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# PAVING THE ROAD TO SUCCESS: USING SPORT TO TEACH LIFE SKILLS TO CHILDREN WHO HAVE PHYSICAL DISABILITIES

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## AARON CHRISTOPHER MOFFETT

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of the requirements for the

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PAVING THE ROAD TO SUCCESS: USING SPORT TO TEACH LIFE SKILLS TO
CHILDREN WHO HAVE PHYSICAL DISABILITIES

By

Aaron Christopher Moffett

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# ABSTRACT

## PAVING THE ROAD TO SUCCESS: USING SPORT TO TEACH LIFE SKILLS TO CHILDREN WHO HAVE PHYSICAL DISABILITIES

By

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Children with physical disabilities need effective life skills to succeed. Juan is very optimistic and trusts that with hard work he can overcome many obstacles. He has developed a strong social support network and is assertive about becoming active in school and community activities. Juan is very satisfied with his quality of life. In contrast, Jamal and Lisa have less effective life skills. Jamal berates himself for his physical disability, and becomes aggressive with other people whenever he is struggling to meet a challenge. Lisa is very passive, learned helpless, and socially immature. Jamal and Lisa, like many children with disabilities (National Collaborative on Workforce and Disability for Youth, 2002), need education in life skills as a vehicle to a better quality of life.

The purpose of this study was to teach life skills to children with physical disabilities. Elliot and colleagues (Elliot, 1999; Elliot, Godshall, Herrick, Witty, & Spruell, 1991) suggested that people with physical disabilities need the skills to set goals, cope with problems, act assertively, and socialize with others to be successful in life. Sport psychologists have been successful in teaching these life skills in the context of sport and physical activity (Danish, Petitpas, & Hale, 1995; Hellison, 2000). Thus, the focus of this study was the implementation of a 12-week, 24-session sports and life skills intervention for children with physical disabilities aged 10-19 years.

The efficacy of the Sports and Life Skills program was evaluated through a pretest-posttest control group design study. The E group ($n$=21) learned goal setting,

positive self-talk, assertiveness, optimism, social skills, and coping skills in a classroom setting, and practiced those skills while learning and playing soccer and taekwondo. The C group ($n$=25) did not receive an intervention. The Life Orientation Test – Revised (Scheier, Carver, & Bridges, 1994), the Disability and Sport Coping Survey (Moffett & Dummer, 2004), the Self-Perception Profile for Children (Harter, 1985) and parent and child interviews were used to assess optimism; coping skills; athletic, social, and academic perceived competence; and general self-worth at pretest and posttest. Retention of the skills was assessed 12 weeks after the intervention for the E group.

The quantitative data revealed that: (a) the E group significantly increased coping skills, athletic perceived competence, and general self-worth at posttest compared to pretest; (b) the E group was significantly higher on coping, athletic and social perceived competence, and general self-worth when compared to the C group at posttest; and (c) the E group did not retain their high posttest scores on general self-worth and athletic and academic perceived competence at retention. The qualitative data showed that: (a) the E group learned the sports and life skills; (b) the E group retained their knowledge of the skills 12 weeks after the intervention; (c) the E group was able to generalize the life skills to other domains. There were no systematic age, gender, or disability differences on any of the dependent variables.

The Sports and Life Skills program was effective. Parents appreciated the topics that were taught, and children learned and used these skills in their daily lives. However, additional research is needed to refine methods of teaching life skills, facilitate retention, introduce the program to different populations, and determine ways of systematically involving parents as partners in teaching and reinforcing life skills.

This project is dedicated to all of the children who participated in the program.
You taught me more than I could ever teach you.

# ACKNOWLEDGEMENTS

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CHAPTER 1

Introduction

*Only a quarter of students who have disabilities receive needed life skills
training (National Collaborative on Workforce and Disability for Youth,
2002).*

Jamal is a middle school student. Jamal berates himself, blames his physical

disability, and becomes aggressive with his teammates whenever he is struggling to meet

a challenge. Jamal throws up his hands in the air and says, "I can't do it. This is stupid!

How am I supposed to be able to do this?" Jamal has very low confidence in himself and

thus does not set high goals for himself. Jamal's dad covers for him when he fails. He

answers his questions and takes control of his life. Jamal has developed a pessimistic yet

aggressive attitude, and a belief that he has no control over his life. Jamal uses a

wheelchair because of a spinal cord injury.

Lisa is a high school student. Her mom is very overprotective and does not allow

her to attempt many new activities. Because Lisa's mom makes many decisions for her,

Lisa has become very passive and quiet. Whenever a teacher gives her a challenge, Lisa

does not try very hard or persist very long. Lisa does not have many friends because she

is so quiet and passive. Thus, Lisa is very passive, learned helpless, and socially

immature. Lisa has spina bifida, and she has had several surgeries.

Juan also has a physical disability, spastic cerebral palsy, but approaches life in a

very positive way. Juan is extremely optimistic and believes that with hard work he can

overcome many obstacles. Whenever a coach gives him a challenge, he becomes excited

and tries extremely hard to excel at the challenge. In most physical activities, there are

obstacles for him because he has limited range of motion and strength. However, he

always seems to be trying to determine ways to adapt the activity to his skills so that he can be successful in the challenge. When it is difficult for him to overcome the challenge by himself, Juan is assertive and seeks help and social support. With this help or social support, he usually copes with the situation and stays positive.

Each of these examples represents a person that I have taught or coached. These children vary with respect to the life skills they have learned and use to succeed in their daily lives (Elliot, Kurylo, & Rivera, 2002). Juan is optimistic and assertive. He also uses his social support and coping skills when he sets goals and seeks optimal challenges. Jamal and Lisa lack these skills and confidence in themselves. Thus, they do not attempt situations that they deem challenging. People who have physical disabilities who are more successful, like Juan, are more effective goal setters, social-problem-solvers, assertive, and physically and socially active than people who are less successful (Elliot, 1999; Elliot, Godshall, Herrick, Witty, & Spruell, 1991). Therefore, life skills such as goal setting, social skills, assertiveness, and coping skills are useful to children with physical disabilities in order to become valuable contributors to the community (President's Commission on Excellence in Special Education, 2002).

There are many people who have disabilities who are like Juan and do have effective life skills. However, the problem is that there are many other children with disabilities who do not possess effective life skills or who have trouble using their life skills (Dunn, 1977; Gambrill, Florian, & Splaver, 1986; Glueckauf & Quittner, 1992). For instance, many people who have disabilities socialize and participate in community activities less often than people without disabilities (National Organization on Disability, 2004). Additionally, many children who have physical disabilities have lower social

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perceived competence compared to children without disabilities (King, Shultz, Steel, Gilpin, & Cathers, 1993). This lower perceived competence is in turn highly correlated with lower independence and persistence in children who have physical disabilities.

Low independence, persistence, and especially perceived social competence can have a negative affect on the development of one's self-concept. Bloom (1990) states that adolescents develop self-concept through social relationships with peers and their independence from parents. However, many children who have physical disabilities are not provided the opportunity to develop and practice their social skills and independence; this may hinder their development of their self-concept (Darling, 1990; Darrow & Stephens, 1992). If children who have disabilities are provided with the opportunity to learn life skills and develop a positive self-concept, they will be more likely to succeed in life (Keyes & Lopez, 2002; Modell & Megginson, 2001; Robert, Brown, Johnson, & Reinke, 2002).

Children who have disabilities struggle with developing life skills because there is a "lack of [learning] opportunities for the disabled outside of the family" (Darling, 1990, pp. 81). Presently, only a quarter of students who have disabilities receive needed life skills training (National Collaborative on Workforce and Disability for Youth, 2002). Most people without disabilities learn life skills through activities and social interaction (Harter, 1999; Seligman, 1995). For instance, several sport psychologists (e.g., Danish, Pettipas, & Hale, 1995) have developed sports and physical activity programs for at-risk youth to develop life skills such as goal-setting, coping skills, social skills, positive self-talk, and assertiveness. These programs have been successful in teaching children life

skills so that they can be successful in various achievement domains. However, these programs have only included children who do not have disabilities.

Life skills should be deliberately taught as part of the activities in which people participate (Seligman, 2002). But the previously discussed programs have not included children who have disabilities. In addition, people who have disabilities do not participate in programs at school, in sport, or in the community as frequently as people without disabilities (National Organization on Disability, 2004). Therefore, children who have disabilities need other ways to learn how to develop their life skills.

Since children spend a lot of their time in school, life skills could be taught as part of the K-12 curriculum in schools. However, a problem is that teachers do not have the tools or knowledge about how to develop life skills in children who have disabilities. Seligman and his research group (e.g., Jaycox, et al. 1994) have provided teachers ways to include life skill development in regular education classes. Hellison and colleagues (e.g., Hellison & Walsh, 2002) have also developed ways for physical education teachers to include life skills development in their regular physical education curriculum. However, there are limited empirically validated ways to develop life skills in classes for children who have disabilities. There is even less information on how to use sport or physical education to develop life skills in children who have disabilities. Thus, a third problem is the lack of empirical research on how to develop life skills in school for children who have disabilities.

Therefore, the problems are: (a) children who have disabilities have fewer and less effective life skills than children without disabilities; (b) children who have disabilities have fewer opportunities to learn or develop life skills; and (c) researchers

have not developed empirically driven life skill curricula that could be included in school and community programs for children who have disabilities.

*Significance of the Problem*

Historically, people have focused on the negative and what a person with a disability cannot do. For instance, several people who participated in a focus group on Employment Supports for People who have disabilities (U.S. Department of Health and Human Services, 2001) talked about how teachers, parents, and society told them that they should not worry about school because they would never have a job or be able to live on their own. Basically, these focus group participants were saying that other people did not believe that they had any valuable abilities because of their disabilities.

However, recently there has been a shift to the social political model. Organizations, governments, and people who have disabilities are calling for a focus on the *abilities* of people who have disabilities. Most recently, Seligman in his presidential address to the American Psychological Association called for a fundamental change in its organization's mission. He stated the mission should change to "understand and learn how to foster the [life skills] and abilities of all people" (Seligman, 2002, p. 5). By focusing on people's strengths, rather than repairing damage, it effectively enhances and empowers people to use their life skills and abilities to face their every day challenges.

The U.S. federal government has also stated the importance of developing life skills in children who have disabilities. The President's Commission on Excellence in Special Education (2002) stated that developing life skills in students who have disabilities will have a significant impact on the children's academic and overall life success. Right now, children who have disabilities in the U.S. are twice as likely to

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dropout of high school than children without disabilities (National Organization on Disability, 2004). IDEA (2004) reported the graduation rates of students with and without disabilities. Michigan is 44th in the U.S. in the difference (37%) in graduation rates between regular education students and special education students (IDEA, 2004). The President's Commission on Excellence in Special Education (2002) suggests that developing life skills in children who have disabilities will close the gap in graduation rates and academic success.

Low graduation rates are associated with unemployment and low paying jobs. People who have disabilities are 43% less likely to have a job compared to people without a disability (National Organization on Disability, 2004). For the people who have disabilities who do have a job, there is a disproportionately high rate that are underemployed (Hamner & Timmons, 2005). These high un- or underemployment rates lead to high poverty rates and more people receiving SSI benefits. People who have disabilities are three times more likely to live below the poverty level than people without disabilities (National Organization on Disability, 2004). People who have disabilities have a higher cost of living, which further impedes their quality of life. However, life skills can increase graduation rates (President's Commission on Excellence in Special Education, 2002) and employment rates (National Collaborative on Workforce and Disability for Youth, 2002; Rubin, Chan, & Thomas, 2003; Tsang, 2003). This, in turn, may decrease the number of people who have disabilities who live below the poverty line. Each of these factors will then increase the quality of life of people who have disabilities.

There are a quarter of a million children with only one physical disability in the United States (U.S. Bureau of the Census, 2000). All of these children face the previously stated challenges, but life skills could help them overcome these obstacles (Keyes & Lopez, 2002; Robert, Brown, Johnson, & Reinke, 2002). Researchers have suggested that program leaders should focus on developing life skills such as social skills, coping skills, assertiveness, and goal setting strategies early in life so that the previously mentioned negative statistics can be minimized (Keyes & Lopez, 2002; Modell, & Megginson, 2001; Robert, Brown, Johnson, & Reinke, 2002).

Additionally, teachers of students who have physical disabilities want these children to succeed when facing the previously discussed challenges. However, teachers struggle with the best ways to help these students (Lieberman, Houston-Wilson, & Kozub, 2002; Longmuir, & Bar-Or, 1994). Their ability to teach students who have disabilities and help them succeed is affected by not knowing how to develop life skills. Therefore, children who have physical disabilities may not have the opportunities to develop the skills needed to combat the negative statistics and challenges that they face.

Improving children's life skills can also have a significant impact on parents and caregivers (National Council on Disability, 2004). Parents and caregivers also want their children to succeed, but many of them struggle with knowing the best ways to help them succeed (Saks, 1999). Developing life skills can reduce the dependence, including financial dependence, on others. As previously stated, teaching children life skills can help them obtain jobs that will pay more and increase financial independence. For example, presently, it is estimated that families with a child who has cerebral palsy must earn an additional $1,000 to $25,000 annually than other families (Premier's Council on

the Status of People who have Disabilities, 2004) to pay for the $921,000 average lifetime costs of a child with cerebral palsy (National Center for Health Statistics, 2002). Based on this logic, it is crucial to increase the life skills of people with disabilities in order to reduce the financial burden on their families.

Life skills development can also help families by increasing the self-responsibility of children who have disabilities. Parents of children who have physical disabilities often have to spend additional time caring for the children compared to parents of children without disabilities. However, developing life skills can increase responsibility of chores, self-care, and assertiveness, and reduce the time and energy parents have to spend taking personal care of their children (Todis, Irvin, Singer, & Yovanoff, 1993).

For all of these reasons, researchers need to develop practical ways for schools, teachers, and parents to develop life skills in children who have physical disabilities.

*Statement of the Problem*

The purpose of the present project was to develop a sports and life skills program to teach life skills to youth who have physical disabilities ages 10 to 19. The life skills included in the curriculum were team building, goal setting, positive self-talk, assertiveness, social skills, and coping skills. It was also expected that the children would increase their optimism and perceived competence. A repeated-measures, control group design was used to determine whether participants who received education and practice in life skills developed better psychological well-being than participants in a control group.

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*Need for the Study*

The World Health Organization (2003) and the National Organization on Disability (2004) both stated that it is imperative to improve the quality of life of people who have disabilities. The United States government also has stated that schools need to help develop life skills in children who have disabilities to improve their quality of life (Individuals who have Disabilities Education Act, 1997; President's Commission on Excellence in Special Education, 2002), and with the enactment of No Child Left Behind, teachers are being held accountable for the success of their students. However, there has been limited empirical research on how to improve the quality of life and life skills of children who have physical disabilities. Therefore, it is necessary to develop an intervention program that focuses on improving the quality of life of people who have disabilities. The intervention in this study focuses on using a sports and life skills program to teach life skills to improve quality of life in youth ages 10 to 19 who have physical disabilities.

Presently, the research presents a negative, medical, view of disability. However, there is a need to focus on the contributions of life skills to an improved quality of life of children who have physical disabilities (Elliott, Kurylo, & Rivera, 2002). A vital aspect of quality of life is psychological well-being (Institute for the Future, 2000), and life skills are teachable skills that improve psychological well-being. The American Psychological Association made a philosophical change from focusing on curing people to focusing on developing life skills and positive psychological well-being to increase quality of life (Seligman & Csikszentmihalyi, 2000). Additionally, the National Organization on Disability (2004) has stated that new initiatives on increasing

psychological well-being to improve quality of life are imperative for people with disability. It was important to focus on personal and psychological variables because both affect the quality of life of students who have physical disabilities and can become a limiting factor in their lives (Roberts, et al., 2002). These life skills are likely to help children cope with disability related challenges and transition to a successful adult life (Chaney, Mullins, Frank, & Peterson, 1997; Elliott, Kurylo, & Rivera, 2002; Hellison, et al. 2000; Roberts, et al., 2002).

The current study was conducted in a sport setting. There was a gap in the literature on how physical activity or sport could be used to teach life skills. Physical activities provide a useful context in which to learn and practice life skills because participants learn skills in a setting where the results of their efforts are directly observable. It was also important to teach life skills in a fun or interesting way for children (Seligman, 1995; Leme, 2002), and sport can be a fun way to teach life skills (Danish, Petitpas, & Hale, 1995). Physical activity also provides a visible context for success in a domain where others and self have low expectations (Lieberman, & Houston-Wilson, & Kozub, 2002). When children who have physical disabilities succeed, their athletic perceived competence is increased (Harter, 1999). A positive athletic perceived competence typically leads to more participation in physical activity (Harter, 1999), which can then help prevent secondary health problems that are associated who have physical disabilities (Rimmer, Braddock, & Pitetti, 1996). This could then help children who have disabilities increase their quality of life. For all of these reasons it was important to teach life skills in a sport setting.

Why focus on children ages 10-19 who have physical disabilities? Children aged 10-19 were selected because it was important to develop psychological skills while children are trying to successfully develop a positive personal identity (Gillham, Reivich, & Shatte, 2002). It can be tough for children who have a visible disability to develop their personal identity. Childen may have difficulty developing their personal identity because of the visible differences between themselves and their peers. These developmental problems can then be exacerbated with age (Smith, 1996). Additionally, psychological skills are needed at an early age to help children cope with challenges they are likely to face during adolescence (Carnegie, 2003; Roberts, et al., 2002; Seligman, 1995) and during transition to adult life (Individuals who have disabilities Education Act, 1997; Leme, 2002; Modell & Megginson, 2001). If life skills remain low throughout adolescence, children may develop low self-esteem, which can lead to depression and low quality of life throughout childhood and adulthood (Seligman, 1995; Darling, 1990). Students ages 10-19 should have the cognitive abilities to benefit from life skills training (Seligman, 1995).

*Hypotheses and Research Questions*

In the following hypotheses and research questions, the term participant refers to children ages 10 to 19 whose primary disability is a physical disability. Although they were not the focus of this study, the primary caregivers of each participant also provided data related to the hypotheses and research questions. This study used a control group, repeated measures design to measure the effectiveness of a 12-week sport and life skills program to increase psychological skills. The dependent variables were optimism,

perceived physical, social, and academic competence, sense of self-worth, and coping skills.

*Hypotheses*

1.   E group participants will demonstrate higher skills on the dependent variables at posttest than pretest.

2.   E group participants will have significantly higher posttest scores than the C group on the dependent variables.

3.   E group participants will demonstrate equal skills on the dependent variables at retention than posttest.

*Research Questions*

1.   Will participants generalize skills on the dependent variables to other achievement domains such as other school subjects and other school/community activities?

