Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students

by

Tanya Dawn Stogre
B.Ed., University of Victoria, 2000

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF ARTS

in the School of Physical Education

University of Victoria

Supervisor: Dr. Sandra L. Gibbons

Abstract

This study investigated the effect of participation in team building activities on the self-conceptions of middle school physical education students. Participants consisted of 68 physical education students in Grades 6 –8. The classes were randomly assigned to one of two groups, either treatment or control. The treatment group participated in one Team Building Through Physical Challenge (TBPC) activity every other week, for 8 weeks, while the control group continued with their regular physical education curriculum without participation in the TBPC activities. Harter's (1985b) Self-Perception Profile for Children was administered to all participants prior to and following the intervention. Data were analyzed using a 2 (treatment/control) x 2 (pretest/posttest) x 2 (male/female) repeated measures analysis of all six self-conceptions (athletic competence, social acceptance, behavioural conduct, scholastic competence, physical appearance, and global self-worth). Results at posttest revealed males in the treatment group had significantly higher self-conceptions for athletic competence. Participant mean scores in the treatment group also increased across time for social acceptance, scholastic competence, athletic competence and global self-worth. The second purpose of this study was to capture the experiences of the participants. A variety of qualitative data collection techniques (focus group interviews, videotaping, and digital photographs) were used to achieve this purpose. Five relatively distinct themes emerged from the analyses. These themes included: (a) Optimal Challenge and Optimal Interest, (b) Risk and Trust – A Symbiotic Relationship, (c) Teamwork – …It's About The Process, (d) Communication – Having a Voice, and (e) Negotiating –The Decision-Making Process. The findings of the

qualitative analysis helped illuminate the quantitative results. Recommendations for future research and practice are also presented.

Table of Contents

List of Tables

List of Figures or Illustrations

Acknowledgements

This thesis was not written without the guidance, support, humour, and love of many people. First and foremost, I want to thank my supervisor and mentor, Dr. Sandy Gibbons. Her insight, wisdom, sense of humour, and editing prowess has left a mark not only in this document, but also my life.

Thank you also to my committee members including, Dr. Ryan Rhodes, Dr. Anne Marshall, and Dr. Ted Riecken for your support, insights, time, and energy in this process. It has been a wonderful experience and opportunity working with all of you.

A huge thank you also goes to Lynn Montgomery and David Caleb, the students, as well as the entire staff at North Saanich Middle School. Lynn and Dave – your time, energy, and excitement in this research are truly appreciated. Thanks for being able to "go with the flow".

To my teaching mentor, Luanne, thanks for your friendship, support, guidance, sense of humour, treats, reflections, and countless hours helping me wade through the teaching of my first university course. You are truly a legend and an absolute inspiration!

Tim and Kathy – many thanks for your friendship, funding, and fun! You and the rest of the SITErs created an outstanding first research experience and insight into what true collaboration means. Tim, your honesty about your own research and teaching experiences as well as your support has been immeasurable…"been there, done that, got the T-shirt!" Lara, thanks for your wisdom, time, and advice during those rough spots. Michelle, thanks for being my spiritual advisor and my Yeoda…need I say more?

Thank you to Kathi Cameron and the Friday @ 5 gang for your sense of humour, wisdom, therapy sessions, thinking I am FB, as well as the little and big celebrations to

help get through this insanity called a masters thesis! Many thanks to my friend, Nikki, for your undying support and Kleenex when things were not so pretty. Also, thanks for letting me be my crazy, immature, and silly self...and laughing at me! Most importantly, you believed in me when I didn't believe in myself...for that, I am eternally grateful. Brown – what can I say...thanks for helping me grow and thinking I could make it through. Vines, thanks for being your wild and crazy self...you inspire me! Jen, thanks for the laughs, skateboard tricks, serious questions, as well as thinking I am a nerd and still loving me...you are a true friend.

Dedication

This thesis is dedicated to the four people in my life who have helped me live my dreams.

This thesis is dedicated with love, to my parents, Roger and Carolyn Stogre. Your support, love, and belief in me have meant more than words can say.

To my Grammy, Dorothy Stogre who taught me, through example, the privilege and value of higher education.

To my aunt, Dianne Stogre Power who lived the quote by Gandhi " you must be the change you wish to see in the world". She inspired and taught me the possibility of this life.

Chapter 1

Introduction

The development of a positive self-concept has long been identified as a desired outcome in physical education. Indeed, positive self-concept is included as a major goal and/or learning outcome in all provincial and territorial physical education curriculum guides in Canada. Self-concept is defined as "evaluative judgements of attributes within discrete domains such as cognitive competence, social acceptance, physical appearance, and so forth." (Harter, 1999, p.5). Generally, positive self-concept is associated with ability to cope, motivated behaviour, positive social interaction, and leadership as well as a high level of achievement in work, sport and education. Weiss and Ebbeck (1996) reported that improved self-concept is related to acquisition of motor skills, fitness levels, and specific physical education instructional techniques, as well as certain activities (for example, team building). The nature of these activities determines which specific self-conceptions will be affected. For example, if one were interested in enhancing athletic competence, the activity selected would have to contain and focus on an athletic component. Considering the emphasis in curriculum guides and documentation of significant positive impact, physical education teachers continue to search for ways to enhance self-concept in their programs. Outdoor educators have been pioneers in the use of physical challenges for the enhancement of self-concept. For example, the well-known Outward Bound program has received considerable attention for improving self-concept. Marsh, Richards, and Barnes (1986a; 1986b) found that an Outward Bound program,

which is based on the concept of team building, improved the self-conceptions of the participants. Other programs such as Project Adventure and experiential education have shown similar positive results in enhancing self-conceptions (Cason & Gillis, 1994; Cosgriff, 2000; Dyson & O'Sullivan, 1998; Fiddes, 2003; Halliday, 1999). Proponents of both Outward Bound and Project Adventure contend that through physically challenging team building activities, individuals are provided with experiences intended to increase cooperation, communication and decision-making skills, as well as building a positive self-concept.

Recently, physical education teachers have started to develop ways to incorporate these types of team building activities used in outdoor education into their physical education programs. For example, Glover and Midura (1992) designed a series of Outward Bound-type activities suitable for incorporation into the physical education environment. They contend that their Team Building through Physical Challenges (TBPC) program will promote teamwork, as well as enhance social skills, decision-making, and communication. They also contend that as a result of developing these skills, participants will also build a positive self-concept.

More recently, several researchers (Ebbeck & Gibbons, 1998; Gibbons & Black, 1997; Socha, Potter, & Downey, 2003) have examined the effectiveness of systematic implementation of TBPC activities in a physical education program on self-conceptions of youth. Gibbons and Black (1997), as well as Ebbeck and Gibbons (1998) found the physical and psychosocial challenges provided by team building activities resulted in the improvement of the self-conceptions of adolescents. Gibbons and Black (1997) investigated the effect of participation in team building activities on the self-concept of

middle school students. The treatment group was exposed to one TBPC activity every other week for five months. The results revealed significant increases in overall self-perception of the treatment group from pre to post measure. In addition, all team building participant's self-perception scores were higher than the control group in all domains except physical appearance and behavioural conduct. Using a similar design, Ebbeck and Gibbons (1998) investigated the effectiveness of a TBPC program on the self-conceptions of Grade 6 and 7 students. The treatment group was exposed to one TBPC activity every other week for 8 months. The results of the study revealed that both male and female students in the treatment group had significantly higher self-perceptions of athletic competence, physical appearance, social acceptance, and global self-worth than the control group. Female students in the treatment group were also significantly higher on behavioural conduct and scholastic competence perceptions than females in the control group.

The present study extended Ebbeck and Gibbons (1998) work in two ways. First, an effort was made to replicate their initial research design. When initial studies yield positive findings, Borg and Gall (1989) recommend replication studies to strengthen those results. In addition to the Self-Perception Profile for Children, data was collected using a variety of qualitative data collection techniques including videotaping, digital photographs, and focus groups providing a deeper understanding of the nature and intricacies of the TBPC experience.

The extensions included in the present study were grounded in the following recommendations. First, while previous research has demonstrated positive changes in students' self-concept after being involved in a TBPC program (Ebbeck & Gibbons,

1998; Gibbons & Black, 1997), less is known about the nature of the interactions and experiences of participants as they work through the TBPC activities. Second, Ebbeck and Gibbons (1998) recommended an extension of their study. They suggested that investigating the impact of a TBPC program, using qualitative analysis, would help understand the mechanisms of change in students' self-conceptions. Thirdly, qualitative inquiry may provide insight into the team building process. As well, there is the possibility of identifying unanticipated influences in either or both the TBPC activities and self-concept. Finally, Maxwell (1996) suggested that to gain an understanding of the process the students go through during the team building intervention program could be extremely useful to physical educators in the organization and implementation of these activities.

Purpose of the Study

1. To examine the effectiveness of a Team Building through Physical Challenges (TBPC) program on the self-conceptions of middle school physical education students.
2. To explore the experiences of middle school physical education students in a TBPC program.

Hypotheses

1. Participation in a eight-week (TBPC) intervention will result in significant changes in students' self-conceptions of:
    a. Global Self-Worth
    b. Athletic Competence

c. Social Acceptance

d. Behavioural Conduct

2. Gender differences will not be shown in the SPPC results after participation in an eight-week (TBPC) intervention.

Assumptions

1. The participant's self-perceptions were reliably measured and demonstrated by the Self-Perception Profile for Children (SPPC).
2. The students responded accurately and truthfully to the items on the questionnaire and in the focus groups.
3. The physical education teachers followed the protocol of the Team Building through Physical Challenges activities.
4. The study was of sufficient duration to allow for differences in competence domains to emerge.

Limitations

1. There may be a testing effect – based on completing the Self-Perception Profile for Children the first time, the students may have been more proficient at it the second time.
2. Reactivity – students may have changed their behaviour when the researcher was present.
3. Generalizability – the results are only generalizable to middle school students of similar circumstance and level of development.

Delimitations

1. The duration of the study was limited to eight weeks.
2. The study was limited to middle school students.

Operational Definitions

Competence Motivation is "the child's urge to demonstrate abilities and affect his or her physical or social environment" (Weiss, 1987, p. 94).

Intrinsic/Extrinsic Motivational Orientation "refers to the motivational stance adopted by the child toward a specific achievement domain and provides a measure of the underlying reasons for engaging in particular achievement-related behaviors" (Weiss, 1987, p. 94).

Perceived Competence is generally thought of as an individual's perception of their abilities in a specific domain (Harter, 1978, 1981).

Perceived Control is "a measure of the child's understanding of who or what is responsible for behavioral outcomes" (Weiss, 1987, p. 99).

Self-Concept is "evaluative judgements of attributes within discrete domains such as cognitive competence, social acceptance, physical appearance, and so forth." (Harter, 1999, p.5).

Self-Worth and Self-Esteem "...represents the evaluative and affective component of one's self-concept; that is, it refers to the qualitative judgements and feelings attached to the description one assigns to self" (Weiss, 1987, p. 88).

Team Building is "a type of group problem-solving task that involves the structuring of participants' interactions so that each depends on and is accountable to, the others in the group" (Gibbons & Black, 1997, p.48).

Chapter 2

Review of Literature

This chapter is divided into two sections. The first section is dedicated to self-concept as the outcome variable in this study. This section provides a summary of the following areas: (a) seminal work in self-concept development, (b) current theories in self-concept, (c) competence motivation, (d) developmental approach to self-concept, and (e) measurement of self-concept. The second section provides a review of research associated with the use of team building activities as an intervention in the development of self-concept. This section includes: (a) team building and (b) outdoor adventure.

Seminal Work in Self-Concept Development

The idea of self can be traced back to Ancient Greek philosophy and philosophers such as Socrates and Plato. The first contemporary scholar to discuss self-concept was William James in 1890. Many modern day theories of self can be traced back to James' early work, particularly the idea of "Me", which today is known as self-concept (Harter, 1996). Self-concept is defined as "evaluative judgements of attributes within discrete domains such as cognitive competence, social acceptance, physical appearance, and so forth." (Harter, 1999, p.5). Other major early contributors to the study of self and self-concept include Cooley (1902) and Mead (1925; 1934) as cited in Harter (1996). Their emphasis was on the importance of social interaction and the impact these had on the self. Specifically, Cooley postulated that significant others provided a social mirror for individuals. The individual would detect opinions from others, which would be integrated

into his or her sense of self. What we imagine others are thinking about our appearance, character, motives, etc. is what becomes the self. Cooley called this the "looking-glass self" (Harter, 1996). Mead elaborated on many of Cooley's ideas, with a greater emphasis on the significance social interaction plays in one's sense of self. He contended that a person adopts a view of self, based on a particular societal perspective. This perspective is garnered from a generalized group of significant others rather than a specific set of others an individual is interacting with in a particular situation.

Several themes from this early work are still paramount in today's study of self. For example, Harter (1999) explains how social interaction and the role others play in the shaping of one's self-concept are still apparent in today's research. As well, the notion that self–concept is fairly stable and we have enduring attitudes when it comes to the self is predominant in current research (Harter, 1999; Hattie, 1992; Marsh et al., 1986b; Shavelson, Hubner, & Stanton, 1976). Many studies endeavour to enhance the overall self-concept or general self-concept, however focusing on specific traits or domains within self-concept has been the most productive (Ebbeck & Gibbons, 1998; Gibbons & Black, 1997; Marsh et al., 1986a, 1986b). Harter (1996) suggests that the final theme continuing to endure in contemporary study is the role of affective processes in the development of self-concept.

Current Theories

While there are enduring themes from early self-concept research, new research and themes have emerged. For example, self is now seen as being global and multidimensional. The current notion of "global" refers to the overall evaluation of one's perceived worth as a person (Harter, 1990b). In earlier studies (Coopersmith, 1967; Piers

& Harris, 1964), there was thought to be a single generalized idea of self, know as "global self-esteem/self-worth". However, through factor analysis studies and use of self-concept measures, evidence that there are specific domains of self-concept continues to emerge (Bracken, 1996; Damon & Hart, 1988; Harter, 1999; Hattie, 1992; Shavelson & Marsh, 1986). The multidimensional approach maintains that individuals evaluate and describe themselves across a number of general and specific contexts, and these life situations contribute to one's overall level of global self-worth. Therefore, this multidimensional perspective does not negate the idea of global self-esteem/self-worth. Instead, it is seen as an independent construct that can be measured separately from the other domains of self-concept. Rosenberg (1979) makes the argument that both need to retained and studied. He suggests "both exist within the individual's phenomenal field as separate and distinguishable entities, and each can and should be studied in its own right" (p.20).

As a result of this shift in understanding self-concept from solely a global self-perspective to one that also encompasses a multidimensional view, hierarchical models have emerged. For example, the model produced by Shavelson, Hubner, and Stanton (1976) identifies two broad categories, the academic and non-academic self-concepts (Figure 1). The academic self-concept is subdivided into four specific school subjects, which includes English, history, math and science. The non-academic self-concept is subdivided into social, emotional, and physical self-concepts. The physical self-concept is further separated into physical ability and physical appearance. At the lowest level, the individual is making evaluations of specific tasks/situations they are involved in. It is also

important to note that this is a bi-directional model. This model can be driven both from the attitudes at the bottom of the model and from self-concept at the top.

Markus and Wurf (1987) suggest there is some apprehension with hierarchical models because certain domains may be considered more important than others. For example, this model lacks other school subjects, such as music, art, and drama, which may be integral in an individual's self-concept. While there have been revisions to the Shavelson, et al. (1976) model, there may need to be further refinement and extensions.

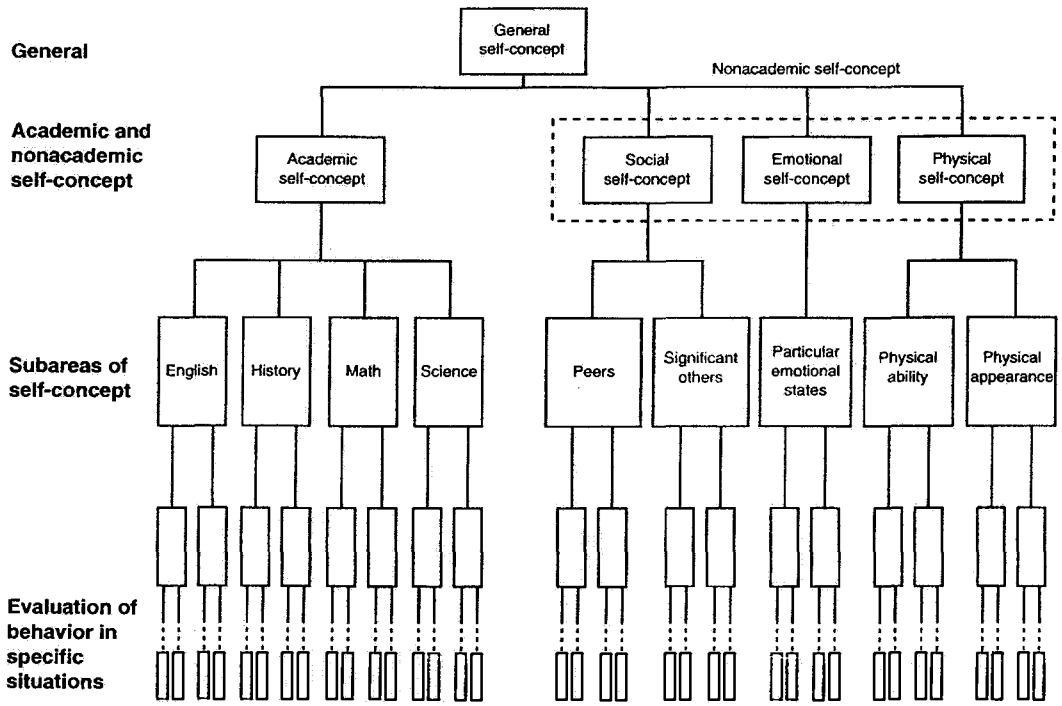

Figure 1. Shavelson, Hubner and Stanton (1976) Hierarchical Structure of Self-Concept

Although, as indicated, there are some concerns about the structure of the Shavelson, et al. (1976) model, it has been used as a blueprint for the construction of multidimensional self-concept instruments. It is also important to note that the model was created with the intent to represent one possible way of structuring and looking at the

multidimensionality of self-concept (Marsh & Hattie, 1996). Harter's research (1985b; 1990b) also supports a multidimensionality perspective of self-concept. According to Harter (1999), during late childhood and early adolescence, six individual domains of self-concept emerge: behavioural conduct, physical appearance, scholastic competence, athletic competence, social acceptance, and global self-worth.

With the perspective of multidimensionality, several authors (Gibbons & Black, 1997; Godfrey, 1974; Marsh & Peart, 1988; Marsh et al., 1986a) suggest that educational interventions designed to enhance self-concept may increase their effectiveness if there is a focus on the specific domains (athletic competence, social acceptance, etc.), rather than on a construct more global in nature. Marsh et al. (1986a) report that many intervention studies fail when trying to enhance self-concept. Part of the explanation, according to Marsh, et al., for the lack of significant impact on self-concept is that it is an inherently stable construct. In addition, researchers tend to use interventions that emphasize the total or general self-concept rather than more logical domains that are specifically related to the intervention.

Competence Motivation

Addressing self-concept is very difficult without referring to and considering its specific domains and their development. The element of competence has been a fundamental part of many theories of self-concept and/or self-esteem (Fox & Corbin, 1989; Harter, 1985a; Marsh, Richards, Johnson, Roche, & Tremayne, 1994; Sonstroem & Morgan, 1989). Harter's conceptualization of White's (1959) work has resulted in the development of competence motivation (Harter, 1981, 1983). White claims that individuals are motivated to engage in mastery attempts and to have an effect on their

environment (Weiss, 1987). Based on White's groundwork, Harter (1985b) asserts "perceived competence or adequacy in domains rated as important is strongly predictive of self-worth" (p.7).

Harter's (1981) Model of Competence Motivation illustrates the dynamics and inner workings of engaging in mastery attempts. It connects the influence of others (positively or negatively) to either an intrinsic or extrinsic motivational orientation. An individual with an intrinsic motivational orientation and a positive social influence has a high perceived competence and an internal locus of control. If this individual is engaged in mastery attempts that are optimally challenging and they have success, they feel intrinsically pleased and will have a high perceived competence and internal perception of control. All of this, in turn, increases the individual's competence motivation.

In contrast, one with an external orientation and a negative social influence may have low perceived competence and an external perception of control. If this person engages in mastery attempts and experiences failure it may contribute to their low perceived competence and their external perception of control, both of which can lead to anxiety and an overall decrease in competence motivation.

Several researchers have utilized Harter's model to examine a variety of relationships within different competence domains. Harter (1987) describes these competence domains within her description of competence motivation. These domains include: (a) the notion of mastery attempts, (b) either positive or negative influence from significant others, (c) intrinsic/extrinsic motivational orientation, (d) success and failure experiences and their consequences, (e) perception of control – either internal or external, (f) success based on optimal challenges, (g) outcomes of mastery attempts and (h)

perceived competence. Weiss and Duncan (1992) employed the competence motivation theory in their examination of relationship between physical competence and peer acceptance within sport participation of 8 – 13 year old youth. The results indicated children's beliefs about and objective indicators of athletic ability are strongly associated with actual and perceived acceptance by the peer group. Halliburton and Weiss (2002) investigated sources of competence information and perceived motivational climate among adolescent female gymnasts. Their results indicated that a perceived mastery climate was associated with gymnasts who used self-referenced sources of information. In contrast, perceptions of a performance climate were related to gymnasts using peer comparison and their competition performance as sources of information. Trew, Scully, Kremer, and Ogle (1999) examined the relationship between physical activity participation and perceived competence in a group of male and female adolescents. Their results indicated that males in the study reported higher perceptions of competence, as well as global self-worth than their female counterparts. In addition, both females and males more active in sport participation were more likely to have higher levels of self-worth than their sedentary counterparts. Feltz and Petlichkoff (1983), also applied the theory of competence motivation in their investigation of participation in organized youth sport programs. Results indicated a significant relationship between length of participation experience and perceived physical competence. In addition, participants in school-sponsored sports reported significantly higher perceived physical competence scores than those who dropped out. Perceived physical competence scores of males were also significantly higher than females.

Developmental Approach to Self-Concept

Understanding the developmental process is crucial in order to implement an appropriate and successful intervention to enhance and individual's self-concept. The transition from child to adolescent is often a challenging and turbulent period of time in human development. During this time there are many developmental changes in one's cognitive, physical, social and emotional being. Within the self-system, there is the establishment of an increasing number of influences. This is a result of the shifts toward abstraction, greater complexity and the internalization of attributes. Several researchers (DuBois, Tevendale, Burk-Braxton, Swenson, & Hardesty, 2000; Harter, 1990b; Zimmerman, Copeland, Shope, & Dielman, 1997) claim that all of these processes have the potential to directly affect the individual's self-views as well as the documented decline in the overall feelings of self-worth.

According to Harter (1990a) it is important to demystify this process and gain a greater understanding of the processes during this transition. The purpose of this section is to provide an overview of the changes in self-concept as an individual grows and develops. The developmental stages will include very early childhood; early to middle childhood; middle to late childhood; as well as the similar corresponding stages in adolescence. The focus in each of the stages will be the main developmental characteristics; how the self-representations are structured or organized; the accuracy individuals have in distinguishing between their "real" versus their "ideal" selves; and whether there are comparisons with others or themselves; as well as the role others play at each stage of development. Literature that examines the relationship between physical activity and the development of self-concept will also be discussed in this section.

Very Early Childhood (3-4 Years of Age).

As children grow and develop, there are major developmental shifts that occur in a general sequence or order. Harter (1999) notes that very young children describe themselves using attributes that are concrete, cognitive, and observable. They also use simple and separate organizational attributes. These are labelled by Damon and Hart (1988) as categorical identifications and include the following attributes: *psychological* (e.g. "I am happy"), *physical* (e.g. "I have brown hair"), *social* (e.g. "I have two brothers and a dog"), and *active* (e.g. "I can run fast"). These are all tied directly to their behaviour and task completion. Children in this age range feel competent or successful when a task has been completed. If children state they are good at jumping, Horn and Harris (1996) suggest their perception is based on their ability to successfully complete the task (e.g. being able to jump across the sidewalk).

Harter (1999) claims young children identify themselves according to their preferences and their possessions and do not represent higher-order concepts. For example, a child may say, "I like fishing" or "I like watching TV" when referring to their preferences. When children talk about their possessions they will clearly state, "I have a dog named Taffy" or "I have a red bike". Everything is all or nothing and very concrete at this stage. As Fischer (1980) discusses, during this period of development, the lack of consistency in the young child's thinking is a general cognitive attribute. They may say they are able to count to fifty, but in fact cannot. This lack of integration and disjointed accounts in her/his self-descriptions is apparent across a variety of domains. At this age, young children are unable to combine their isolated representations into a general concept of themselves. For example, a child may know all of her/his numbers from one to fifty as

well as his/her ABC's however; based on this information the child would not generalize they are smart.

Also during this early period, children generally have extremely positive and unrealistic views of themselves. An example of a statement from a child in this stage of development would be "I am really strong – I can lift this chair over my head" (when in fact they could not). Harter (1999) claims this results from their inability to distinguish between what they consider their ideal self, what they strive to be, and their real self, which is what they are. Another reason for this inability is because children have not developed the ability to socially compare themselves with others. This would require the child to be able to take his or her ability and performance and compare it with someone else's. This capability is not developed in a child of this age; therefore their self-descriptions tend to be an overestimation.

