. L. (2004). Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts. *Journal of Personality and Social Psychology, 87*, 246-260.
- Voight, A. (1988). The use of ropes courses as a treatment modality for emotionally disturbed adolescents in hospitals. *Therapeutic Recreation Journal, 22*, 57-64.
- Walls, T. A. & Little, T. D. (2005). Relations among personal agency, motivation, and school adjustment in early adolescence. *Journal of Educational Psychology, 97*, 23-31.
- William, G. C., Cox, E. M., Kouides, R., & Deci, E. L. (1999, September). Presenting the facts about smoking to adolescents: The effects of an autonomy-supportive style. *Archives of Pediatric and Adolescent Medicine, 153*, 959-964.
- Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: A test of self-determination theory. *Journal of Personality and Social Psychology, 70*, 767-779.
- Williams, G. C., & Deci, E. L. (1998). The importance of supporting autonomy in medical education. *Annals of Internal Medicine, 129*, 303-308.
- Williams, G. C., Grow, V.M., Freedman, Z. R., Ryan, R. M., & Deci, E. L. (1996). Motivational predictors of weight loss and weight-loss maintenance. *Journal of Personality and Social Psychology, 70*, 115-126.

- Williams, G. C. McGregor, H. A., Zeldman, A., Freedman, Z. R., & Deci, E. L. (2004). Testing a self-determination theory process model for promoting glycemic control through diabetes self-management. *Health Psychology, 23*, 58-66.
- Williams, G. C., Rodin, G. C., Ryan, R. M., Grolnick, W. S., & Deci, E. L. (1998). Autonomous regulation and long-term motivation adherence in adult outpatients. *Health Psychology, 17*, 269-276.