2.   Will gender differences emerge for any dependent variable?

3.   Will disability differences (e.g., type or severity of physical disability) emerge for any dependent variable?

4.   Will age differences emerge for any dependent variable?

*Assumptions*

1.   The E group and C group will be statistically equal on all pretest scores. This assumption is important for internal validity so that posttest scores can be compared between groups.

2.   The participants will be honest when completing the assessments. If the students are not honest when completing the surveys, the results are invalid.

3. The participants will try to learn the life and sports skills. If the students do not try to learn the life and sports skills, then the researcher will not be able to determine if the results are due to lack of effort or the inability to learn life skills.

4. The life skills can be taught to children who have physical disabilities. If life skills cannot be taught, then it is impractical to develop programs to teach life skills.

*Limitations*

1. The participants were not randomly assigned to the E or C group, and not every characteristic of the E and C groups was measured. Thus, there may be unobserved differences between the groups. The differences in the two groups could be the factors that influenced the changes in the E group instead of the actual program.

2. The coaches' personalities may have had an effect on the development of the dependent variables, and the same intervention program may not be as effective with different personnel. The children may have had a positive or negative experience because of the coaches and that may have influenced their reaction to the program instead of the program itself.

3. The participants in this study were all from one Midwestern state. Therefore, the sample of this study may not be representative of all children who have physical disabilities and their guardians. Children who have physical disabilities from other areas may have different experiences than the children in our program. These experiences may influence how people answered the surveys and reacted to the intervention program.

4.	It was difficult to limit the sample to children with only physical disabilities. The sample did include children with multiple disabilities. For instance, one child had mild cognitive disabilities along with his physical disabilities and he spoke out a lot during the intervention. This could have affected other participants in his experimental group, but not the children in the other E groups.

5.	There was a relatively small sample size. There was an adequate sample size to conduct hypothesis testing. However, there were not enough participants for a definitive test of the research questions. A small sample size could affect the power of the research and lead to inappropriate generalization to other groups.

## Operational Definitions

*Caregiver.* In this study, caregiver was defined as a parent or guardian of a child participant.

*Coping.* In this study, Lazarus and Folkman's (1984) definition of coping was used. They defined coping as "a process of constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands or conflicts appraised as tasking or exceeding one's resources." Coping was assessed by the *Disability and Sports Coping Survey* (Moffett & Dummer, 2004).

*Life skills.* In this study, life skills was defined as cognitive (e.g., positive self-talk), intrapersonal (e.g., goal setting), interpersonal (e.g., social skills), and attitudinal (e.g., optimism) skills that enable individuals to succeed in the environments in which they live (Danish & Donahue, 1995; Danish, Petitpas, & Hale, 1995). The life skills taught during the sports and life skills intervention were team building, goal setting, positive self-talk, assertiveness, optimism, social skills, and coping skills.

*Optimism.* In this study, optimism was defined as the tendency to hold positive expectancies for the future (Scheier, Carver, & Bridges, 1994) and a tendency to have a temporary, specific, internal attribution style (Seligman, 1995). In this study, optimism was taught by teaching children how to monitor and change their self-talk, how to be assertive, and how to develop a temporary, specific, internal attributional style. Optimism was assessed by the *Life Orientation Test – Revised* (Scheier, Carver, & Bridges, 1994).

*Participant.* In this study, participant is defined as the children/athletes that took part in this research project.

*Perceived competence.* In this study, perceived competence is defined as domain-specific judgments of ability or skill (Harter, 1985). In this study, athletic, social, and academic perceived competence were assessed by the *Self-Perception Profile for Children* (Harter, 1985).

*Physical activity.* Bodily movement that is produced by the contraction of skeletal muscle and that substantially increases energy expenditure (American College of Sport Medicine, 2004). In this study, E group members participated in soccer and taekwondo.

*Physical disability.* In this study, physical disability means a partial or total loss of a limb or body part or partial or total loss of a person's bodily function (Physical Disability Council of NSW, Australia, 2004). Examples of physical disabilities include: (a) cerebral palsy; (b) spinal cord injury; (c) amputation; (d) muscular dystrophy; (e) spina bifida; and (f) short stature. Physical disability was assessed by the limbs (use of hands, arms, and legs), tonicity (muscle tone), and structural status (shape, body form, and structure) subscales of the ABILITIES Index (Simeonsson & Bailey, 1991).

*Quality of life*. Quality of life is a multidimensional view of material, psychological, social, and physical well-being (Institute for the Future, 2000). In this study, quality of life was assessed by children's and parent's perceptions of how satisfied the children were with their overall life. Quality of life was assessed by interviewing randomly selected participants and their caregivers. The interview participants were asked, "Here is a picture of a staircase with 5 stairs. If the top of the stairs means you [your child] have the best life and the bottom of the stairs means you [your child] have the worst life, which stair would your child stand on? Why?"

# CHAPTER 2

## Review of Literature

The long-term goal of the present study was to improve the current and future quality of life of children with physical disabilities. Life skills were taught in a sports environment where accomplishments were visible to the participants and others. The design of the present study and the subsequent choice of instrumentation were guided by the following literature review. Cognitive behavioral therapy was used to determine pedagogical techniques. Extant literature was used to determine the extent and ways that life skills can be taught in various settings, and to determine the best ways to assess learning of life skills.

### *Cognitive Behavioral Therapy*

Cognitive behavioral therapy was the theoretical approach used to develop the sports and life skills program in this project. At the outset of the project, it was important to develop a positive approach to developing life skills. Cognitive behavioral therapy is a positive approach to life skill development. Cognitive behaviorists suggest that it is important to help people develop life skills so that they can reach their maximum potential. In accordance with the positive approach to life skill development, it was important in this study to use the term *therapy* in the educational sense instead of the therapeutic sense. The term *therapy* typically has a clinical/medical connotation, but in this study the term *therapy* refers to a teaching or educational environment. In this review of literature, the terms *cognitive behaviorist* and *teacher* are used instead of *therapist*. The term *participant* is used instead of *client*.

The basic assumption of cognitive behavioral therapy is that "people respond to life events through a combination of cognitive, affective, motivational, and behavioral responses" (Beck & Weishaar, 2000, p. 241, Figure 1). These responses to life events are shaped by a combination of innate disposition and the environment. The cognitive system develops schemas in order to interact with these other types of responses and to respond to life's situations effectively. Schema is defined as "a strategy or way of thinking comprising core beliefs and basic assumptions about how the world operates" (Corsini & Wedding, 2000, p. 469). For a person to successfully cope with life, the person must correctly use these schemas to interpret situations. Thus, a cognitive behaviorist wants to help people develop life skills to successfully use their schemas.

Schemas are "people's perceptions of themselves and others, their goals and expectations, memories, fantasies, and previous learning" (Beck & Weishaar, 2000). Cognitive schemas interact with affective, motivational, and behavioral schemas. Each of these aspects help process and interpret life experiences and are one's personality. In order to maintain their schemas, people code information about an experience that is complementary to their schemas and disregard the information that is contradictory to their schemas. The problem is that sometimes these schemas may be maladaptive or cause troubles for a person.

An example of a person coding life events to maintain his/her illogical schemas is seen in the characteristics of depression. Kemp suggests that up to 40% of people with spinal cord injury have symptoms of depression (Crewe & Krause, 2002). Beck (1967, 1987) used the cognitive triad in order to characterize depression. The three interacting components of the triad are: (a) the client holds a negative view of

*Figure 1*. The interactions among a person's different responses



Motivational

Behavioral

Affective

Cognitive
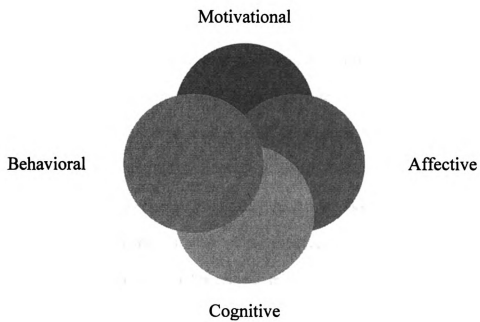
him/herself; (b) the client tends to interpret experiences in a negative manner; and (c) the client has a negative view of the future. The people who have a negative view of themselves see themselves as inadequate, deserted, and worthless. These people also believe that there are enormous barriers that prevent attainment of goals. People who interpret experiences in a negative manner select specific information from the experience that helps maintain their negative schemas. Finally, these people also perceive that they do not have control over the future, that current difficulties will not improve, and they will only experience failure in the future.

With this cognitive triad in mind, the therapist tries to focus on cognitive change which occurs at three different levels; voluntary thoughts, continuous or automatic thoughts, and assumptions. Voluntary thoughts are thoughts that come to mind most frequently and are the easiest to access. However, voluntary thoughts are the least stable thoughts. Continuous thoughts come to mind spontaneously, are harder to access, and are more stable than voluntary thoughts. Underlying assumptions are the foundation of one's thinking. They are the most difficult to access and are the most stable thought compared to voluntary and automatic thoughts. These underlying assumptions shape perceptions into cognitions, determine goals, and provide interpretations. Thus, Beck & Weishaar (2000) define the final aim of therapy as helping the client use their skills and strategies to "identify these underlying assumptions and counteract their effects" (p. 255).

When working with participants who have physical disabilities, a cognitive behaviorist must follow the basic ideology or assumption of the therapy. Thus, a teacher believes that, "(1) people's internal communication is accessible to introspection, (2) clients' beliefs have highly personal meanings, and (3) these meanings can be discovered

by the client rather than taught or interpreted by the therapist" (Ellis, 1996). Therefore, participants with a physical disability are empowered to be active members in the participant-teacher relationship. The participants and teacher work together in guided discovery to identify the assumptions and meanings of the participants' cognitions. Additionally, the participants have to understand and be aware of the meanings, take the initiative to change the maladaptive cognitions, and make an effort to replace the cognitions with more adaptive assumptions (Beck, Rush, Shaw, & Emery, 1979). Thus, the cognitive behaviorist is only a guide instead of the centerpiece of the educational process.

*Factors that Influence Schemas*

Cognitive behavioral therapy views schemas and therefore psychological well-being as, "shaped by interaction between innate disposition and [the] environment" (Beck & Weishaar, 2000, p. 248). Therefore, cognitive behaviorists believe that a child's cognitions are affected by a child's genetically-determined personality, environment, explanation of events by others, and life experiences (Seligman, 1995). For instance, children who have parents who are learned helpless can be detrimentally influenced by their parents and develop a similar negative psychological well-being (Seligman, 1995). Downey and Coyne (1990) found support for Seligman's developmental position. Downey and Coyne found that 50% of children who have a mother who is learned helpless and depressed have a depressive episode by the end of high school. The authors suggested that the parents' genetic makeup and the learned helpless explanation for life events significantly impacted their child's psychological well-being.

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Downey and Coyne (1990) could not determine if the child's genetic make-up or mother's learned helpless explanation for life events was more influential on the child's psychological well-being. Cognitive behaviorist view that people's schemas and psychological well-being are at least partially shaped by genetics. Schulman, Keith, and Seligman (1993) studied monozygotic and dyzygotic twins. The authors found an interclass correlation of 0.48 for monozygotic twins and 0.00 for dizygotic twins for their psychological well-being. Thus, they proposed that at least part of an optimistic schema is developed genetically.

Along with parents' explanatory styles and a person's genetic make-up, cognitive behavior therapy proposes that teachers and coaches can also influence the development of schemas. For instance, Mueller and Dweck (1998) found that teachers who praise their students for effort versus intelligence helped their students develop an optimistic explanatory style. Thus, teachers and cognitive behaviorist can help a person develop schemas that will help a person successful cope with daily activities.

A person could also develop positive schemas through cognitive behavioral therapy. Cognitive therapy has been successfully implemented with adults and children, people with and without disabilities, and people from various cultures. Several authors and practitioners (Beail, 2003; Sturmey, 2004) have also stated that cognitive behavioral therapy is effective for people with cognitive disabilities. Stenfert-Kroese, et al. (1997) even published a handbook on how to use cognitive behavioral therapy with people with learning disabilities. The handbook was also supported with evidence from several studies conducted by Stenfert-Kroese and colleagues. Thus, cognitive behavioral therapy is for people of various backgrounds, abilities, and ages. The key to the success of the

intervention is the ability of the teacher in modifying the techniques a cognitive behaviorist uses during the intervention.

*Cognitive Techniques to Develop Life Skills*

A cognitive behaviorist combines both cognitive and behavioral strategies to assist the client in developing life skills. Beck and Weishaar (2000) identified four cognitive techniques. The four cognitive techniques are decatastrophizing, reattribution, redefining, and decentering. Decatastrophizing is also known as the *what if* technique. It helps participants prepare for feared consequences, decrease avoidance of feared consequences, and hopefully develop strategies for these consequences. For instance, Mike has cerebral palsy. Mike has to see the doctor for a Botox injection, but he has an extreme fear about the needle. First, the cognitive behaviorist asks Mike what is the worst and best thing that could happen when having a Botox injection. Then, the cognitive behaviorist asks Mike what is the most likely consequence of having the Botox injection. Then, the life skills teacher and boy decide on different strategies of positively responding to the needle and pain surrounding the injection so that he could gain the benefits from the injection.

Reattribution techniques focus on trying to develop alternative causes of events. The purpose of this technique is to test automatic thoughts and assumptions, encourage reality testing, and identify appropriate causes of problems. This technique is especially helpful when the person thinks she is the sole cause of the problem but she still had no control over the outcome. For instance, Sheri, who has an amputation, may think that Lisa did not want to go to the movies with her because of her disability. Sheri believes that she will never be able to make friends because her amputation makes her ugly. Sheri

thinks that she is the sole cause of her problem, but she cannot change this problem. A teacher could then teach Sheri to look at all the possible reasons why Lisa may not have been able to go to the movies. For instance, Lisa may not have been able to go to the movies because she plans to attend her brother's baseball game. The teacher could also have Sheri think about all the people that care about her to show that Sheri does have friends. Then, Sheri would realize that her disability does not prevent her from having friends.

Redefining helps people understand that their behaviors lead to certain outcomes and may include "making [the problem] more concrete and specific and stating it in terms of the patient's own behavior" (Beck & Weishaar, 2000, p. 262). For instance, Sheri, in the previous example, may state, "Nobody wants to be friends with me". Sheri should then redefine the problem as something that she specifically needs to do such as, "I need to reach out to other people and be more caring."

Decentering is usually used with participants who have anxiety disorders and who believe that they are the center of everyone's attention. Participants try to test this belief with behavioral experiments. Participants examine why people would stare and focus only on them. For example, Ali always picks at his skin on his hand and refuses to try new activities because he thinks everyone is constantly watching and evaluating him. The cognitive behaviorist challenged Ali to watch what others are doing while learning a new skill in PE. Ali noticed that the other students were all busy trying to learn the new skill instead of paying attention to him. This example taught Ali that he is not the center of everyone's attention.

*Behavioral Techniques to Develop Life Skills*

Along with cognitive techniques, a cognitive behaviorist will use behavioral techniques to develop life skills. The behavioral techniques used by a cognitive behaviorist are homework, hypothesis testing, exposure therapy, behavioral rehearsal and role-playing, diversion, and activity scheduling. The implementation of each of these techniques becomes more difficult as the person increases their life skills.

Some of the examples of homework are self-observation, self-monitoring, and structuring time effectively. The purpose of the homework assignments is to work on the cognitive principles outside of the sessions and help individuals take ownership of developing their life skills. Assertiveness training can also be a part of a homework assignment (Ellis, 1996). For instance, John was recently in a motorcycle accident and now has a spinal cord injury. John is very passive and thinks that none of his old friends will want to spend time with him. A teacher may give John an assignment where he has to call a friend and ask him to go to lunch or the movies. Thus, the teacher is giving John an assignment in which he has to practice his assertiveness.

The purpose of hypothesis testing is to determine whether a person's assumptions or automatic thoughts are correct and adaptive. It is important for the cognitive behaviorist to make the hypothesis specific and concrete. In this way, the participants understand exactly what they are testing so that they can take responsibility for their thoughts. For instance, John from the previous example may think (or hypothesize) that he cannot do any of his favorite activities anymore. In order to test this hypothesis, John lists all of his favorite activities. Then, John marks all of the activities that he can still do

with and without modifications. The cognitive behaviorist is thus attempting to disprove the negative assumption that he cannot do his favorite activities anymore.

Exposure therapy is used to provide information on the thoughts, images, and physiological symptoms due to one's automatic thoughts. By placing the person in the threatening situation, the cognitive behaviorist is able to examine the thoughts during the activity. For instance, Maria has cerebral palsy and speaks with a cerebral palsy accent. She has negative automatic thoughts about asking others for help. Maria thinks that people will immediately perceive her as stupid and unable to do anything for herself, because she has trouble speaking. The cognitive behaviorist may slowly expose Maria to asking others for help. After each step of the process, Maria and the teacher then talk about her thoughts, images, and physiological responses of attempting to ask other people for help. Then, the cognitive behaviorist and Maria work together to try to cope with these responses.

The purpose of role-play, behavioral rehearsal, or modeling is to practice the life skills that are to be used in everyday life. During role-play, the cognitive behaviorist will set up a safe environment in which the participant should be successful in applying the newly learned skill. In order to provide objective feedback, role-play exercises are videotaped. The teacher then interrupts the information from the videotape and provides feedback about what the clients are telling themselves and how to change these inappropriate thoughts. For instance, Mike who has a physical disability may role-play asking a girl out on a date. Then, the cognitive behaviorist and the other group participants would give feedback so that Mike would feel more comfortable when actually talking to the girl.

A cognitive behaviorist will also use diversion techniques such as physical activity, play, and visual imagery to reduce strong emotions and decrease negative thinking. The purpose of diversion activities is to prevent participants from focusing on their negative thinking and focus on something that they enjoy. For instance, Felipe hates his physical therapy sessions but loves wheelchair basketball. Whenever he goes to physical therapy he becomes very angry and repeatedly demeans himself. In order to divert his mind from his frustrations, his physical therapist incorporates physical therapy activities into a basketball context. Thus, Felipe's physical therapist uses basketball as a diversion technique.

Activity scheduling is used to encourage involvement in activities and promote structure. After each of these activities, the participant is supposed to rate the degree of mastery and pleasure gained from the activity on a scale of 0-10. The goals of this technique are to help the participant realize that mood can fluctuate, that the person can enjoy various activities, and that people can do activities though they may think they cannot. For instance, John, who believed that he could not do any of his favorite activities because of his spinal cord injury, may be assigned to participate in some of his favorite activities or some new activities. He then has to rate his pleasure in the activity. In this way, he will be learning that he can still enjoy his old activities and also enjoy new activities.

*Implementing Cognitive Behavioral Interventions*

*Logistical concerns.* The intervention setting could be a therapeutic or educational setting. The intervention can include just one participant or a group of up to twelve participants with similar goals or objectives. For instance, a typical intervention program

at a disability rehabilitation center could be designed for people who recently acquired a spinal cord injury. The focus of the program could be to teach the participants how to adjust to their acquired disability.