Regarding the young child's sensitivity to others during this developmental stage, they are able to anticipate the reaction of adults. Therefore, they attempt to avoid negative responses while seeking positive ones from their parents or other adults. An example of this would be "Even though Jen wanted me to go and play with her, I stayed in the yard and played like I was told". They also have some appreciation of whether or not they are meeting others' external standards.

Harter (1990b) suggests that one of the cognitive limitations of this developmental level is that children are incapable of making any judgments regarding their self-worth. They would not be able to state, "I am a good person" based on their performances in other sub-domains such as athletic competence or behavioural conduct. This ability to cognitively or verbally construct a concept pertaining to one's own worth

does not appear to emerge until middle childhood. This does not mean, however, that the child's self-worth is non-existent. Instead, the child communicates his/her self-worth in certain behaviours rather than verbally. For example, a child with high self-worth may exhibit curiosity, independence, and an ability to adapt to a variety of situations whereas a child with low self-worth is more likely to exhibit a lack of curiosity, dependence, and inability to adapt to a changing environment.

Early to Middle Childhood (5-7 Years of Age).

Generally, children aged 5 – 7 are considered to be in the early to middle developmental stage of childhood. This stage features the persistence of some of the characteristics of the previous stage, such as the inaccurate estimation of the child's abilities and the typically positive nature of her/his self-representations. However, according to Fischer (1980) and Harter (1999), during this phase or stage, children are now able to link or form categories or representations they have of themselves. Examples of this are: they are good at playing basketball, painting, schoolwork; and they have friends at school and in their neighbourhood.

While children are able to form rudimentary links at this stage, their thinking is represented in the form of opposites. When describing themselves and others, children often refer to the terms "good" or "bad". This all or none thinking is a continuation from early childhood. Horn and Harris (1996) suggest that children at this age also equate effort with ability. Therefore, if they are working hard at a task, this must indicate they have a high ability (e.g. "I know I am good at karate because I practice a lot"). Harter and Pike (1984) have demonstrated in their research that children during this developmental stage are able to make reliable, but undifferentiated judgments about the four domains of:

physical competence, cognitive competence, behavioural conduct, and social acceptance. They are able to describe themselves using concrete examples of how they look, how they do in school, how they act and whether they have friends or not. However, the ability to make judgments about themselves in these domains does not translate into the ability to make a general statement about their self-worth.

In relation to sensitivity to others during this developmental phase, Selman (1980) suggests children are now able to recognize others are evaluating them. Feedback from significant adults is a source of competence information for children. Many children base their perceptions of competence on what their teachers, parents, or coaches say (e.g. "I know I am a good runner because my teacher said I am" or "My parents say I am a really good soccer player, so I must be"). Whether the child can run well or is as skilled at soccer as other children in the class is not pertinent to them. According to some researchers (Horn & Harris, 1996; Stipek & MacIver, 1989) the positive feedback from the teacher and parents supersedes other competence information (e.g. the child may be a tennis player and has not won a match all year, but because her Dad says she is a good tennis player, she believes she is).

Harter (1999) explains that while children in this stage are not able to internalize the evaluations of others they deem significant, the realization that others are observing and have opinions about them functions as a "self-guide". This self-guide acts as a regulator of the child's behaviour. Frey and Ruble (1990) suggest it is during this stage that children are first able to focus on temporal comparisons such as "I am able to ride my bike faster than when I was younger". They also begin to make comparisons with other children their own age. However, Harter (1999) states that at this time children are

not making comparisons for the purpose of self-evaluation, rather they are using the information to determine fairness in relation to rewards (e.g. "I ran the race faster than anyone else in my class so I should get the ribbon." – not "I ran the race faster than anyone else in my class so I must be good at running.").

Middle to Late Childhood (8-11 Years of Age).

One of the most prominent characteristics at this stage is the development of higher order concepts of the self (e.g. "I am smart" or "I am popular"). According to Fischer (1980), as well as Siegler (1991), children in the age range of 8 –11 start to form these generalizations by integrating more specific behavioural traits of the self (e.g. "I am smart because I do well in Social Studies and Language Arts" or "I am popular because I have friends at school and in my neighbourhood"). Harter (1999) suggests that a child's self-representation during this stage becomes more generalized and more differentiated. This means that the child realizes they may be "happy" in some situations and "sad" in others, as well as "smart" in some situations and "dumb" in others. This indicates a more situation-specific perspective taken by the child.

With ability to now form higher-order cognitive concepts, comes the ability to create a more global evaluation of the self. This representation of one's overall self-worth is illustrated in statements such as "I like myself as a person" (Harter, 1999). Harter (1990b) defines global self-worth as "the overall value one places on the self as a person" (p. 67). Harter (1990b) also suggests that during this age range there is a differentiation of five self-concept domains: scholastic competence, behavioural conduct, athletic competence, physical appearance, and social acceptance by peers. A child is able to distinguish between his/her abilities in each of the domains. If there is a lack of success

within a domain that is deemed unimportant by the child, this will not erode her/his self-esteem or global self-worth. In other words, if a child is terrible in math and science, but is brilliant in social studies and music and deems the latter to be more important, they are likely to state, "I am smart".

The same holds true within the physical domain. For children that value and deem physical activity and sports to be important, it is essential to isolate the sources they use to define their competence. A number of variables can influence an athlete's perception of competence, including ones that provide information about their ability. This is illustrated in studies conducted by Ebbeck and Stuart (1993; 1996) where they examined predictors of self-esteem with two samples of youth sport participants. In their first study, Ebbeck and Stuart (1993) examined perceived competence, individual importance (what is important to the individual), and group importance (what is perceived to be important to the group) as determinants of self-esteem in a sample of 100 youth football players, ranging in age from 11-14. Results revealed that the importance an individual placed on being successful and team importance of being successful contributed significantly to the variation in global self-worth. However, the strongest contributing factor in predicting self-esteem was perceived competence. In the 1996 study, Ebbeck and Stuart examined the extent to which perceptions of competence and importance predicted self-esteem in a group of youth from three age groups (8 - 9, 10 - 11, 12 - 13). The results indicate that the variables significantly related to self-esteem for 8-9 year olds were perceived competence and perceived parent importance; perceived competence for 10-11 year olds; and perceived competence and perceived team importance for 12-13 year olds. However, between perceived competence and perceived parent importance, the former contributed

most significantly to the prediction of self-esteem. This ties back to the preceding idea that because physical ability is deemed to be important by these children, it will contribute to their self-worth.

According to Harter (1999), another significant change during this developmental phase is the ability of children to integrate both positive and negative self-representations. Children begin to understand and acknowledge that they can be both nice and mean or smart and dumb. As children develop through this stage, the ability to increasingly differentiate and integrate their attributes is illustrated. During middle childhood, they may only be able to differentiate between domains and not within. For example, she/he may be "smart" in math (scholastic competence), but "dumb" when it comes to sports (athletic competence). Older children (ages 9 - 10) start to express that they may be "smart" and "dumb" within the same domain. He/she may be "smart" in science, but "dumb" in language arts. As the child progresses (ages 11 - 12), they begin to differentiate even more and understand they may be very competent at soccer, but not as successful in other parts of physical education class such as gymnastics.

There is a similar pattern of development during this stage with the child's emotional maturity. They are able to integrate both positive and negative emotional representations. For example, the child may think "I was happy I got 100% on my multiplication test, but sad that I wasn't picked to play on the volleyball team." In middle childhood, the ability to understand that a person or event can produce both a negative and positive emotion simultaneously is not yet developed. However, by late childhood Harter (1999) suggests they are able to integrate emotion concepts where they are "happy I got to play basketball, but sad we didn't win".

During middle childhood, there is the utilization of comparisons with others to gauge their own skill and ability in a specific domain. Damon and Hart (1988) explain that this social comparison is used for the purpose of self-evaluation. This ability results from the simultaneous comparison of the self and others (e.g. "I'm better at basketball than Nikki because I was able to make eight out of ten baskets in the hoop, while she only made six baskets"). The ability to compare oneself with others can result in the vulnerability of one's self-concept in areas the child deems important (e.g. athletic competence, scholastic competence, and behavioural conduct). For example, in a sport context, researchers (Halliburton & Weiss, 2002; Horn & Amorose, 1998) suggest there are several types of information sources the athlete would use to assess and judge competence and ability. These include: social comparison (better, worse or the same as other players), feedback from significant others (parents, coaches, teachers, peers), event outcome (won/lost), and self-comparison (effort, improvement). Both Fischer (1980) and Harter (1999) suggest the resultant negative self-evaluations in certain domains may be more difficult and resistant to disconfirm because they have become traits. In addition to the domain-specific traits being internalized, Harter (1999) claims there is also the internalization of other's opinions as global representations. For example, children at this developmental level are able to identify that if others like them (their parents, friends, and teammates), they will like themselves.

Adolescence (12-18years of Age).

The adolescent period involves dramatic physical changes, cognitive developments, and changes in social expectations of the individual. During this developmental phase, several researchers (Case, 1985; Fischer, 1980; Harter, 1983) have

concluded that adolescents acquire the ability to think abstractly. For example, they may determine they are athletic, based on their enrolment in physical education class, choosing not to smoke, and because they are not overweight. Also, in early and middle adolescence, many self-attributes can be extremely unrealistic, which is a continued characteristic from childhood. According to Stipek and MacIver (1989) it is also during the adolescent years that children's perceptions of competence and control from late childhood to early adolescence significantly declines.

Early Adolescence (12-13 Years of Age)

As a result of the varying social contexts in which adolescents function, Harter (1998) claims the self becomes increasingly differentiated. For example, several researchers (Hart, 1988; Harter, 1999; Harter & Monsour, 1992) assert there is a proliferation of selves including the role of self with friends, self with siblings, the role of self with mother, with father, at work, and as a student. As suggested by Harter, Waters, and Whitesell (1998) an adolescent's perceived level of self-worth, how much they like themselves as a person, is variable across a number of domains. Harter (1999) explains that as a result of the proliferation of selves during this period, adolescents become increasingly sensitive to each context and the varying opinions and standards of significant others within them. Also according to Harter (1999), within these roles there is an emotional-social connection where the adolescent may be "intelligent" and "creative" in their role as a student, "mean" and "sarcastic" with parents, and "happy" and "rowdy" with friends.

As mentioned previously, during early adolescence the ability to construct complex traits is developed. However, Case's (1985) and Fischer's (1980) research,

respectively, states there is still a compartmentalization of these representations. For example, an individual may be a leader on her softball team, but in school she is seen as a follower. During this time, according to Harter (1999) and Harter and Monsour (1992), this lack of ability to integrate opposing characteristics (e.g. being an extrovert in some situations and an introvert in others) spares the adolescent from struggling with these attributes in relation to her/his self-theory.

Within the context of sport, Horn and Harris (1996) explain that athletes in this stage of development tend to use the evaluative feedback from their peers to judge their sport ability. However, in an academic context, while adolescents also use feedback from their peers to judge their scholastic ability, they may also incorporate the opinions of their parents and/or teachers. Several researchers (Harter, 1986, 1987, 1990b; Harter, Stocker, & Robinson, 1996) suggest that during adolescence, social support from significant others, most notably parents and peers, is a strong predictor of global self-worth. However, according to Harter, et al. (1996) individuals basing their self-worth mainly on peer approval tend to have their self-worth fluctuate more than others.

Middle Adolescence (14-16 Years of Age).

During this period Harter (1990a) contends that adolescents become increasingly preoccupied with what others think of them. Harter (1990a) also suggests they are more introspective and reflective than in previous stages of development. With greater introspection the adolescent now grapples with the bigger questions such as "what or who am I?"

At this stage or phase of development, additional cognitive processes emerge where single attributes are now compared with other attributes within the same domain.

For example, an individual may compare his/her ability in differing sports, such as tennis, golf, handball, and karate to determine athletic competence. Previously, these single abstractions or attributes were cognitively isolated from one another, so if they deemed golf to be the most important indicator of their athletic ability and they were successful in that sport, then they would believe they were athletic. According to Harter (1999) the difficulty the adolescent is faced with now is the seemingly contradictory abstractions regarding the self (e.g. intelligent vs. stupid, athletic vs. nonathletic, extrovert vs. introvert, etc.). This contradiction within the self causes concern for the adolescent and their ability to find and define their true self.

As previously mentioned, this developmental period has adolescents becoming extremely preoccupied with the opinions and thoughts of others. They are continually looking into the social mirror (e.g. what their peers think of them or deem important) for standards and attributes they can internalize. However, as a result of the proliferation of selves there are numerous messages the adolescent may be receiving from a variety of significant others. This can cause differing and sometimes contradictory messages that are sent to the adolescent. For example, a soccer player may go out to a party the night before the big game, so she can drive her friends home safely. However, she left her parent's house without permission. Does that make her responsible or irresponsible? Harter (1999) states that when this occurs, the adolescent may feel confused, distressed, uncertain, and indecisive about which attributes or characteristics to adopt and their own self-evaluative process.

Leff and Hoyle (1995) examined this pressure and distress in high-level competitive tennis players (ages 6-18) to determine the relationship between perceptions

of pressure (concerns about winning, expectations, pressure to play well) and parental support (e.g. positive affect, encouragement, involvement). Results from this study revealed a positive relationship between perceived tennis competence, greater enjoyment, global self esteem and lower perceived pressure and greater perceived support from parents.

While self-worth becomes differentiated in early adolescence, Harter (1990b) contends it becomes even further differentiated in middle and late adolescence. For example, socially, the adolescent may be "rowdy" with her friends at school, "responsible" at her job and with her co-workers, a "leader" with her soccer teammates, a "follower" in the outdoor education club, and "irresponsible" at home. Individuals develop varying levels of self-worth with significant others. Harter (1999) suggests the opposing feedback they may receive from a variety of sources can lead to instability in self-worth across interpersonal contexts (e.g. with her parents, Kathi has low self-worth, but with her teammates, she has high self-worth).

Harter (1990b; 1999) discusses that between early and midadolescence, contradictory standards and feedback from significant others has the potential to decrease global self-worth because the adolescent is not able to meet the expectations of everyone. This becomes a cycle for the adolescent where they are unable to meet the expectations of others, less approval is experienced, which in turn leads to a diminished global self-worth. As a result of the adolescent's struggle with seemingly contradictory attributes and focusing more on introspection, it is likely there will be a decrease in her/his self-worth during this stage of development.

Late Adolescence (16-18 Years of Age).

Many of the attributes that begin to emerge in late adolescence reflect one's values, moral standards, and personal beliefs. These characteristics, according to Damon and Hart (1988), have been internalized or constructed based on personal experiences of the individual. Also during this stage of development, one is less concerned with what others think. Harter (1999) asserts there is also greater direction and focus on one's future selves, such as the career they may want to pursue. Another feature of this developmental stage is that potentially contradictory attributes are no longer seen as characteristics in opposition. For example, being respectful toward others does not seem to contradict one's attitude that they don't care what others think of them. There are also cognitive developments that both Case (1985) and Fischer (1980) suggest allow the older adolescent to meaningfully integrate single abstractions and resolve inconsistencies. For example, the fact that one may be weak in individual sports and strong in team sports may indicate to the adolescent that they are a "team player".

During this period of development, sufficient support, instruction, and experiences provided by the adolescent's social environment is crucial. Black and Weiss (1992) examined the perceptions of conditional coaching praise, encouragement, information, and criticism after successful and unsuccessful swimming performances in a sample of 312 (15 - 18 year old) competitive swimmers. Results revealed that more frequent criticism by the coach after a poor swimming performance was related to lower levels of enjoyment, perceived swimming competence, challenge motivation, and success. In addition, when a coach procured greater perceived praise and praise combined with information, swimmers reported higher levels of competence, success, enjoyment,

and preference for optimally challenging activities. Several researchers (Horn, Glenn, & Wentzell, 1993; Horn & Harris, 1996) found that athletes tend to use internal information (e.g. enjoyment of sport, ability to motivate self), self-comparison processes (improvement of skill over time), and internalized or self-determined performance standards (achievement of self-set goals) to determine their competence in a specific sport.

Other researchers (Case, 1985; Fischer, 1980; Harter, 1999) found that if there is a lack of or insufficient support and instruction, the normative sequence of development may be disrupted or even arrested. It is critical that adolescents understand that it is normal for them to display traits that are seemingly contradictory. The preceding period of midadolescence and many of its limitations appear to be overcome during late adolescence as a result of the changes in this phase of development. The greater internalization of attributes that reflect the individual's personal standards, values and beliefs, and the opportunity to meet these standards leads to the enhancement of self-worth in late adolescence.

Summary.

The purpose of this section was to provide an overview of the changes in self-concept as an individual grows and develops. The developmental stages included very early childhood, early to middle childhood, middle to late childhood, as well as the similar corresponding stages in adolescence. The focus throughout was on the main developmental characteristics, how the self-representations are structured or organized, the accuracy individuals have in distinguishing between their "real" versus their "ideal" selves, whether there are comparisons with others or themselves as well as the role

others play at each stage of development. The relationship between physical activity and one's development of self-concept was also discussed.

Measurement of Self-Concept

The purpose of this section is to examine the measurement of self-concept. It will include the following sub-sections: (a) types of instruments, (b) quality of the measure, and (c) the measure of self-concept in the physical activity environment.

With the evolution of theories of self-concept, there has been a proliferation of instruments purporting to measure self-concept (Rosenberg, 1989). Hattie's (1992) meta-analysis of self and achievement measures included 62 different tests of self-concept in 128 studies as well as 93 different tests from 91 studies related to changes in self-concept. In total there were 155 different measures of self-concept in 219 studies. Hattie suggests the difficulty resides not in the number of studies, but in the fact that the majority of these measurements were only used once. Their lack of use could be a reflection of the many articles that fail to give an adequate description or any description at all of the measurement used. In addition, many researchers fail to give any indications of the reliability or validity of the instrument. Early instrumentation was produced to measure the unidimensionality of self-concept with its focus on global self-concept. As there was theoretical movement away from the unidimensional model, to a multidimensional perspective, further instruments were developed to reflect this change (Keith & Bracken, 1996).

While there are many inadequate measures of self-concept in the research community, there are also valid and reliable instruments. Fox (2002) suggests there are four factors to consider when choosing an appropriate measure. First, choose well-

validated and reliable instruments, otherwise the results may not be a reflection of the intervention. Second, it is important to choose instruments with a strong theoretical foundation. Without this it is difficult to attach meaning to the results or place them in a context of other studies. Third, the instruments/subscales should provide documentation to allow the operationalization of the research question. Lastly, the degree of focus of the research question must be determined in order to choose the appropriate measure.

Self-Concept Measures in the Physical Activity Environment

There are two instruments that appear to be the most appropriate for use in the physical activity context. Both have been used previously in this context and address the four factors identified by Fox (2002). The first is the Self Description Questionnaire II (SDQII) developed by Marsh (1990). It includes 11 domains and is based on the Shavelson, et al. (1976) model of self-concept. It also includes a general self scale that is based on Rosenberg's Self-Esteem Scale (1965). This is a multidimensional, hierarchical measure of self-concept that includes 8 or 10 Likert-type items for each subscale. The SDQII assess seven non-academic domains, three academic domains and the general-self. The non-academic domains are: physical abilities, physical appearance, emotional stability, honesty/truthfulness, peer relations (same and opposite sex relations), and parent relations. Reading, math, and general school are the academic domains (Keith & Bracken, 1996).

As mentioned previously, the SDQII is based on a multidimensional and hierarchical model with a strong theoretical foundation. The authors also provide strong evidence of content and construct validity, as well as excellent internal consistency. The total scale has an internal consistency of .94, with an average of .86 for the subscales.

The test-retest reliability for the subscale is .79. However, Keith and Bracken (1996) state that this measure has not been compared with other measures of self-concept, and there is a lack of guideline for integrated interpretations. This means it is the result of combining the General Self-Concept scale in the Total score and their high correlation with each other. Therefore, the ability to have independent interpretation of each of the scales is not feasible.

Although there are known limitations with this instrument, the SDQ has been used in several studies. For example, Goni and Zulaika (2000) examined the effect of changing certain aspects of a physical education class on the self-concept of grade 5 students. The results indicated that changing the content of the physical education class to include individual goal setting, increased praise, and the promotion of non-competitive games resulted in enhanced student self-concept of the treatment group compared to the control group. As well, Boyd and Hrycaiko (1997) utilized the SDQ to measure self-concept in their examination of the effect of a physical activity intervention on the self-esteem of 181 pre-adolescent and adolescent females. The physical activity of the participants in the treatment group took place in two separate gymnasiums during physical education classes and included the use of small equipment such as tumbling mats, skipping ropes, balls, hoops, bean bags, small wooden climbing frames, as well as hand weights. In addition, a weight training circuit and aerobics were used. The control group continued with their regular physical education curriculum. The results indicated that adolescent students with low self-esteem and low physical self-concept involved in the intervention benefited the most.

The second instrument used frequently in the physical activity context is Harter's (1985b) Self-Perception Profile for Children (SPPC) (see Appendix A), and is appropriate for children in grades three through eight. Harter developed this instrument to tap children's global self-worth, as well as their domain-specific judgements about their competence. This scale includes six domains: scholastic competence, athletic competence, social acceptance, physical appearance, behavioural conduct and global self-worth. It is comprised of a total of 36 items, 6 items per domain. The SPPC has good test-retest reliability ($r = .84$; 4 weeks) and high alpha coefficients ranging from .73 to .86 for each of the six subscales (Muris, Meesters, & Fijen, 2003).

The questions on the SPPC are framed in a structured alternative format, with the child being asked to choose one of two statements, which is more like him/her. Next, they need to decide whether he/she is "really" like that type of child or only "sort of" like that. This structured alternative format was chosen to minimize the effects of social desirability. The responses are scored from 1 to 4, with a 1 indicating a low perceived competence and a 4, indicating a high perceived competence.

Keith and Bracken (1996) identify two weaknesses of the SPPC. One of the weaknesses of this scale is that it has slightly less than adequate internal consistency for three of the subscales (.79, .78, and .74), with adequate internal consistency being .80. The second weakness is that the content sampling within each domain is restricted as a result of having only six items per scale. A strength of the SPPC is its strong foundation based on White's theoretical model (Keith & Bracken, 1996).

Several studies (Ebbeck & Gibbons, 1998; Gibbons & Black, 1997; Theodorakou & Zervas, 2003; Walters & Martin, 2000) have used Harter's SPPC measure in their

studies. Two of the more recent studies are outlined here. Theodorakou and Zervas (2003) compared the effects of the creative movement teaching method and a more teacher-centred teaching method on the self-esteem of elementary school children (aged 11 – 12 years). Results indicated a significant relationship between the five subscales (social acceptance, scholastic competence, physical appearance, athletic competence, and behavioural conduct) as well as global self-worth. The creative movement teaching method was most effective in improving the children's global self-worth as well as the sub-domains of social competence, scholastic competence, physical appearance and athletic competence.

Asci, Kosar, and Isler (2001) examined the self-concept and perceived athletic competence of early adolescents (aged 11-14 years) in relation to physical activity level and gender. Results revealed significant differences in physical activity level and perceived athletic competence. Adolescents involved in a high level of activity had significantly higher perceived athletic competence scores than adolescents involved in low levels of physical activity. The authors reported no significant difference between males and females in perceived athletic competence or global self-concept.

Both Marsh (1990) and Harter (1985b) have developed reasonably sound instruments, however for the present study, Harter's instrument appears more appropriate. Marsh et al. (1986a) explain that the nature of the activity will determine which subdomains of self-concept will change. Therefore, based on the nature of the physical education environment, there are five of the eleven self-concept domains in Marsh's (1990) measure that are not likely to change (reading, math, general school, honesty/truthfulness and parent relations). Whereas in Harter's (1985) measure there are

only two of the six subscales (physical appearance and scholastic competence) that are unlikely to be related to the learning experiences within the physical education context.

Ebbeck & Weiss (1998) indicate that establishing a link between the development of self-concept and physical activity can enhance the value of sport and exercise. There have been a number of studies that have indicated a positive relationship between participation in physical activities and the development of self-concept (Marsh et al., 1986b; Sherrill, Holguin, & Caywood, 1989; Sonstroem, 1984). It has been reported that physical education and sport programs offer a variety of situations for individuals to not only gain a sense of achievement, experience feelings of personal competence, but to enhance self-concept (Pangrazi, 1982).

Section Two - Team Building

The purpose of this study was twofold. The first purpose was to examine the effectiveness of a Team Building through Physical Challenges (TBPC) program on the self-conceptions of middle school students. The second purpose was to explore the experiences of these students, using a variety of data collection techniques, in the TBPC program. The previous sections have outlined past and present theories of self-concept, competence motivation, development of self-concept from childhood to adolescence, and the measurement of self-concept. The current section will describe the process of team building, specific attributes of team building, the use of team building to enhance self-concept, and studies that have used a team building intervention.

Team building is defined by Gibbons and Black (1997) as "a type of group problem-solving task that involves the structuring of participants' interactions so that each depends on and is accountable to, the others in the group" (p.48). Team building

type activities in physical education lend themselves to a mastery approach. According to Horn (2004), mastery experiences provide students with the opportunity to acquire a skill or ability in an achievement context, through hard work and effort. The team building environment is one where positive interactions are encouraged and provides students with the opportunity for success and optimal challenge. The nature of team building activities provides participants with an environment that promotes cooperation over competition and mastery over performance.