*Therapeutic progression.* At the outset of a cognitive behavioral intervention, participants are notified that the intervention will last for 12 to 25 sessions (Beck & Weishaar, 2000). At the beginning of the program, the activities are teacher directed. Later, the teacher provides an opportunity for guided practice of the skills. Next, the sessions become client directed. The end goal is for the participants to be independent in integrating the learned life skills into their everyday lives. (Figure 2)

At the beginning of a program, the cognitive behaviorist wants to develop a collaborative relationship between each of the members of the group (Table 1). Usually, the cognitive behaviorist tries to develop a relationship among all the group members including the leader by setting ground rules (e.g., one person speaks at a time) and developing a supportive environment. The cognitive behaviorist quite often asks questions that try to gain a better understanding of the people's reasons for joining the program, concerns about the program, and expected goals or outcomes for the program. These initial sessions are also focused on providing information about the program and the rationale behind it. Once participants have started to develop trust and rapport with each other, they then move to the middle stages of the intervention.

In order to enhance psychological well-being and life skills during the middle and later sessions of a program, the focus shifts from an introduction of the program and setting goals to a focus on participants' thoughts and assumptions (Beck & Weishaar, 2000). People are supposed to gain a better understanding of their thoughts, emotions,

*Figure 2.* Therapeutic progression of control of program
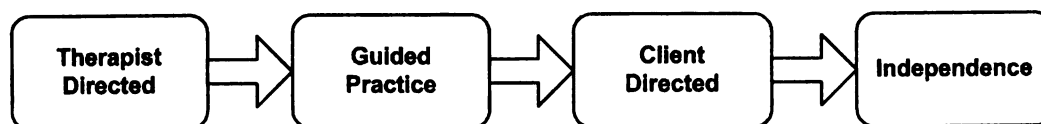


Table 1

*Timeline of Goals for a Cognitive Behavioral Intervention*

| Session Period | Goals |
| --- | --- |
| Early | Set ground rules |
| | Discuss rationale, expectations, and concerns about the program |
| | Develop collaborative relationship among teacher and participants |
| Middle | Develop understanding of thoughts, assumptions, and behaviors |
| | Acceptance of responsibility and ownership of therapy by participants |
| | Become assertive and challenge negative thoughts and assumptions |
| | Begin to assign own homework and teacher becomes a guide |
| Late | Become better aware of how cognitions affect daily activities |
| | Gain confidence in challenging one's negative thoughts and assumptions |
| | Become self-sufficient in practicing and using new skills |

and behavior and how they interact with each other. Participants also need to become assertive and challenge their thoughts. Once participants begin to challenge their thoughts, participants see how their underlying assumptions affect their daily experiences. During this time of the program, there is more responsibility placed on the participants and they must take ownership of their therapy. Clients begin to assign the homework to themselves and identify solutions, and thus the therapist starts to become more of an advisor instead of a teacher. Group members also help with this process through role play and modeling.

In the last few sessions of an intervention, participants become better aware of their cognitions and how these cognitions affect their daily activities. Additionally, participants become more self-sufficient and adept in practicing their new skills and perspectives. In these terminating sessions, participants may start to become worried about being assertive and challenging one's assumptions without the group's continuous support. However, the cognitive behaviorist and the other members of the group remind each other that the goal of the intervention is not to cure the participants but to strengthen life skills that will help increase their psychological well-being and quality of life. The goal of the intervention is to help each other practice and strengthen these life skills in a safe environment so that participants will become more self-reliant than they were before the program. Then, the participants are ready to be on their own and use the skills learned to successfully cope with everyday life.

*Cognitive-Behavioral Interventions to Develop Life Skills*

This review will focus on the following life skills: (a) optimism; (b) perceived competence; (c) team work; (d) goal setting strategies; (e) positive self-talk; (f)

assertiveness; (g) social skills; and (h) coping skills. The criteria for selecting the studies reviewed in this section of the literature review included: (a) use of a cognitive behavioral intervention to increase psychological well-being and life skills and (b) an experimental study that used pretest and posttest scores to validate the effectiveness of the intervention. Depending upon the availability of evidence, research on people without disabilities and people with disabilities will be presented. Throughout the review of literature, the research presented will focus on children as much as possible.

*Developing Optimism in Children*

With the previously discussed cognitive behavioral strategies in mind, researchers have developed several interventions that focused on optimism and psychological skills training in children without disabilities. These interventions will be reviewed next (Table 2).

Dweck (1975) and Seligman colleagues have been the leaders in using cognitive behavioral therapy to develop optimism in children. Dweck (1975) developed a 25 day intervention program that focused on reattribution training. During the intervention, the C group participants were successful at all 15 math problems each day. The E group participants were successful on 12 or 13 of the 15 math problems each day. After each failed attempt, Dweck taught the 12 E group participants to focus on effort instead of ability. Dweck found that the children who were taught that success and failure was under their control were more likely to attribute failure to effort. This optimistic viewpoint then led to improvement in performance. The success-only group showed no improvement on the tasks or changes in attribution. When the C group failed an attempt

Table 2

*Cognitive Behavioral Interventions Used to Develop Optimism*

| Author (Date) | Participants | Intervention | Pre-Post Results | Retention Results |
|---|---|---|---|---|
| Dweck (1975) | 12 children aged 8-13 years with extreme reactions to failure | For 25 daily sessions, E group received feedback after each failure that failure on math problems was due to lack of effort | E group attributed failure to effort and increased performance; Success-only group decreased performance and/or quit attempts after failure | No results measured |
| Lindsay, Howells, & Pitcaithly (1993) | A 28-year-old male and a 20-year-old female with cognitive disabilities | 8 week program that used decatastrophizing, reattribution, redefining, decentering, homework, hypothesis testing, exposure therapy, and role play | Decreased depression and increased control of negative thoughts | At 6 & 35 week follow-up, decreased depression and increased control of negative thoughts |
| Jaycox, et al. (1994); Gillham et al. (1995); Zubernis et al. (1999); Gillham & Reivich (1999) | 143 predominantly Caucasian middle class students aged 10-13 years at risk for depression | 12 week program that used decatastrophizing, reattribution, redefining, decentering, homework, hypothesis testing, and role play | E group < depressive symptoms and were less likely to attribute negative events to stable causes | E group's < depression for 2 years and differences in explanatory style lasted for 3 years. |
| Cardemil, Reivich, & Seligman (2002) | 49 Latino Americans in 5th and 6th grade students at risk for depression | 12 week program that used decatastrophizing, reattribution, redefining, decentering, homework, hypothesis testing, and role play | E group < depression, negative cognitions, & hopelessness scores than C group | At 3 and 6 months, E group < depression, negative cognitions, and hopelessness scores and > perceived competence |
| Cardemil, Reivich, & Seligman (2002) | 103 African American 5th and 6th grade students at risk for depression | 12 week program that used decatastrophizing, reattribution, redefining, decentering, homework, hypothesis testing, and role play | E group < depression scores compared to E group pretest scores. No differences between E and C group. | At 3 months, C group had lower depression scores. No difference at 6 months. |

during posttest evaluation, these success-only children reacted more negatively to failure than before treatment started.

Dweck's findings are important for cognitive behaviorists working with children. Cognitive behaviorists should provide challenges that will not be easily achieved. Challenges should be somewhat difficult and require effort from children. Encouraging children to attribute failure to effort teaches children to try harder when they face difficulties. A limitation to the findings is that Dweck provided the E group participants with an 80% to 87% success rate and only used academic obstacles. The question still remains if attribution training could be applied to help children succeed with difficulties both in and out of school.

Seligman and his research group (Gillham, et al. 1995; Gillham & Reivich, 1999, Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al. 1999) also conducted a cognitive behavioral intervention program, but they linked the life skills to coping with real life situations. In their program, the authors tried to develop optimism and psychological skills in 5th and 6th graders who were at risk for depression. The intervention group met for once a week for 12 weeks. The intervention group learned to recognize their pessimistic and negative thoughts and how to change these thoughts to more realistic and optimistic alternatives. The intervention leaders used decastrophizing, reattribution, redefining, homework, hypothesis testing, behavior rehearsal and role-play, and graded task assignments. It was found that the children who were in the intervention group were more optimistic and had better psychological well-being for up to three years after the intervention compared to the control group. However, most of the children that were in

the study were Caucasian middle class students. Thus, do the results of the program

extend to children from other racial or socioeconomic groups?

Cardemil, Reivich, and Seligman (2002) continued the positive psychological

well-being line of research by using the same Penn Resiliency Program materials

(Gillham, et al. 2003) with low-income minority middle school students. Because the two

schools that the researchers used in this project were so drastically different

demographically, the research project was separated into two studies. In the first study,

all of the participants were Latino, and in the second study all of the participants were

African American. It was found that the Latino children in the E group had significantly

lower depression, negative cognitions, and hopelessness scores compared to the C group

for up to six months after the program and higher perceived competence at only the six-

month follow-up. For the African American children, there were no significant

differences between the C and E group at posttest. The intervention group did

significantly decrease their depressive symptoms, but the C group depression scores also

significantly decreased. In fact, three months after the intervention, the C group had

significantly lower depression symptoms than the intervention group, but this significant

difference disappeared at the six-month follow-up.

Because the program was effective with the Latino group but not the African

American group, it was hypothesized that the Latino intervention group benefited from

the program more than the African American intervention group. This could be true

because the Latino E and C groups were higher on pretest scores than the African

American respective groups. Therefore, the program may only be effective to children

who are at a greater risk for depression.

The participants were not randomly assigned in any of the Penn Prevention Programs (Cardemil, Reivich, & Seligman, 2002; Gillham, et al. 1995; Gillham & Reivich, 1999, Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al. 1999). In the Jaycox et al. study (1994), only 16% of the parents who received letters describing the study enrolled their children in the study. Therefore, it is likely that there were several other differences between the C groups or those who did not register for the studies than the E groups. These differences could be the cause for the differences between the E and C groups.

These studies were limited by the measurements that the authors used to study the differences between the E and C groups. The intervention programs attempted more than to just decrease depression and increase optimistic explanatory styles. The programs also taught problem-solving skills, assertiveness, and coping skills, but none of the studies have tried to measure these skills.

One of the strengths of the Seligman and colleagues (Cardemil, Reivich, & Seligman, 2002; Gillham, et al. 1995; Gillham & Reivich, 1999, Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al. 1999) studies was that 96.5% of the original participants continued for all three years of their study. However, these authors also provided $400 as an incentive to participate in the program. If cognitive behaviorists offer the same program in a real-world setting, fewer people would probably register for the program. These participants could then be significantly different from the people who participated in the program for money.

*Developing Optimism in People who have Disabilities*

There were two cognitive behavioral interventions that focused on increasing psychological well-being in people with disabilities. Matson, Dettling, and Senatore, (1980) demonstrated the practicability of using self-monitoring of self-talk, social reinforcement, and encouragement of positive self-talk to successfully increase psychological well-being in a male with borderline to mild mental retardation. Lindsay, Howells, and Pitcaithly (1993) took the lessons learned from Matson et al (1980) and tried to increase psychological well-being in two adults with cognitive disabilities. During the 8 week intervention program, Lindsay et al (1993) used decatastrophizing, reattribution, redefining, decentering, homework, hypothesis testing, exposure therapy, and role play. The participants demonstrated decreased depression and increased control over negative thoughts and worries. However, both of these intervention programs should be viewed with caution. The research projects should be viewed as case studies that demonstrated the feasibility of applying cognitive behavioral techniques to people with cognitive disabilities. There were no control groups to compare the efficacy of the interventions. These authors have suggested the need for interventions focused on groups of people with disabilities.

*Developing Perceived Competence*

Harter's (1981) model of perceived competence has been used to explain motivation for mastery attempts (Figure 3). Weiss and Chaumeton (1992) summarized Harter's model as, "Individuals are motivated to demonstrate competence in an achievement area and do so by engaging in mastery attempts. If successful, these mastery experiences result in feelings of efficacy and positive affect, which, in turn, result in

*Figure 3.* Harter's (1981) Model of Perceived Competence
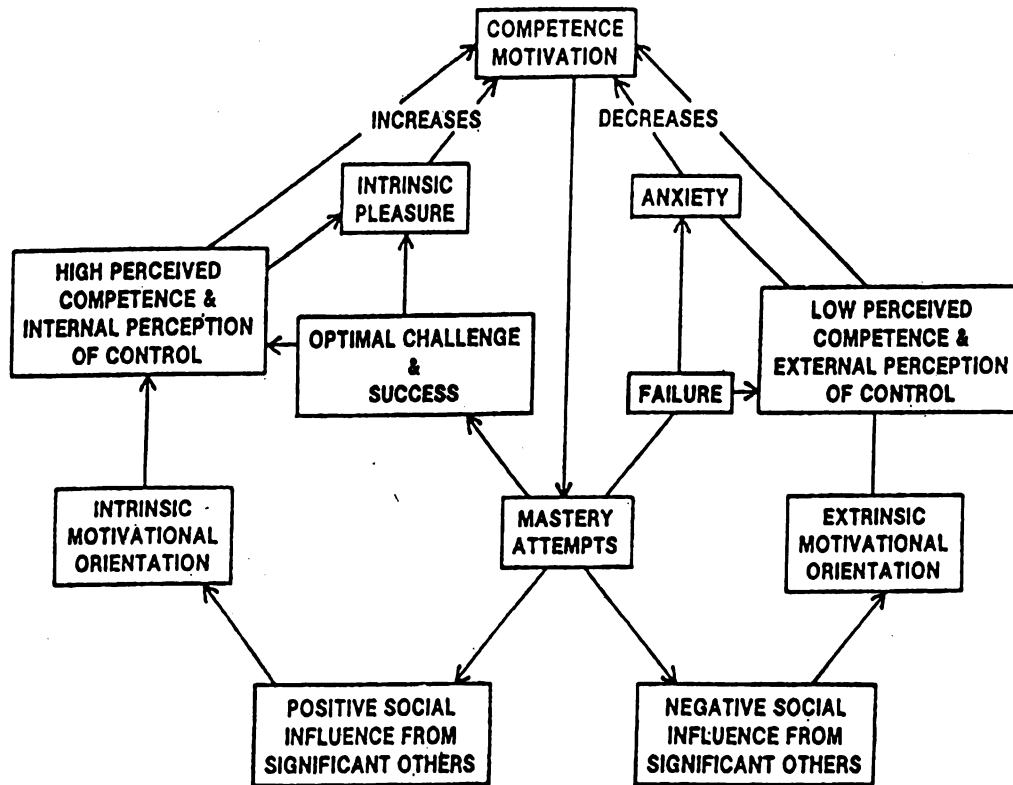
continued motivation to participate" (p.65). Therefore, Harter proposes that people with higher perceived competence in a specific achievement domain will be more likely to participate in mastery attempts than people with lower perceived competence.

Perceived competence has been found to have an important positive relationship with participation (Feltz, Gould, Horn, & Weiss, 1982; Klint & Weiss, 1987; Roberts, Kleiber, & Duda, 1981; Ryckman & Hamel, 1993; Weiss & Frazer, 1995). Children who are higher in athletic perceived competence are more likely to participate in sport and also participate longer in sport. For instance, Feltz and Petlichkoff (1983) measured the perceived competence of sports participants and sports dropouts ages 12-18. They found that there was a significant relationship between athletic perceived competence and participation rates. They found children with lower athletic perceived competence were more likely to dropout of sport than children with higher athletic perceived competence. Feltz and Petlichkoff (1983) also found that athletes who have participated longer had higher athletic perceived competence than those athletes who had participated for fewer years.

Harter (1978; 1981; 1999) proposed that every mastery attempt provides information about one's competence. If a person perceives the attempt to be successful and an optimal challenge, then the person is able to increase his/her intrinsic pleasure, perception of control, and perceived competence. If a person perceives the attempt as a failure, then the person decreases his/her perceived competence. Failure in a mastery attempt also leads to an increase in the person's anxiety and perception of external control.

Significant others also play a role in the development of one's perceived competence. After a mastery attempt, people look for feedback about the success of an attempt. The person can gain valuable feedback about the mastery attempt from significant others such as parents, coaches, and peers. If a significant other provides positive feedback about the mastery attempt, than the person increases his/her intrinsic motivational orientation which in turn increases perceived competence and internal perceptions of control. Then, the person will become more motivated to perform more mastery attempts. For instance, Johnny is 9 years old and plays wheelchair basketball. After every game, Johnny's father tells him that he tried hard and played well. Because Johnny received this positive feedback from his father, he will increase his intrinsic motivation, perceived competence, and internal perception of control.

It is important to provide athletes with positive feedback, technical instruction, and error contingent encouragement in order to increase a child's perceived competence (Barnett, Smoll, & Smith, 1992). Epstein (1989) has also developed the TARGET acronym to help teachers develop a mastery-oriented environment to increase children's perceived competence. TARGET stands for Task, Authority, Rewarding task oriented behavior, Group evaluation and goals, Evaluation of effort and improvement, and Time on task.

Task oriented behaviors focus on improvement, effort, and learning of skills. Ego oriented behaviors are behaviors focused on outcome such as winning and being better than others. Coaches who want to increase their athletes' perceived competence should teach and focus their positive reinforcement on task oriented behaviors. For instance, athletes could set a goal to improve their skill in a certain area. Athletes should then be

given the opportunity to practice this skill. Coaches should then evaluate and comment on the athlete's improvement on this skill and effort in trying to improve. Thus, coaches are focusing on each athlete's improvement and not comparing one person's skill to another athlete's skill.

Authority should be given to the athletes. When a coach gives the athlete the authority to make decisions, the coach is helping the athlete develop his/her internal perception of control. This internal perception of control increases the athlete's perceived competence. One way for athletes to gain a sense of internal perception of control is to have authority to make some decisions in their activities. For instance, coaches could have athletes choose which warm-up activities to do before practicing or have the athletes lead the warm-up activities.

Rewarding task oriented behaviors also helps increase a person's perceived competence. Rewarding behaviors does not necessarily mean giving a person an extrinsic reward. The most powerful reward for a child can be positive encouragement from a significant other such as a coach. Thus, coaches should provide positive feedback on the athletes' task oriented behaviors such as effort, encouraging other athletes, and improvement in skills.

Group evaluation and setting goals should be conducted in order to increase a person's perceived competence. Students or athletes should be evaluated based on their goals. Teachers should provide technical instruction on an individual and group basis. However, if a person has made a mistake, it is important to talk to the person individually instead of the whole group. Singling a person out in front of a group provides negative feedback in front of significant others and thus can decrease one's perceived competence.

Evaluation of a mastery attempt should be based on effort and improvement. When a teacher provides feedback about one's effort and improvement, it increases a person's perceptions of success, internal perception of control, and perceived competence. Athletes should be evaluated individually on effort and improvement also. Coaches should reward these behaviors.

Time should be provided for all people to improve their actual competence. By providing time to improve on skills, teachers should also provide optimal challenges that matcher the participant's ability. In turn, providing time will allow the person to increase his/her success rate, and in turn increase his/her perceived competence. Teachers should also remind participants that it might take a little time to see improvement. Teachers should also keep reinforcing effort and hard work over time will lead to improvement.

Epstein's TARGET acronym fits well with Harter's model of perceived competence. Epstein focuses on ways that teachers can provide positive social influence, establish optimal challenges where the child can succeed, and increase intrinsic motivation, perceived competence, internal perceptions of control and intrinsic pleasure. Each of these steps then increases a participant's competence motivation, which in turn leads to more mastery attempts and skill development. Therefore, Epstein's acronym is a tool to use when developing life skills in children.

*Developing Team Work*

At the beginning of a cognitive behavioral intervention, it is important to develop a cohesive supportive group (Beck & Weishaar, 2000). There are several ways that are suggested to increase group cohesion (Carron & Spink, 1993; Weinberg & Gould, 2004). These strategies include: (a) distinctiveness such as making a group motto or t-shirt; (b)

individual roles such as setting individual goals within group atmosphere; (c) group

norms such as setting group rules; (d) individual sacrifices such as knowing something

personal about each person; and (e) open communication such as communicating

honestly and openly with group members. Additionally, Smith and Smoll (1997) state

that when working with youth groups it is important to focus on the interpersonal skills.

However, published intervention studies focused on increasing cohesion in youth groups

are nonexistent. These strategies have been used to help build cohesion in children groups

and thus should be effective for children with physical disabilities.

*Developing Goal Setting Skills*

In their review of the effects of goal setting, Copeland and Hughes (2002) have

found that goal setting is effective in increasing task performance in people with

disabilities. Beck and Weishaar (2000) also stated that it is important to set goals and to

teach goal setting strategies at the beginning of a cognitive-behavioral intervention. In

developing a goal setting program, Weinberg and Gould (2004) stated that the principles

of goal setting that should be taught are: (a) set specific goals; (b) set moderately difficult

but realistic goals; (c) set long- and short-term goals; (d) set performance and process, as

well as outcome, goals; (e) record goals; (f) develop goal-achievement strategies; (g)

consider the participant's personality and motivation; (h) foster an individual's goal

commitment; and (i) provide goal support, and provide evaluation of and feedback about

goals (p. 335).

Cognitive behaviorists have taught goal setting to students with learning

disabilities and have been successful in increasing their rates of assignment completion

(Skunk, 1985; Tollefson, Tracy, Johnson, & Chatman, 1986; Table 3). Skunk (1985) was

able to increase the children's math success rate, but he did not mention how he taught the goal setting strategies. Skunk (1985) asked the children how many math problems they thought they could complete, but he did not teach the children how to set goals. Tollefson et al. (1986) had the resource room teacher help students select a subject or area to set a goal, develop a specific goal statement, define a goal deadline, develop a plan to reach the goal, and evaluate the goal. Thus, Skunk evaluated if setting a goal could increase successful completion of math problems, but Tollefson et al. attempted to teach children goal setting strategies.

Unlike Skunk (1985), Tollefson et al (1986) studied if whether teaching goal setting strategies affected children's homework assignment completion. Participants learned and practiced goal setting strategies in a resource room. The homework completion rates of the participants in other classes were then evaluated for four weeks after the intervention. The authors found that three of the four children did increase their rate of homework completion for four weeks after the intervention program. Tollefson et al. (1986) were able to help the children retain their goal setting skills and apply them to another academic setting by teaching the children goal setting strategies. Thus, in order to have children apply the skills in other areas, it is important to teach the children how to set goals, how to develop a goal-setting plan, and how to evaluate if one accomplishes the goal or not.

Table 3

*Interventions to Teach Goal Setting Strategies*

| Author (Date) | Participants | Intervention | Pre-Post Results | Retention Results |
|---|---|---|---|---|
| Skunk (1985) | 30 6th grade students with LD in mathematics | Self set goal group was told to set a goal for the number of math pages they would complete. Assigned goal group was told to set a goal to complete 7 pages. No goal group received no instruction on setting a goal | Self-set goal group significantly higher in self-efficacy and success in subtraction problems than two other groups | No results measured |
| Tollefson, Tracy, Johnson, & Chatman (1986) | 8 students with LD in 7th and 8th grade who went to a resource room. For Part B, only 4 children were included | Resource room teacher taught E group how to define a specific goal, set a goal deadline, develop a plan to reach goal, and evaluate goal achievement | 4 students increased rate of completing resource room assignments. | 3 of the 4 students increased rate of completing homework assignments |

*Developing Positive Self-talk*

The primary focus of cognitive behavior therapy is to understand how thoughts affect feelings which in turn affect behaviors (Ellis, 1996). Cognitive restructuring is the skill to change negative thoughts to positive thoughts so that the person will have positive feelings which will lead to positive behaviors. For instance, a person who has positive thoughts such as "I'm doing great!" will feel happy and will then smile more and persist in the activity. Cognitive restructuring or positive self-talk is the goal of cognitive behavior therapy. In order to change this negative thinking, cognitive behaviorists have used cue words to remind the person to stop the negative thought, (Gould et al., 2000), role-play (Gould et al., 2000; Gillham et al., 2003), and hypothesis testing (looking for ways to disprove negative thoughts, Gillham et al. 2003). These strategies have been extremely effective in changing the negative thoughts of children without disabilities into a more optimistic explanatory style (see previously reviewed optimism research; Gillham, et al. 1995; Gillham & Reivich, 1999, Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al. 1999).

*Developing Assertiveness*

Assertiveness is an important goal of cognitive behaviorism because it is beneficial for social development and problem solving abilities in people with physical disabilities (Gambrill, Florian, & Splaver, 1986; Glueckauf & Quittner, 1992). Dunn (1977) found that males who use wheelchairs are typically anxious in social situations and should benefit from assertiveness training in order to increase social development and problem solving abilities. Several researchers (Table 4) have developed assertiveness

Table 4

*Interventions to Teach Assertiveness*

| Author (Date) | Participants | Intervention | Pre-Post Results | Retention Results |
|---|---|---|---|---|
| Morgan & Leung (1980) | 9F & 5M undergraduate students with physical disabilities; Randomly assigned to E & C groups | 10 weekly 90 minute sessions that included modeling, behavioral rehearsal, role play, coaching, and audio-visual playback and feedback to teach assertiveness & social interaction skills | E group > acceptance of disability, self-concept, and social and assertiveness skills than no-treatment C group | No results measured |
| Starke (1987) | 30 undergraduates with physical disabilities; E group received intervention; C1 = discussion support group; C2 = no intervention | 8 weekly 90 minute sessions that included structured exercises, role play, video-tape feedback, postural and verbal training, and homework assignments to teach how to introduce oneself and begin a conversation | E group > C1 and C2 in observed assertiveness behaviors and self-perception assertiveness. Also, high assertiveness was correlated with acceptance of disability | No results were measured |
| Glueckauf & Quittner (1992) | 17M & 17F adults who used wheelchairs; C group used as wait list for E group | 11 weekly 150 minute sessions that used homework, cognitive restructuring, relaxation drills, modeling, role-play, and goal setting | E group > acceptance of disability, observed assertive behaviors, & self-reported assertiveness and low social anxiety No increase in community activity participation | At 6 months, E group > self-reported assertiveness, acceptance of disability, and low social anxiety. |

intervention programs to decrease social anxiety and increase social development and assertiveness in people with disabilities.

Morgan and Leung (1980) were among the first researchers to develop an assertiveness training intervention program. They defined assertiveness training as "teaching a process that encourages independent action" (p. 209). The training programs (Morgan & Leung, 1980; Starke, 1987; Glueckauf & Quittner, 1992) that have been effective in teaching assertiveness in people with disabilities have used modeling, behavioral rehearsal, role play, coaching, audio-visual playback and feedback, structured exercises, postural and verbal training, homework, cognitive restructuring, relaxation drills, goal setting, and homework assignments. Each of these programs used several methods to teach assertiveness, and so there is no way of knowing which teaching techniques are most effective. Starke (1987) did study the differences between a discussion support group and an assertiveness training program, and found that the assertiveness training group was significantly higher at posttest in observed assertiveness behaviors and self-perception of assertiveness. Therefore, Starke did find that a support group, or an attention placebo, is not sufficient enough in developing assertiveness in people with physical disabilities.

Each of these assertiveness training programs was developed for people with physical disabilities. However, all of these authors developed their programs for adults. The youngest group of participants was college undergraduates (Morgan & Leung, 1980; Starke, 1987). Glueckauf and Quittner (1992) developed their program for adults and their average years of school was 13.3 years. Thus, most of these participants had

graduated high school. The question that still remains is if children with physical disabilities can develop assertiveness skills through an intervention program.

The only researchers who conducted a retention test were Glueckauf and Quittner (1992). Glueckauf and Quittner (1992) found that the E group had higher self-reported assertiveness, acceptance of disability, and lower social anxiety than the C group. This was the only study that did a retention test. However, the E group in this study also met for the longest duration. Was the retention of skills due to the extended time of the intervention program or would people retain the assertiveness skills in a program of shorter duration?

*Developing Social Skills*

Along with assertiveness skills, social skills are important for high quality of life (Chadsey-Rusch, Rusch, & O'Reilly, 1991). However, many people with disabilities struggle with developing social skills, especially if they have a visible disability at a young age (Wagner, 1989). Therefore, cognitive behavioral programs also focus on helping people with disabilities develop social interaction and social problem solving skills (Bierman, & Furman, 1984; Bierman, 1986; Hepler, 1997; O'Reilly & Glynn 1995; O'Reilly, Lancioni, Gardiner, Tiernan, & Lacy, 2002, Table 5).

Early social skills intervention programs focused on children without disabilities. The children who participated in these early studies were low in peer acceptance and conversation skills compared to their classmates (Bierman & Furman, 1984; Bierman, 1986). In order to increase the children's peer acceptance, these authors suggested that children must learn and practice their conversation skills in a collaborative environment with children who have high peer acceptance. In these articles, the children

Table 5

*Interventions to Teach Social Skills*

| Author (Date) | Participants | Intervention | Pre-Post Results | Retention Results |
|---|---|---|---|---|
| Bierman & Furman (1984) | 28M & 28F 5th & 6th graders low in peer acceptance and conversation skills randomly assigned to individual coaching group, group experience, group experience with coaching, and control group | 10 sessions x 30 min. x 6 weeks. Coaching groups received training in self-expression, questions, and leadership bids. Experience groups made friendly interaction films. | Skills training groups > C group on social skills used in didactic conversations and peer group interactions. Skills training groups and C groups increased peer acceptance scores from pretest. | The skill training groups > social skills in didactic conversations and peer group interactions & maintained high peer acceptance scores 6 weeks after intervention. |
| Bierman (1986) | 14M & 14F 5th & 6th graders low in peer acceptance and conversation skills | 10 sessions x 30 min. x 6 weeks. E group = training in self-expression, questioning, and leadership bids; C group = group project | E group > conversation skills | |
| O'Reilly & Glynn (1995) | Two 16 year old students with ID, poor social skills & are socially withdrawn | 30 min. x 2 a week. The experimenters used modeling, role-play, and graded task assignments to teach initiating and responding to task-related interactions | Both M & F participant > social skills with classroom teacher and interactions with classmates. | Used social skills six weeks after intervention |
| Hepler (1997) | 15 LD 5th graders and 26 students in the 5th grade without LD; classrooms were randomly assigned to E and C groups | 8 week x 1 hour program that focused on social problem solving and conversation behavioral skills | LD children in E group > peer acceptance & social interactions with students without LD | Retention of peer acceptance of LD students in E group |
| O'Reilly, Lancioni, Gardiner, Tieman & Lacy (2002) | 13 year old Romanian girl with ID adopted by Irish parents | 30 min. twice a week. The experimenters used modeling, role-play, and graded task assignments to teach initiating and responding to task-related interactions | Increased percentage of appropriate behavior to specific academic situations | No results were measured |

were randomly placed in social triads with one person being low in peer acceptance and conversation skills and two children high in peer acceptance and conversation skills. The authors suggested that having the triads learn about social skills while doing a collaborative project was important because it allows for each group member to be able to ask questions and be a leader in a low anxiety provoking, problem-focused situation.

O'Reilly and Glynn (1995) state that intervention programs must include social problem solving skills such as "discriminating salient social stimuli (decoding), identifying alternative social behaviors and identifying the most appropriate social behavior for the social situation (deciding), performing the social behavior (performing), and evaluating the effectiveness of the social behavior once it has been performed (evaluating)" (p. 188). Without these social problem solving skills, participants are not able to generalize the social interaction skills to situations that were not taught in the intervention.

The programs that taught social skills to children with disabilities focused on the previously mentioned social problem solving skills (Hepler, 1997; O'Reilly & Glynn, 1995; O'Reilly, Lancioni, Gardiner, Tieman & Lacy, 2002). These authors were successful in developing social skills and increasing peer acceptance, but Hepler (1997) was the only author that conducted the intervention in a group setting. O'Reilly and colleagues (O'Reilly & Glynn, 1995; O'Reilly, Lancioni, Gardiner, Tieman & Lacy, 2002) taught social problem solving skills to only one or two people with intellectual disabilities and thus their results should not be generalized to larger populations.

*Developing Coping Skills*

Coping skills are helpful with dealing with problems that people face. People with disabilities who are optimistic and have a higher psychological well-being tend to use problem-focused coping strategies, perceive they have control over the situation, seek social support, and emphasize positive aspects of stressful experiences to successfully handle and adjust to problems (Dunn, 1996; Gallagher & MacLachlan 1999; Hanson, Buckelew, Hewett, & O'Neal, 1993). Cognitive behaviorists have taught these coping skills to people with disabilities.

Morley, Eccleston, and Williams (1999) conducted a meta-analysis on cognitive behavioral intervention programs for adults with disabilities related to chronic pain. The authors found that cognitive behavioral therapy has a moderate effect size on cognitive coping and appraisal (reduction of negative coping and increase in positive coping). They also found that the efficacy of the cognitive behavioral program on reducing pain and increasing positive affect was dependent on positive coping skills. Cognitive-behavioral coping skills training in people with disabilities has focused on problem-solving, decision making, goal attaining, cognitive restructuring and reframing, self-monitoring, biofeedback, progressive muscle relaxation, and stress inoculation. The authors reported that cognitive behavioral therapy should focus on multiple coping strategies and problem solving skills so that people with disabilities are able to choose which coping strategy is most effective for a particular situation. In this way, people with acquired disabilities are able to better adjust with their disability, cope with daily problems, and have high self-concept and psychological well-being (Stevens & Pihl, 1982).

*Using Sport and Physical Activity to Develop Life Skills*

None of the previously reviewed intervention programs used sport or physical activity to teach these life skills. Now, the focus of this chapter will shift to how sport and physical activity has been used to enhance positive psychological well-being and teach life skills in children (e.g., Danish, Petitpas, & Hale, 1995; Hellison, et al., 2000; Weiss, 1991). Orlick and McCaffrey (1991) suggest that using sport for life skill development provides a holistic perspective that teaches "relevant mental skills and positive perspectives that will enhance their [children's] quality of living" (p.324). The purpose of the next section is to review interventions that have used sport or physical activity to develop life skills in children. Because this is an emerging line of research with various approaches to increasing life skills in children, three different approaches will be reviewed: (a) psychological skills training; (b) life development intervention; and (c) humanistic physical education. For each approach, evidence for people who do not have a disability will be presented first. Then, if there is evidence, literature about people who do have disability will be reviewed. Throughout the literature review, the focus will be on children as much as possible.

*Psychological Skills Training*

Educational sport psychologists are trained to use theoretical perspectives to teach mental skills to enhance performance. Psychological skills training has been a highly successful way to develop performance enhancing skills in and out of sport (Gould, 2002). Vealey (1988) reviewed the success of psychological skills training with adult athletes and suggested to extend psychological skills training to youth athletes to enhance success rates in all achievement domains. Weiss (1991) and Orlick and McCaffrey (1991)

were the first to heed Vealey's call for psychological skills training in youth life skill development. However, both of these articles are an integration of research and practical "lesson learned" articles instead of intervention programs that focus on the use of sport and physical activity in the development of life skills for outside of sport. However, the authors do make several suggestions for future practitioners using psychological skills training to teach life skills.

Weiss (1991) conducted an analysis to determine coaching or teaching strategies that positively influence life skill development. For instance, in order to increase a child's perceived competence, a coach must provide positive feedback that teaches that one's competence is due to one's own ability, effort, and practice. Additionally, a coach needs to provide appropriate challenges for each athlete. After both successful and unsuccessful attempts at these challenges, the coach should provide praise for the child's effort and then corrective instructional information. The children are motivated to improve and this will give them information so that they know how they can improve. Finally, a coach should provide fun, intrinsically motivating activities because affective characteristics and motivated behavior are strongly linked to self-perceptions of ability.

Both Weiss (1991) and Orlick and McCaffrey (1991) discussed what Weiss defines as "individual control strategies" such as goal setting, mental imagery, and relaxation. In order to teach goal setting, the authors suggested that coaches teach the same goal setting principles that were previously discussed. For relaxation and imagery, both Weiss (1991) and Orlick and McCaffrey (1991) suggested using vivid images and analogies that children could understand. For instance, when teaching relaxation, Orlick and McCaffrey have children play with both cooked and uncooked spaghetti. Then, they

relate the uncooked spaghetti to a tense, anxious body and the cooked spaghetti to a relaxed body. Finally, they talk to the children about what way they prefer to feel. Do they prefer to feel like the cooked or uncooked spaghetti?

Orlick and McCaffrey (1991) have also used these same strategies while working with children who are fighting terminal illnesses. They stated that both athletes and children who are sick would do anything to succeed at their goals. Again, Orlick and McCaffrey (1991) do not give research guided suggestions, but they do give practical guided suggestions from their work. These suggestions include using simple strategies such as imagining a cooked spaghetti noodle when a nurse is trying to find a vein for a needle, keeping it fun such as playing games to learn lessons, using a concrete, physical component such as writing worries on a piece of paper and placing the piece of paper in a sealed worried box, using individualized and multiple approaches so that each child can be successful in learning the topic, being positive and hopeful so that the teacher can be a support person and a role model, using role models to give children concrete examples of how others have succeeded, and involving parents so that parents can also instill the same lessons and be a part of the social support network. Each of these strategies could be easily adopted in an intervention program for children with physical disabilities, but no one has yet evaluated the efficacy of such a program.