Outdoor Adventure

The roots of team building can be traced back to Kurt Hahn (Hattie, Marsh, Neill, & Richards, 1997). In 1941 he designed a month-long course for the Blue Funnel Shipping Line to reduce the number of lives lost in the Atlantic Ocean due to the sinking of their ships. The components of the program involved development of physical fitness, independence, initiative, self-reliance, and resourcefulness. Hahn supported the establishment of Outward Bound schools in England and then throughout the world after the success of his initial program. As of 1995, there were five continents with 48 Outward Bound schools (Hattie et al., 1997).

Common features of these adventure programs as outlined by Hattie, et al. (1997) are: (1) 2-4 weeks in duration; (2) a nonintrusive, trained group leader; (3) group problem solving from frequent and intense interactions; (4) wilderness or backcountry setting; (5) a small group (usually less than 16); and (6) a variety of physically and/mentally challenging objectives, such as hiking to a specific point, cycling over challenging terrain or mastering a river rapid.

During the 1970's, researchers began to examine the impact of outdoor adventure program participation on self-perceptions. In their meta-analysis of outdoor adventure and adolescents between 1969-1994, Cason and Gillis (1994) found high effect sizes in behavioural assessment of others (.40), self-concept (.34), school attendance (.47), grades (.61), locus of control (.30), and that longer programs had higher effect sizes (.58) than short programs (.17). These effect sizes were based on 147 effects in 43 studies. More recently, Hattie, et al. (1997) identified 40 major outcomes in their meta-analysis of the outdoor adventure literature. Some of the major outcomes included: decision-making, goal setting, peer relations, physical skills, achievement motivation, cooperation, and physical fitness. They were able to place the 40 outcomes into six categories: leadership, adventuresomeness, academic, personality, interpersonal, and self-concept.

As a result of the numerous studies that reflect the development of self-concept in outdoor adventure participation, there is justification to suggest that programs are progressive in this domain (Godfrey, 1974; Hazelworth & Wilson, 1990; Marsh et al., 1986a, 1986b). However, it is important to note that the nature of the activity will determine which subdomains of self-concept are impacted (Marsh et al., 1986b). For example, if one were interested in enhancing athletic competence, the activity selected would have to contain and focus on an athletic component.

Although there are many exciting positive outcomes involved when taking students into the outdoors, there can also be challenging aspects to consider. For example, one of the limitations of outdoor adventure programs for adolescents is that in order to be an effective intervention for the enhancement of self-concept, Marsh, et al. (1986b) contend the length of the program needs to range from two to three weeks. It can be

challenging and expensive to incorporate an outdoor adventure trip of that length into a school and its physical education program. In addition, there are numerous concerns with safety and liability that put significant limits of use of outdoor adventure in a typical school program.

Glover and Midura (1992) designed the Team Building through Physical Challenges (TBPC) program as a way to incorporate some of the same features and potential outcomes of outdoor adventure activities in the physical education setting. While these activities do not provide all of the same features as an outdoor adventure trip, there are many similarities. Small groups are considered to be most effective when involved in team building or outdoor adventure activities. There are a variety of mentally and/or physically challenging objectives inherent in both programs, and the involvement of decision-making and problem solving is central. Also, the enhancement of self-concept and/or its domains as one of the central outcomes is a commonality in both team building and outdoor adventure.

Glover & Midura (1992) designed the TBPC program to enhance the self-conceptions of students in physical education. They describe TBPC as a sequence of group cooperative learning tasks in physical education that gradually increase in physical, social and intellectual challenge, while also communicating a sense of fun and adventure.

The authors highlight the following key attributes of TBPC tasks:

1. Success Experiences – Focus is on the active contributions a teammate makes to the group during an activity. Examples of this would be when the student is being listened to when suggesting an idea or providing a strategy to complete a portion of the task.

2. Communication – All activities include the need to speak clearly and actively listen. Participants are also required to communicate in a positive and respectful manner with teammates.
3. Risk Taking – in all of the team building activities, there is an element of both physical and social risk. The degree of risk increases with the difficulty of the challenge.
4. Decision Making – Team Building activities require team members to make decisions. Each TBPC activity includes a challenge governed by a series of rules. The group must decide the most appropriate way for all members to successfully complete the task within the rules.
5. Debriefing – Each TBPC activity includes time after the task for students to reflect on their activity, group processes, successes and failures. It is a time to answer such questions as "What did you learn?, What were the challenges you and your group faced?, and What did you do well?" This attribute of the team building process enables participants to connect and/or relate what they learn in one challenge with previous ones.

Building a positive self-concept is stated as one of the outcomes of the Team Building through Physical Challenges (TBPC) program. Glover and Midura (1992) suggest that the nature of the TBPC program is such that as students progress and successfully master the activities, their self-concept is enhanced. This appears to be linked to Harter's competence motivation theory, which explains that when students are optimally challenged and have successful outcomes of mastery attempts, this results in positive affect and self-worth (Weiss, 1987). It is the progression of these activities

through more difficult challenges that contributes to enhancing their self-concepts and feeling better about their abilities. With a positive self-concept comes the ability to overcome failures and gain success.

Other attributes of the team building through physical challenges (TBPC) tasks appear to relate to aspects of Harter's framework. For example, in a team building task when the effort of an individual promotes the success of that group, the person is accepted as a valuable member of the team. Each person in the group begins to take an active, rather than passive, role as the concept of belonging to a successful group develops.

Two studies have examined the effectiveness of the systematic implementation of a team building through physical challenges (TBPC) program in physical education on the self-conceptions of the participants. In the first study, Gibbons and Black (1997) examined the effectiveness of a TBPC program intervention in physical education on the self-conceptions of 120 middle school students. In a 2 x 2 (treatment/control, pretest/posttest) design, students in the treatment group participated in the TBPC activities every second week in their physical education class over a 5-month period. The authors administered Harter's SPPC to tap changes in six specific domains of self-concept (scholastic competence, behavioural conduct, athletic competence, social competence, physical appearance, and global self-worth). The results indicated significant gains from pre to posttest measurement. Students involved in the TBPC intervention scored significantly higher than the control groups on four of the six self-concept sub-scales (athletic competence, social acceptance, scholastic competence, and global self-worth).

In a second study, using a similar TBPC intervention and research design, Ebbeck and Gibbons (1998) extended the treatment duration to eight months. In addition, they extended their research question to examine gender differences in self-conceptions as a result of the TBPC intervention. The results of the study revealed that both male and female students in the treatment group had significantly higher self-perception scores of athletic competence, physical appearance, social acceptance, and global self-worth than the control group. In addition, female students in the treatment group were also significantly higher on behavioural conduct and scholastic competence perceptions than females in the control group. In the recommendations for future research, Ebbeck and Gibbons (1998) emphasized the need for a qualitative analysis of the impact of a TBPC program. They suggested that qualitative data may add to the understanding of the mechanisms of change in self-conceptions.

The preceding studies raised a number of questions related to the TBPC program and potential research possibilities. In both studies, there were significant positive changes in the students' self-concepts, but do we know that it was solely the team building intervention? What medium of change could be at work? Are other factors at work? Which aspects of TBPC tasks are most meaningful to students? What does team building mean to the participants? These questions provide exciting research possibilities.

It seems likely methods that approach the research question from a variety of directions and provide multiple sources of data may expand the current understanding of the relationship between TBPC activities and self-concept. Therefore, the purpose of this study was to further examine the effectiveness of a TBPC program on the self-conceptions of middle school students and to explore the experiences of these students,

using a variety of qualitative techniques, to gain a more thorough understanding of the whole picture.

Chapter 3

Methods

Participants and Setting

A total of 68 male (n = 35) and female (n = 33) grade six through eight co-educational physical education students volunteered to participate in the study. They ranged from 10 – 14 years of age (M = 11.94; SD = .94). All students were from the same Saanich middle school. The school uses a tri-term timetable. The first 13-week term begins in September and finishes at the end of November, the second 13-week term starts at the end of November and finishes at the beginning of March, and the last term ends in June. The current study took place in the first trimester.

Students participate in five 45-minute PE classes each week. Classes on Monday and Friday include a regular 15-minute run/jog. All PE classes are coeducational and follow the physical education curriculum prescribed by the British Columbia Ministry of Education (British Columbia Ministry of Education, 1995). This includes instruction in activities from five movement categories: individual or dual activities, games, gymnastics, dance, and alternative-environment activities. The BCME (1995) recommends "no less than 15% of instructional time be spent in any one movement category" (p.6). Within each of the five movement categories, learning outcomes are grouped under the three curriculum organizers of: personal and social responsibility, movement, and active living. The learning outcomes most closely associated with the TBPC activities fit within the personal and social responsibility curriculum organizer.

Based on observation and interaction with the teachers, all classes in this study adhered to the recommendations outlined by the BCME. The physical education staff involved in the study included one male and one female teacher. Both are considered experienced, with one teacher having taught for more than ten years and the other for more than 5 years.

Research Design

This study involved 68 students from four physical education classes: one grade six class, two grade seven classes, and one grade eight class. However, the two grade seven classes were comprised of students from four different homeroom classes. Students choosing not to enrol in band class were involved in this study. Therefore, not all students in the grade seven physical education class were taught by their homeroom teacher. This provided some difficulty in attaining consent forms from all students. Each of the four classes was randomly assigned to one of the following groups: (a) experimental group - Team Building through Physical Challenges (TBPC); or (b) control group – no TBPC activities (Figure 2). The TBPC activities were included in one PE class every other week. The treatment protocol was extended for eight weeks.

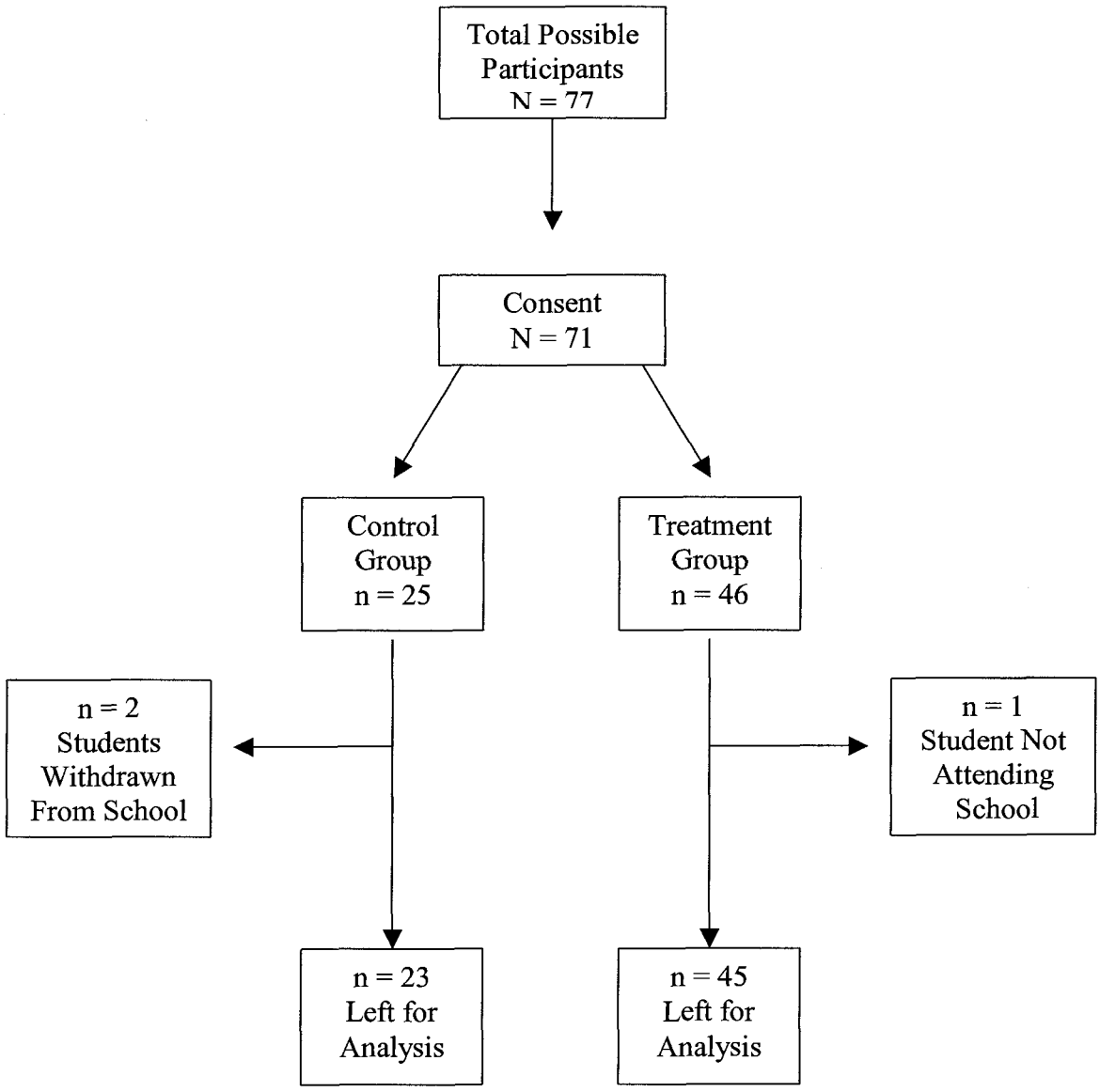

Figure 2. Total N for Analysis

The original study design was a 2 (treatment/control) x 2 (pretest/posttest) x 2 (male/female)

	Time 1	**Time 2**
R Team Building	Male / **Self-Concept** / Female	Male / **Self-Concept** / Female
R No Team Building	Male / **Self-Concept** / Female	Male / **Self-Concept** / Female

Figure 3. Initial Research Design

However, due to a lack of power, the preceding design was collapsed into a 2 x 2 (treatment/control, pretest/posttest).

R O_1 **T** O_2

R O_3 O_4

Figure 4. Collapsed Research Design

Intervention Program

A team building task is "a group problem-solving task that involves the structuring of participants' interactions so that each depends on and is accountable to, the others in the group" (Gibbons & Black, 1997). The Team Building through Physical Challenges (TBPC) (Glover & Midura, 1992) expands this definition by including a physical challenge within each task. The TBPC activities use equipment typically available to physical education teachers within the gymnasium setting, such as hoola hoops, skipping ropes, mats, bases, and cones. The TBPC program includes a selection of progressively more difficult physical challenges designed around the previously

highlighted five attributes: success experiences, communication, risk taking, decision-making, and debriefing.

The following describes the series of team building activities used in the present study. A team building day, involving all seven grade 7 classes at the middle school, was the inaugural event chosen to expose the grade 7's to four team building activities. In addition to the team building day, three warm-up team building activities were implemented in the subsequent week of physical education classes. In the ensuing weeks, three intermediate team building activities (Wild River, Don't Touch Me, Team-A-Pod) and one advanced team building activity (Low Electric Fence) were included (see Table 1). Originally, a second advanced team building activity (Knight of the Around Table) was to be implemented as the final task. However, due to extenuating circumstances of one of the teachers instructing a treatment group, the task was cancelled. The rescheduling of the activity was not feasible as all classes were involved in a dance unit for two weeks, prior to the December holiday break.

These group problem-solving tasks gradually increased in their intellectual, social/emotional and physical challenge. In order for any one individual to succeed, the entire group must master each task. The following are descriptions of the tasks used in the study:

Table 1

Categorization of Team Building Activities

Introductory	Intermediate	Advanced
*Half Pipe	*Shrinking Island	Low Electric Fence
Warm-up Activities	*Dragon's Egg	
- Push and Pull	*Crossing the Middle Kingdom	
- Trust Tag	Don't Touch Me	
- Ground Tag	Team-A-Pod	
Wild River		

* Denotes Activities from Team Building Day

The Half Pipe is an example of an introductory challenge. Group members lined up around the classroom (or the gymnasium), each held an open half of PVC piping. One group member started with a ball and rolled it down his/her pipe, which then had to connect with another student's pipe next to them. The objective was to have the ball travel to the opposite end of the line without it stopping or being dropped. The ball was returned to the starting position if it stopped rolling or dropped on the floor.

Three warm-up activities were used as an introductory phase to the team building activities the week after Team Building Day had taken place. All warm-up activities are introductory challenges and took approximately 10 minutes to complete. The first warm-up activity was Push and Pull. This is a partner activity where partners faced each other and grabbed right hands, keeping their thumbs loose. The object of the game was for each

partner to touch the other's right shoulder as many times as possible without unlocking or letting go of their hand. The purpose of this activity was to demonstrate how many times we work against each other when we need to work together.

Trust Tag was the second introductory warm-up activity. The class was divided into partners. One person from the partnership wore a blindfold. The play area was designated and a pair was selected to be "it". The partners with the blindfold played a game of tag, while their partners guided them verbally during the game. The sighted partners tried to guide them (verbally) away from the person who was "it". Partners were switched halfway through the game so guides became blindfolded and the other partner became the guide. The purpose of this task was to develop skills in communication and cooperation.

The last introductory warm-up activity was Ground Tag. The class was organized into partners. All partnerships were lying face down in a circle formation on the ground or floor except for one pair. Between each of the partners, there needed to be enough space for two people to lie down. The one pair not lying down played tag with one person that was "it" and one other being chased. The one being chased can lie down next to anyone at any time. Once they lay down, the partner of the person she/he laid down beside now got up and became the person being chased. Once someone else was tagged they became "it" and chased the other person, who tried to get down next to someone for safety. The objective of this game was for group members to become more comfortable with one another.

Shrinking Island is an example of an intermediate task. All group members started on the island (a large piece of tarp). As time progressed, the island began to shrink (the

tarp was folded in). Group members had to find a way to keep everyone on the island as it continued to shrink. The task was completed when all group members were on the island and the island had shrunk to its smallest size.

Dragon's Egg is an example of an intermediate task. The task required each group of 16 to successfully pass the Dragon's Egg (a soccer ball) over the canyon (a designated space between the groups) using their catapult (a blanket) while the other group, on the other side of the canyon (approximately five metres away), receives the Dragon's Egg using their safety net (a blanket). Group members must be touching their blanket at all times. The task is considered mastered when the Dragon's Egg is successfully delivered across the canyon into the safety net and back again.

Crossing The Middle Kingdom is another example of an intermediate task. The task required each group of six to eight to successfully cross the designated area (approximately five metres in length) using the magic shoes or boots. However, the boots could only be worn a total of six times. A group member could wear one boot, which would count as wearing the boot once and if they wore both boots that would count as twice. If any member touched the ground with any part of their body and was not wearing the magic boots, they were required to start again. In order to get the boots back to other members of the group trying to cross the Middle Kingdom, they had to be worn by one of the group members and could not be thrown over to the other side. The task was successfully completed when all group members had reached the other side of the Kingdom, only using the boots six times.

Wild River is an intermediate task. Group members started at the marked shoreline (one side of the gymnasium) and travelled to the opposite side of the river

(opposite end of gym). The team had to avoid obstacles in order to successfully cross the river. Hula-hoops, bases, yellow cones, and blue foam squares were interspersed the length of the gym and the colours of these denoted its use (see Figure 5). A red hoop was dangerous and no one could touch it or step in it, the white ring could only support one foot and no other body part was allowed to touch the inside of it, the base could only support two hands, the yellow cones could support any body part, and the blue foam was safe and could take the weight of one or more group members. If any team member fell into the river (touched the floor outside of a hoop), they had to begin again, and if the team forgot which hoop colour indicates the support of which body part and entered it incorrectly, they also had to start over. The group mastered the wild river when they all crossed it safely and correctly and were behind the designated sideline.

Figure 5. Wild River

Don't Touch Me is an intermediate challenge. Two groups, of 15 members formed a circle around one hoola hoop. The group was required to move as quickly as possible to the opposite side of their circle from where they started. Each member, when travelling to the opposite side of the circle, must place at least one foot in the hoop. While moving through the circle, no one is allowed to touch another group member. If they touch someone else, the entire group must start again. The challenge is considered mastered when all group members have arranged themselves on the opposite side of the

circle in the fastest time possible. An extension to this activity is to combine the two groups into a larger one.

Team-A-Pod is an intermediate challenge. Each group of seven or eight members was required to collectively move across a wrestling mat area approximately seven metres in length with only five body parts (six if it was a group of eight) in contact with the floor (see Figure 6). If more contact points were touching the floor than the specified number, the team had to return to the starting area. The challenge was mastered when the team was able to travel from the designated starting position to the finishing point using only the specified number of contact points.

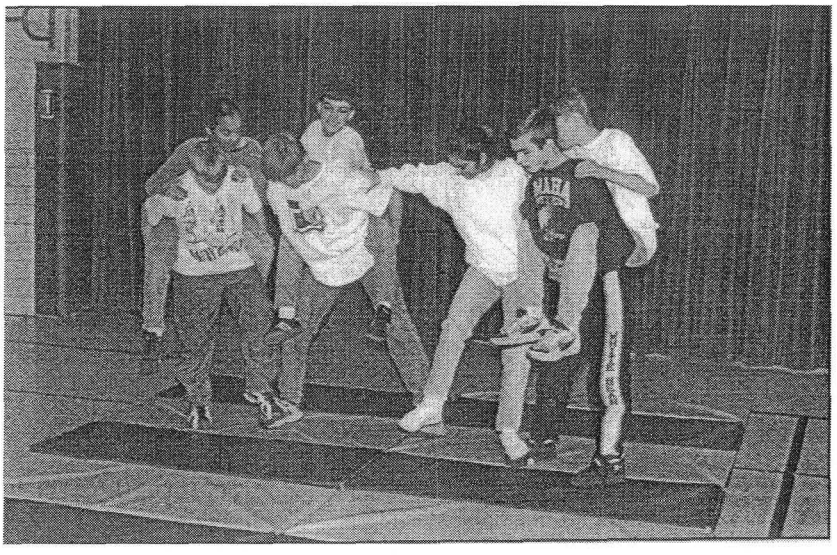

Figure 6. Team-A-Pod

The Low Electric Fence is an example of an advanced task. This task required all group members to successfully maneuver over a skipping rope while connected to each other (see Figure 7). The electric fence (skipping rope) is held perpendicularly by two students at the average height of the inseam of those in the group. Each group member had to be touching at least one other person in the group and all group members had to be connected. Without touching the rope or losing contact with his or her team members,

each member had to cross over the electric fence. If a group member touched the electric fence or lost contact with the team member, she or he had to return to the start of the task, with all team members who had successfully crossed over the fence.

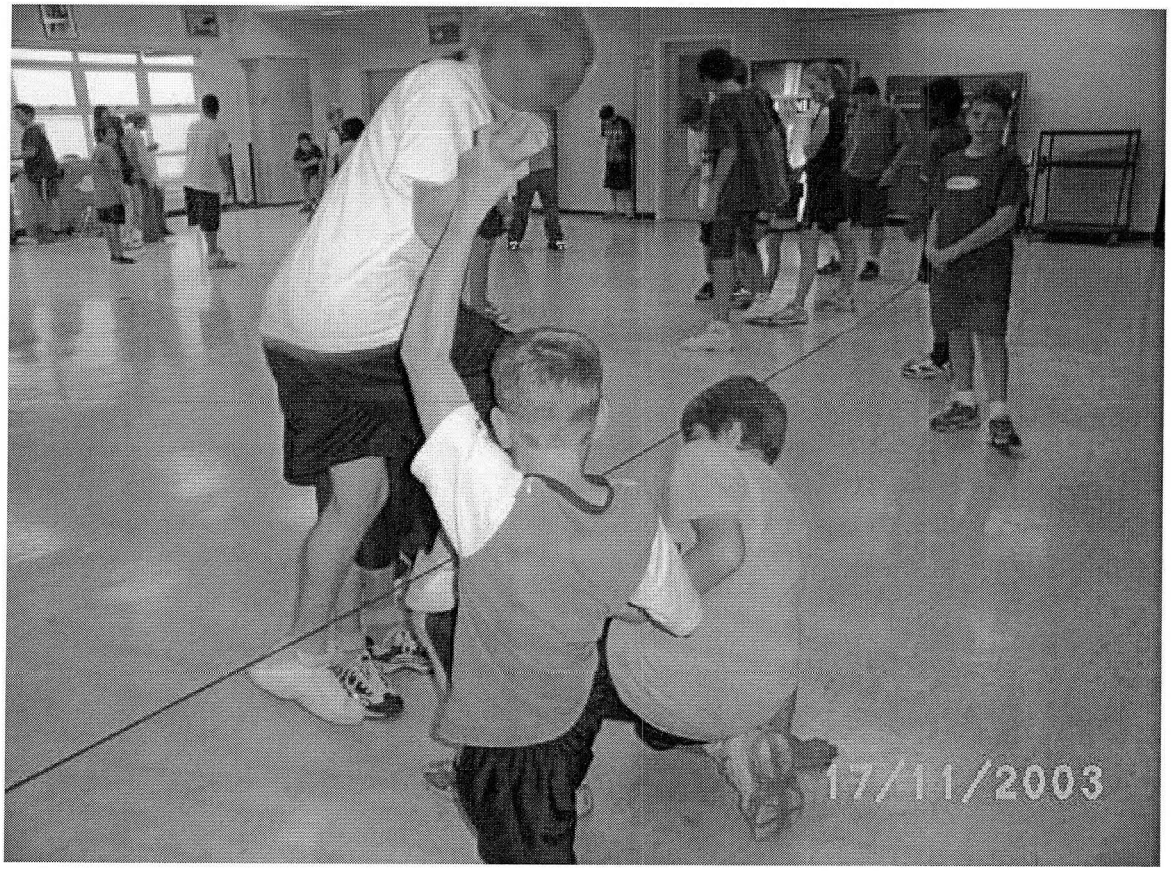

Figure 7. Low Electric Fence

Prior to participation, the teacher explained the objective of each of the activities, safety concerns, and behavioural issues to keep in mind. For example, "you need to work on having positive fun – remember that positive fun only happens when everyone is having fun and not when others are put down." Following each task, debriefing ensued. This was a time when the teacher would often ask the students questions such as: "what worked well, what did not work well, and what was the most difficult part of the activity?"