Despite the potential strength of the psychological skills training approach (i.e., strategies can be tied back to the theoretical foundations and close affinity to cognitive behavioral life skills training) to increase life skills for use outside of sport, there have been few empirical studies attempted to examine the efficacy of the psychological skills training approach. Psychological skills training has been used with athletes with

disabilities (Hanrahan,1995; Porretta & Surburg, 1995; Travis & Sachs, 1991) but this research is mainly descriptive and focuses on the application of the learned skills only to the sport domain. Therefore, the question of how effective is psychological skills training in teaching life skills to children with disabilities and having them apply the skills to outside of sport still remains.

*Life Development Intervention*

Danish has developed the life development intervention (LDI) approach to sport psychology. He states that the LDI approach defines sport psychology as "the use of sport to enhance competence and promote development throughout the life span" (Danish, Nellen, & Owens, 1996, p.205). Therefore, he suggests that sport psychologists have an important role in developing positive life skills for both sport and non-sport settings (Danish, Nellen, & Owens, 1996; Danish, Petitpas, & Hale, 1993; 1995).

With this purpose in mind, Danish has developed the GOAL and SUPER (Sports United to Promote Education and Recreation) programs. In the GOAL program, sport contexts are used to help develop life skills to be used outside of sport. However, children are not usually playing sports or practicing the skills on the sports field. Typically, the program is taught in school and only sports examples (e.g., athlete setting goals) and sport terms (e.g., goal keeper) are used to teach the life skills. Additionally, the program relies heavily on goal-setting instead of other skills such as relaxation, positive self-talk, or communication skills. For example, the GOAL program contains 10 workshops titled *Dare to Dream, Setting Goals, Making Your Goal Reachable, Making a Goal Ladder, Roadblocks to Reaching Goals, Overcoming Roadblocks, Seeking Help From Others,*

*Rebounds and Rewards, Identifying and Building Your Strengths,* and *Going for Your Goal.* A review of these titles shows a heavy emphasis on goal setting.

The GOAL program is taught in the schools, but the SUPER program is taught to athletes during sports camps. The focus of SUPER is to teach participants that: (a) there are effective and accessible student-athlete role models; (b) physical and mental skills are important for both sport and life; (c) it is important to set and attain goals in sport and life; and (d) roadblocks to goals can be overcome. The only major difference between the two programs is that athletes are learning these skills from older athletes instead of older students, and they are learning them at sports camps or practices instead of school. Thus, the same limitations of focusing mostly on goal setting and not actually practicing various life skills on the game field are still present.

Though LDI has a positive approach to life skills development by using sport to teach the valuable skills, the application of the programs do not seem to fit the objectives of LDI. The programs focus too much on goal-setting instead of other life skills and do not have the participants practice the skills on the game field.

*Humanistic Physical Education*

Hellison has been the main proponent of the humanistic physical education approach to life skill development. Hellison (1978) states that the goals of this approach are to increase self-esteem, self-actualization, self-understanding, and positive interpersonal relations (e.g., being cooperative). With these goals in mind, Hellison developed the five levels of his Personal and Social Responsibility Model. The levels include: (a) respecting the rights and feelings of others; (b) participating with 100% effort and good teamwork; (c) self-direction, (d) caring about and helping others, and (e)

transferring what is learned in the gym to life outside the gym. In order to help children obtain these levels, the physical education teacher must have the following convictions:

- Life skills and values must be integrated within the physical activity subject matter.

- Lessons learned in the gym must be taught so that they can transfer to life outside of the gym.

- Instructional strategies must be based on a gradual shift of responsibility from the program leader to program participants.

- The program leader must recognize and respect the individuality, strengths, opinions, and capacity for decision making of each program participant (adapted from Hellison & Walsh, 2002, p. 293)

If the teacher or coach has these convictions and wants to include these levels in his or her program, Hellison and Cutworth (1997, pp. 223-249) suggested using 11 strategies. These strategies are:

1. Treat youth as resources to be developed. Build on the strengths they already possess, and emphasize their competence and mastery.

2. Focus on the whole person – the emotional, social, and cognitive as well as physical dimensions of the self.

3. Respect the individuality of youth, including cultural differences and developmental needs.

4. Empower children by providing individual and group decision making opportunities.

5. Give youth clear, demanding expectations based on a strong explicit set of values.

6. Help youth envision possible futures for themselves.

7. Provide both a physically and psychologically safe environment.

8. Keep program numbers small and encourage participation over a long period of time.

9. Maintain a local connection.

10. Provide courageous and persistent leadership in the face of obstacles.

11. Provide significant contact with a caring adult.

The Responsibility Model is one of the most widely used models for psychological development in sport or physical activity especially for at-risk students. However, there has been very little empirical intervention research using the model. Many of the articles used to promote the effectiveness of the model are based upon anecdotal evidence rather than true empirical research. Therefore, Hellison and Walsh (2002) conducted a review of studies on the effectiveness of his Responsibility programs.

Several authors found strong evidence that the children did improve on the program goals (e.g., Cutforth, 1997; DeBusk & Hellison, 1989). DeBusk and Hellison (1989), Kahne et al., (2001), and Schilling (2001) all found that children increased their self-control while participating in the program. Cutforth (1997) found that children improved their communication skills and teamwork by participating in a Responsibility program. It was also found that children began to apply these skills in classroom (Cummings, 1998; Cutforth, 1997; DeBusk & Hellison, 1989; Martinek et al., 2001) and the community settings (Kahne et al., 2001). But again, these programs are all programs that have already been implemented instead of having a control and experimental group.

The results are more anecdotal evidence how effective the Hellison model is for each of these skills.

*Measurement of Life Skills*

In this section, the measurement tools used to assess life skills are reviewed. The life skills that are reviewed are optimism, perceived competence, goal setting, positive self-talk, assertiveness, social skills, and coping skills. In this section, the ways to measure optimism, positive self-talk, and assertiveness are combined because positive self-talk and assertiveness are imbedded in optimism (Gillham, et al. 2003; Seligman, 1995). The ways to measure social skills are combined with perceived competence because a person's perception of their social skills, whether true or not, are a major influence in one's social motivation. Only if people are motivated will they use their social skills. Thus, the literature concerning the measurement of social skills and perceived social competence is combined. Coping skills are not discussed in conjunction with any other life skill.

*Optimism*

Seligman and his colleagues (Cardemil, Reivich, & Seligman, 2002; Jaycox, et al. 1994; Gillham, et al. 1995; Gillham & Reivich, 1999, Seligman, 1995; Zubernis, et al. 1999) have measured positive self-talk and optimism by using the Children's Attribution Style Questionnaire (CASQ; Seligman et al., 1984) while Scheier, Carver, and Bridges (1994) have measured optimism using the Life Orientation Test – Revised. Seligman et al., (1984) found internal consistency = .79 when testing reliability with children ages 8 to 13. However, the CASQ has 48-items and other researchers (Thompson, Kaslow,

Weiss, & Nolen-Hoeksema, 1998) have suggested it is too long. Additionally, the CASQ is used to predict depression in children.

The Life Orientation Test – Revised only has 10 items. This measure has typically been used to measure adults' optimism levels. However, with adults and children, the psychometric properties have been positive. Moffett and Dummer (2004) measured the psychometric properties of the Life Orientation Test – Revised with children with disabilities and found that the internal consistency Cronbach alpha was .70. Thus, researchers may want to use the LOT-R since it is shorter and has good psychometric properties.

*Perceived Competence*

A person's perception of their skills, whether true or not, are a major influence in one's achievement motivation (Harter, 1978). Children's perception of their competence can be measured by the Self Perception Profile for Children (SPPC; Harter, 1985) and Self-Efficacy Scale – Children (SESC; Muris, 2001). Both the SPPC and the SESC are measurements of children's perception of abilities in various domains.

Both the SPPC and the SESC have been found to have good psychometric properties. The SESC measures social, academic, emotional self-efficacy, and total self-efficacy. The measure has been used with children ages 14 to 17 and the Cronbach alphas ranged from .85 to .88. There is also an internal reliability score of .79. The SPPC has six subscales: (a) academic competence; (b) social competence; (c) athletic competence; (d) physical appearance; (e) behavioral conduct; and (f) global self-worth. This survey has been used with various children populations (Harter, 1982; 1985) including children with disabilities (Moffett & Dummer, 2004; Scholtes, Vermeer, & Meek, 2002; Shapiro,

et al. 2005) and positive psychometric properties have been found for each population. Moffett and Dummer (2004) measured the perceived competence of children with physical disabilities and found that the internal reliability scores to range from $\alpha = .75$ to $\alpha = .83$. Thus, both measures have good psychometric properties.

There are several benefits for using the SPPC instead of the SESC. The SPPC has been used with several populations including children with physical disabilities. However, the SESC is new and has not been used with children with disabilities (Moffett & Dummer, 2004; Scholtes, 2002). Because of the frequent use of the SPPC, samples across studies could be compared to evaluate differences in competence domains between groups. Finally, SPPC measures athletic perceived competence which the SESC does not measure competence in this domain. Thus, for a sports and life skills program, it seems to be more beneficial to use the SPPC instead of the SESC.

*Goal Setting Strategies*

There are no questionnaires that assess the ability to set goals. Instead, people's goal setting strategies are evaluated by asking if people set goals. For instance, the Test of Performance Strategies (TOPS) (Thomas, Murphy, and Hardy, 1999), measures how often athletes use goal setting in practice and competition. The psychometric properties of the TOPS was determined using 472 athletes from different sports who competed in a variety of settings, ranging from recreational to international elite competitions. The authors found that Cronbach $\alpha$ were greater than .70 for both subscales. However, this assessment does not include athletes' ability to set goals or the types of goals the athletes set. For instance, the goals should include the 11 principles of goal setting (Weinberg & Gould, 2004) that were discussed earlier. Finally, this assessment asks athletes about

sport specific goal setting skills and thus should only be used to assess athletes' frequency of goal setting.

The other way to measure goal setting is to interview participants about their use of goal setting. For instance, interviewers should follow the Weinberg and Gould (2004) principles to setting effective goals to establish questions about goal setting. For instance, an interviewer could ask if participants use goal setting, how they use their goal setting skills, and what type of goals they set. A drawback of this method is that it is difficult to compare goal setting use between studies because the interviewer could ask different questions or lead participants in answering questions in a different way from another interviewer. However, a researcher could use this method if the same interviewer uses the same techniques with each participant.

When comparing the TOPS and the interviewing method; it is preferable to use the interviewing method for children who have disabilities and who are not athletes. The TOPS only asks about the frequency of goal setting at practice or competition. In this study, it is important to assess goal setting outside of the sport context in order to gain an understanding of children's application of goal setting in their daily lives.

*Coping Skills*

The Ways of Coping Checklist for Sport (WCCS; Madden, 1989; 1990), the Disability and Sport Coping Survey (DSCS), and the Modified-COPE (M-COPE; Carver et al., 1989), are all different scales that measure coping in sport. The WCCS and the M-COPE were both surveys that were developed for people outside of sport and then modified to include sport performance. The DSCS asks a person to write about something that was hard for them in sport or physical activity. Then, the person is asked how you

coped with the situation. The DSCS is the only survey in which people develop their own situation in sport and then describe how they cope with the situation.

The M-COPE and the DSCS are the only surveys that have been used with people with physical disabilities in a sport setting. The M-COPE has 13 subscales but Bouffard and Crocker (1992) found that 8 of the subscales were not reliable for athletes with physical disabilities. However, Moffett and Dummer (2004) have found that the DSCS is effective in determining the ability to cope by children with physical disabilities.

The DSCS was developed for children while the WCCS and the M-COPE were both developed for adults. The WCCS is shorter than the M-COPE but it has 54 questions which is too long for many children. The DSCS is shorter and can be completed by children within 5 to 10 minutes. Thus, it may be better to use the DSCS with children with physical disabilities instead of the M-COPE or the WCCS.

*Summary of Review of Literature*

There are several lessons learned through the synthesis of the previous research that a researcher could use when developing a life skills program for children with physical disabilities. The cognitive behavioral literature suggests that:

- A cognitive behavioral and positive psychology approach can used to teach life skills (Beck & Weishaar, 2000; Seligman, 2002).

- The intervention should last 12 to 25 sessions (Beck & Weishaar, 2000).

- At the beginning of the intervention, the participants should take part in team building and goal setting activities (Beck & Weishaar, 2000).

- During the middle of the intervention, the participants should become more assertive and practice their own skills to become self-reliant (Beck & Weishaar, 2000).

- Life skills should be applied outside the intervention (Gillham, et al., 2003).

- The teacher should use both cognitive and behavioral techniques (Beck & Weishaar, 2000; Ellis, 1996).

- The life skills that should be included are goal setting, positive self-talk, assertiveness, social skills, and coping skills.

- Teachers should use the nine goal setting principles (Weinberg & Gould, 2004).

- Participants should learn problem solving skills such as assertiveness in conjunction with social skills and coping skills.

In addition to the previously established suggestions for life skills development, the strategies that were suggested in the review of sport and life skill development interventions are:

- Providing fun activities while teaching the life skill lessons (Danish & Nellen, 1991; Hellison & Cutforth, 1997; Orlick & McCaffrey, 1991; Weiss, 1991)

- Demonstrating that skills are important in both sport and other achievement domains (Danish & Nellen, 1991; Hellison & Cutforth, 1997)

- Using individualized and multiple approaches so that each child can be successful in learning the topic (Hellison & Cutforth, 1997; Orlick & McCaffrey, 1991)

- Being positive and hopeful so that the teacher can be a support person and a role model (Orlick & McCaffrey, 1991; Weiss, 1991)

- And involving parents so that parents can also instill the same lessons and be a part of the social support network (Hellison & Cutforth, 1997; Orlick & McCaffrey, 1991).

CHAPTER 3

METHODS

The purpose of this study was to investigate whether a 36 hour, 24 session, 12 week sports and life skills program helped children with physical disabilities to increase their optimism, perceived athletic, social, and academic competence, general self-worth, and coping skills.

*Research Design*

A quasi-experimental repeated measures control-group design (Table 6) was used to determine the effects of a sports and life skills intervention on psychological skills for children with physical disabilities aged 10 to 19. The primary independent variable was a 12-week sports and life skills program for children with physical disabilities. Children of an E group participated in the 12-week Sports and Life Skills program biweekly for 90 minutes each session. Children of the C group did not receive the intervention. The other independent variables were gender, type of disability, severity of disability, and age. The dependent variables were optimism, perceived athletic, social, and academic competence, general self-worth, and coping skills.

Both quantitative and qualitative assessments were used to measure the dependent variables. Children in both groups completed the pretest and posttest assessments so that changes in the dependent variables (optimism, perceived athletic, social, and academic competence, general self-worth, and coping skills) could be measured. The E group also completed the same assessments 12 weeks after the intervention in order to measure retention of skills. The caregivers of the child participants completed surveys that asked about demographic and disability specific

Table 6

*Research Design*

| Group | Pretest 2 weeks | Intervention 12 weeks | Posttest 2 weeks | Retention period 12 weeks | Retention test 2 weeks |
|---|---|---|---|---|---|
| E Group | X | Sports and Life Skills | X | None | X |
| C Group | X | None | X | None | None |

information. To assess whether the children used the life skills in other domains, randomly selected children and their caregivers completed interviews at each testing occasion.

*Modifications to Original Research Design*

There were modifications to the original research design. Original plans included: (a) identification of approximately 60 participants with physical disabilities aged 10 to 15 from one metropolitan area; (b) concurrent administration of the E and C groups during the spring semester; and (c) random assignment of participants to E and C groups. Unfortunately, logistical concerns resulted in modifications of those decisions. The compromised research design is illustrated in Table 7.

*Changes in age and region.* There were not enough participants with only physical disabilities aged 10 to 15 in the local metropolitan area who registered for the program, so the age range and the recruiting areas were modified. In order to increase the potential sample size, the upper age limit was increased to 19 years old and the recruiting region was extended to locations within a one-hour drive of the metropolitan area.

*Changes in administration of E and C group.* Concurrent administration of the E and C group could not be accomplished because of the difficulty in identifying a sufficient number of participants at the scheduled starting date for the experiment. This study required four sections of the E group (to keep class size small) and one section of the C group. As soon as enough participants were identified for the two spring E groups, the spring E groups were started. Recruitment of the summer E group participants continued until the beginning of the summer E group sessions. Throughout this process, any participant who was unable to attend the E group sessions was assigned to the C group.

Table 7

*Revised Research Design*

| Group | Location | Pretest 2 weeks | Sports and Life Skills Intervention 12 weeks | Posttest 2 weeks | Retention Period 12 weeks | Retention Test 2 weeks |
|---|---|---|---|---|---|---|
| Spring | | | | | | |
| E1 | Community Center | 3/1 to 3/15 | WF 3/17 to 6/4 | 6/7 to 6/18 | 6/19 to 9/12 | 9/13 to 9/24 |
| E2 | School | 3/1 to 3/15 | TR 3/16 to 6/3 | 6/7 to 6/18 | 6/19 to 9/12 | 9/13 to 9/24 |
| Summer | | | | | | |
| E3 | School | 5/31 to 6/4 | MW 6/14 to 9/1 | 9/6 to 9/17 | 9/18 to 12/4 | 12/5 to 12/18 |
| E4 | Community Center | 5/31 to 6/4 | TR 6/15 to 9/2 | 9/6 to 9/17 | 9/18 to 12/4 | 12/5 to 12/18 |
| Control | None | | | | | |

Recruitment of the C group continued throughout the spring and summer until enough participants were obtained. In the end, many of the participants in the E group were recruited from within the local region of the program facilities, while the C group participants were recruited from sports camps and programs from the surrounding areas.

*Changes in random assignment.* If a child gave assent and his/her caregiver gave informed consent, then the family (child and caregiver) made a decision to participate in the E or C group. If the family was willing and able to commit the time needed to participate in the E group, the caregiver had a choice of location and schedule. If the family gave informed consent and could not participate in the E group because of location, schedule, or time commitment, the family was asked to be in the C group. The distinguishing factor was availability to be in the E group. Finally, five children and their caregivers from the spring E groups, five children and their caregivers from the summer E groups, and five children and their caregivers from the C group were randomly selected to be interviewed. Thus, the sample was not intentionally biased.

Random assignment was not accomplished because of the inability to identify the total number of participants at the start of the spring semester. Therefore the strategy became to identify participants for two spring semester E group sessions first, then two summer semester E groups, then the C group. Thus, random assignment did not occur due to difficulties in recruiting participants from the local area.

Random assignment was also difficult because of the large time commitment required of caregivers and children. The Sports and Life Skills intervention program lasted for 12 weeks and totaled 36 hours. This is a large time commitment for families with busy schedules. Many of the participants had school and other activities that were

already planned into their schedules. Therefore, it was impractical to randomly assign participants to the program during the school year.