Instruments

Harter's (1985b) Self-Perception Profile for Children (SPPC) was used to measure participants' self-concept (Appendix A). SPPC is a self-report measure including six subscales: scholastic competence, social acceptance, athletic competence, physical appearance, behavioural conduct and global self-worth.

Scholastic competence relates to the child's perception of his/her competence within the scholastic performance sphere. The extent or degree one feels accepted by his/her peers or popular is tapped by the *social acceptance* subscale. The *athletic competence* subscale relates to perception of competence in sports and outdoor games. *Physical appearance* is measured through questions about how happy the individual is with his/her looks, weight, face, body, and height. Harter (1985) mentions that the reason she added this subscale was based on interviews with children in later elementary and upper middle school. These interviews revealed that at this age, physical appearance becomes a very important component of one's self-concept. Determining the degree to which children do the right thing, behave appropriately, avoid getting into trouble, do things they are supposed to and like the way they behave are all related to the *behavioural conduct* subscale. The *global self-worth* subscale provides an overall judgment about oneself. It reveals information about the degree to which one is happy with her or himself and the way they are leading their life.

The SPPC is composed of 36 items in total, six items for each subscale. The questions are framed in a structured alternative format, with the child being asked to choose one of two statements, which is more like him/her. For example, "Some kids wish they could be a lot better at sports (Statement One) but other kids feel they are good

enough at sports (Statement Two)." Next, they need to decide whether he/she is "really" like that type of child or only "sort of" like that. The responses are scored from 1 to 4, with a 1 indicating a low perceived competence and a 4 indicating a high perceived competence.

The SPPC is an established measure with documented validity and reliability. The internal consistency reported by Harter (1985b), of all six subscales (Cronbach's Alpha) for scholastic competence, social acceptance, athletic competence, physical appearance, behavioural conduct and global self-worth ranged from .75 to .86. Muris et al. (2003) report good test-retest reliability of the SPPC ($r = .84$; 4 weeks), as well as high alpha coefficients for each of the six subscales. Factor analysis for five of the six domains (athletic competence, physical appearance, scholastic competence, physical appearance, and behavioural conduct) was used by Harter (1985b) to address construct validity of the SPPC. All non-target factors were below .18 and nonsignificant, which suggests the SPPC is a valid self-report measure (Keith & Bracken, 1996).

Procedures

Ethical approval for this study was received from the University of Victoria Human Research Ethics Committee (see Appendix B). Approval was also received from School District #61, the principal, and two physical education teachers involved in this study. Parents and students were informed of the nature of the study (Appendix C). In this study all of the students between grade six and eight, except for two, were between the ages of 10 and 13 years old. Based on the University of Victoria Ethical Review guidelines, students under the age of 13 give their own informed consent and their

parent(s)/guardian(s) must also give consent. All students, as well as their parent(s)/guardian(s) were required to give consent to participate in this study.

In the pre-test phase, the researcher verbally explained the purpose of the study and consent forms to the students, as well, a brief letter outlining the study was distributed in mid-September. Students were asked to return the signed forms within one week. To inform parents of the nature of the study, a page outlining details was attached to the front of their consent form. Following return of consent forms to the researcher, administration of the Self-Perception Profile for Children (SPPC) proceeded during their regular physical education class. Demographic information was collected at the same time as the first administration of the SPPC. This information included name, date of birth, age, and physical education class. The demographic information was on the front page of the SPPC. Instructions on how to complete the Self-Perception Profile for Children (SPPC) were read aloud immediately prior to administration (Appendix A). This process occurred in a multipurpose room during their regular physical education class time.

The pre-test administration of the SPPC took place on two separate occasions. The first administration was with both the grade eight and the grade six class. The second administration was with both grade seven classes. It took approximately 40 minutes to complete both the SPPC and the demographic information. As a result of the number of students and questions, one of two physical education teachers was present during the administration of the SPPC to help hand out and collect both the pens as well as the questionnaire. After the pre-test was completed a code number was assigned to each student instead of using her or his name. This was implemented to follow the University

of Victoria Human Ethics guidelines to protect anonymity and confidentiality. The post-test was administered two weeks following the completion of the TBPC intervention program, using the same procedures as the pre-test.

Random assignment (by class) was done using the fishbowl technique (without replacement) (R. Rhodes, personal communication, October 2, 2003). Two classes were assigned to the control group and two classes to the treatment group. The control group continued with their regular daily physical education classes. The treatment group also continued with their regular daily physical education classes, except on every other Monday when TBPC activities were incorporated.

There was a noon-hour information and familiarization session for the physical education teacher(s) involved in the TBPC program two weeks prior to the commencement of the first activity. The responsibilities of the teacher(s) and students, as well as organizational aspects of the TBPC were discussed. During the study, there were several phone conversations at the middle school and the home of one of the teachers. The type and amount of equipment for the TBPC activity, as well as the logistics of implementing it were the topics of discussion. I met with the physical education teacher(s) prior to each TBPC activity to go through the execution of the task and answer any further questions they may have had. Directly prior to the physical education class I assisted in any additional set-up that was required for the treatment group. Both classes in the treatment group, as well as in the control group occurred simultaneously in different areas inside or outside of the school.

During the initial phase of the study, in order to develop a rapport with the students and the teacher, I helped with one of the classes in the control group.

Distributing the running logs to the students, as well as providing assistance in filling out the logs was one way I became involved with the class. Prior to and throughout the entire study, I was visible in the school and assisted many students (either in the study or not) with their schoolwork or answering questions they may have had about a multitude of topics.

Qualitative Aspects

The qualitative portion of this study was developed for several reasons. First, previous research demonstrates there have been positive changes in students' self-concept after being involved in a TBPC program (Ebbeck & Gibbons, 1998; Gibbons & Black, 1997). However, less is known about the nature of the interactions and experiences of participants as they work through the TBPC activities. Second, Ebbeck and Gibbons (1998) recommended an extension of their study. They suggested that investigating the impact of a TBPC program, using qualitative analysis, would help understand the mechanisms of change in students' self-conceptions. Thirdly, Maxwell (1996) has suggested that qualitative inquiry may provide insight into the team building process. As well, there is the possibility of identifying unanticipated influences in either or both the TBPC activities and self-concept. Finally, to gain some understanding of the process the students go through during the team building intervention program could be extremely useful to physical educators in the organization and implementation of these activities (Maxwell, 1996).

Qualitative Data Collection Techniques

The underlying rationale for the choice of data collection techniques is that adolescents behave in a variety of ways and that using only one technique to investigate their behaviour and experiences may result in only a superficial understanding. Some of the techniques I employed are considered ethnographic because I was able to "observe behaviors or events in their natural setting and record them" (Tashakkori & Teddlie, 1998). These types of data collection techniques also provided the students with an opportunity to share their thoughts and feelings in a way they felt most comfortable. I feel confident I gained a broad and meaningful representation of the students, the TBPC, and self-concept because I have been informed from a variety of data sources.

Focus Groups.

The purpose of the focus group was to encourage students to openly discuss in a small group, their thoughts and feelings about the TBPC experience in a safe and non-threatening environment (Morgan & Kreuger, 1993). This was achieved through previous interaction with the students, building a rapport with them, as well as being visible in the school. The focus group also provided information to understand the attitudes of the students, as well as misconceptions and perceptions of the TBPC program (Morgan, 1997).

The focus groups were conducted approximately two and a half weeks after the conclusion of the TBPC program. I conducted all interviews. They took place at the school in the conference room, which was situated in the office area. Both groups were comprised of students from the homeroom classes of the Grade 7 physical education teachers. One focus group interview (five students) was from one treatment class and the

other focus group (four students) was from the other treatment class. The names of students with full consent, from both treatment groups, were approached after completing the second questionnaire to ask if they were interested in participating in the focus group interviews. It was explained to the students that the focus group was optional and on a volunteer basis. The interview with the first group (five students) lasted 45 minutes. The interview conducted with the second group (four students) was completed over two sessions. The first session lasted 45 minutes and the second session lasted 30 minutes. The interviews were audiotaped. The groups were limited to four or five individuals within each group. This allowed for greater depth of information rather than the generation of ideas (Kreuger & Casey, 2000).

The focus groups had a semi-structured format with carefully developed questions. To initiate this process, a poster consisting of the names of the activities, a description, some drawings from a book, as well as some digital photographs of the students participating in a TBPC activity were used as a stimulated recall mechanism. The questions were designed around the five attributes of a TBPC activity previously outlined:

1. Throughout the last term you have participated in some Team Building activities
    a) Explain the term "Team Building" in your own words.
    b) What does Team Building mean?
    c) Was there anything you noticed that was the same in all of the Team Building activities?

2. Success Experiences – When you help your group during a Team Building activity, you may feel you have contributed to the success of the group. Can you think back to one of the Team Building activities you participated in –
    a) What were some ways you contributed to your group?
    b) What were some challenges in trying to contribute to your group?
    c) What did you learn about trying to contribute to your group?
3. Communication – Communicating with your Team Building teammates is a major part of many Team Building activities.
    a) Discuss some ways you communicated with your teammates.
    b) Discuss some challenges in communicating with your teammates.
    c) What worked well?
    d) What did you learn about communicating?
4. Risk Taking – Team Building activities often include some elements of risk (physical, social), for example, in the Team-A-Pod activity, some of you were carrying others and some of you were being carried.
    a) Can you identify the risk in some of the activities?
    b) Were there some activities that sound "scary" at first, but you were less scared once you tried it?
    c) What did you learn about risk and taking risks?
5. Decision Making – Team Building activities require team members to make decisions.
    a) Can you think back to one of the Team building activities and identify some of the decisions that were made during it?

b) What were some of the challenges when making decisions during the activity?

c) What worked well when you were making decisions with you teammates?

d) What did you learn about decision-making?

6. Debriefing – At the end of the Team Building activity your teacher usually asked some questions about it.

   a) What did you like the least about this part of the activity?

   b) What did you like the best about this part of the activity?

   c) What did you learn from talking about these questions?

7. What did you like least about the Team Building activities?
8. What did you like best about the Team Building activities?
9. Now that you have complete several Team Building activities,

   a) What did you learn about yourself?

   b) What did you learn about your classmates?

10. I wanted to know what your experiences were in the Team Building activities – is there anything I have missed or anything you want to add?

During closure of the focus group, I summarized and recapped some of the themes that had emerged from the group, clarified their statements, and allowed the students to make any additional comments or clarifications (Morgan, 1997). Within two weeks of the completed interview, the tapes, as well as notes were transcribed.

Videotaping.

One class (N = 32) from the treatment group was videotaped during the last four TBPC activities (Wild River, Don't Touch Me, Team-A-Pod, and Low Electric Fence). I chose the class with the most student consent to be videotaped. Directly after the team building activity, and during the debriefing session, notes were taken of responses the students had about the strategies they implemented. Other topics within the notes included whether the activity went smoothly (the set-up and implementation of it), if the students seemed to enjoy it, and were on task.

The videotape of the four team building activities was analyzed after completion of the tasks. While viewing the videotape, notes were made on common themes occurring in each of the groups, reactions from the students to the specific activity, strategies used to complete the task and specific comments the students made during the debriefing session at the conclusion of the task. These notes surrounded the five elements of the TBPC (success experiences, communication, risk taking, decision making, and debriefing). The handwritten notes were entered into the computer within 48 hours of the completion of the team building activity.

The purpose of videotaping was to gain a more thorough record of the activities. The videotape allowed the researcher to view and review the activities on several occasions. The camera was set up so that the entire area of activity involving consenting participants was visible without being moved. Therefore, there was no bias in the selection of students or groups of students videotaped. Another purpose of using this method was to provide triangulation with the other techniques used. If results from all data collection techniques reveal similar themes or patterns, then we can be more

confident in suggesting it is accurate and not a bias of the researcher, the specific group, individual or situation.

Digital Photographs.

The purpose of the digital photographs was for use as a stimulated recall mechanism in the focus groups. They were also used to check for similar or differing themes from those found in the other data collection techniques. One treatment group of consenting participants (N = 28) was photographed, by the researcher, during one of the TBPC activities. Each group of consenting participants was photographed to capture the strategies and interactions among group members. Directly after the TBPC activity, the digital photographs were downloaded into the computer. Notes were typed in the computer beside each of the photos to give a record of what the students were doing, as well as noting the presence of any of the TBPC attributes (success experiences, communication, risk taking, decision making, and debriefing).

Data Analysis

Self-Perception Profile for Children (SPPC).

The data was entered and then analyzed using the Statistical Package for Social Sciences (Version 11.5/SPSS), with significant alpha set at $p < .05$. The independent variable was the team building intervention and the dependent variable was self-concept, which consisted of scholastic competence, social acceptance, athletic competence, physical appearance, behavioural conduct, and global self-worth.

An initial understanding of the data was gained by scanning it for outliers and to ensure the results made reasonable sense. Effect sizes were interpreted according to the criteria established by Cohen (1988):

ES = .01 (small)
ES = .06 (medium)
ES = .14 (large)

Descriptive statistics and mean (standard deviation), for all dependent variables were calculated for each test period. The differences among each participant pre and post-test of the six subscales of self-concept was examined. To determine differences between the control and treatment group over all six subscales of self-concept, an analysis was conducted using repeated measures Multivariate Analysis of Variance (MANOVA), within and between subjects design.

Assessment of Data Quality

The assessment of data quality is a process undertaken by the researcher, to promote the accurate reflection of the environment and its participants from the data collected, as well as to help ensure the themes generated accurately reflect the environment and its participants. The researcher employs a variety of procedures to increase trustworthiness of the inquiry. These four criteria include: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability.

Credibility.

Marshall and Rossman (1999) define credibility as the assurance that the data is an accurate reflection of the subject matter and the participants. To promote credibility in this study, I employed the following recommendations by Lincoln and Guba (1985):

1. Seeking the participants' voices through focus group interviews.
2. Collecting data on the same participants over a period of ten weeks.
3. Employing multiple data collection strategies (questionnaire, focus group interviews, videotape, and digital photographs).
4. Peer debriefing – discussions with two experienced researchers clarified interpretations and fleshed out biases.
5. Negative case analysis – themes were revised and reworked to allow negative cases fit the pattern they initially may not have.
6. Member checks – participants were provided with copies of transcriptions from the focus group interviews and given the opportunity to provide additional input or changes.

Transferability.

Transferability refers to the ability of research consumers to take the findings in a study and apply it to their own situations they consider to be sufficiently similar (Donmoyer, 1990). In order for the reader to determine transferability, it is the responsibility of the researcher to provide, in the text, explicit parameters, details and guidelines of the study.

Dependability.

According to Lincoln and Guba (1985), dependability refers to the research process and the methodological decisions and appropriateness of the inquiry. The researcher consistently consulted a more experienced researcher during the inquiry to maintain the dependability of the research.

Confirmability.

While dependability refers to the process of the inquiry, confirmability refers to the product. This study can claim confirmability because the findings and interpretations are internally consistent and supported by the data (Lincoln & Guba, 1985).

Qualitative Data Analysis.

By nature, qualitative research data is complex and abundant. It was therefore imperative to have a reliable and functional way of organizing, and indexing the unstructured data collected. I used the QSR NVivo (Version 2.0) software program to explore, manage and search for themes or patterns in the data. Prior to the data being entered into the computer, I hand coded the interviews to get a general sense of the major focus of the sentence or paragraph. Once the data was entered into NVivo, I began assessing for themes that were apparent within the data. These themes were segmented and indexed, referred to in NVivo as nodes. The data was analyzed, using nodes, to a level of exhaustion where there were no new themes or insights emerging. I then had another researcher review the transcripts and she confirmed my initial insights. These nodes were then collected and organized into larger themes or headings known as trees, which looks similar to an organizational chart. This type of coding allowed the themes to be illustrated in a way that was accessible, comprehensive and dynamic. In order to assist in providing credibility, after the initial themes emerged from the data a more experienced researcher than myself provided another perspective and the development of the themes.

The videotape footage was also analyzed for themes. During the initial viewing of the videotape, notes were written surrounding the five attributes of the TBPC (success

experiences, communication, risk-taking, decision-making, debriefing). The videotape was viewed several times by the researcher to assist in the credibility, dependability, and confirmability of the data and the themes that emerged. In addition, another experienced researcher viewed the tape and confirmed my initial insights.

All of these approaches detailed in the preceding sections, have resulted in an in-depth analysis of TBPC activities and self-conceptions of middle school students. I believe that by using both qualitative and quantitative analysis at different phases of the research process it has provided meaningful data from a diverse research setting. In addition, having employed mixed methodology to examine the same participants has allowed the illumination of the data results.

Chapter 4

Results

This chapter has been divided into two sections. The first section will report the results of the quantitative analyses of the study. The second section will present and briefly describe the themes that emerged from the analysis of the qualitative data.

Quantitative Results

The initial design of this study was a 2 (treatment/control) x 2 (pretest/posttest) x 2 (male/female) repeated measures multivariate analysis of variance (RM MANOVA). Descriptive statistics, means (standard deviation), and variance for all dependent variables were calculated for each test period. An Independent-Samples T test was conducted after the first administration of the Self-Perception Profile for Children (SPPC) questionnaires to determine if initial group differences were present. A significant difference was found at the $p < .003$ for the social acceptance subscale, which favoured the treatment group. The difference was noted, however no changes were made. After the second administration of the SPPC questionnaire, the RM MANOVA was conducted to determine whether significant differences in self-conceptions between the treatment and control groups over time were present. After analyses were conducted, the initial design was collapsed to a 2 (treatment/control) x 2 (pretest/posttest) RM MANOVA due to a small sample sizes for males and females.

Hypotheses.

Firstly, it was hypothesized that participation in the (TBPC) intervention would result in significant changes in students' self-conceptions of global self-worth, athletic competence, social acceptance, and behavioural conduct. This hypothesis was rejected. A 2 (treatment/control) x 2 (pretest/ posttest) x 2 (male/female) repeated measures multivariate analysis of variance (RM MANOVA) was conducted using all six subscales (global self-worth, athletic competence, physical appearance, social acceptance, scholastic competence, and behavioural conduct). No significant differences were found. Means and standard deviations for all variables pre- and posttest are presented in Table 2.

Table 2. Means and (Standard Deviations) for All Variables by Pre – and Posttest and Experimental Condition

	Pretest		Posttest	
Variable	Mean	(SD)	Mean	(SD)
Global self-worth				
Treatment	3.36	(.63)	3.42	(.53)
Control	3.26	(.49)	3.30	(.60)
Athletic competence				
Treatment	2.91	(.76)	3.04	(.64)
Control	2.68	(.53)	2.81	(.59)
Physical appearance				
Treatment	3.02	(.75)	3.05	(.74)
Control	2.82	(.79)	3.08	(.69)
Social acceptance				
Treatment	3.10	(.68)	3.20	(.57)
Control	2.66	(.73)	2.91	(.67)
Scholastic competence				
Treatment	2.90	(.75)	3.06	(.62)
Control	2.83	(.75)	2.82	(.80)
Behavioural conduct				
Treatment	3.08	(.59)	2.94	(.69)
Control	3.11	(.72)	3.25	(.58)

Secondly, it was hypothesized that no gender differences would be shown in the Self-Perception Profile for Children (SPPC) results after participation in an eight-week (TBPC) intervention. This hypothesis was rejected. A 2 (treatment/control) x 2 (pretest/ posttest) x 2 (male/female) repeated measures multivariate analysis of variance (RM MANOVA) was conducted using all six subscales (global self-worth, athletic competence, physical appearance, social acceptance, scholastic competence, and behavioural conduct). Results revealed a significant 2-way interaction between the experimental group and gender $\Lambda = .698$, $F_{(6, 59)} = 4.25$, $p < .001$; $\eta^2 = .30$. Tests of between-subjects effects were conducted with gender and all six subscales of self-concept, which revealed $F_{(6, 59)} = 8.79$, $p < .004$; $\eta^2 = .12$ for gender and athletic competence (Figure 8). Means and standard deviations for all variables pre- and posttest are presented in Table 3.

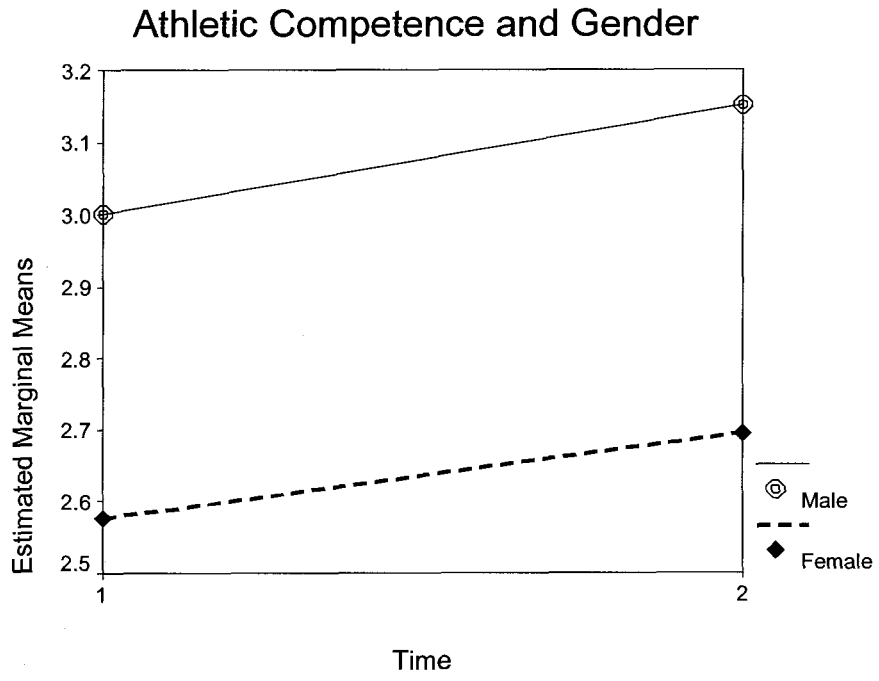

Figure 8. Between-Subjects Effect of Gender and Athletic Competence

Table 3. Means and (Standard Deviations) for All Variables by Gender and Experimental Condition

	Males		Females	
Variable	Pretest	Posttest	Pretest	Posttest
Global self-worth				
Treatment	3.49 (.56)	3.55 (.55)	3.20 (.68)	3.24 (.48)
Control	3.20 (.52)	3.40 (.43)	3.31 (.48)	3.22 (.71)
Athletic competence				
Treatment	3.19 (.69)	3.30 (.50)	2.58 (.71)	2.72 (.66)
Control	2.82 (.50)	3.00 (.53)	2.58 (.55)	2.67 (.62)
Physical appearance				
Treatment	3.19 (.66)	3.19 (.66)	2.80 (.81)	2.88 (.79)
Control	2.91 (.45)	3.21 (.56)	2.75 (.98)	2.98 (.78)
Social acceptance				
Treatment	3.35 (.46)	3.39 (.43)	2.80 (.80)	2.96 (.65)
Control	2.67 (.79)	2.92 (.73)	2.65 (.72)	2.91 (.64)
Scholastic competence				
Treatment	2.77 (.73)	2.90 (.48)	3.05 (.76)	3.27 (.72)
Control	3.02 (.66)	3.10 (.70)	2.69 (.81)	2.61 (.82)
Behavioural conduct				
Treatment	2.98 (.51)	2.78 (.71)	3.20 (.67)	3.14 (.62)
Control	2.82 (.69)	3.05 (.53)	3.33 (.69)	3.41 (.59)

Qualitative Results

This section describes the themes that emerged from three data sources including two focus group interviews, videotape footage, and digital photographs of the participants. The videotape footage was taken from one of the treatment classes' participation in four of the TBPC activities, while the digital photographs were taken during the Low Electric Fence TBPC activity.

A total of five relatively distinct themes emerged from analysis of three data sources. These themes were labelled: (a) Optimal Challenge and Optimal Interest, (b) Risk and Trust – A Symbiotic Relationship, (c) Teamwork –…It's About The Process, (d) Communication – Having a Voice, and (e) Negotiating –The Decision-Making Process.

Theme 1: Optimal Challenge and Optimal Interest.

> For the Electric Fence, it was kind of like easy because we just like walked over because we were kind of confused at first just walking around talking and it got kind of boring after a while.

This quote exemplifies the theme of Optimal Challenge and Optimal Interest. This theme encapsulated the search for the delicate balance between two important elements that contribute to the degree of effectiveness of the team building activities. The first part of this theme, Optimal Challenge is defined as having perceived skill and difficulty of the task balanced to allow an intrinsically rewarding experience (Csikszentmihalyi, 1990). First, as Harter (1978) asserts, a child that is optimally challenged by a task is more likely to enjoy it and stay engaged for longer periods of time. It is critical the tasks are not too easy because participants may get bored (as demonstrated in the introductory quote) or too difficult as they may become frustrated, give up or cheat. Second, the notion of the

"search for the optimal" is also evident in the nature of interest in the activity, not necessarily associated with challenge. In some instances students were engaged by a particularly intriguing fantasy underlying a team building activity. For example, Wild River was a task where students had to negotiate the river and its obstacles (a yellow hoop for quicksand, a red hoop for electric eels, etc.) in order to make it safely across from one shoreline to the other. If one is not interested in the task, it is unlikely they would be willing to invest their time or energy in the activity. The theme of Optimal Challenge and Optimal Interest was predominant in relation to the other themes. This predominance is demonstrated by the impact it appears to have on the four other themes. If participants were not Optimally Challenged or the task was not Optimally Interesting, it appeared students were not willing to take risks, teamwork seemed difficult, communication appeared to be ineffective, and student's negotiation and decision-making process with other group members seemed to be impeded. Table 4 provides a sampling of the comments that contribute to the Optimal Challenge and Optimal Interest theme. The headings are organized by the challenge of the activity; whether they are too easy, just right or too difficult, as well as by interest; whether the participants had or did not have interest in them.

Table 4.

Theme 1: Optimal Challenge and Optimal Interest

Too Easy	Just Right	Too Hard
• I didn't really like Shrinking Island because I found it really sort of pointless like our group wasn't really good at it and I didn't really like Electric Fence because I found that one kind of too easy and then kids just started getting bored of it because they had done it a couple of times and then Don't Touch Me I didn't really like that one... • I didn't like that they were too easy like Electric Fence or Don't Touch Me or Shrinking Island, and Dragon's Egg.	•...others could be really fun and you don't know until you try them and the Electric Fence was pretty fun. • Wild River was ok and the Pod thing was ok and then some on the Team Building Day. • Some of them were fun... • They were kind of fun some of them.	• It was either way too hard... • ...others were way too challenging and hard. • ...Don't Touch Me...I found it pretty hard and our group wasn't very cooperative.

Interest	No Interest
• I liked telling what worked well and what didn't in a way. It was ok like it wasn't the best, but it wasn't the worst. • I really liked Dragon's Egg, but not because of the game, but I just kind of liked the theme. It was kind	• The Wild River one was kind of boring to me because my teammates were cheating and because you're on the very side *Mr. Brown wasn't really watching us because he was on the other side. People got bored of going back so they just told us

* Note – A pseudonym has been used

of fantasy...	to start cheating. • Cheating, exactly. Because everyone was wanting to get the Team Building done, like the activity done. • Everybody copied each other. • People thought that if the game wasn't fun then they wouldn't do it like it doesn't matter what game like the Shrinking Island one they wouldn't like that one some people so they kind of went off and sort of like running around.

An important new insight that emerged from the data was the notion of cheating. Several focus group participants described instances of cheating in the TBPC activities. It appears the underlying motivation of participants to cheat was boredom. When an activity was not optimally challenging and/or it was uninteresting some participants cheated. When asked if there was cheating in a particular activity, one of the focus group participant's stated: "Cheating, exactly. Because everyone was wanting to get the Team Building done, like the activity done." This quote reinforces the notion that the participants were not interested in this particular activity and perhaps not optimally challenged. The Electric Fence activity provides an example of the impact an optimal challenge plays on the effectiveness of a TBPC activity. This activity demonstrated a frequent result of apparent boredom or lack of optimal challenge, namely, cheating. In this activity, the objective of the task was to go over the Low Electric Fence (a skipping rope to be held at the average inseam of the group) with all group members remaining connected. Going under the Fence was not allowed. Several focus group participants

emphasized the apparent ease and lack of challenge of this activity (see Figure 9). The videotape and the digital photographs revealed that the rope was not held at the appropriate height, resulting in the task being easier than planned. In addition, several students also refused to stay connected to one another in order to successfully complete the task, which could relate to their lack of interest in the activity (see Figure 10).

Figure 9. Electric Fence – Too easy

Figure 10. Electric Fence – Not following the rules

The search for the optimal challenge and interest was also evident during The Wild River TBPC activity. For example:

> The Wild River one was kind of boring to me because my teammates were cheating and because you're on the very side *Mr. Brown wasn't really watching us because he was on the other side. People got bored of going back so they just told us to start cheating.

It appeared that some participants were choosing to cheat due to the lack of suitable challenge and level of interest. During the task, two separate groups – one comprised of male students and another of female students, were not diligent in following the rules. Members that had been successful in crossing the area did not return to the start

* Note – A pseudonym has been used

when their group member was unsuccessful. Also, group members who touched the "river" often did not return to the starting area as the rules stated, they continued on. In addition, the group of male students would often move the equipment to give themselves a better chance of succeeding in the activity.

Videotape footage of the Team-A-Pod activity also illustrates the likely resulting situation when an activity does not provide an optimal challenge for the students. As in the preceding account of the Wild River, students did not concern themselves with following the rules and appeared to be uninterested in the task. Throughout the activity, group members were not concerned with using the specified number of contact points. The substitute teacher tried to remind them of the number of contact points, but was not successful in persuading the students to follow the rules. As well, one group looked at what another group was doing and copied their strategy - even though the group they copied was not following the rules. All of the preceding comments related to cheating seemed to be intimately connected to the theme of challenge and interest. Overall, it appeared several TBPC activities were not optimally challenging or optimally interesting for the participants.

Theme 2: Risk and Trust – A Symbiotic Relationship.

This theme epitomizes the mutual dependence and benefit between two entities that are critical to the effectiveness of the TBPC activities. First, the notion of risk refers to involvement in an activity that has an element of danger and unknown or uncertain ending. Second, trust involves having confidence and the ability to rely on others. Third, symbiosis refers to a dependant relationship that is mutually beneficial. The relationship between trust and risk revealed in this theme is symbiotic because each relies on the other to develop. In team building activities, it is important for participants to trust their team members in order for them to take risks. However, to develop trust, group members and teams may need successful risk-taking experiences. The greater trust team members have with one another; the more risks they may be willing to take. Also, the more successful risk-taking experiences team members have; the more trusting they may be of one another. Conversely, if there is a lack of trust, and/or unsuccessful risk-taking experiences, the result is likely an unsustainable relationship. When participants are engaged in an activity with others and positive experiences relating to trust and risk are not created, group members may not be willing to continue. This is the nature of the symbiotic relationship involving risk and trust.

Table 5 presents samples of focus group comments that contribute to Theme 2. The contents are grouped under two headings – Worth the Risk and Not Worth the Risk. Sub-categories of physical risk and social risk are included under each of the two major headings. These categories represent the inherent nature of team building activities to include the elements of both physical and social risk. The degree of risk generally increases with the difficulty of the challenge. As previously mentioned, risk and trust

share a symbiotic relationship where each relies on the other to develop. Although trust is not categorized as a separate entity, it is tied to the element of risk and therefore integrated within Table 5.

Several of the focus group participants commented that sometimes it was worth it to take risks. For example: "Sometimes you have to take risks or crazy things that may or may not work, but if they do work victory is sweet." Other participants felt that it was not worth it to take risks and simply stated: "Don't take risks."

Focus group participants discussed both physical and social risks as they relate to deciding whether it was worth the risk or not worth the risk. An example of this is illustrated in the following comment: "Well I didn't really want to be carried, I felt sort of uncomfortable of people carrying me and it wasn't that dangerous because there were mats under us." As the theme indicates, to feel comfortable and confident in taking risks, the team member must be able to trust her/his teammates in the activity. Clearly, in the preceding comment, the participant has not established a foundation of trust with her/his group members.

Table 5.

Theme 2: Risk and Trust – A Symbiotic Relationship

Worth The Risk	Not Worth The Risk
• I think you should always take risks because that is what your life is dependant on; risks. So you learn that you have to take risks sometimes. • Sometimes you have to take risks or crazy things that may or may not work, but it they do work victory is sweet.	• Ya some people felt that they were bigger than other people because they didn't want to be carried and they felt they were bigger than other people and they were going to fall off or over or hurt themselves. • Some people might be embarrassed about their weight and they don't want to be carried, but they have to so that was like an embarrassing feeling to have them be like oh you're heavy. • Don't take risks. They might hurt you or break your bones or make you feel bad.
Physical Risk	Physical Risk
• Sometimes you have to take risks to play the game properly because then if you don't take risks you might not get to the end if you said someone was going to stand on your foot or piggy back you over you might have to take the risk that you might fall or that person's stronger, but you don't really like that person, but to play the game and have fun you have to take the risk.	• Maybe like someone could have fallen down and the mat wasn't there so they could have hit their head on the floor. • Ya Electric Fence I was scared I would fall on the rope.
Social Risk	Social Risk
• I learned that a new person was nice and became my friend.	• Some people I didn't feel comfortable touching and if like the person in our class was cooler than

• You can make friends that you didn't know you had the same things in common, but then you can be friends.	another person they would be like I don't want to touch you, get away. • It's hard for some people. It's hard if there is someone not well liked and they have an idea and there is another person that says ok in my group there is a person that's not well liked and if he came up with an idea there was another guy that it had to be his way and he'd go how about no? every time he came up with an idea. • Ya if you have that attitude and then they go and they are split up from their friends then they won't do it. They just say no I'm not going to do it; I'm not with my friends.

In the focus group interviews, participants also discussed whether they thought it was a good idea to take risks. Only one student did not think it was a good idea to take risks. He alluded to both physical and social risks in the statement: "Don't take risks. They might hurt you or break your bones or make you feel bad." This comment appears to be tied to the notion of a symbiotic relationship between trust and risk. However, it is unclear whether he was unable to trust group members enough to take risks or did risk-take and was unsuccessful. All other focus group participants agreed that taking risks (within reason) was a good idea and if there were any problems the participant could always stop.

> Risks can go either way, usually pick just doing it anyway because sometimes it is a lot of fun like *Nikki said and sometimes it isn't and as soon as it isn't you can stop if you want like you can tell the teacher or something.

Although there were several positive comments regarding risk and the benefit of taking them, there were more negative comments about the possibility of being injured (physical risk), such as: "Maybe like someone could have fallen down and the mat wasn't there so they could have hit their head on the floor." The comments relating to physical risk may indicate the lack of trust the participant had in her/his group members. This illustrates the concept of symbiosis because although risk and trust have the potential to be a mutually beneficial relationship, if the participant does not have positive experiences the relationship will not develop.

The concept of social risk was manifested in several ways. First, the perception of marginalization was noted on several occasions by focus group participants. The participants referred to the marginalized as those students who were not well liked as well as individuals some class members were unwilling to work with. Many participants appeared unwilling to risk working with those students categorized as the marginalized. Another instance referring to a marginalized student and social risk was:

> I definitely know that in Dragon's Egg because there is one person who is socially inept or not popular or no one really likes at like one of the corners at one of the sides there was like no one else on that side and everyone else is crowded on the other two sides.

With this unwillingness to risk, trust is unlikely to develop. This may lead to stagnation of the symbiotic relationship between trust and risk. A second emphasis of physical "touching" was often linked to the marginalized and is another example of social risk. If a participant was marginalized by her/his peers, group members did not want to

---

* Note – A pseudonym has been used

touch the student during any of the activities. Participants appeared unwilling to risk touching the marginalized, therefore, the development of trust between these participants would be halted. From a more positive perspective, friendship was described within the realm of social risk. Focus group participants noted that several students appeared willing to take social risks and as a result developed new friendships. For example, "You can make friends that you didn't know you had the same things in common, but then you can be friends." Some of the students who developed a sense of trust within the group were able to risk that a friendship may come out of it. Another participant commented, "I learned that a new person was nice and became my friend." This demonstrates how the symbiotic relationship can flourish if one is willing to trust other group members and risk that it is possible to develop friendships. Clearly, the potential of making a new friend was worth the social risk for some of the students.

In relation to the marginalized and physical touching, one female in the focus group stated: "And there was a person in our group that's not well liked by other people and nobody would touch him to go over." The notion of not wanting to physically touch someone, social risk, was illustrated in the videotape footage and digital photographs of the Electric Fence. For most of the activity, many group members did not touch each other – even though they were to be connected the whole time to successfully complete the task. This illustrates how the successful completion of the task is unattainable without the symbiotic relationship of trust and risk. One group, when they did link themselves with one another, four females were linked together in a row and then the three males. This reveals the possibility that the symbiotic relationship of risk and trust was developing. While group members still appeared tentative about whom they were

touching, trust and risk appeared to be developing and as a result, they are able to successfully complete the activity.

It is apparent that if participants have not established a foundation of trust with her/his group members, it is unlikely they will invest themselves in an activity that requires them to risk. However, if there is a foundation of trust, the group members may be willing to take the necessary risks to complete the task. If this occurs, and the result is positive, it may lead to an increase in trust amongst the group members, which in turn, can lead participants to take greater risks. All of these preceding examples demonstrate the symbiotic relationship between risk and trust.

Theme 3: Teamwork – ...It's About the Process.

The idea that in order to have successful or productive teamwork, it is necessary for group members to "buy into" the process is the focus of Theme 3. Teamwork is commonly defined as members of a group working together in order to achieve a common goal. This definition is used as the organizing element that directly contributes to the degree of productivity in a particular task. When little teamwork is evident, group members appear to be stuck processing the task with little or no productivity. This often leads to frustration, alienation and incompletion of the task. Conversely, when all aspects of teamwork are happening, the group is able to be productive and have fun. This often leads to the successful completion of the task by the group. Table 6 presents the comments that focus on the teamwork process under the two major headings of Effective Teamwork and Ineffective Teamwork. Those comments that showed Effective Teamwork were sub-grouped under Process; others that demonstrated Ineffective Teamwork were also sub-grouped under Process.

Table 6.

Theme 3: Teamwork- ...It's About the Process

Effective Teamwork	Ineffective Teamwork
Process	Process
• One of my favourite ones was Wild River because my group was really fun and they really worked together it was just lots of fun. Like if someone died the whole team had to go back and we'd all run over and just not be mad. • Ya we all worked together and had good ideas about for what we should do. • In the Wild River people would help each other if it was hard for the other person crossing they would encourage them like help them. • Our group was actually very good at cooperating. •... I can be really nice at times and cooperate with other people I don't normally cooperate with. • Out of all the team building it is true that if everyone is cooperating everyone can have fun. • One of the ways that it was good was that some people really wanted to try and really wanted to have fun and achieve it...	• Some people weren't really a team member they were just trying to mess up everything that we were doing, they weren't really being cooperative or being really part of the team, not even trying to be part of the team, they were just trying to mess it up. • ...not everyone was working with everybody, it was like they would go off pretty much by themselves, they didn't always want to work... • In Dragon's Egg I noticed a lot of people had trouble working together... • It's kind of like a tantrum sort of because they don't want to cooperate they just sit there kind of like not even working. Like they do it, but they won't put any effort into it. They just kind of stand there and listen to ideas and not like helping out the group. • Ya if you have that attitude and then they go and they are split up from their friends then they won't do it. They just say no I'm not going to do it; I'm not with my friends.

The notion of buying into a teamwork process is either a tacit or overt agreement to participate in the task and follow the rules. This is demonstrated in the following examples.

First, one of the focus group participants commented about the positive nature of her group in one of the TBPC activities and how it made it an enjoyable process:

> One of my favourite ones was Wild River because my group was really fun and they really worked together it was just lots of fun. Like if someone died the whole team had to go back and we'd all run over and just not get mad.

Conversely, another participant commented on the uncooperative nature of one of his teammates:

> Some people weren't really a team member they were trying to mess up everything that we were doing, they weren't really being cooperative or being part of the team, not even trying to be part of the team, they were just trying to mess it up.

The two preceding comments illustrate that teamwork requires participants to buy into the process of working together. As demonstrated in the first quote, when group members are working together in a productive manner, positive things can happen and goals are achieved. Conversely, as was the case in the latter quote, if group members are not working together in a positive and productive manner, it can be a frustrating and unsuccessful experience.

This sentiment was also visually represented in the videotape footage and digital photographs. In the Low Electric Fence, one group worked well together to successfully complete the task and the teacher had them demonstrate their strategies to the rest of the class. However, there were other instances during the Low Electric Fence where group members were extremely uncooperative. The teacher reiterated throughout the class that cooperation, teamwork, and focus were needed to complete the task correctly. However,

instances of uncooperative behaviour from many of the students persisted. Some examples included: students skipping with the rope that was to be used as the Electric Fence, moving the rope up while another student was crossing over, running around with the rope, randomly jumping over the rope, as well as moving the rope further down, which provided a lesser challenge for the group.

Throughout the focus group interviews, the participants emphasized and appeared to understand the concept of teamwork. They appeared to appreciate the importance of cooperating with group members, which is highlighted by the following comment: "Out of all the team building it is true that if everyone is cooperating everyone can have fun." This comment demonstrates that the process of working with others to successfully complete an activity can be fun and rewarding. In the TBPC activity, Don't Touch Me, there appeared to be greater cooperation by group members than in the Electric Fence. Don't Touch Me was somewhat effective in demonstrating productive teamwork because most group members were working together in a positive manner with a common objective. As a result, the group was able to successfully complete the task.

Although the TBPC activity, Don't Touch Me, was at times productive and inclusive, the Team-A-Pod activity was wrought with examples of unproductive teamwork. Again, this illustrates that in order for teamwork to be productive, participants must be committed to the process. Team-A-Pod did not demonstrate many examples of productive teamwork. Many participants clearly did not buy into the process of teamwork, which resulted in the inability of all groups to successfully complete this activity. For example, almost immediately after the substitute teacher organized the teams, groups started to subdivide into smaller clusters of friends. Several times during

the activity two boys, separately, wandered back and forth to talk with an injured friend on the sideline. For a significant amount of the activity boys were wrestling with other boys or piggybacking them. An example of participants who did buy into the process was illustrated by one group of three girls who were quite diligent in their pursuit of the task. They worked productively as a team, sharing, negotiating, and strategizing. This demonstrates a group "buy-in"; all members were willing to work together to complete the task. Improvement with one group was noted near the end of the activity, when they were sitting down discussing the activity and how to approach it. If all group members are working well together it can be very productive and enjoyable. However, if not all group members are being helpful and involved, it can be destructive. Team members must be willing to work together to achieve a common goal in order to be successful.

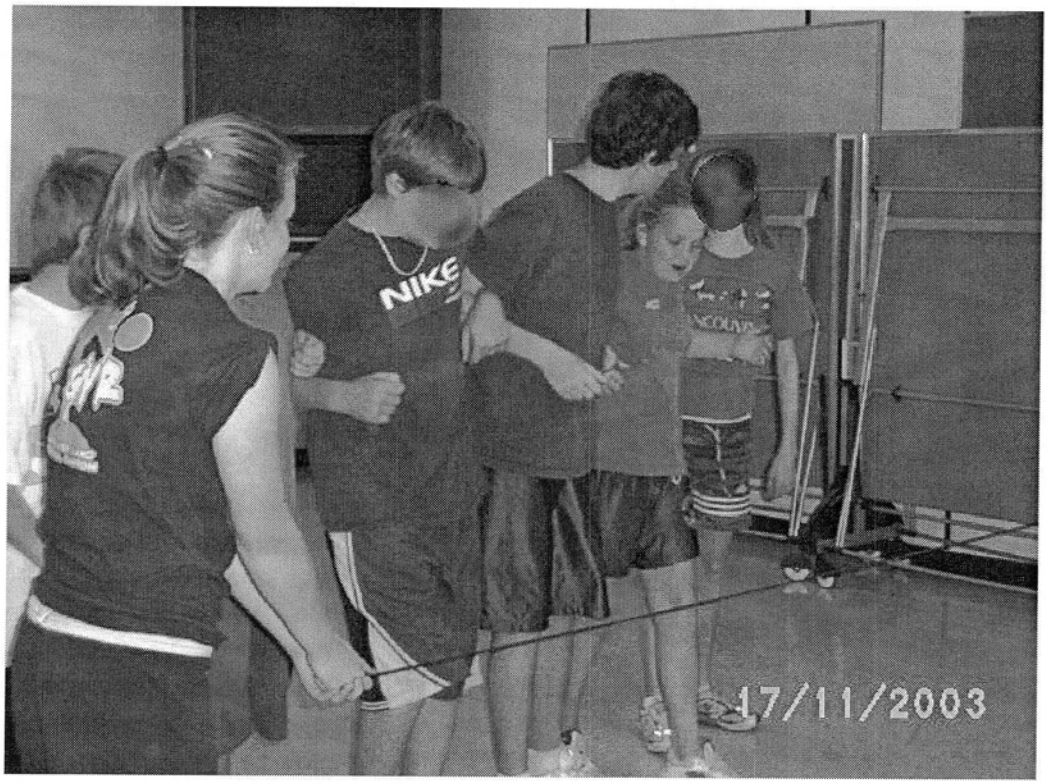

Figure 11. Electric Fence Example 1 of Teamwork

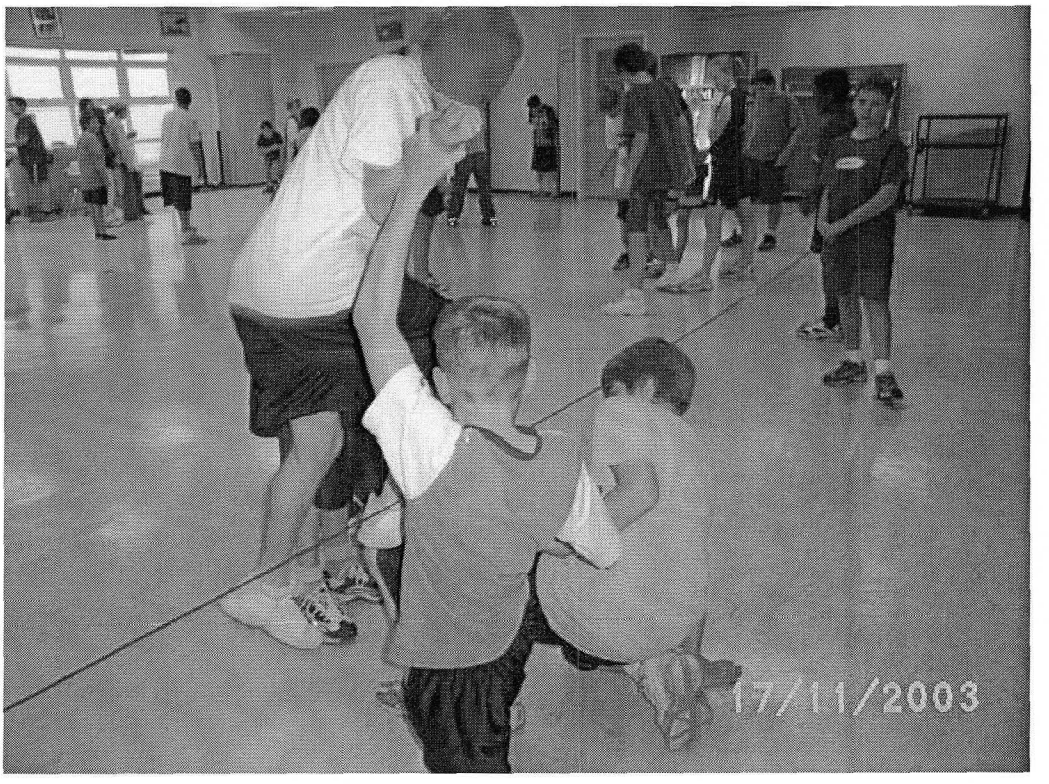

Figure 12. Electric Fence Example 2 of Teamwork

Theme 4: Communication – Having A Voice.

"Let everybody discuss everything and listen to their ideas." The preceding comment from a focus group participant is an example of the involvement of participants in the communication process. Whereas, "some people wouldn't listen to your idea because you weren't the first person to say I have an idea…" is an example of a participant not having a voice. Both of these examples speak to the theme of Communication – Having A Voice.

Theme 4, Communication – Having A Voice emphasizes the crucial role communication plays in the TBPC activities. It also shows the complex interaction of different "voices" in the communication process. Four different voices were identified and contributed to the communication process: (a) the overpowering voice of

participants' attempts to be heard, (b) the overpowering voice that led to not being heard, (c) the voice of everyone, and (d) no voice. The "overpowering" voice was noted as both a positive and a negative sub-group of communication. The negative aspect of not being heard by other group members is connected to the volume of the voice (students yelling), as well as the attitude of the voice (the leader of the group would determine who would be heard and who would not). The positive aspect of the overpowering voice was related to participants that were usually unnoticed and unheard. They were trying to be heard by increasing the volume of their voice. Speaking up and taking control in order to be heard was another positive approach connected with the overpowering voice. The third voice is connected to the notion of being heard and that "everyone has a voice". This positive grouping reflects the inclusive action of all team members listening to everyone's ideas and allowing the opportunity to share ideas. The last voice, "no voice", refers to group members not listening to others when they are speaking or physically/mentally removing themselves from the group and the communication process.

Table 7 organizes the theme of Communication – Having A Voice, under the two major headings of Being Heard and Not Being Heard. Underneath the heading of Being Heard, comments from focus group participants are organized within the sub-groups of Overpowering and Everybody Has A Voice. The second heading, Not Being Heard, further organizes comments into two sub-groups of Overpowering and No Voice.

Table 7.