Transportation also affected random assignment. The spring program was an after-school program. Though the spring program was an after-school program, the program was not located at the school that many participants attended. Therefore, many participants needed transportation to the spring program. For some of the participants who wanted to join the experimental group, it was important to be able to ride the bus from school to the spring program or register for the summer program. Therefore, the children who were not able to schedule bussing for themselves, registered for the summer program. Thus, random assignment was also impractical because of transportation.

*Strengths of the Research Design*

Despite the inability to randomly assign participants to groups, this design does have some features of a true experimental design. For instance, there was a control group, and the control and experimental groups were statistically equal on the dependent variables at the start of the experiment (see Chapter 4). This pretest posttest control group design allows for a comparison between the posttest scores of the E group and C group.

There are several other reasons that this is a strong research design. The use of a 12-week intervention provided enough time to make a significant difference in psychological skills. The use of a retention test provided information about how effective the program was over time. The use of a retention test also provided information about the use of life skills in other domains. The use of both qualitative and quantitative methods provided rich data. The use of caregiver and athlete interviews allowed triangulation of the interview responses and tested generalization to other domains.

External validity was a priority because the researcher wanted the program to be easily replicated in real-life situations and achievement domains. The sports intervention was a typical sports program for children with physical disabilities. This program had a 3:1 coach to athlete (it is typical for a disability sport or physical activity program have a low teacher to athlete ratio). Additionally, the sports activities were conducted in a gym or dojo-like environment, had coaches who developed coaching lessons that included the basic sports skills necessary for the sports, and used equipment that was typical for disability sport. The life skills intervention could also be generalized to real-life because the intervention used real-life examples, activities that are used in the classroom, and was conducted in a classroom setting. Additionally, during the interviews, the caregivers and athletes were asked if the children used the life skills outside the program to show that the skills were valid in real-life situations.

*Threats to Validity*

There were threats to external validity. The major threat to external validity was multiple treatment interference. For instance, all experimental groups received a combined sports and life skills program. Therefore, results can only be generalized to a combined program but not programs that focus on only one of these aspects.

Minimizing threats to internal validity was also important to the research design. The major threats to internal validity were selection bias, treatment fidelity, and Hawthorne effect. Selection bias may have occurred in this study. Equality between groups on the dependent and independent variables were tested and there were no significant differences on these variables between the two groups. However, because of the difficulties in random assignment as stated before and possible differences in

unobserved variables, selection bias may still affect the results. For instance, the results may have been affected by the number of children in rural versus urban areas. Most children did come from urban areas. Some of the children in both groups also came from rural areas. These differences could have affected the results.

There were multiple experimental groups and differences in implementation of the program could have affected the results. The threat was minimized by developing PowerPoint presentations that were used to ensure the same script was used between groups. The PowerPoint scripts were practiced before the sessions to ensure that a similar delivery was given for each implementation. Videotapes and field notes from the spring program were also monitored prior to giving the intervention to the summer groups. In this way, the researcher attempted to ensure the same intervention was given to the summer groups as was given to the spring groups.

The placebo and Hawthorne effects may have occurred since the C group did not receive any intervention and the E group received the intervention. The children in the E group could have had changes in the results from the personal relationships that they developed with the coaches, staff, and other members of the program. The staff did develop a strong bond with the children but this was part of the team building focus. Thus, the researcher wanted strong bonds to develop. The E group children may have tried harder because of the special bond that they developed with the staff and others. Therefore, the results may have been associated with the strong bonds than the actual program.

*Participants*

The sample included children with physical disabilities age 10 to 19 years from a Midwestern state and their caregivers. Children in the E group participated in a 12 week sports and life skills program. Children in the E and C groups completed the pretest and posttest assessments. The E group also completed the same assessments 12 weeks after the intervention in order to measure retention of skills. The caregivers were parents or guardians of a child participant. The caregivers of the child participants completed surveys that asked about demographic and disability specific information. Additionally, randomly selected children and their caregivers completed interviews. A full description of the 21 E group participants and 25 C group participants can be found in the results section.

*Selection Criteria*

Children satisfied these criteria: (a) age 10 to 19 years; (b) moderate to severe physical disability as evidenced by a score of 4, 5, or 6 on the limbs, tonicity, or structural status scales of the ABILITIES Index (Simmeonsson & Bailey, 1991; Appendix B); (c) minimal, if any, limitations to cognitive, sensory, or behavioral functioning as shown by a score of 1, 2, or 3 on the remaining scales of the ABILITIES Index; (d) child assent and caregiver consent. The only selection criterion for the caregivers was informed consent. Five children and their caregivers from the spring E groups, five children and their caregivers from the summer E groups, and five children and their caregivers from the C group were randomly selected to be interviewed (total of 15 children and 15 caregivers).

*Recruitment of Participants*

A power analysis (Howell, 1997) indicated 24.5 children were needed in each of the E and C groups. In order to recruit this many participants, key people at schools, clinics, independent living centers, and disability organizations were provided with information packets about the study and were asked to share the information with potential participants. Then, the potential participants contacted the primary investigator and were told about the registration meetings. At the registration meetings, children and their caregivers received more information about the study and completed the consent form, ABILITIES Index, and the demographic profile.

*Assignment to Experimental Groups*

If a child gave assent and his/her caregiver gave informed consent, then the family (child and caregiver) made a decision to participate in the E or C group. If the family was willing and able to commit the time needed to participate in the E group, the caregiver had a choice of location and schedule. If the family gave informed consent and could not participate in the E group because of location, schedule, or time commitment, the family was asked to be in the C group. The distinguishing factor was availability to be in the E group. Finally, five children and their caregivers from the spring E groups, five children and their caregivers from the summer E groups, and five children and their caregivers from the C group were randomly selected to be interviewed. Thus, the sample was not intentionally biased.

*Informed Consent Procedures*

The first step in the informed consent process was to obtain approval from the Institutional Review Board at Michigan State University. Then, potential participants and

their caregivers received an information sheet describing the research project. On the information sheet, caregivers were notified about the registration meetings. At the registration meetings, caregivers and potential participants heard and viewed a PowerPoint consent presentation. After the presentation, the student investigator also demonstrated some of the program activities. Then, caregivers and athletes signed the consent and assent forms, respectively. IRB approval is documented in Appendix A.

*Intervention*

The E group participated in a 12-week intervention program twice a week for 90 minutes; whereas the C group received no intervention. The intervention was a combined sports and life skills training program, and the effectiveness of program was evaluated as a whole. Each session of the intervention included 20 minutes of life skills training (e.g., team building, goal setting, positive self-talk, assertiveness, social skills, and coping skills), 50 minutes of sports participation (soccer, taekwondo, and incorporation of life skill), and then another 20 minutes of life skills training for a total of 90 minutes per session (Figure 4).

*Life Skills Program*

A life skills PowerPoint script was developed by Aaron Moffett, Melissa Fraser, and Gail Dummer for each life skills session (Appendix D). The script was adapted from a script designed to teach optimism developed by Seligman and his colleagues (Gillham, et al. 2003) and other activities designed to teach other life skills developed by sport psychologists (e.g., Gould et al., 2000). The script was reviewed by an advisory board comprised of parents of children with disabilities, people with disabilities, and professionals who work with people with disabilities. The script for each session included

*Figure 4.* Intervention session schedule



Intervention Session → Life Skills Training 20 minutes → Sports Practice 50 minutes → Life Skills Training 20 minutes
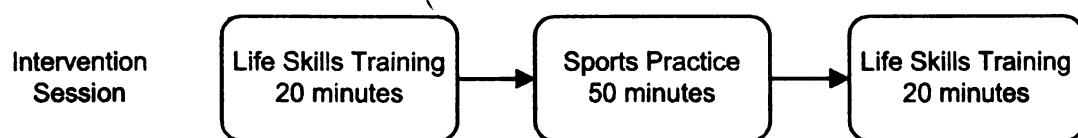
review of the previous day's lesson, goals for that day, strategies for successful performance of skills, and activities to practice skills. The first 20 minutes of each session was used to introduce the topic for the day. The children practiced the life skill in a positive way during the 50 minute gym session. Then, the last 20 minutes were used to review the life skills taught and how children could apply the life skills to other environments. Children were also asked to complete activities at home. The homework consisted of follow-up activities from the program such as establishing a goal for home or school, making a cue-word sheet, and practicing being assertive and reporting the outcome. Each child received a copy of the day's PowerPoint slides and the activity sheets in a 3-ring binder at the beginning of each day.

In the life skills training, cognitive behavioral strategies were used to facilitate acquisition of goal setting skills, positive self-talk, assertiveness, optimism, social skills, and coping skills. More specifically, the cognitive techniques that were used were reattribution and redefining (Beck & Weishaar, 2000). The behavioral techniques that were used were homework, hypothesis testing, exposure therapy, behavioral rehearsal and role play, and diversion (Beck & Weishaar, 2000). Finally, as suggested by cognitive behaviorists (Beck & Weishaar, 2000), the program began with team building activities to build group cohesion.

The activities that were used to teach the life skills were based on the psychological construct theories, the research on the different components of the theories and life skills, the children's developmental age level, and empirical and practical knowledge about adapting activities to match the needs of children with physical

disabilities (Hanrahan, 1998; Table 8). After each skill (e.g., goal setting) was taught, the children played a review game to assess their understanding of the concept.

*Team Building.* In order to develop a team identity and trust amongst members of the group, the first two days of the intervention focused on team building (Carron, 1982; Carron & Spink, 1993; Gould, et al. 2000; Weinberg & Gould, 2004; Zander, 1982). During these sessions, the participants played a name game to learn each other's names, developed team and individual mottos, established team rules, and played a quotes game to demonstrate that the team is greater than the sum of its parts. For the quotes game, breakout groups of two or three athletes were formed. Then, each group received a quotation about teamwork that was cut into puzzle pieces. The group then had to put the puzzle pieces together to make the quotation.

The team building lesson was also included in the gym section. For instance, the children played tag with one partner. When each pair came together, the children had to introduce themselves to their partners and tell a little bit about themselves. After their introduction, they could then run and try to tag each other.

*Goal setting.* The next four days of the intervention focused on goal setting. During the goal setting lessons, the children were expected to learn the purpose of goal setting, how to set short-term and long-term goals, and how to reset goals when one is struggling to achieve a goal or attains a goal before the stated deadline (Weinberg, 1992; Weinberg & Gould, 2004). The acronym MAPED (*motivate, accomplish, practice, end point, do better*) was used to teach the benefits of goal setting (Locke & Latham, 1985). The acronym SMART (*specific, measurable, applicable, realistic, time*; Smith, 1994) was used to learn how to set short-term and long-term goals. The investigator told a story

Table 8

*Number of Intervention Sessions and Total Minutes for Each Life Skill Topic*

| Intervention Topic | Number of Sessions | | | Total Number of Minutes |
|---|---|---|---|---|
| | Before Gym | After Gym | Total Sessions | |
| **Team Building (4 sessions, 80 minutes)** | | | | |
| Learning names | 1 | 0 | 1 | 20 |
| Setting rules | 0 | 1 | 1 | 20 |
| Making a motto | 1 | 1 | 2 | 40 |
| **Goal Setting (8 sessions, 160 minutes)** | | | | |
| Benefits of goal setting | 1 | 0 | 1 | 20 |
| SMART goals | 2 | 1 | 3 | 60 |
| Short and long term goals | 1 | 1 | 2 | 40 |
| Resetting goals | 1 | 0 | 1 | 20 |
| Review | 0 | 1 | 1 | 20 |
| **Self-Talk (16 sessions, 320 minutes)** | | | | |
| Positive, negative, & neutral thoughts | 1 | 1 | 2 | 40 |
| Thoughts→ feelings→ behaviors | 1 | 1 | 2 | 40 |
| Permanent thoughts | 1 | 1 | 2 | 40 |
| Proving our negative thoughts wrong | 1 | 1 | 2 | 40 |
| Linking our thoughts and feelings | 1 | 1 | 2 | 40 |
| Thought stopping | 2 | 2 | 4 | 80 |
| Review | 1 | 1 | 2 | 40 |
| **Assertiveness (8 sessions, 160 minutes)** | | | | |
| Things we control | 1 | 1 | 2 | 40 |
| Passive, aggressive, and assertive behaviors | 1 | 0 | 1 | 20 |
| Practicing assertiveness | 1 | 2 | 3 | 60 |
| Review | 1 | 1 | 2 | 40 |
| **Social Skills (4 sessions, 80 minutes)** | | | | |
| Making friends | 2 | 1 | 3 | 60 |
| What to do with friends | 0 | 1 | 1 | 20 |
| **Coping Skills (4 sessions, 80 minutes)** | | | | |
| Web of people who care | 2 | 1 | 3 | 60 |
| Relaxing to calm down | 0 | 1 | 1 | 20 |
| **Review (4 sessions, 80 minutes)** | 2 | 2 | 4 | 80 |

about setting smaller goals and using social support to teach the children what to do when they are struggling to reach a goal. When the athletes were learning how to set SMART goals, they played a game where they had to find the missing part of a SMART goal. For instance, a soccer goal could be to dribble the ball to a cone and back in 30 seconds while maintaining control of the ball throughout the task. In this goal, the time component is missing because the athlete forgot to state a deadline for achieving the goal. Goal setting was incorporated in the gym section. The athletes set individual goals for both soccer and taekwondo and were evaluated on their goals each week. At the end of the goal-setting section, the children played a goal setting review game (e.g., set a SMART short-term goal for obtaining an A grade in math).

*Positive self-talk.* Positive self-talk was taught for the next eight days of the intervention. Activities were adapted from Gillham, et al. (2003). During this part of the intervention the children were expected to learn how thoughts lead to feelings which lead to actions, recognize negative and positive thoughts, and to replace negative thoughts with positive thoughts. Some of the sample activities were: (a) describing a good and bad thing that happened this week and matching the thoughts and feelings that went with that experience (Gillham, et al., 2003); (b) coloring and decorating a cue word poster to learn how to stop and replace negative thoughts; and (c) playing a game to practice changing negative thoughts to positive thoughts (Gillham, et al., 2003; Gould, et al., 2000). The children played *Hot Seat* to practice changing their negative thoughts to positive thoughts. In this game, the children were separated into two groups. Then, the groups were given the same negative thought. Each group had 30 seconds to then come up with a cue word that reminded them to stop their bad thought and a positive replacement thought

that motivated them. Children learned to recognize negative thoughts during gym by one

of the coaches yelling out negative thoughts and then the children yelled out a cue word

to stop the bad thought. The children played *Jeopardy* to review the self-talk concepts. In

the Jeopardy game, there were five questions within each of the five categories. The

categories were self-talk; link between thoughts feelings and behaviors; looking for

evidence; thought stopping; and wild card. The children then selected a question and tried

to answer it.

     *Assertiveness*. The investigator taught assertiveness (Connelly & Rotella, 1991;

Gillham, et al., 2003) during the next four days of the intervention. The first day of the

assertiveness training focused on the difference between passive, assertive, and

aggressive behaviors and the investigator used skits to teach the difference between the

types of behaviors. The acronym DEAL (*Describe problem, Explain feeling, Ask for

change, List how change will fix problem*) was used to teach how to be assertive

(Connelly & Rotella, 1991; Gillham, et al., 2003). Finally, the athletes were *Vegas

DEALers* to practice being assertive and to learn appropriate times and ways to be

assertive. The children were given a situation and then they had to be assertive and go

through the steps of DEAL. To review and practice being assertive, they played the

*Beach Ball Game*. The children used two beach balls to play the game. Each beach ball

had 6 different panels on it. On each panel, there was a question that the children had to

answer. The children were timed to see how quickly they could answer all the questions

on each beach ball. The children then compared the total time it took them to answer the

questions on each beach ball.

The assertiveness lesson was also incorporated in the sports program. For instance, while the children were learning how to shoot the ball in soccer, they were also learning the difference between passive, aggressive, and assertive behaviors. In order to apply both of these lessons at the same time during gym, three different soccer goals were set-up. Above each goal there was a sign that said "passive", "aggressive", or "assertive". The coach would then read a quote such as "Fine! Don't play with me today! I don't like you anyways". The athletes were then asked to shoot the ball in the goal that represents how the person in the quote was acting. In this example, the athletes should have shot the ball into the goal marked aggressive. If one of the athletes shot the ball into the incorrect goal, the coaches discussed the quote and why it was assertive, passive or aggressive.

*Social skills.* Social skills (Gillham et al. 2002) were taught for two days. During these sessions, the lessons focused on learning ways to make friends such as finding common interests, discussing feelings about meeting new people such as being nervous, and discussing what to do with friends such as going to the movies. The athletes played a game where the coaches dressed up in different outfits (e.g., wore baseball glove and hat), and the children had to guess the person's interests and start a conversation about the coach's interests. The children practiced social skills in gym by learning something new about two different people and talking about it with them. For instance, the athletes found out that one of the participants had 12 siblings.

*Coping skills.* The primary focus for the last two days of the program was coping skills. Coping skills were taught throughout the program but were secondary to the other topics until the last two days. During these last two and a half days, the children did two activities. The children developed a *Web of People Who Care* to learn about social

support and how to use it. Second, they did breathing exercises to learn how to calm their emotions so that they can be assertive and fix the problem. On the *Web of People Who Care*, the athlete's name was at the center of the web, with branches leading to the names of people who care. People who care were defined as the people that the children could go to if they needed help or wanted to share something good. The names of people who could provide social support were then placed in the boxes that were connected to the athlete's name in the middle of the web. Once the children completed their webs, the children talked about who they go to for different problems and why they go to these different people. The children were asked to be the social support and cheer each other on when they were in gym that day. When the athletes were assessed on their sports goals, the children were supposed to cheer each other on and talked about how the support affected their performance on their goals in the life skills room after gym.

*Life Skills Training Procedures.* The life skills section of the intervention was conducted in a school or community center (Table 7 on p. 68). Tables were set up in a semi-circle so that the children would be able to sit 2-3 children at a table while also facing the projector screen and each other. The instructor sat or stood in the middle of the semi-circle with a laptop computer and projector next to him. A video camera was set up in the front corner of the room and field note recorders sat behind the semi-circle near the walls of the classroom (Figure 5).

- A PowerPoint script was developed for each day of the intervention. A laptop computer and projector were used to display the PowerPoint presentation. Every day, the children received a copy of the day's PowerPoint slides and activity sheets in a 3-

*Figure 5*. Diagram of the life skills room
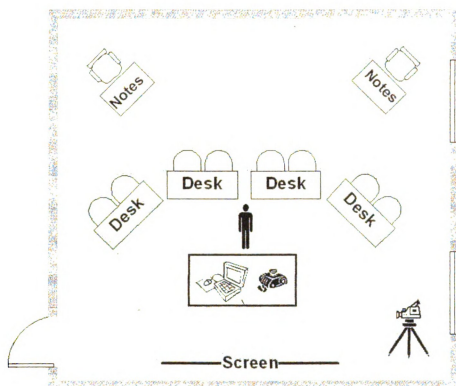
Coaching plans (Appendix E) were developed by the head coach for each sport in consultation with the investigator. Each session consisted of approximately 5 minutes warm-up, 30 minutes skill development, 10 minutes modified game play, and 5 minutes cool down. Content from life skills lessons was incorporated into the sport activities. Once a week, the athletes were evaluated by the coaches on their individual goals.