Theme 4: Communication – Having A Voice

Being Heard	Not Being Heard
Overpowering	Overpowering
• That you have to speak up and say your own opinion and take part and don't be shy about it. • Like just be louder and take control sometimes. •...make sure that they hear yours too so you get heard.	• Some people have louder voices and the quiet people didn't get their ideas heard because they didn't really butt in or anything and some people just took charge and they only did their idea and they didn't listen to anybody else's. • Some people had a louder voice and they got heard more... • Ya they were just teams and we just yelled at each other and did stuff together, we didn't really team build. • ...some people were arguing too because they didn't like the ideas that some people had and they'd only do their ideas...
Everybody Has A Voice	No Voice
• I learned how to listen to people more than I did before and contribute to their plan. done way way slower and if you do it as a team it • We all took turns and listened to what everybody had to say... • We were really in tight together so you could hear each other so nobody was really screaming...	• Some people didn't go with the plan and they tried to tell people their plan, but some people wouldn't listen to them because they wouldn't listen to them. • Some people wouldn't listen to your idea because you weren't the first person to say I have an idea... •...if they are split up from their friends they won't

• One of the ways it was good was that some people really wanted to try and really wanted to have fun and achieve it and really wanted to communicate with everyone in the group…	communicate with their team.

In order to attempt and be successful in the TBPC activities the group must be able to communicate in an effective manner. As with the theme of teamwork, the participants in the focus group were cognizant of the importance of communication in the activities: "You need communication or it doesn't work." Several of the focus group participants noted there was positive communication in some of the activities. One participant mentioned that listening was an important part of their process: "We all took turns and listened to what everybody had to say and then we decided to go with the most efficient." Another student echoed this sentiment of everyone having a voice by stating: "Everyone has the right to speak." One of the focus group participants explained it was important to have a strategy for communicating within a group: "We were all really in tight together so you could hear each other so nobody was really screaming." In the videotape footage, examples of positive communication included one boy talking with another in Wild River about which route was best, and small groups discussing strategy in Team-A-Pod. All of these illustrate the importance of being heard and having a voice in the communication process.

While the focus group participants gave several examples of effective communication, many instances of the breakdown of communication were shared. For example, one female student described the lack of voice of some of the team building participants:

> Some people have louder voices and the quiet people didn't get their ideas heard because they didn't really butt in or anything and some people just took charge and they only did their ideas and they didn't listen to anybody else's.

Students also mentioned that yelling, an example of a negative overpowering voice was a major challenge in the communication process. One student explains:

> Sometimes if people keep saying the answer louder and louder then everyone else just gets louder so you need to quiet down otherwise you'll never get anything done. Trying to quiet them down is hard too like they are like listen to my idea or something they wouldn't like stop yelling because they couldn't even hear you because they were yelling so hard.

Another student explained how having an overpowering voice could have a positive connotation for participants that may not always be heard: "That you have to speak up and say your own opinion and take part and don't be shy about it." Conversely, some of the videotape footage of one of the classes working through the TBPC activities provides anecdotal support to the comments pertaining to yelling and the overpowering voice. For instance, in the Team-A-Pod activity, several group members were yelling (overpowering voice) back and forth to their group members, as well as their friends in other groups.

Interestingly, focus group participants often mentioned communication and having a voice in relation to friends and social groups. There was an apparent communication breakdown (not having a voice) when participants were not with their friends. "When they are with their friends then they communicate fine...but if they are split up from their friends they don't communicate with their team." Another statement referred to some of the participants trying to communicate, in an overpowering manner, with their friends in other groups: "If they are forced to play they'll do it, but they won't put any effort into it and some of them are like yelling back and forth with their friends like talking, but like screaming back and forth."

Two additional examples of ineffective communication are also demonstrated in the videotape footage. In the Don't Touch Me activity, some group members were not heard and did not appear be communicating with their group. In addition, a berating comment by one group member to another was exhibited. In this instance a female student was trying to organize her group and get them to listen. A male group member retorted to the female student "why [are] you so bossy?" After the male student's comment, the female participant moved away from the male and did not directly communicate with him throughout the rest of the activity. This comment illustrates the overpowering nature of the male student's voice and how it could cause another group member (the female student) to lose her voice and not be heard.

An illustrative example of communication is provided by one of the digital photographs, which included a group working through the Low Electric Fence (Figure 13). While this group appeared to have the most focused communication in the class, it would be difficult to know if two of the group members were included or are even listening as the boy talking has his back turned to them. This photo provides a possible example of not having a voice, as two of the group members do not appear to be included or have chosen not to include themselves.

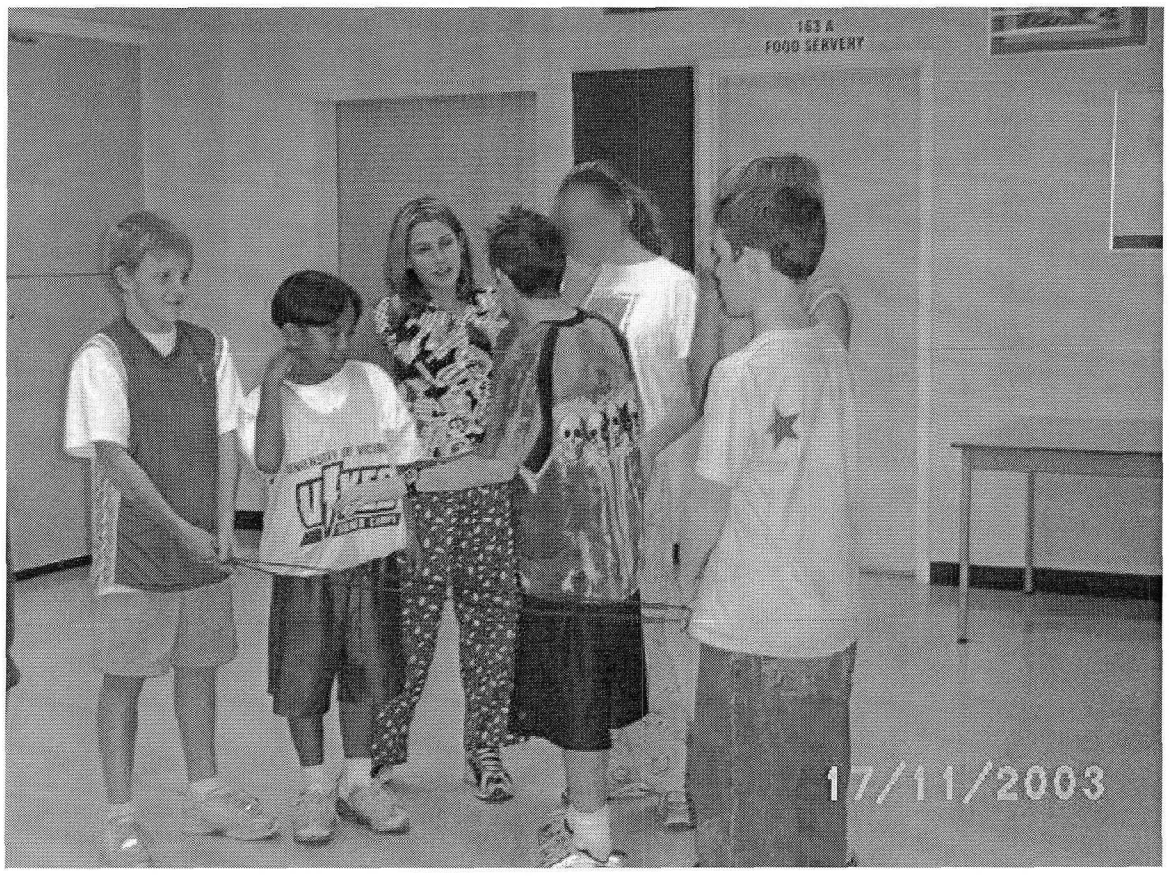

Figure 13. Electric Fence – Communication

All of the preceding examples from participants demonstrate the theme of Communication and Having A Voice. All four examples of voices, (a) the overpowering voice of participants' attempts to be heard, (b) the overpowering voice that led to not being heard, (c) the voice of everyone, and (d) no voice, were included in the section.

Theme 5: Negotiating- The Decision-Making Process.

The complex "give and take" in the decision-making process forms the fifth, and final theme. The term "negotiation" refers to a discussion with the intention of reaching an agreement. The process of negotiating within the decision-making process appears to best describe the interaction amongst group members while working through the TBPC activities. Different elements of negotiation were evident in focus group interviews as well as videotape footage. First, some of the negotiation and decisions were productive because of the power of the group. Decisions were negotiated and agreements were reached if the entire group was involved in the process. Conversely, the negotiation of some decisions was unproductive because of the power of the group. If some group members did not want to negotiate with others, decisions were not reached. Second, the power of the individual was also an important element during the negotiation of decisions. This could be very productive if the individual was a positive leader and other group members were willing to follow. Conversely, it could be unproductive if individuals in the group had a significant amount of power and were negative or exclusive of others. Table 8 organizes sample comments from focus group participants relating to Negotiation – The Decision-Making Process. These comments are organized into two major categories, Productive Decision-Making and Unproductive Decision-Making. Sub-groups within these two categories include the Power of The Group and the Power of The Individual.

Table 8.

Theme 5: Negotiating- The Decision-Making Process

Productive Decision-Making	Unproductive Decision-Making
Power of The Group	Power of The Group
• We all took turns and listened to what everybody had to say and then we decided to go with the most efficient. • Like trying to try every idea and see what worked the best or we would like do a configuration of everybody's ideas and then we would find out which was the best. • What worked well was if you just agreed to try the idea instead of just making it the idea you tried Everyone's ideas and go to every single person and ask them if they had an idea and if they didn't we would go to the next person until everybody was done and then the first decided they were going to try it and you try it and if it failed then they tried the next one until all the ideas were out.	• You were kind of like last in giving out your idea and they didn't want to try it because they already had some ideas that they wanted to work on forever. • If you were going to make a group decision everyone had to kind of agree with it otherwise that person won't help with it. They really didn't want it and it wouldn't work that well.
Power of The Individual	Power of The Individual
• I just went with the plan. • Like who would be the leader and would go in what order and who would carry who. • During the Wild River you had to decide which path you wanted to take or which would be the easiest.	• Some people had different decisions and they didn't want to do what everybody else wanted to do. • He'd really want it his way and when we tried his way we'd crash and burn. We horribly crashed and burned so it was really kind of hard. • Some people had decisions that were better than

• You had to decide like *Buffy said how you are going to try and fix it or see if there is anything that needs to be fixed and what you might have to do to make it work.	others, but the others were always chosen because I don't know maybe they were popular or something. • Like thinking that somebody wouldn't like what you thought and then like they'd be like well my idea is better than that so I'm not going to do it that way.

"We all took turns and listened to what everybody had to say and then we decided to go with the most efficient" is an example of a productive negotiation process where the power of the group is central. Conversely, "Some people had different decisions and they didn't want to do what everybody else wanted to do" is an example of an unproductive negotiation process that demonstrates the power of the individual.

In order to progress through the TBPC activities, decisions had to be negotiated and carried out. However, how the decisions were made and who made them varied from group to group. One example is: "Like trying to try every idea and see what worked the best or we would like do a configuration of everybody's ideas and then we would find out which was the best." This comment exemplifies the power of the group and its productive nature. Other decisions that had to be made in the group were "Like who would be the leader and who would go in what order and who would carry who." This comment demonstrated how the power can shift to the individual when they became a leader.

Although choosing a leader is a productive aspect of the negotiation process, the type of leader chosen may not be as productive. Table 8 provides examples from focus group interviews of the productive and unproductive nature of leaders in the negotiation

* Note – A pseudonym has been used

and the decision-making process. The videotape also captured interesting and telling examples of negotiations taking place amongst group members. For example, in the Don't Touch Me activity, once the groups were organized, a male student in one group immediately started to yell out his ideas. However, a second male student who appeared to be more popular, also started to yell out instructions and ideas. The first male appeared to notice most of the group was more attentive to the other male so he stopped yelling out ideas and strategies. The second male became the leader of the group. This example seems to demonstrate the power of the individual.

The new leader was very direct in his organization of group members. However, not all participants were included in the negotiation of decisions, which appeared to make them less attentive to his direction. Also in the videotape footage, a couple of girls began chatting, relatively uninterested in the task and only became involved when it was their turn to participate. Another girl looked passively on with her arms crossed, not included by her group in the activity. The exclusive nature of some leaders can affect participants in a number of ways, including whether they even want to participate or not. One student commented on this notion:

> Some decisions are hard and some aren't, like you have to decide if you are going to participate with your group or else you just sort of sit out and mope around and I found it hard to decide and stuff.

Again, this comment reveals the unproductive power of the individual, but in a different context. They may be a marginalized individual in a group and excluded from the negotiation of decisions.

All of these examples show how negotiation within the decision-making process involves either the power of the group or the power of the individual in both productive

and unproductive ways. Further examples of participants' comments about negotiating and the decision-making process can be found in Table 8.

Chapter 5

Discussion

The first purpose of this study was to examine the effectiveness of a Team Building through Physical Challenges (TBPC) program on the self-conceptions of middle school physical education students. A second purpose was to gain insight into their experiences during the TBPC intervention through a variety of qualitative data collection techniques.

Results showed male participants in the treatment group reported significant differences in athletic competence compared to female participants. However, other significant differences between the treatment and control groups were not found.

The qualitative portion of the study provided meaningful information regarding the experiences of the students in the TBPC program as well as illumination of some of the quantitative results. Five themes emerged from the data: (a) Optimal Challenge and Optimal Interest, (b) Risk and Trust – A Symbiotic Relationship, (c) Teamwork – …It's About The Process, (d) Communication – Having A Voice, and (e) Negotiating –The Decision-Making Process. The results provided insight into a variety of issues relating to self-conceptions as well as the TBPC intervention.

Marsh, et al. (1986a) purport, that the nature of the intervention should determine which domains of self-concept will likely be affected. In other words, if the intervention specifically targets behavioural conduct, then it is reasonable to predict positive change in this domain. In this study, the TBPC intervention targeted the enhancement of behavioural conduct, social acceptance, athletic competence, and global self-worth.

Therefore, it was hypothesized that there would be significant differences in these subscales as a result of the intervention. This was not the case, as athletic competence was the only subscale of self-concept where males reported significant differences. Significant differences were not reported for females in athletic competence, and neither male nor female participants recorded significant scores for behavioural conduct, social acceptance or global self-worth. The lack of significant findings for behavioural conduct in the present study is consistent with the findings in the Gibbons and Black (1997) intervention.

The predominance of the Optimal Challenge and Optimal Interest theme provides some insight into the lack of significant changes in the behavioural conduct domain as a result of this particular TBPC program. The behavioural conduct subscale taps the degree to which children do the right thing, behave appropriately, avoid getting into trouble, do things they are supposed to and like the way they behave. Although the TBPC intervention was designed to address this domain, it appears there was a breakdown between design and implementation. This led to many incidents of ignoring the rules or cheating.

The theme of Optimal Challenge and Optimal Interest refers to the notion that if participants were optimally challenged, they would enjoy the task and engage in it for longer periods of time. The same holds true for optimal interest, the participant will stay involved in the activity for longer periods of time if they enjoy it. During the focus group one student explains:

> The Wild River one was kind of boring to me because my teammates were cheating and because you're on the very side *Mr. Brown wasn't really watching

---

* Note – A pseudonym has been used

> us because he was on the other side. People got bored of going back so they just told us to start cheating.

It appears the underlying motivation of participants to cheat may have been a result of boredom. The activity was not optimally challenging and/or it was uninteresting for some of the participants.

Harter's competence motivation theory, which illustrates the dynamics and inner workings of engaging in mastery attempts (Harter, 1978, 1981; Weiss, 1987) provides insight into this theme. This theory is directly related to the nature of TBPC activities and is especially relevant to the theme of Optimal Challenge and Optimal Interest. It connects the influence of others (positively or negatively) to either an intrinsic or extrinsic motivational orientation. An individual with an intrinsic motivational orientation and a positive social influence have a high perceived competence and an internal locus of control. If this individual is engaged in mastery attempts that are optimally challenging and they have success, they feel intrinsically pleased and will have a high perceived competence and internal perception of control. All of this, in turn, increases the individual's competence motivation.

In contrast, one with an external orientation and a negative social influence may have low perceived competence and an external perception of control. If this person engages in mastery attempts and experiences failure it may contribute to their low perceived competence and their external perception of control. Both of which can lead to anxiety and an overall decrease in competence motivation. The apparent lack of optimal challenge or optimal interest, which emerged from the qualitative data, may be connected to the treatment group's low score for behavioural conduct.

In addition to behavioural conduct, athletic competence, social acceptance, scholastic competence, and global self-worth, there was no difference between the control/treatment groups on the physical appearance sub-scale as a result of the intervention. Similarly, in the Gibbons and Black (1997) intervention there were no significant differences reported for physical appearance. In both the Gibbons and Black (1997) intervention and the current study the TBPC program did not specifically target physical appearance; therefore a significant positive change was not expected. However, it is interesting to note that some of the female focus group participants discussed their lack of comfort in relation to body weight and being carried by their classmates. This may indicate a heightened awareness of females and their body image. In many of the activities students had to be carried or physically supported by other group members. The physical nature of the TBPC activity and the lack of comfort within the activity are illuminated by one of the female focus group participants who stated: "Some people might be embarrassed about their weight and they don't want to be carried, but they have to so that was like an embarrassing feeling to have them be like oh you're heavy."

As Gill (2004) discusses, body image is a concern for both males and females, however, it tends to affect females more negatively than males. This amplification for female students may be viewed from a developmental perspective. Harter (1999) explains that there is a consistent decline from 3rd to 11th grade for females and perception of physical appearance. Today's ideal lean body-type leaves many females pressured to fit this image, which can negatively influence their health and self-esteem. Contrary to the results in the present study for physical appearance, Ebbeck and Gibbons (1998) reported significant changes on the physical appearance subscale as a result of the TBPC program.

It is not known, however, if the previous intervention included activities as physically challenging as the current study. As a result of the physical nature of some of the TBPC activities in this intervention, it is possible some of the female students' self-perceptions of their body were negatively affected. It is also possible that with purposeful grouping (e.g. with friends), participants would feel more comfortable with the physical nature of some of the TBPC activities and less self-conscious about their body during the tasks.

While over time there was an increase in global self-worth for both males and females in the treatment group, significant results compared to the control group cannot be reported. Based on Harter's (1985c; 1990b; 1999) work and additional data from this study, the results of this intervention are illuminated. In Harter's research (1985c; 1990b; 1999) global self-worth has been correlated with discrepancy scores of physical appearance (attractiveness) as well as social acceptance. The discrepancy score is the difference between the importance placed on looking good (or being supported by classmates and parents in social acceptance) and their own perception or evaluation of their appearance (or being socially accepted). In the present study, there was a lack of significance for both physical appearance, as discussed earlier, and social acceptance. Therefore, it is reasonable to suggest that the lack of significance for social acceptance and physical appearance may be related to the lack of significance for global self-worth. Conversely, the significant results for social acceptance, physical appearance, and global self-worth in the Ebbeck and Gibbons (1998) intervention may be a result of the positive relationship affecting all three of these sub-domains.

Several of the themes may provide insights into the lack of significance for the social acceptance subscale. This subscale is designed to tap the extent or degree a

participant feels popular or accepted by his/her peers. The element of the social group was prevalent in four of the five themes. The social group refers to specific groups or individual participants who controlled situations and interactions with others. The theme Teamwork – …It's About The Process, reflected positive experiences of group members working through activities in a cooperative manner. In addition, negative participant experiences of unproductive teamwork were also apparent. It is possible that the social groups impacted the experiences of group members in a negative way. In a number of instances, it appeared participants were not willing to work with everyone in their group. Some participants physically removed themselves from their group and other participants stated that if they were not with their friends they would not participate in the activity. These examples indicate that social groups may have negatively influenced the quality and effectiveness of the teamwork. Considering the developmental level of the students in the intervention, it is not surprising that the social groups in the class affected teamwork. According to Harter (1999), during late childhood and early adolescence, the peer group is central to the individual and can be predictive of her/his self-worth.

The second theme where the influence of the social group is apparent is in Communication – Having a Voice. In this theme, there were multiple instances of the power of the social group. As in the preceding theme, the social group could exert its influence in a positive way, such as listening to all group members' ideas or it could disrupt the communication process if some participants chose to yell back and forth with their friends in other groups.

The third theme, Negotiating –The Decision-Making Process also appears to be influenced by the social structure. An example that demonstrates the positive role of the

social group was when every participant shared their idea and the group decided together, which idea would be the most effective. Conversely, the social group could negatively influence the negotiations amongst group members when individuals would focus solely on their ideas. The negotiation process appeared to be halted if group members were only interested in their idea and not willing to consider other possibilities.

The theme where the impact of the social group appeared most dominant was Risk and Trust – A Symbiotic Relationship. While positive experiences were mentioned in relation to the theme and social groups (making new friends), its negative influence appeared to be prevalent. This seemed to be the case most often when focus group participants discussed elements of social risk. Some participants did not want to touch or interact with group members if that individual was not well liked. In many cases this type of behaviour appeared to disrupt and even halt the progress of the TBPC activity.

This apparent lack of acceptance by one's peers and the negative social climate illustrated in the qualitative data provide some relevant explanations for the lack of significant change in the social acceptance subscale as a result of the TBPC intervention. From a developmental perspective, the lack of significant change in social acceptance, as well as global self-worth, is not surprising (Harter, 1986, 1987, 1990b, 1999; Harter et al., 1996; Horn & Harris, 1996). All purport that during early adolescence social support from significant others, most notably peers and parents, is a strong predictor of their global self-worth. Also, Harter, et al. (1996) note that those individuals who tend to base their self-worth solely on peer approval are susceptible to having their self-worth fluctuate more than others. The frequency with which several of the focus group

participants mentioned the social group and its impact may indicate the strong hold peer approval had on these participants.

As Smith (1999) discusses in the results of his study on perceptions of peer relationships, peers can be powerful motivators in the physical domain. However, the opposite may also be true - when team members in the TBPC activities are being marginalized, as indicated in the section referring to social groups, the opportunity for positive influences are diminished. In other results of his study, Smith (1999) found that the perception of friendship was also an important influence on one's attraction to sport or games and their motivation to be involved in physical activity. In the current study, some students felt the need to be with their friends (or those they perceived were their friends) and if they were not, their motivation to be involved with other group members was greatly reduced. This notion was supported in the focus group interviews with comments such as: "...other people who have to be with their friends and don't really want to do this activity because they think they are too cool and it's really stupid then they're kind of hard to communicate with." Wentzel's (1998) work also contended that a sense of belonging (whether perceived or actual) provided by friendship and peers was a strong motivator within the school context. It can then be suggested; that without this perception of belonging or peer support one may be less motivated to participate in school activities.

In the current study, males in both groups (control and treatment) scored significantly higher than females on the athletic competence subscale. Eccles, Barber, Jozefowicz, Malenchuck, and Vida (1999) state there is a gap between the genders and their perception of competence in physical activity. This is purported in their chapter on

self-evaluation of competence, task values, and self-esteem. They established that even with the use of objective measures, there was a significant difference between the actual competence and the perception of sport competence. Females often report a perception of sport competence that is substantially less than their actual competence. Conversely, males tend to report a higher perception of sport competence than their actual competence. Trew, Scully, Kremer, and Ogle (1999) reported similar findings in their examination of the relationship between physical activity participation and perceived competence in a group of male and female adolescents. Their results indicated that males in the study reported higher perceptions of competence, as well as global self-worth than their female counterparts. In addition, both females and males more active in sport participation were more likely to have high levels of self-worth than their sedentary counterparts.

The preceding investigations echo the results of the current study and support the notion that males are more likely to consider themselves athletically competent than females. However, it is important to note that while there was a lack of significance found for females in athletic competence, an increase in the means were reported over time. It may also be tied to the lack of significance found for social acceptance. Smith (1999) suggests that there is a mutual relationship between the perception of peer acceptance and an increase in physical self-worth. Smith (1999) reports this is true for both males and females. This notion was supported by Ebbeck and Gibbons (1998) in their TBPC intervention, which reported significant results for males and females in both social acceptance and athletic competence. Perhaps in the present intervention, the

perception of peer acceptance was not as apparent for females as it may have been for males.

The current study was a replication and extension of the Ebbeck and Gibbons (1998) and Gibbons and Black (1997) studies. In the most recent study, (Ebbeck & Gibbons, 1998), significant findings were reported in all six self-conceptions (scholastic competence, social acceptance, athletic competence, physical appearance, behavioural conduct and global self-worth). In the 1997 study, significant findings were reported for all self-conceptions, with the exception of physical appearance and behavioural conduct.

However, the current study was unable to replicate the significant results of either the Ebbeck and Gibbons (1998) or the Gibbons and Black (1997) study. In the current study significant results were only found for male participants in the athletic competence subscale. Several procedural factors may have impacted the overall effectiveness of this study. The first factor may have been the content and structure of the Team Building Day. This was a day of team building activities organized by the Grade 7 teachers at the beginning of the school year for all of their students. The recommended sequence of activities from introductory to advanced was not followed during the Grade 7 Team Building Day. The four activities students participated in during Team Building Day represented the three levels of difficulty: introductory, intermediate, and advanced. However, after the Team Building Day, the sequence of activities reverted to the original, recommended order of introductory to advanced. This may have made it difficult for students to build on and implement strategies from previous activities to new, more advanced ones. Several authors (Ebbeck & Gibbons, 1998; Gibbons & Black, 1997; Glover & Midura, 1992; Midura & Glover, 1999; Plummer & Rougeau, 1997) suggest

that the nature of the TBPC program is such that if students progress and successfully master the activities, their self-concept will be enhanced. This suggests it is linked to Harter's competence motivation theory, which explains that when students are optimally challenged and have successful outcomes of mastery attempts, it results in positive affect and self-worth (Harter, 1978; Weiss, 1987). It is the progression of these activities through more difficult challenges that contributes to the enhancement of an individual's self-concept.