*Soccer.* During soccer, the athletes learned dribbling, passing, shooting, goal keeping, and modified game play (Table 9). Dribbling, passing, shooting, and goal keeping were taught for three days each, and modified game play was included throughout the program. Some of the activities used to help the children practice the different skills were World Cup, Sharks and Minnows, and Red Light/Green Light.

- World Cup (Davis, 2002) is a game that focuses on passing. The athletes play a typical soccer game but before they can shoot the ball they have to pass the ball to each member on the team. Thus, the athletes have to make clean passes before they can shoot the ball and score.

- Sharks and Minnows (Davis, 2002) is a game to practice dribbling the ball. One player is a shark who stands in the middle of a playing area and tries to steal the ball from the minnows. Each of the minnows has a soccer ball and tries to dribble the ball across the playing area without the shark stealing the ball. If the shark steals a ball from a minnow, the minnow then becomes a shark and tries to steal the balls from the other minnows. Therefore, the minnows have to practice keeping the ball close to their bodies and maintaining control of the ball.

- Red Light/Green Light (Davis, 2002) is another game to practice dribbling the ball. The objective is to be the first person to dribble a soccer ball from the starting

Table 9

*Coaching Plan for Soccer*

| Day | Topics | Activities |
|-----|--------|------------|
| 1 | Dribbling<br>Team Building (E1 and E3)<br>Changing Negative Thoughts to Positive Thoughts (E2 and E4) | Push dribble and races<br>Tag so learn 3 new things about person<br>Coach yells negative thoughts and athlete yells cue word and positive thoughts |
| 2 | Dribbling<br>Team Motto (E1 and E3)<br>Review (E2 and E4) | Red Light/Green Light<br>What do you say to motivate self?<br>Review ´ |
| 3 | Dribbling<br>Benefits of Goal Setting (E1 and E3)<br>Things We Do and Don't Control (E2 and E4) | Sharks and Minnows<br>Demonstrate various skills so athlete can decide what goal should be<br>CHOOSE goal for new sport |
| 4 | Passing<br>Setting SMART Goals (E1 and E3)<br>Passive, Aggressive, Assertive (E2 and E4) | Pass It On<br>Set SMART goal for gym<br>Coach yells statement and athlete kicks ball to respective aggressive, passive, or assertive goal |
| 5 | Passing (E2 and E4)<br>Short and Long Term Goals (E1 and E3)<br>Practicing Being Assertive (E2 and E4) | Relay passing<br>Set short-term goal for gym<br>Coach sets up problems and athletes have to DEAL with coach |
| 6 | Passing<br>Resetting Goals (E1 and E3)<br>Review (E2 and E4) | World Cup<br>Evaluation of goals<br>Review and DEAL with another athlete |

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| Day | Topics | Activities |
|---|---|---|
| 7 | Shooting<br>Review (E1 and E3)<br>Making Friends (E2 and E4) | Still shots<br>Review<br>Must ask question before shooting ball |
| 8 | Shooting<br>Self-Talk (E1 and E3)<br>Finding Other People's Interest (E2 and E4) | Moving shots<br>Listen to what you say to yourself<br>Guess coaches different interests |
| 9 | Shooting<br>Thoughts Lead to Feelings (E1 and E3)<br>Making a Wed of People Who Care (E2 and E4) | Pig<br>Listen to what you say and how that makes you feel<br>Give support by cheering on teammates |
| 10 | Goal Keeping<br>Proving Our Bad Thoughts Wrong (E1 and E3)<br>Using Our Web (E2 and E4) | Pig<br>Coach gives bad thought and athlete finds evidence to prove wrong<br>Work together on goals and give positive comment |
| 11 | Goal Keeping<br>Linking Our Thoughts and Feelings (E1 and E3)<br>Review (E2 and E4) | Keep It Out<br>How many feelings can you come up with<br>Review |
| 12 | Modified Game Play<br>Thought Stopping (E1 and E3)<br>Review (E2 and E4) | Modified game play<br>Come up with cue word and practice<br>None |

*Note.* E1, E2, E3, and E4 refer to different sections of the E group.

line to the traffic light. There is one player who acts as a stop light. When the stop light yells, "green light", the other players dribble his/her ball toward the place where the stop light is. Then, when the stop light yells, "red light", everyone must stop dribbling. If a person does not stop dribbling his/her ball, than the athlete must return back to the starting point. Therefore, the athlete is practicing maintaining control of the ball.

Soccer was taught in the gym of each of the facilities. The video camera was set up in the corner of the gym in order to view most of the gym. The coaches used size 4 and 5 soccer balls, lightweight balls, latex-free balls, larger balls (e.g., beach balls), and Futsol balls, cones and disks, goals, and pinnies. Lightweight and larger balls were used because they are easier to kick especially for children with a limited range of motion. Futsol balls are similar to soccer balls that are partially deflated. Futsol balls do not travel very far when kicked, making it easier to dribble the ball. Some of the skill modifications that were used during the soccer program were: (a) using smaller field of play so that the children did not have to chase the ball very far and so that they would not become overly fatigued; (b) using the wheelchair as part of body for dribbling, passing, and shooting so that all children could participate in soccer; (c) performing skills within an individual's range of motion so that each athlete could achieve success; and (d) working toward individual goals so that each athlete could monitor his/her development and achieve success.

*Taekwondo*. The athletes also participated in taekwondo. During taekwondo, the athletes learned punching, blocking, kicking, self-defense, and forms (Table 10).

Table 10

*Coaching Plan for Taekwondo*

| Day | Topics | Activities |
|-----|--------|------------|
| 1 | Punching<br>Team Building (E2 and E4)<br>Changing Negative Thoughts to Positive Thoughts (E1 and E3) | Stances and where power comes from<br>Tag so learn 3 new things about person<br>Coach yells negative thoughts and athlete yells cue word and positive thoughts |
| 2 | Punching<br>Team Motto (E2 and E4)<br>Review (E1 and E3) | Knifehand, backfist, elbow strike<br>What do you say to motivate self?<br>Review |
| 3 | Punching and blocking<br>Benefits of Goal Setting (E2 and E4)<br>Things We Do and Don't Control (E1 and E3) | Upper and lower blocks and combinations<br>Demonstrate various skills so athlete can decide what goal should be<br>CHOOSE goal for new sport |
| 4 | Blocking<br>Setting SMART Goals (E2 and E4)<br>Passive, Aggressive, Assertive (E1 and E3) | Inside-outside, outside-inside blocks<br>Set SMART goal for gym<br>Coach talks about attacking someone is aggressive, letting someone hit you is passive, but blocking is assertive |
| 5 | Blocking<br>Short and Long Term Goals (E2 and E4)<br>Practicing Being Assertive (E1 and E3) | Review and combinations<br>Set short-term goal for gym<br>Coach sets up problems and athletes have to DEAL with coach |
| 6 | Blocking<br>Resetting Goals (E2 and E4)<br>Review (E1 and E3) | Review and combinations<br>Evaluation of goals<br>Review and DEAL with another athlete |

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| Day | Topics | Activities |
|---|---|---|
| 7 | Kicking<br>Review (E2 and E4)<br>Making Friends (E1 and E3) | Front kick, double leg front kick (push kick)<br>Review<br>Tag so learn 3 new things about person |
| 8 | Kicking<br>Self-Talk (E2 and E4)<br>Finding Other People's Interest (E1 and E3) | Round kick and crossing/crescent kick<br>Listen to what you say to yourself<br>Guess coaches different interests and tag |
| 9 | Kicking<br>Thoughts Lead to Feelings (E2 and E4)<br>Making a Web of People Who Care (E1 and E3) | Kicking combinations with blocks and punches<br>Listen to what you say and how that makes you feel<br>Give support by cheering on teammates |
| 10 | Form<br>Proving Our Bad Thoughts Wrong (E2 and E4)<br>Using Our Web (E1 and E3) | Introduce form<br>Coach gives bad thought and athlete finds evidence to prove wrong<br>Work together on goals and give positive comment |
| 11 | Self-defense<br>Linking Our Thoughts and Feelings (E2 and E4)<br>Review (E1 and E3) | You are not a victim so find weak points (eyes, mouth, thumbs) and use chair<br>How many feelings can you come up with<br>Review |
| 12 | Form<br>Thought Stopping (E2 and E4)<br>Review (E1 and E3) | Group and individual demonstration of form<br>Come up with cue word and practice<br>None |

*Note.* E1, E2, E3, and E4 refer to different sections of the E group.

- Punching was taught for three days. The children learned the regular punch , the backfist punch, knifehand strike, and elbow strike (Figure 6).

- Blocking was taught the next three days. The athletes learned the down block, upper block, inside-outside block, and outside-inside block. After children learned each of the blocks, punching was combined with blocking (Figure 7).

- The children worked on kicking for three days. They learned how to do front kick, double-leg front kick, round kick, and a crossing/crescent kick (Figure 8). Once the children learned each of the kicks, punching and blocks were combined with the kicks.

- Self-defense was taught for one day. The teacher reminded the athletes that self-defense is only used as a last resort. The children learned how to escape if someone is grabbing their chest or neck and hands or arms (find a person's weak point such as thumbs). The children also learned how to defend themselves by "fish-hooking" the mouth or poking someone's eyes.

- The children practiced forms for two days. A form is a choreographed set of taekwondo skills put together to make a symbol (e.g., a knife hand strike followed by an upper block which is followed by a front kick). The head coach developed a form in the shape of the Korean symbol for the number 1. The purpose of the form was to review all the skills taught in taekwondo and to coordinate them together.

The taekwondo portion of the program was taught in the same room as the life skills portion of the program. The tables and chairs that were used for the life skills portion were pushed to the walls of the room. Then, spot markers were placed on the floor in a circle. The children and coaches sat or stood on a spot marker and practiced

*Figure 6.* Taekwondo punches

Regular Punch – Athlete strikes object with fist closed and fingers facing the ground.

Backfist Punch – Athlete strikes object with fist closed and fingers facing the person
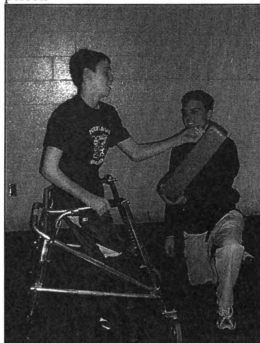




Knife Hand Strike – Athlete strikes object with lateral side of the hand and palm facing up
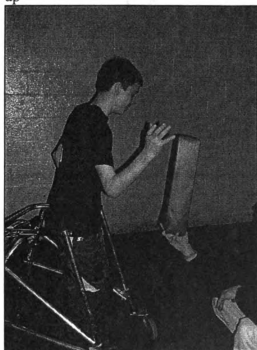
Elbow Strike – Athlete strikes object with elbow

*Figure 7.* Taekwondo blocks

**Down Block** – Athlete blocks object with
forearm in downward motion



**Upper Block** – Athlete blocks object with
forearm in upward motion



**Inside-Outside Block** – Forearm starts at
opposite side of body and sweep across body



**Outside-Inside Block** – Forearm starts
outside of same side of body and sweeps
across body

*Figure 8*. Taekwondo kicks

Front Kick – Athlete kicks object with front
of the foot

Double-Leg Front Kick – Athlete kicks
object with front of both feet

Crescent Kick – Athlete sweeps leg across
body to strike object with inside part of foot

Round kick – Athlete kicks leg to side of
body

new and previously taught skills. The video camera and field note recorder were in the corner of the room.

There were equipment and skill modifications. Sparring equipment included football field-marking pylons, tether balls, and taekwondo targets. The coaches held the sparring equipment in front of the athletes so that they could knock over the equipment. The sparring equipment was used so that the children would visibly see the ramifications of their efforts while punching or kicking. Additionally, spot markers were used to mark each person's spot in the circle. Some of the skill modifications during taekwondo were: (a) performing skills within the individual's range of motion so that each child could succeed; (b) sparring with equipment rather than other people so that participants would not be hurt; (c) working toward individual goals so that each athlete could monitor his/her development and achieve success; and (d) using one's wheelchair to run over or kick the football pylons so that the athletes who used wheelchairs could successfully practice their kicking.

*Personnel*

The project staff consisted of a head life skills instructor (investigator), an assistant instructor, a head soccer coach, a head taekwondo coach, an assistant coach for each sport, three field notes recorders, two videographers, and two volunteers (Table 11). All staff received training for their positions prior to the intervention (see training manuals in Appendix F). A program director and an assistant director represented the basic staff needed to conduct the intervention. The other personnel were needed only because of the research purpose. The typical coach to participant ratio was 1:3. This ratio

Table 11

*Sports and Life Skills Personnel*

| | Experimental Groups | | | |
| --- | --- | --- | --- | --- |
| | E1 (*n* = 7) | E2 (*n* = 9) | E3 (*n* = 5) | E4 (*n* = 10) |

**Life Skills Training**

| | | | | |
| --- | --- | --- | --- | --- |
| Head instructor | Moffett | Moffett | Moffett | Moffett |
| Assistant instructor | Fraser | Fraser | Fraser | Fraser |
| Field notes recorder | Kang | McNabb | McNabb | McNabb |
| | | Roman | | Roman |
| Videographer | Adams | Adams | Whipple | Whipple |
| Volunteers | Dalm | Dalm | | Johnson |

**Soccer Coaching**

| | | | | |
| --- | --- | --- | --- | --- |
| Head coach | Borovich | Borovich | Borovich | Borovich |
| Assistant coach | Seng | Seng | Seng | Seng |
| Field notes recorders | Kang | McNabb | McNabb | McNabb |
| | | Roman | | Roman |
| Videographer | Adams | Adams | Whipple | Whipple |
| Volunteers | Dalm | Dalm | | Johnson |

**Taekwondo Coaching**

| | | | | |
| --- | --- | --- | --- | --- |
| Head coach | Johnson | Johnson | Johnson | Johnson |
| Assistant coaches | Borovich | Borovich | Seng | Borovich |
| | Seng | Seng | | Seng |
| Field notes recorders | Kang | McNabb | McNabb | McNabb |
| | | Roman | | Roman |
| Videographer | Adams | Adams | Whipple | Whipple |
| Volunteers | Dalm | Dalm | | Johnson |

*Note*. The E3 group had fewer participants than the E1, E2, E4 groups. Therefore, only one assistant coach was needed to maintain a 1:3 coach to athlete ratio the same.

only includes personnel that worked directly with the athletes, not the field note recorders and camera operator who did not work with the athletes.

*Head life skills instructor.* Aaron Moffett taught the life skills portion of the program. He conducted the life skills intervention script, reviewed coaching plans prior to the day's sports activity, assisted head coaches in teaching the sports program, and supervised the coaches to ensure that they followed their previously established coaching plans. Aaron was a doctoral student majoring in sport psychology and adapted physical activity and was working towards a second master's degree in rehabilitation counseling. He previously conducted research on levels of optimism in Olympic athletes and perceived competence in children with disabilities. Aaron also coached children in various sports including soccer with disabilities for nine years.

*Assistant life skills instructor.* The assistant life skills instructor was Melissa Fraser. Her responsibilities included assisting with the overall supervision and operation of the life skills program. Melissa sat with the children so that she could assist them with their various needs. For instance, she would help children read a story, answer questions, and stay on task. During the sports program, she supervised the activity for safety purposes. Melissa was a master's degree student in sport psychology, coached or taught children with disabilities for six years, and had completed several courses on disability topics.

*Head soccer and taekwondo coach.* The head soccer coach was Anna Borovich, and the head taekwondo coach was Chad Johnson. Under the supervision of Aaron Moffett, the head coaches developed the coaching plans for their respective sports. Additionally, the head coaches led the sport instruction and helped athletes evaluate their

goals. The coaches also assisted in the daily operation of the program. Chad, the head

taekwondo coach, was a second degree blackbelt, participated in taekwondo for almost

six years, and was an assistant taekwondo coach for two years. Anna, the head soccer

coach, was a kinesiology student who completed two undergraduate level classes in

adapted physical activity, played soccer for eight years, and taught soccer for five years.

*Assistant soccer and taekwondo coach.* There were two assistant coaches. Jacob

Seng was an assistant coach for both soccer and taekwondo. Anna Borovich, the head

soccer coach, was also an assistant taekwondo coach. The assistant coaches'

responsibilities included assisting the head coach with instruction during whole group

demonstrations, leading small group instruction, and evaluating athletes on their goals.

The coaches also assisted in the daily operation of the program. Jacob Seng was a

kinesiology junior with a focus in pediatric physical therapy who had previous experience

coaching Special Olympians and soccer. Anna's qualifications are described in the

previous paragraph.

*Videographers.* Richard Adams and Matt Whipple were the two volunteer

videographers during the program. The videographers sat in the front corner of the room

so that they could videotape all the children during the program. Richard Adams, the

videographer for the spring E groups, was a volunteer at the community center where the

program was conducted. He had previous experience making videos. Matt Whipple had

recently graduated from high school and wanted to volunteer his time.

*Volunteers.* There were two volunteers who assisted in the daily operation of the

program. For instance, they helped set up the room, gave the snacks and drinks to the

children, and helped the children write their answers on the activity sheets. The

volunteers were not present everyday because of their schedules. The volunteers came approximately six to eight times to each group. The one volunteer was a biology major and the other volunteer was a kinesiology undergraduate student.

All personnel, with the exception of the volunteers, were hired with grant funds provided by the U.S. Office of Special Education and Rehabilitative Services. Non-discriminatory policies of the grant funding agency and university at which the investigator attended were followed while hiring personnel. The personnel were from a diverse background with both genders and several disabilities, religions, and races represented.

*Instrumentation and Data Collection Procedures*

In this section, the measures of dependent variables, data collection schedule and procedures, and data collection personnel will be described. Results of a pilot study to obtain psychometric data for the Life Orientation Test – Revised, Self-Perception Profile for Children, and the Disability and Sports Coping Survey are reported in Appendix C. Copies of the surveys are located in Appendix B.

*Instrumentation*

The following assessments were administered during this study: (a) ABILITIES Index; (b) demographic questionnaire; (c) Activities of Daily Living Scale; (d) Life Orientation Test – Revised; (e) the athletic competence, social acceptance, scholastic competence, and global self-worth subscales of the Self-Perception Profile for Children; (f) Disability and Sports Coping Survey; (g) children and caregiver interviews; (h) soccer and taekwondo individual goal sheets; and (i) field notes. Copies of these assessments are located in Appendix B.