The second procedural factor that may have affected the results of this study was the omission of the final TBPC activity due to the unforeseen absence of one of the teachers. As it was the final TBPC activity, it was an advanced activity and required a substantial amount of time to prepare the equipment. I made the decision not to implement the activity because I did not feel the substitute teacher would be able to facilitate the setting up of the equipment as well as structure the activity as it had been done previously. As a result of the timing of the last activity, just prior to the December holiday break, it was not possible to reschedule. The lack of opportunity for students to participate in the final activity also removed the final debriefing session for the entire TBPC process. The debriefing portion of the TBPC activity allows students to reflect on the activity, group processes, successes and failures. It also provides an opportunity for the students to connect and/or relate what they learned from one activity to another as well as throughout the entire team building program. This lack of closure and finality of the TBPC program may have affected the degree of impact of the intervention.

The most critical factor that may have impacted the overall effectiveness of this TBPC program was the length of the intervention. Previous team building studies

(Ebbeck & Gibbons, 1998; Gibbons & Black, 1997) with a similar intervention and research design reported significant results after eight months and five months respectively. Another team building study which focused solely on physical self-concept of Grade 9 students conducted by Socha, Potter, and Downey (2003), had a duration of 18 weeks, but was not able to report significant results due to the intervention. Therefore, it is reasonable to suggest an increase in the duration of the intervention may be necessary to have a positive impact on the participant's self-conceptions.

Another challenge connected with the length of the intervention of this study was the inability to positively affect the social groups. The short duration of the intervention did not allow sufficient time for social groups to evolve. This inability appears to be linked to the developmental level of the students. According to several researchers (Harter, 1986, 1987; Harter et al., 1996; Harter et al., 1998), during the stage of late childhood and early adolescence, social support and approval from peers is critical to most individuals and is often predictive of global self-worth. The power of the social group was reinforced repeatedly throughout the focus group interviews and was illustrated in the other qualitative data sources. This element, permeated four of the five themes (Risk and Trust – A Symbiotic Relationship, Teamwork – …It's About The Process, Communication – Having a Voice, and Negotiating –The Decision-Making Process) and was often discussed and referred to during the focus group interviews.

Procedural factors related to the measure administration and the data collected in this study may have led to some of the non-significant findings. A possible internal validity limitation is a testing effect. This may have occurred as a result of completing the Self-Perception Profile for Children (SPPC) more than once. The students may have

become more proficient in their completion of the SPPC the second time. However, due to the findings of this study, it is unlikely the testing effect impacted the results.

A possible external validity limitation could have been reactivity, where the students may have changed their behaviour when I was present. Prior to the commencement of the intervention as well as during, I was quite visible in the school and was able to build a rapport with many of the students. This may have decreased the possibility of reactivity because I had interacted with the students prior to the implementation of the TBPC activities.

The 'real-world' nature of research in a school setting provides considerable ecological validity to a study. However, another possible external validity limitation is that one can only generalize the findings of the study to the population involved. Therefore, the results of the current study can be generalized to a middle school consisting of grades six through eight students of similar development and circumstance.

The second purpose of this study provided a unique extension to previous studies and added to the literature. This uniqueness is twofold. First, it asked students about their experiences, perceptions and perspective in relation to the team building intervention and its attributes. Many research studies with children are taken from the researcher's perspective without consultation with the participants about their experiences. The insights provided by focus group participants in this study, such as social groups, risk and trust, cheating, as well as optimal challenge and optimal interest, are invaluable. Second, this study also attempted to capture the activities as they unfolded, using a video camera. The motivation to use the video camera was to try and add a visual perspective. It provided a relatively unbiased view of participants working through the TBPC activities.

Its perspective was one that had the potential to support, refute or provide insight on its own and in relation to the other data sources.

Recommendations for Further Research.

This study focused on the impact of a team building program on the self-conceptions of middle school physical education students. The experiences they shared contributed significantly to the interpretation and understanding of a TBPC intervention. In general, there is a paucity of information in this area and more studies are recommended. The following points outline specific recommendations for further research:

1. Additional team building interventions that use qualitative analysis would provide greater insight into the nature of the TBPC intervention. For example, it may also provide further understanding of the mechanisms of change of self-conceptions if focus group, as well as individual interviews were conducted at different points throughout the TBPC intervention.
2. More frequent assessment of the student's self-conceptions may shed light on when each of the domains are affected and whether they are affected at different rates. Also, it could provide meaningful information regarding the minimum duration of a TBPC intervention needed to enhance self-conceptions.
3. In relation to the previous recommendation, measuring student's self-efficacy prior to participating in each of the TBPC activities may provide useful information about where change may be occurring. It is possible the present study was able to impact student self-efficacy, but was not of sufficient duration to affect their self-conceptions.

4. Additional measures focusing on other outcomes such as group cohesion or social support may provide important insights into the team building process.
5. As it appears Optimal Challenge and Optimal Interest are critical elements in the success of a team building intervention, additional research within a TBPC context may provide insight into which activities might be best suited for particular ages and developmental stages.

Recommendations for Practitioners.

The following recommendations are offered to physical educators planning to implement a TBPC program:

1. Be purposeful in your grouping of students. The nature of team building activities requires teamwork, communication, decision-making, trust, and risk. In order to foster these attributes, it is important that students feel comfortable with their group members. This takes time and critical observation by the teacher to help create productive interactions. As the activities progress and the students are more trusting of their classmates, you may decide to change the groupings. This will allow students to expand their skills so they are not simply reinforcing existing patterns of behaviour.
2. Choose optimally challenging and optimally interesting TBPC activities for your students. Mandigo and Holt (2002) use the acronym OPTIMAL to suggest strategies to foster environments that are appropriately challenging. They suggest you provide **O**pportunities for your students to experience success, allow participants **P**erceptions of choice during activities, emphasize mastery of the **T**ask over competition, implement the **I**nclusion teaching style which allows

students to choose their own level of task difficulty, implement intrinsic elements such as constructive feedback to **M**otivate your students, ensure you are aware of the **A**bilities of your students and their needs and developmental capabilities, and ask children what they **L**ike to do and incorporate these activities.

3. It is important that the length of your class time is sufficient to allow groups the opportunity to work through the entire activity.
4. Be mindful of the level of difficulty of the activities. Implementing the activities out of sequence (introductory, intermediate, advanced) may hinder student's ability to build on the skills and knowledge gained from the previous activities.
5. Do not increase the level of difficulty of the activities too quickly. If students are not working as a team or communicating effectively with group members, during an introductory activity, it is possible these problems will be magnified in a more difficult challenge.
6. Implement the debriefing portion of the activity every session. This allows students to reflect on their strategies for the activity as well as group processes. During this time it would also be appropriate to discuss successes and challenges of the activity. This can be the most powerful portion of the TBPC activity.
7. Development of positive and productive team building strategies takes time. Consider implementing the team building concepts and attributes within your physical education program throughout the school year.

Conclusion

Results from both the quantitative and qualitative analyses have provided meaningful information to future researchers, as well as physical educators wanting to

implement a TBPC program in their class. The SPPC questionnaire provided important information about the self-conceptions of the middle school participants involved in the TBPC intervention. The focus group interviews, the videotape footage, and digital photographs provided fascinating and insightful information about the TBPC activities. Several themes emerged from the data including: (a) Optimal Challenge and Optimal Interest, (b) Risk and Trust – The Symbiotic Relationship, (c) Teamwork – …It's About The Process, (d) Communication – Having A Voice, and (e) Negotiation – The Decision-Making Process. Many of these themes helped illuminate, conceptualize, and provide a deeper understanding of the quantitative results as well as the entire TBPC intervention. Overall, the challenges associated with applying mixed methodology have been worth the endeavour. Having both quantitative and qualitative results to draw upon allowed for a deeper understanding of the TBPC intervention and self-conceptions of middle school physical education students.

References

Asci, H. F., Kosar, N. S., & Isler, K. A. (2001). The relationship of self-concept and perceived athletic competence to physical activity level and gender among Turkish adolescents. *Adolescence, 36*(143), 499-507.

Black, S. J., & Weiss, M. R. (1992). The relationship among perceived coaching behaviours, perceptions of ability, and motivation in competitive age-group swimmers. *Journal of Sport & Exercise Psychology, 14*, 309-325.

Borg, W. R., & Gall, M. D. (1989). *Educational Research* (5th ed.). New York: Longman Inc.

Boyd, K. R., & Hrycaiko, D. W. (1997). The effect of a physical activity intervention package on the self-esteem of pre-adolescent and adolescent females. *Adolescence, 32*(127), 693-708.

Bracken, B. (1996). Clinical applications of a context-dependent multidimensional model of self-concept. In B. Bracken (Ed.), *Handbook of self-concept* (pp. 463-505). New York: Wiley.

British Columbia Ministry of Education. (1995). *Physical education 8-10 integrated resource package*. Victoria, BC: British Columbia Ministry of Education.

Case, R. (1985). *Intellectual development: From birth to adulthood*. New York: Academic Press.

Cason, D., & Gillis, H. L. (1994). A meta-analysis of outdoor adventure programming with adolescents. *Journal of Experiential Education, 17*(1), 40-47.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Cooley, C. H. (1902). *Human nature and the social order*. New York: Scribner's.

Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco: W. H. Freeman and Company.

Cosgriff, M. (2000). Walking our talk: Adventure based learning and physical education. *Journal of Physical Education New Zealand, 33*(2), 89-98.

Csikszentmihalyi, M. (1990). *Flow: The psychology of the optimal experience*. New York: Harper & Row.

Damon, W., & Hart, D. (1988). *Self-understanding in childhood and adolescence*. New York: Cambridge University Press.

Donmoyer, R. (1990). Generalizability and the single-case study. In E. W. Eisner & A. Peshkin (Eds.), *Qualitative inquiry in education: The continuing debate* (pp. 175-200). New York: Teachers College.

DuBois, D. L., Tevendale, H. D., Burk-Braxton, C., Swenson, L. P., & Hardesty, J. L. (2000). Self-system influences during early adolescence: Investigation of an integrative model. *Journal of Early Adolescence, 20*(1), 12-43.

Dyson, B., & O'Sullivan, M. (1998). Innovation in two alternative elementary school programs: Why it works. *Research Quarterly for Exercise and Sport, 69*(3), 242-253.

Ebbeck, V., & Gibbons, S. L. (1998). The effect of a team building program on the self-conceptions of Grade 6 and 7 physical education students. *Journal of Sport & Exercise Psychology, 20*, 300-310.

Ebbeck, V., & Stuart, M. E. (1993). Who determines what's important? Perceptions of competence and importance as predictors of self-esteem in youth football players. *Pediatric Exercise Science, 5*, 253-262.

Ebbeck, V., & Stuart, M. E. (1996). Predictors of self-esteem with youth basketball players. *Pediatric Exercise Science, 8*, 368-378.

Ebbeck, V., & Weiss, M. R. (1998). Determinants of children's self-esteem: An examination of perceived competence and affect in sports. *Pediatric Exercise Science, 10*, 285-298.

Eccles, J. S., Barber, B., Jozefowicz, D., Malenchuck, O., & Vida, M. (1999). Self-evaluation of competence, task values, and self-esteem. In N. G. Johnson, M. C. Roberts & J. Worell (Eds.), *Beyond appearance: A new look at adolescent girls* (pp. 53-84). Washington, DC: American Psychological Association.

Feltz, D. L., & Petlichkoff, L. (1983). Perceived competence among interscholastic sport participants and dropouts. *Canadian Journal of Applied Sport Sciences, 8*, 231-235.

Fiddes, G. E. (2003). *Experiential education in a physical education adventure program: Exploring the long-term effects.* Unpublished Unpublished master's thesis, University of Victoria, Victoria, BC.

Fischer, K. W. (1980). A theory of cognitive development: The control and construction of hierarchies of skills. *Psychological Review, 87*, 477-531.

Fox, K. R. (2002). Self-perceptions and sport behavior. In T. E. Horn (Ed.), *Advances in Sport Psychology* (pp. 83-100). Champaign, IL: Human Kinetics.

Fox, K. R., & Corbin, C. B. (1989). The Physical Self-Perception Profile: Development and preliminary validation. *Journal of Sport & Exercise Psychology, 11*, 408-430.

Frey, K. S., & Ruble, D. N. (1990). Strategies for comparative evaluation: Maintaining a sense of competence across the life span. In R. Sternberg & J. Kooligan (Eds.), *Competence considered* (pp. 167-189). New Haven, CT: Yale University Press.

Gibbons, S. L., & Black, K. (1997). Effect of participation in team building activities on the self-concepts of middle school physical education students. *Avante, 3*(1), 46-60.

Gill, D. (2004). Gender and cultural diversity across the lifespan. In M. R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 475-502). Morgantown, WV: Fitness Information Technology.

Glover, D. R., & Midura, D. W. (1992). *Team building through physical challenges.* Champaign, IL: Human Kinetics.

Godfrey, R. (1974). *A review of research and evaluation literature on Outward Bound and related educational programs.* Paper presented at the Conference on Experiental Education, Estes Park, CO.

Goni, A., & Zulaika, L. (2000). Relationships between physical education classes and the enhancement of fifth grade pupils' self-concept. *Perceptual & Motor Skills, 91*(1), 246-250.

Halliburton, A. L., & Weiss, M. R. (2002). Sources of competence information and perceived motivational climate among adolescent female gymnasts varying in skill level. *Journal of Sport & Exercise Psychology, 24*, 396-419.

Halliday, N. (1999). Developing self-esteem through challenge education experiences. *Journal of Physical Education, Recreation and Dance, 70*(6), 51-66.

Hart, D. (1988). The adolescent self-concept in social context. In D. K. Lapsley & F. C. Power (Eds.), *Self, ego, and identity* (pp. 71-90). New York: Springer-Verlag.

Harter, S. (1978). Effectence motivation reconsidered: Toward a developmental model. *Human Development, 21*(1), 34-64.

Harter, S. (1981). A model of mastery motivation in children: Individual differences and developmental change. In W. A. Collins (Ed.), *The Minnesota symposia in child psychology* (pp. 215-255). Hillsdale, NJ: Erlbaum.

Harter, S. (1983). Developmental perspectives on the self-system. In P. Mussen & E. M. Hetherington (Eds.), *Handbook of child psychology: Socialization, personality, and social development* (4th ed., Vol. 4, pp. 55-122). New York: Wiley.

Harter, S. (1985a). Competence as a dimension of self-evaluation. In R. Leahy (Ed.), *The development of the self* (pp. 55-121). New York: Academic Press.

Harter, S. (1985b). *Manual for the self-perception profile for children.* Denver, CO: University of Denver.

Harter, S. (1985c). *The social support scale for children.* Denver, CO: Unpublished manuscript, University of Denver.

Harter, S. (1986). Processes underlying the construction, maintenance, and enhancement of the self-concept in children. In J. Suls & A. G. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 3, pp. 137-181). Hillsdale, NJ: Lawrence Erlbaum Associates.

Harter, S. (1987). The determinants and mediational role of global self-worth in children. In N. Eisenberg (Ed.), *Contemporary issues in developmental psychology* (pp. 219-242). New York: Wiley.

Harter, S. (1990a). Adolescent self and identity development. In S. S. Feldman & G. R. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 352-387). Cambridge, MA: Harvard University Press.

Harter, S. (1990b). Causes, correlates and the functional role of global self-worth: A life-span perspective. In J. R. Sternberg & J. Kooligan (Ed.), *Competence considered* (pp. 67-98). New Haven, CT: Yale University Press.

Harter, S. (1996). Historical roots of contemporary issues involving self-concept. In B. A. B. (Ed.) (Ed.), *Handbook of self-concept* (pp. 1-37). New York: Wiley.

Harter, S. (1998). The development of self-representations. In N. Eisenberg (Ed.), *Handbook of child psychology* (5th ed., Vol. 3, pp. 553-617). New York: Wiley.

Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.

Harter, S., & Monsour, A. (1992). Developmental analysis of conflict caused by opposing attributes in the adolescent self-portrait. *Developmental Psychology, 28*, 251-260.

Harter, S., & Pike, R. (1984). The pictoral scale for perceived competence and social acceptance for young children. *Child Development, 55*, 1969-1982.

Harter, S., Stocker, C., & Robinson, N. S. (1996). The perceived directionality of the link between approval and self-worth: The liabilities of a looking glass self-orientation among young adolescents. *Journal of Research on Adolescence, 6*(3), 285-308.

Harter, S., Waters, P. L., & Whitesell, N. R. (1998). Relational self-worth: Differences in perceived worth as a person across interpersonal contexts. *Child Development, 69*, 756-766.

Hattie, J. (1992). *Self-concept*. Hillsdale, NJ: Lawrence Erlbaum Associates.

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, 67*(1), 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.

Horn, T. S. (2004). Developmental perspectives on self-perceptions in children and adolescents. In M. R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 101-143). Morgantown, WV: Fitness Information Technology, Inc.

Horn, T. S., & Amorose, A. J. (1998). Sources of competence information. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 49-63). Morgantown, WV: FIT Press.

Horn, T. S., Glenn, S. D., & Wentzell, A. B. (1993). Sources of information underlying personal ability judgements in high school athletes. *Pediatric Exercise Science, 5*, 263-274.

Horn, T. S., & Harris, A. (1996). Perceived competence in young athletes: Research findings and recommendations for coaches and parents. In F. L. Smoll & R. E. Smith (Eds.), *Children and youth in sport: A biopsychosocial perspective* (pp. 309-329). Dubuque: IA: Brown & Benchmark.

Keith, L. K., & Bracken, B. A. (1996). Self-concept instrumentation: A historical and evaluative review. In B. A. Bracken (Ed.), *Handbook of self-concept* (pp. 91-170). New York: Wiley.

Kreuger, R. A., & Casey, M.-A. (2000). *Focus groups: A practical guide for applied research* (3rd ed.). Thousand Oaks, CA: Sage.

Leff, S. S., & Hoyle, R. H. (1995). Young athlete's perceptions of parental support and pressure. *Journal of Youth and Adolescence, 24*, 187-203.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park: Sage.

Mandigo, J. L., & Holt, N. L. (2002). Putting theory into practice: Enhancing motivation through OPTIMAL strategies. *Avante, 8*(3), 21-29.

Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology, 38*, 299-337.

Marsh, H. W. (1990). *Self-description questionnaire, II.* San Antonio, TX: The Psychological Corporation.

Marsh, H. W., & Hattie, J. (1996). Theoretical perspectives on the structure of self-concept. In B. A. Bracken (Ed.), *Handbook of self-concept* (pp. 38-90). New York: Wiley.

Marsh, H. W., & Peart, N. (1988). Competitive and cooperative physical fitness training programs for girls: Effects on physical fitness and on multidimensional self-concepts. *Journal of Sport & Exercise Psychology, 10*, 390-407.

Marsh, H. W., Richards, G. E., & Barnes, J. (1986a). Multidimensional self-concepts: A long-term follow-up of the effect of participation in an Outward Bound program. *Personality and Social Psychology Bulletin, 12*(4), 475-492.

Marsh, H. W., Richards, G. E., & Barnes, J. (1986b). Multidimensional self-concepts: The effect of participation in an Outward Bound program. *Journal of Personality and Social Psychology, 50*(1), 195-204.

Marsh, H. W., Richards, G. E., Johnson, S., Roche, L., & Tremayne, P. (1994). Physical self-description questionnaire: Psychometric properties and a multitrait-multimethod analysis of reactions to existing instruments. *Journal of Sport and Exercise Psychology, 16*, 270-305.

Marshall, C., & Rossman, G. (1999). *Designing qualitative research.* Newbury Park: Sage.

Maxwell, J. A. (1996). *Qualitative research design.* London: Sage.

Midura, D. W., & Glover, D. R. (1999). *The competition-cooperation link: Games for developing respectful competitors.* Champaign, IL: Human Kinetics.

Morgan, D. L. (1997). *Focus groups as qualitative research.* Thousand Oaks, CA: Sage.

Morgan, D. L., & Kreuger, R. A. (1993). When to use focus groups and why. In D. L. Morgan (Ed.), *Successful focus groups: Advancing the art* (pp. 3-18). Newbury Park: Sage.

Muris, P., Meesters, C., & Fijen, P. (2003). The Self-Perception Profile for Children: Further evidence for its factor structure, reliability, and validity. *Personality and Individual Differences, 35*(8), 1791-1802.

Pangrazi, R. (1982). Physical education, self-concept, and achievement. *Journal of Physical Education, Recreation, and Dance, 53*(9), 16-18.

Piers, E. V., & Harris, D. B. (1964). Age and other correlates of self-concept in children. *Journal of Educational Psychology, 55*, 91-95.

Plummer, O. K., & Rougeau, D. (1997). Team building magic for all. *Strategies, 10*(6).

Rosenberg, M. (1965). *Society and the adolescent child.* Princeton, NJ: Princeton University Press.

Rosenberg, M. (1979). *Conceiving the self.* New York: Basic Books.

Rosenberg, M. (1989). Self-concept research: A historical review. *Social Forces, 68*(1), 34-44.

Selman, R. L. (1980). *The growth of interpersonal understanding: Developmental and clinical analyses*. New York: Academic Press.

Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Validation of construct interpretations. *Review of Educational Research, 46*(3), 407-441.

Shavelson, R. J., & Marsh, H. W. (1986). On the structure of self-concept. In R. Schwarzer (Ed.), *Anxiety and cognition* (pp. 308-330). Hillsdale, NJ: Erlbaum.

Sherrill, C., Holguin, O., & Caywood, A. J. (1989). Fitness, attitude toward physical education and self-concept of elementary school children. *Perceptual & Motor Skills, 69*, 411-414.

Siegler, R. S. (1991). *Children's Thinking* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Smith, A. (1999). Perceptions of peer relationships and physical activity participation in early adolescence. *Journal of Sport & Exercise Psychology, 21*, 329-350.

Socha, T. L., Potter, T. G., & Downey, P. J. (2003). The effect of team building on the physical self-concept of Grade 9 physical education students. *The Journal of Experiential Education, 25*(3), 347.

Sonstroem, R. J. (1984). Exercise and self-esteem. *Exercise and Sport Sciences Reviews, 12*, 123-155.

Sonstroem, R. J., & Morgan, W. P. (1989). Exercise and self-esteem: Rationale and model. *Medicine and Science in Sports and Exercise, 21*, 329-337.

Stipek, D., & MacIver, D. (1989). Developmental change in children's assessment of intellectual competence. *Child Development, 60*, 521-538.

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

Theodorakou, K., & Zervas, Y. (2003). The effects of the creative movement teaching method and the traditional teaching method on elementary school children's self-esteem. *Sport, Education and Society, 8*(1), 91-104.

Trew, K., Scully, D., Kremer, J., & Ogle, S. (1999). Sport, leisure and perceived self-competence among male and female adolescents. *European Physical Education Review, 5*(1), 53-73.

Walters, S. T., & Martin, J. E. (2000). Does aerobic exercise really enhance self-esteem in children? A prospective evaluation in 3rd-5th graders. *Journal of Sport Behavior, 23*(1), 51-60.

Weiss, M. R. (1987). Self-esteem and achievement in children's sport and physical activity. In D. Gould & M. Weiss (Eds.), *Advances in pediatric sport sciences, vol. 2: Behavioral issues* (pp. 87-119). Champaign, IL: Human Kinetics.

Weiss, M. R., & Duncan, S. C. (1992). The relationship between physical competence and peer acceptance in the context of children's sports participation. *Journal of Sport & Exercise Psychology, 14*(2), 177-191.

Weiss, M. R., & Ebbeck, V. (1996). Self-esteem and the perceptions of competence in youth sports: Theory, research and enhancement strategies. In O. E. Bar-Or (Ed.),

The Child and Adolescent Athlete: Volume VI of the Encyclopedia of Sports Medicine (pp. 364-382). Cambridge: University Press.

Wentzell, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology, 90*(2), 202-209.

White, R. (1959). Motivation reconsidered: The concept of competence. *Psychological Review, 66*, 297-333.

Zimmerman, M. A., Copeland, L. A., Shope, J. T., & Dielman, T. E. (1997). A longitudinal study of self-esteem: Implications for adolescent development. *Journal of Youth and Adolescence, 26*, 117-141.

Appendix A: Self Perception Profile for Children and Instructions

Administration and Instructions

The scale may be administered in groups as well as individually. After filling out the information at the top of the scale, children are instructed as to how to answer the questions, given below. We have found it best to read the items outloud for 3rd and 4th graders, whereas for 5th graders and older, they can read the items for themselves, after you explain the sample item. Typically, we introduce the scale as a *survey* and, if time, ask the children to give examples of what a survey is. They usually generate examples involving two kinds of toothpaste, peanut butter, cereal, etc. to which you can respond that in a survey, there are no right or wrong answers, its just what you think, your opinion.

In explaining the question format, it is essential that you make it clear that for any given item they only check *one box* on either side of the sentence. They do not check both sides. (Invariably there will be one or two children who will check both sides initially and thus you will want to have someone monitor each child's sheet at the onset to make certain that they understand that they are only to check one box per item.)

INSTRUCTIONS TO THE CHILD:

We have some sentences here and, as you can see from the top of your sheet where it says "What I am like," we are interested in what each of you is like, what kind of a person you are like. This is a survey, *not* a test. There are no right or wrong answers. Since kids are very different from one another, each of you will be putting down something different.

First let me explain how these questions work. There is a sample question at the top, marked (a). I'll read it outloud and you follow along with me. (Examiner reads sample question.) This question talks about two kinds of kids, and we want to know which kids are most like *you*.

(1) So, what I want you to decide first is whether *you* are more like the kids on the left side who would rather play outdoors, or whether you are more like the kids on the right side who would rather watch T.V. Don't mark anything yet, but first decide which kind of kid is *most like you*, and go to that side of the sentence.

(2) Now, the *second* thing I want you to think about, now that you have decided which kind of kids are most like you, is to decide whether that is only *sort of true for you*, or *really true for you*. If it's only sort of true, then put an X in the box under sort of true; if it's really true for you, then put an X in that box, under really true.

(3) For each sentence you only check one box. Sometimes it will be on one side of the page, another time it will be on the other side of the page, but you can only check *one box* for each sentence. You *don't* check both sides, just the *one* side most like you.

(4) OK, that one was just for practice. Now we have some more sentences which I'm going to read out loud. For each one, just check one box, the one that goes with what is true for you, what you are most like.

What I Am Like

Name _____ Age _____ Birthday _____ (Month / Day) Group _____

Boy or Girl (circle which)

SAMPLE SENTENCE

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

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
9.	☐	☐	Some kids wish they could be alot better at sports	**BUT**	Other kids feel they are good enough at sports.	☐	☐
10.	☐	☐	Some kids are *happy* with their height and weight	**BUT**	Other kids wish their height or weight were *different.*	☐	☐
11.	☐	☐	Some kids usually do the *right* thing	**BUT**	Other kids often *don't* do the right thing.	☐	☐
12.	☐	☐	Some kids *don't* like the way they are leading their life	**BUT**	Other kids *do* like the way they are leading their life.	☐	☐
13.	☐	☐	Some kids are pretty *slow* in finishing their school work	**BUT**	Other kids can do their school work *quickly.*	☐	☐
14.	☐	☐	Some kids would like to have alot more friends	**BUT**	Other kids have as many friends as they want.	☐	☐
15.	☐	☐	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.	☐	☐
16.	☐	☐	Some kids wish their body was *different*	**BUT**	Other kids *like* their body the way it is.	☐	☐
17.	☐	☐	Some kids usually *act* the way they know they are *supposed* to	**BUT**	Other kids often *don't* act the way they are supposed to.	☐	☐
18.	☐	☐	Some kids are *happy* with themselves as a person	**BUT**	Other kids are often *not* happy with themselves.	☐	☐
19.	☐	☐	Some kids often *forget* what they learn	**BUT**	Other kids can remember things *easily.*	☐	☐
20.	☐	☐	Some kids are always doing things with *alot* of kids	**BUT**	Other kids usually do things *by themselves.*	☐	☐

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
21.	☐	☐	Some kids feel that they are *better* than others their age at sports	**BUT**	Other kids *don't* feel they can play as well.	☐	☐
22.	☐	☐	Some kids wish their physical appearance (how they look) was *different*	**BUT**	Other kids *like* their physical appearance the way it is.	☐	☐
23.	☐	☐	Some kids usually get in *trouble* because of things they do	**BUT**	Other kids usually *don't* do things that get them in trouble.	☐	☐
24.	☐	☐	Some kids *like* the kind of *person* they are	**BUT**	Other kids often wish they were someone else.	☐	☐
25.	☐	☐	Some kids do *very well* at their classwork	**BUT**	Other kids *don't* do very well at their classwork.	☐	☐
26.	☐	☐	Some kids wish that more people their age liked them	**BUT**	Other kids feel that most people their age *do* like them.	☐	☐
27.	☐	☐	In games and sports some kids usually *watch* instead of play	**BUT**	Other kids usually *play* rather than just watch.	☐	☐
28.	☐	☐	Some kids wish something about their face or hair looked *different*	**BUT**	Other kids *like* their face and hair the way they are.	☐	☐
29.	☐	☐	Some kids do things they know they *shouldn't* do	**BUT**	Other kids *hardly ever* do things they know they shouldn't do.	☐	☐
30.	☐	☐	Some kids are very *happy* being the way they are	**BUT**	Other kids wish they were *different.*	☐	☐
31.	☐	☐	Some kids have *trouble* figuring out the answers in school	**BUT**	Other kids almost *always* can figure out the answers.	☐	☐
32.	☐	☐	Some kids are *popular* with others their age	**BUT**	Other kids are *not* very popular.	☐	☐

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
33.	☐	☐	Some kids *don't* do well at new outdoor games	**BUT**	Other kids are *good* at new games right away.	☐	☐
34.	☐	☐	Some kids think that they are good looking	**BUT**	Other kids think that they are not very good looking.	☐	☐
35.	☐	☐	Some kids behave themselves very well	**BUT**	Other kids often find it hard to behave themselves.	☐	☐
36.	☐	☐	Some kids *are* not very happy with the way they do alot of things	**BUT**	Other kids think the way they do things is *fine.*	☐	☐

Susan Harter, Ph.D., University of Denver, 1985

Appendix B: Certificate of Consent

University of Victoria

University of Victoria - Human Research Ethics Committee

Certificate of Approval

Principal Investigator	Department/School	Supervisor
Tanya D. Stogre Graduate Student	PHED	Dr. Sandra Gibbons
Co-Investigator(s):		

Title: **Effectiveness of Team Building Activities on the Self-Conceptions and Experiences of Grade 7 Physical Education Students**

Project No.	Approval Date	Start Date	End Date
298-03	07-Aug-03	07-Aug-03	06-Aug-04

Certification

This is to certify that the University of Victoria Ethics Review Committee on Research and other Activities Involving Human Subjects has examined the research proposal and concludes that, in all respects, the proposed research meets appropriate standards of ethics as outlined by the University of Victoria Research Regulations Involving Human Subjects.

J. Howard Brunt
Associate Vice-President, Research

This Certificate of Approval is valid for the above term provided there is no change in the procedures. Extensions/minor amendments may be granted upon receipt of "Request for Continuing Review or Amendment of an Approved Project" form.

Office of Vice-President, Research - UVic
Room 424, BEC - P.O. Box 1700
Victoria, BC V8W 2Y2

Tel: (250) 472-4545
Fax: (250) 721-8960
E-mail: ovprrc@uvic.ca

298-03 Stogre, Tanya D.

Appendix C: Participant Consent Forms and Letters

Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students
(District Permission Letter)

North Saanich Middle School
10475 McDonald Park Road
Sidney, B.C. V8L 3H9

This letter is to ask your permission for the North Saanich Middle School to be involved in a research study entitled "**Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students.**" that is being conducted by Tanya Stogre. Tanya Stogre is a graduate student in the School of Physical Education at the University of Victoria and you may contact her if you have further questions by phoning the University of Victoria at 721-8635. You may also contact the Associate Vice-President, Research (250-472-4362) if you have questions.

The purpose of this research project is to examine how effective a team building program is on the self-conceptions of middle school physical students and to explore the experiences of these students while engaged in team building activities.

Research of this type is important because it focuses on the examination of the curriculum and its effect on students. The teaching profession is changing dramatically and teachers need to understand which activities will be most beneficial and effective for their students to overcome the diversity of demands and challenges they will face.

The school is being asked to participate in this study because the experiences they offer may inform the future development of such activities or programs in other school.

Participation in this study will cause minimal inconvenience to the school. School classes will be conducted as normal. There are no known or anticipated risks to the school participating in this research. Anonymity of the school, the school staff and the pupils will be protected with the use of pseudo names in all cases.

The possible benefit of the school's participation in this research includes the potential to inform other physical education teachers about team building activities and the benefits for his/her students.

The school staff's participation in this research will be completely voluntary. If the school decides to participate any or all of the physical education staff may withdraw at any time without any consequences or explanation. If they do withdraw from the study their data will be excluded from the study.

What is learned from this study will be communicated to others through reports and articles that the researcher will write. Some of these articles will be published in journals and some will be presented at meetings with other researchers. All data from this study will be disposed of after a period of five years, in 2008.

In addition to being able to contact the researcher at the above phone numbers, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Associate Vice-President, Research at the University of Victoria (250-472-4362).

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researcher.

Principal	*Signature*	*Date*

Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students
(District Permission Letter)

Saanich School District No.63
School District Superintendent
2125 Keating Cross Road, Saanichton, B.C., V8M 2A5

This letter is to ask your permission for the North Saanich Middle School to be involved in a research study entitled "**Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students.**" that is being conducted by Tanya Stogre. Tanya Stogre is a graduate student in the School of Physical Education at the University of Victoria and you may contact her if you have further questions by phoning the University of Victoria at 721-8635. You may also contact the Associate Vice-President, Research (250-472-4362) if you have questions.

The purpose of this research project is to examine how effective a team building program is on the self-conceptions of middle school physical students and to explore the experiences of these students while engaged in team building activities.

Research of this type is important because it focuses on the examination of the curriculum and its effect on students. The teaching profession is changing dramatically and teachers need to understand which activities will be most beneficial and effective for their students to overcome the diversity of demands and challenges they will face.

The school is being asked to participate in this study because the experiences they offer may inform the future development of such activities or programs in other school.

Participation in this study will cause minimal inconvenience to the school. School classes will be conducted as normal. There are no known or anticipated risks to the school participating in this research. Anonymity of the school, the school staff and the pupils will be protected with the use of pseudo names in all cases.

The possible benefit of the schools participation in this research includes the potential to inform other physical education teachers about team building activities and the benefits for his/her students.

The school staff's participation in this research will be completely voluntary. If the school decides to participate any or all of the physical education staff may withdraw at any time without any consequences or explanation. If they do withdraw from the study their data will be excluded from the study.

What is learned from this study will be communicated to others through reports and articles that the researcher will write. Some of these articles will be published in journals

and some will be presented at meetings with other researchers. All data from this study will be disposed of after a period of five years, in 2008.

In addition to being able to contact the researcher at the above phone numbers, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Associate Vice-President, Research at the University of Victoria (250-472-4362).
Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researcher.

District 63 Superintendent	*Signature*	*Date*

Dear [Student]_____

I am writing to invite you to participate in a project entitled "Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students". The teachers in your school will be incorporating activities from the *Team Building through Physical Challenges* (1992) program into your physical education classes for approximately four months during the 2003-2004 school year. These activities will allow you to participate with a small group of classmates to complete a series of physical challenges. Challenges may range from balancing an entire group on an object such as an automobile tire to helping all group members swing, climb, and jump through an obstacle course. The purpose of these challenges is to encourage the group to work as a group to overcome the challenge. As part of this project you will be asked to complete a questionnaire regarding your thoughts and feelings about your own skills and abilities. You may also be videotaped and have digital photographs taken of you while you participate in the activities. At the end of the team building program, you will also be invited to volunteer to be interviewed in a focus group.

If you or your parents/guardians have any questions regarding this project please feel free to contact me at 250-519-0687 or e-mail tstogre@uvic.ca

Sincerely,

Tanya Stogre B.Ed
School of Physical Education
University of Victoria

UNIVERSITY OF VICTORIA
OFFICE OF THE VICE-PRESIDENT, RESEARCH
HUMAN RESEARCH ETHICS COMMITTEE

Participant Consent Form

Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students

You are being invited to participate in a study entitled **Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students** that is being conducted by Tanya Stogre. Tanya Stogre is a Graduate student in the department of Physical Education at the University of Victoria and you may contact her if you have further questions by phone 250-519-0687 or e-mail tstogre@uvic.ca

As a Graduate student, I am required to conduct research as part of the requirements for a degree of Masters of Arts in Physical Education. It is being conducted under the supervision of Dr. Sandra Gibbons. You may contact my supervisor at 250-721-8383 and sgibbons@uvic.ca.

The purpose of this research project is to investigate the effectiveness of a Team Building Through Physical Challenges (TBPC; Glover & Midura, 1992) program on the self-conceptions and experiences of middle students in co-educational physical education classes. The TBPC program is comprised of Outward Bound-type tasks that are adapted for use in physical education. The key for any one individual to succeed is that the entire group must master each task. The activities from the Team Building Through Physical Challenges (1992) manual will allow you to participate with a small group of classmates to complete a series of physical challenges. The challenges may range from balancing an entire group on an object such as an automobile tire to helping all group members swing, climb, and jump through an obstacle course. The purpose of these challenges is to encourage the group to work as a team to overcome the challenge. Teachers in your PE class will be using these activities over a period of four months. In addition, the second purpose of this study is to explore any change in self-conceptions and develop a deeper understanding of the relationship between self-concept and team building activities by exploring your experiences. In order to understand what is happening while you are participating in the team building activities, a variety of methods will be used to gain information (videotaping, focus groups, and digital photographs). Your PE class will be randomly assigned to one of two different groups (this means that classes are assigned to a group by chance e.g. picking a number from a hat). One group will use a variety of team building activities during physical education class (approximately once every two weeks), the other group will participate in the regular physical education activities.

Whether you are involved in the team building program or not, you will be asked to complete a questionnaire regarding your thoughts and feelings about your own skills and abilities. This will occur twice. Once, before the team building programs begin and then after the programs have finished. If you choose not to fill out the questionnaires, you will be taken by your physical education teacher to the gym for a minor game activity. Another question will be given to you right before participating in the team building activity, but after the activity has been explained to the class. It will ask how confident you are that you can perform that activity successfully. One of

the classes participating in the team building program will be videotaped during each of the activities. These videotapes will be used to better understand what strategies the groups are using to complete the tasks. If you choose not to consent, images where you may be recognized will be altered to conceal your appearance. Both groups involved in the team building program, will have digital photographs taken to use during the focus group interviews. This will help the students in the focus groups remember some of the activities they were involved in and the strategies their group used to complete the task. No photographs will be taken of students not wishing to participate in the study. There will be focus group interviews at the end of the team building program. The students interested in participating will volunteer from either of the two classes involved in the team building program. All of the names of volunteers for the focus groups will be put in a hat and randomly selected. Each group will be five to six students. The interviews will take place one to two weeks after the team building program has been completed. There will be two interviews, 45 minutes in length, with each of the groups. Those who participate in the interviews will have the opportunity to explain the strategies they used to complete the team building activities, the roles of each of the students in their groups, and which parts of the team building activities they enjoyed the most. Tanya Stogre will carry out all of the videotaping, digital photographs and focus group interviews.

Research of this type is important because you will help us to understand what may cause changes in your self-conceptions. It will also provide information about whether changes in your self-conceptions happen only because of the team building program or other factors. In addition, information about which parts of the team building activities are most meaningful to you and how you feel when involved in the activities will help physical educators in the development of a team building program. This will aid in providing the most meaningful experience for physical education students.

You are being asked to participate in this study because your PE class was randomly assigned to one of two different groups (this means that classes are assigned to a group by chance, e.g. picking a number from a hat). One group will use a variety of team building activities during physical education class throughout four months (approximately once every two weeks), the other group will participate in the regular physical education activities. However, there will be the opportunity for those classes not involved in the team building program during the first four months, to be involved in it later in the year.

If you agree to voluntarily participate in this research, you will be asked to complete a questionnaire about your thoughts and feelings of your own skills and abilities. In addition, if you agree to participate, digital photographs may be taken of you while involved in the team building activities and you may also be videotaped during the activities.

Participation in this study may cause some inconvenience to you, including the time it will take (approximately a total of 50 minutes) during your physical education class to complete the questionnaire. Also, if you volunteer for the focus group interview, a maximum of one and a half hours of your time outside of school will be needed.

There are no known or anticipated risks to you by participating in this research.

The potential benefits of your participation in this research include activities that allow you to participate with a small group of classmates to complete a series of physical challenges. Also, the information gathered from this study may provide physical education teachers with a better understanding of the necessary and most meaningful parts of the Team Building Through Physical Challenges program for other students.

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be shredded or electronically deleted. If you have been videotaped during the study, your images where you may be recognized will be altered to hide your appearance.

In order to assure myself that you are continuing to give your consent to participate in this research, I will remind you throughout the project (prior to each questionnaire, as well as prior to the focus group interview) that you have the right to withdraw from the study at any time.

In terms of protecting your anonymity your name will not be on the questionnaire (a code number will be used to identify results). Also, participants involved in the focus group interview will be given an alias, which means that you will be referred to by another name other than your own. Anonymity will only be partial because other students and teachers in the school may know which classes will be participating in the study.

Your confidentiality and the confidentiality of the data will be protected by only having the researcher read your questionnaire. No names will be used when the researcher looks at your answers or writes about the results. The results will be stored in a locked cabinet in the researcher's home. All electronic data will on the researcher's password protected computer. Only the researcher will have access to the information during and after the study. Your name will not appear on any reports about this project .

Other planned uses of this data include the digital photographs being used as a reminder of the team building activities you participated in and will be shown during the focus group interviews only. The videotapes will be looked at for how you and your classmates interact during the team building activities, your problem-solving strategies, as well as verbal and nonverbal communication during the team building activities. The focus group interviews will be used to help provide a deeper understanding of the team building activities.

Data from this study will be disposed of by shredding all written documents and electronically deleting any computer information. Videotapes will be erased and digital photographs will be deleted. This will occur within five years of the completion of the study.

It is anticipated that what is learned from this study will be communicated to others through the researcher's thesis and articles that she will write. The articles may be published in journals and some will be presented at meetings with other researchers. However, your name will not appear on any reports about this project.

In addition to being able to contact the researcher [and, if applicable, the supervisor] at the above phone numbers, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Associate Vice-President, Research at the University of Victoria (250-472-4362).

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

Consent for In-Class Research Activities:

Name of Participant	*Signature*	*Date*

Consent for the Focus Group Interviews:

Name of Participant	*Signature*	*Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Dear [Parent] _____

I am writing to invite your son/daughter to participate in a project entitled "Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students". The teachers in your son/daughter's school will be incorporating activities from the *Team Building through Physical Challenges* (1992) program into his/her physical education classes for approximately four months during the 2003-2004 school year. These activities will allow your son/daughter to participate with a small group of classmates to complete a series of physical challenges. Challenges may range from balancing an entire group on an object such as an automobile tire to helping all group members swing, climb, and jump through an obstacle course. The purpose of these challenges is to encourage the group to work as a group to overcome the challenge. As part of this project your child will be asked to complete a questionnaire regarding her/his thoughts and feelings about his/her own skills and abilities. Your daughter/son may also be videotaped and have digital photographs taken of him/her while participating in the activities. At the end of the team building program, your son/daughter will also be invited to volunteer to be interviewed in a focus group.

If you or your child have any questions regarding this project please feel free to contact me at 250-519-0687 or e-mail tstogre@uvic.ca

Sincerely,

Tanya Stogre B.Ed
School of Physical Education
University of Victoria

UNIVERSITY OF VICTORIA
OFFICE OF THE VICE-PRESIDENT, RESEARCH
HUMAN RESEARCH ETHICS COMMITTEE

Parent/Guardian Consent Form

Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students

Your son/daughter is being invited to participate in a study entitled **Effectiveness of a Team Building Program on the Self-Conceptions and Experiences of Middle School Physical Education Students** that is being conducted by Tanya Stogre. Tanya Stogre is a Graduate student in the department of Physical Education at the University of Victoria and you may contact her if you have further questions by phone 250-519-0687 or e-mail tstogre@uvic.ca

As a Graduate student, I am required to conduct research as part of the requirements for a degree of Masters of Arts in Physical Education. It is being conducted under the supervision of Dr. Sandra Gibbons. You may contact my supervisor at 250-721-8383 and sgibbons@uvic.ca.

The purpose of this research project is to investigate the effectiveness of a Team Building Through Physical Challenges (TBPC; Glover & Midura, 1992) program on the self-conceptions and experiences of middle school students in co-educational physical education classes. The TBPC program is comprised of Outward Bound-type tasks that are adapted for use in physical education. The key for any one individual to succeed is that the entire group must master each task. The activities from the Team Building Through Physical Challenges (1992) manual will allow your daughter/son to participate with a small group of classmates to complete a series of physical challenges. The challenges may range from balancing an entire group on an object such as an automobile tire to helping all group members swing, climb, and jump through an obstacle course. The purpose of these challenges is to encourage the group to work as a team to overcome the challenge. Teachers in her/his PE class will be using these activities over a period of four months. In addition, the second purpose of this study is to explore any change in self-conceptions and develop a deeper understanding of the relationship between self-concept and team building activities by exploring your son/daughter's experiences. A variety of techniques (videotaping, focus group interviews, and digital photographs) will be used to achieve this purpose. Their PE class will be randomly assigned to one of two different groups (this means that classes are assigned to a group by chance e.g. picking a number from a hat). One group will use a variety of team building activities during physical education class (approximately once every two weeks), the other group will participate in the regular physical education activities.

Whether she/he is involved in the team building program or not, they will be asked to complete a questionnaire regarding their thoughts and feelings about their own skills and abilities. This will occur twice. Once, before the team building programs begin and then after the programs have finished. If you choose not to have your son/daughter fill out the questionnaires, she/he will be taken by their physical education teacher to the gym for a minor game activity. Another question will be given to the students right before participating in the team building activity, but after the activity has been explained to the class. It will ask how confident she/he is that they can perform that activity successfully. One of the classes participating in the team building program will be

videotaped during each of the activities. These videotapes will be used to better understand what strategies the groups are using to complete the tasks. If you choose not to provide consent for your daughter/son, images where he/she may be recognized will be altered to conceal her/his appearance. Both groups involved in the team building program, will have digital photographs taken to use during the focus group interviews. This will help the students in the focus groups remember some of the activities they were involved in and the strategies their group used to complete the task. No photographs will be taken of students not wishing to participate in the study. There will be focus group interviews at the end of the team building program. The students interested in participating will volunteer from either of the two classes involved in the team building program. All of the names of volunteers for the focus groups will be put in a hat and randomly selected. Each group will be five to six students. The interviews will take place one to two weeks after the team building program has been completed. There will be two interviews, 45 minutes in length, with each of the groups. Those who participate in the interviews will have the opportunity to explain the strategies they used to complete the team building activities, the roles of each of the students in their groups, and which parts of the team building activities they enjoyed the most. Tanya Stogre will carry out all of the videotaping, digital photographs and focus group interviews.

Research of this type is important because it will extend our understanding of the mechanisms of change in the self-conceptions of middle school students. It will also provide information about whether changes in self-conceptions are due solely to the team building program or other factors. In addition, information about which aspects of the team building activities are most meaningful to the students and how they feel when involved in the activities will facilitate physical educators in their implementation of a team building program. This will aid in providing the most meaningful experience for physical education students.

Your daughter/son is being asked to participate in this study because their PE class was randomly assigned to one of two different groups (this means that classes are assigned to a group by chance, e.g. picking a number from a hat). One group will use a variety of team building activities during physical education class throughout four months (approximately once every two weeks), the other group will participate in the regular physical education activities.

If you consent to allow your son/daughter to voluntarily participate in this research, they will be asked to complete a questionnaire regarding her/his thoughts and feelings about their own skills and abilities. In addition, if you consent to have your son/daughter participate, digital photographs may be taken of you while involved in the team building activities and they may also be videotaped during the activities.

Participation in this study may cause some inconvenience to your daughter/son, including the time it will take (approximately a total of 50 minutes) during their physical education class to complete the questionnaire. Also, if your son/daughter volunteers to partake in the focus group interview, a maximum of one and a half hours of their time outside of school will be needed.

There are no known or anticipated risks to your daughter/son by participating in this research.

The potential benefits of your son/daughter's participation in this research include activities that allow them to participate with a small group of classmates to complete a series of physical challenges. Also, the information gathered from this study may provide physical education teachers with a better understanding of the necessary and most meaningful parts of the Team Building Through Physical Challenges program for other students.

Your daughter/son's participation in this research must be completely voluntary. If you do decide to consent to their participation, he/she may withdraw at any time without any consequences or any explanation. If your son/daughter does withdraw from the study their data will be shredded or electronically deleted. If she/he has been videotaped during the study, their group's tape will not be part of the analysis.

In order to assure myself that you are continuing to give your consent to allow your daughter/son's participation in this research, I will remind you via a letter home throughout the project (prior to each questionnaire, as well as prior to the focus group interview) that you have the right to withdraw your son/daughter from the study at any time.

In terms of protecting your daughter/son's anonymity her/his name will not be on the questionnaire (a code number will be used to identify results). Also, participants involved in the focus group interview will be given a pseudonym. Anonymity will only be partial because other students and teachers in the school may know which classes will be participating in the study.

Your son/daughter's confidentiality and the confidentiality of the data will be protected by ensuring only the researcher will read his/her questionnaire. No names will be used when the researcher looks at her/his answers or writes about the results. The results will be stored in a locked cabinet in the researcher's home. All electronic data will on the researcher's password protected computer. Only researcher will have access to the information during and after the study. Your daughter/son's name will not appear on any reports about this project.

Other planned uses of this data include the digital photographs being used as a reminder of the team building activities your son/daughter participated in and will be shown during the focus group interviews only. The videotapes will be looked at for how your daughter/son and her/his classmates interact during the team building activities, their problem-solving strategies, as well as verbal and nonverbal communication during the team building activities. The focus group interviews will be analyzed to provide a deeper understanding of the nature of the team building activities.

Data from this study will be disposed of by shredding all written documents and electronically deleting any computer information. Videotapes will be erased and digital photographs will be deleted. This will occur within five years of the completion of the study.

It is anticipated that the results of this study will be shared with others via my thesis and perhaps in a published article.

In addition to being able to contact the researcher and, if applicable, the supervisor at the above phone numbers, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Associate Vice-President, Research at the University of Victoria (250-472-4362).

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

Consent for In-Class Research Activities:

Name of Parent/Guardian	*Signature*	*Date*

Consent for the Focus Group Interviews:

Name of Parent/Guardian	*Signature*	*Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.