*ABILITIES Index*. The ABILITIES Index (Simeonsson & Bailey, 1991) was used to describe the sample and determine eligibility for participation. Children were rated by their parents or caregivers in nine areas: audition (hearing), behavior and social skills, intellectual functioning, limbs (use of hands, arms, and legs), intentional communication (understanding and communicating with others), tonicity (muscle tone), integrity of physical health (overall health), eyes (vision), and structural status (shape, body form, and structure). Each area was rated on a scale of 1 to 6, with 1 indicating normal ability and 6 indicating extreme or profound lack of ability. According to previous research (Bailey, Simeonsson, Buysse, Smith, 1993; Buysse et al., 1993; Simeonsson & Bailey, 1991), caregivers are accurate and reliable when completing this assessment.

*Demographic questionnaire.* This survey was used to further describe the sample. The questionnaire was modified by the investigator from a previous study by Shapiro et al. (2005). The caregiver was asked to complete information about the child's age, sex, grade, disability specific information (e.g., type, acquired or congenital), participation in extracurricular activities (e.g., type and time spent in program), and participation in physical education classes (e.g., adapted or regular physical education).

*Activities of Daily Living Scale.* The Activities of Daily Living Scale (Dummer & Lee, 2003) was used to provide further information about the athletes' disabilities. ADLS helps describe the child's ability to independently participate in 10 activities of daily living. The ADL categories refer to the 10 adaptive skill areas that are assessed to define mental retardation. The 10 ADL categories were communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work. Parents rated each ADL category using a 3-point Likert-type scale

indicating whether the child seldom, occasionally, and usually needs help with that

activity. Next, an average of the scores across the 10 ADL categories was used to

determine the overall amount of help the athlete needs. An average score of 0.0-1.5

corresponded to an average of seldom needs help, 1.5-2.4 to an average of occasionally

needs help, and 2.5-3.0 to an average of usually needs help across all 10 adaptive skill

domains. The test-retest reliability score for parents of people with intellectual disabilities

was $r = .93$ (Dummer & Lee, 2003).

*Life Orientation Test – Revised.* The Life Orientation Test Revised (Scheier,

Carver, & Bridges, 1994) was used to measure the athletes' levels of optimism. A sample

question is, "In uncertain times, I usually expect the best". The LOT-R is a 10-item, 5-

point Likert-scale survey. Only 6 of the 10 items are scored and 3 of these items are

reverse scored. During pilot data collection, the internal consistency cronbach alpha was

.68 for children with physical disabilities (Moffett & Dummer, 2004).

*Self Perception Profile for Children.* The Self-Perception Profile for Children

(Harter, 1985) was developed to assess perceived competence across six domains,

namely social acceptance, athletic competence, scholastic competence, physical

appearance, behavioral conduct, and global self-worth. Only the social acceptance,

athletic competence, scholastic competence, and global self-worth subscales were used

for this study. For the total survey, there are 36 items, but since this study only used four

of the subscales, only 24 questions were used in this study. For this assessment,

participants were given examples of two children with opposite behaviors (e.g., "kid who

is good at school work or kid who has a hard time figuring out the answers"). The

participants first had to decide which child they were more like. Once they decided which

child they were more like, then the participants decided if that person was sort of like them or really like them. For instance, the first question asked the children if they were more like a child who is good at their school work or more like a child who worries about whether he/she can do the schoolwork assigned to him/her. Items were scored on a 1 to 4 scale, with subscale scores determined by averaging the six items for each subscale. Internal consistency reliabilities for all subscales range from $\alpha = .76$ to $\alpha = .83$ for children with physical disabilities (Moffett & Dummer, 2004).

*Disability and Sports Coping Survey.* The Disability and Sports Coping Survey (Moffett & Dummer, 2004) measures coping skills. Coping skills were assessed by asking participants to describe a problem related to sport or physical activity that had happened to them. The children were then asked how they handled the problem when it happened to them (e.g., try harder on a 4-point Likert scale ranging from *never* to *usually*) and how they would have liked to handle the problem (e.g., try harder on a 3-point Likert scale with *poor way, good way,* or *best way* to cope as the possible responses). Additionally, the athletes were asked how helpful were people in fixing the problem (e.g., mom on a 4-point Likert scale ranging from *not helpful* to *very helpful*), and how successful they would be at coping with similar problems in the future (5-point Likert scale ranging from *not at all likely* to *definitely*).

*Interview guide.* Interviews with randomly selected students and caregivers were conducted at each testing occasion. The pretest interview focused on the student's quality of life (e.g., "How happy are you with your life on a scale of 1 to 5"), participation in school and community activities (e.g., "Do you participate in sport, church, and youth programs"), challenges faced in those activities (e.g., "What are some of the hard things

about the program?"), and personal strengths (e.g., "What things do you like best about yourself?"). The posttest and retention test interview questions included the same interview questions as the pretest interview and some additional questions. The additional questions included the extent to which the sports and life skills intervention helped the student build life skills, as well as, the student's ability to transfer learned life skills to other achievement domains. For example, each athlete is asked if he or she learned any skills during the program. If the participant said yes, the participant was asked four more questions: (a) what skills did you learn; (b) how did you learn the skill; (c) did you use the skill during the sports program; and (d) if and when you used the skill at home or somewhere else other than sports. Interview guides were developed by the investigator with guidance from the Advisory Committee and Dissertation Committee. Interviews were audio-taped and subsequently transcribed for data analyses.

*Goal Sheets.* The coaches assessed the athletes' actual physical competence by evaluating the athletes' improvement on the athlete's stated goal in soccer and taekwondo. During the Life Skills intervention, the children were taught how to set SMART (specific, measurable, applicable, realistic, and time) goals. The coaches helped the children select goals that would be appropriate for the skills that they were learning in the sports program. An example of a soccer goal is to be able to dribble the ball to a cone and back in 30 seconds by the end of the six week soccer program. An example of a taekwondo goal was to be able to knock over three football pylons 8 out of 10 times with a knife hand strike by the end of the six week taekwondo program. The children's progress toward their goals was assessed each week by the coaches during the physical activity portion of the program.

*Field notes*. Rebecca McNabb, Nathan Roman, and Young-Taek Kang were the field note recorders. The recorders took field notes during all sports and life skills sessions. The field note recorders sat in the back of the room (classroom) or outside the field of play (gym) and wrote notes about coach/athlete interactions, abilities demonstrated by the athletes, challenges faced by the athletes, and the integrity with which the intervention was delivered. An example of a coach/athlete interaction is "Assistant teacher jumps in with softer tones to encourage quieter kids and offers increased, alternative interaction that backs up Lead Teacher's authority" (see Appendix F) Each of the field note recorders were trained by Aaron Moffett and had completed a research methods or measurement course.

*Data Collection Procedures*

The logistics of data collection are summarized in Table 12. With the exception of the in-person interviews, all data collection was conducted in a small-group setting in a school or community center.

*Registration Meeting.* The caregivers received the ABILITIES Index and the demographic questionnaire during the registration meeting. The surveys were administered by Aaron Moffett. He described the different subscales of the ABILITIES Index. For instance, the first subscale measures loss of hearing. The caregivers were asked if their child has average hearing or a hearing loss. If the child had a hearing loss, the caregivers were asked to check the box that corresponded with the severity of the loss. The caregivers were then asked to complete the demographic information. The caregivers were asked to return the surveys with the consent form. Aaron Moffett was qualified by both education and experience to administer the surveys. He completed

Table 12

*Logistics of Data Collection*

| Testing Occasion | Assessment | Time | Setting | Test Administrators |
|---|---|---|---|---|
| Registration Meeting | ABILITIES Index and Demographic Questionnaire | 5 minutes | Classroom or community room | Moffett |
| Pretest, Posttest, Retention | LOT-R, SPPC, DSCS | 30 minutes | Classroom or community room | Moffett, Fraser, survey administrators |
| Retention | Activities of Daily Living Scale | 5 minutes | Classroom or community room | Moffett |
| Pretest, Posttest, Retention | Interview Guide | 10-20 minutes | Classroom or home | Roskamp |
| Every week during intervention | Goal Sheets | 2 minutes per athlete | Gym | Moffett and coaches |
| Every day during intervention | Field notes | 90 minutes | Classroom and gym | McNabb, Roman, and Kang |

*Note.* Survey administrators were Melissa Baughman, Ryan Hedstrom, Laura Kietzmann, Bomjin Lee, Amanda Paule, Crystal Pretzer, Jason Reed, Nathan Roman, and Amanda Schindler.

several sport psychology and tests/measurement courses that included instruction in test administration.

*Pretest, Posttest, and Retention Test Administration.* The children completed the Life Orientation Test – Revised (LOT-R), the Disability and Sports Coping Survey (DSCS), and Self-Perception Profile for Children (SPPC) in a small group setting. The participants completed the LOT-R, DSCS, and the SPPC in that order. There was one lead survey administrator, Nathan Roman, who read the directions immediately before each of the surveys. After reading the directions for a survey and going through the first question with everyone, he asked if the children had any questions and reminded them that there were no right or wrong answers. He also told the participants if they needed help (e.g., reading or writing) from anyone, they were able to ask one of the survey administrators for help. The children took a break after each survey and waited for the other people to finish their survey.

Student workers were hired to assist participants who needed assistance completing paper-pencil surveys. Also, some children wanted help reading the surveys, and so the test administrators read the surveys to some of the children. The children took breaks in between surveys so that each child would hear the directions for each survey at the same time and so that the children could take a break from the surveys. The children were also able to choose to use pen, pencils, or fat or skinny markers to mark their answers.

At a typical testing session, there were approximately six staff members (Aaron Moffett, Melissa Fraser, and four survey administrators) and 8 to 10 children and their caregivers. Aaron Moffett, Melissa Fraser, and the caregivers sat outside the classroom so

that the children would feel more comfortable answering the questions honestly. The survey administrators assisted the children in completing the surveys by helping them read the questions or mark the answers if the respective help was needed. The survey administrators were trained using procedures notebooks developed by the investigator (Appendix F). During training, the survey administrators practiced administering the surveys three different times prior to data collection.

During the posttest period, the caregivers completed the Activities of Daily Living Scale while the children completed their surveys. Aaron Moffett read the instructions to the caregivers and then the caregivers completed the survey with either a pen or pencil.

*Interviews.* Five participants and their caregivers from the spring group, the summer group, and the C group (N = 15) were randomly selected to be interviewed. The participant chose to do the interviews either at the program facility or in their home and the interview was conducted in a room that was quiet and non-distracting. The interviewer, Michael Roskamp, followed these steps:

- Labeled the interview guide with date, interview number, and child's and caregiver's pseudonym

- Asked if the interview participant gave permission to tape record the interview.

- Reminded the participants that he would transcribe the interviews but change the names that were said in the interview for confidentiality reasons

- Turned on a digital recorder that he kept to himself and turned on a tape recorder that he gave to the participant

- Reminded the participant that there were no right or wrong answers, that he wanted the participants to answer honestly, and that the participants could skip a question if they would like.

- Asked if the participant had any questions

- Asked for verbal consent to be interviewed and recorded

- Asked the interview questions

- Placed a check next to the question on the interview guide after asking the question

- Completed the interview

- Gave a brief summary of the interview

- Asked the interview participant if the summary was correct, if participant wanted to make any changes, or if they wanted to ask any questions

- Thanked the participants for their time

Michael Roskamp was trained to conduct interviews using procedures notebooks developed by Aaron Moffett (Appendix F). During training, the interviewer practiced administering the interview guide three different times prior to data collection. Each of these practice administrations were then reviewed for consistency and accuracy by the interviewer and Aaron.

*Field Notes.* Rebecca McNabb, Nathan Roman, and Young Taek were hired to record field notes during the intervention program. The recorders were trained by Aaron Moffett (Appendix F). During training, the field notes recorders watched a simulated program session and had to practice taking notes two different times. Each of these practice administrations of field notes were then reviewed for consistency and accuracy by the student workers and the investigator.

*Goal Setting Sheets*. Chad Johnson, Anna Borovich, and Jacob Seng were asked to evaluate participants' progress relative to their individual performance goals. All coaches were trained using procedures notebooks developed by the investigator (Appendix F). During training, the coaches practiced administering the assessments three different times prior to data collection. Each of these practice administrations were then reviewed for consistency and accuracy by the coaches and Aaron Moffett.

*Data Management*. All data collected was confidential. The privacy of all participants was protected to the maximum extent allowable by law. In order to maintain confidentiality, these steps were taken:

- All members of the research team were educated in the importance and ethics of confidentiality and signed a confidentiality statement.

- The surveys were numbered instead of children placing their names on the surveys.

- The interview participants were given pseudonyms.

- When data were entered into computer files, participants were identified by code numbers or pseudonyms rather than by names.

- The consent/assent forms and the linkage between names, code numbers, and pseudonyms were stored by Aaron Moffett in a separate location from the data, in a locked cabinet in a locked office.

- All survey data, interview responses, audio-tapes, field notes, and videotapes were stored by Aaron Moffett in a locked cabinet in a locked office.

- The only persons with access to the data were Aaron Moffett and members of his dissertation committee.

- The data, including audio-tapes and videotapes, will be shredded or erased five years after the last publication or presentation.

- Only aggregate data will be shared in publications and presentations.

### *Data Analyses*

Data analyses procedures for each hypotheses and research question were conducted separately. Descriptive statistics (*M, SD, f*) were used to summarize the participant characteristics. Frequencies were used to describe gender, type of disability, and severity of disability. Group means and standard deviations were used to describe age, type of disability and severity of disability.

### *Fidelity of the E Group Intervention*

A PowerPoint script was used to present the intervention script to the participants and to ensure that the same script was delivered to each E group. Both videotapes and field notes were also analyzed to ensure that the intervention script was consistently delivered to each group. In order to determine consistency in time spent in the intervention between E groups, mean time spent in the life skills room within each group was analyzed. Attendance records were used to determine that the E group did participate in the intervention program. If an E group participant did not attend at least 16 of the 24 class sessions, that participant was excluded from data analyses.

### *H #1: Comparison of E Group Pretest and Posttest Data*

Data analyses for Hypothesis #1 consisted of one-tailed, paired sample t-tests to determine differences between the pretest and posttest scores on the dependent variables for the E group and qualitative analyses of interview comments that suggested improvement of life and sport skills. The $\alpha$-level was set at .05. However, since this study

was an exploratory study with few participants, differences at the .10 α-level were also reported.

Axial coding was used to analyze E group pretest and posttest interview transcripts to determine themes and higher order themes related to improvement of life and sport skills. All interviews were transcribed verbatim and then content-analyzed. Then, two researchers read the interviews. The two reviewers then met and decided on themes related to learning. A third researcher then independently analyzed the interviews to verify the quotes and themes. The three researchers then came to agreement on all data themes.

*H #2: Comparison of C and E Group Posttest Data*

There was an assumption that the E and C group would be equivalent at pretest. In order to test this assumption, two tailed, independent sample t-tests were conducted to compare E and C group pretest results (p ≤ .05). Pretest C group and E group interviews were also analyzed to assess equivalence between the groups.

If there were no group differences on the dependent variables at pretest, one-tailed, independent sample t-test were conducted to compare E and C group posttest results (p ≤ .05). If there were pretest differences between the E and C group on any dependent variable, ANCOVA methods were conducted to compare E and C group posttest results. When the two groups were dissimilar on a dependent variable at pretest, the pretest scores for that dependent variable were used as the covariate.

Qualitative analyses of posttest interviews that suggested differences in use of life and sport skills between the E and C group were analyzed. Axial coding was used to analyze interview transcripts to determine themes and higher order themes related to

group differences on the dependent variables. All interviews were transcribed verbatim and then content-analyzed. Then, two researchers read the interviews. The two reviewers then met and decided on themes related to treatment effects. A third researcher then independently analyzed the interviews to verify the quotes and themes. The three researchers then came to agreement on all data themes.

*H #3: Comparison of E Group Posttest and Retention Data*

Data analyses for Hypothesis #3 consisted of one-tailed, paired sample t-tests to determine differences between the posttest and retention scores on the dependent variables for the E group. Qualitative analyses of interview comments that suggested knowledge or use of life and sport.skills after the program were also used to test Hypothesis #3. The $\alpha$-level was set at .05; however, since this study was an exploratory study with few participants, differences at the .10 $\alpha$-level were also reported.

Qualitative analyses of retention interviews that suggested knowledge of skills were analyzed. Axial coding was used to analyze interview transcripts to determine themes and higher order themes related to using the sports and life skills at retention. All interviews were transcribed verbatim and then content-analyzed. Then, two researchers read the interviews. The two reviewers then met and decided on themes related to retention. A third researcher then independently analyzed the interviews to verify the quotes and themes. The three researchers then came to agreement on all data themes.

*RQ #1: Generalizing Skills to Other Achievement Domains*

Qualitative methods were used to analyze E group posttest and retention interview transcripts that suggested using life and sport skills in other achievement domains. Axial coding was used to analyze interview transcripts to determine themes and higher order

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themes related to generalization of skills to other domains All interviews were transcribed verbatim and then content-analyzed. Then, two researchers read the interviews. The two reviewers then met and decided on themes. A third researcher then independently analyzed the interviews to verify the quotes and themes. The three researchers then came to agreement on all data themes.

*RQ #2: Gender Differences*

Data analyses to determine gender differences consisted of two-tailed independent sample t-tests for pretest variables. If there were no significant gender differences ($p >$ .05) for any dependent variable at pretest, then hypothesis testing ended. If there were significant gender differences for any dependent variable at pretest, gender differences for each hypothesis were tested. A 2 (gender) x 2 (testing occasion) MANOVA was conducted to determine gender differences within the E group at posttest compared to pretest. A 2 (gender) x 2 (group) MANOVA was conducted to determine gender differences between the E and C group at posttest. A 2 (gender) x 2 (testing occasion) MANOVA was conducted to determine gender differences within the E group at retention compared to posttest. Post hoc one-way ANOVAs were conducted to determine which independent variables had a significant effect on which dependent variables. The α-level was set at .05; however, since this study was an exploratory study with few participants, differences at the .10 α-level were also reported.

*RQ #3: Disability Differences*

*Type of Disability.* Type of disability differences in the dependent variables were analyzed. The participants were separated into two disability type groups according to scores on the ABILITIES Index. If participants had a score of 4 or higher on the sensory,

cognitive, or behavioral subscales of the ABILITIES Index, they were placed in the physical plus another disability group. If participants did not score a 4 or higher on the sensory, cognitive, or behavioral subscales of the ABILITIES Index, they were placed in the physical disability only group.

Data analyses to assess possible disability differences consisted of two-tailed independent sample t-tests on pretest variables. If there were no significant disability differences between the two groups for any dependent variable at pretest, then hypothesis testing ended. If there were significant disability differences for any dependent variable at pretest, differences in disability type for each hypothesis were tested. A 2 (disability type) x 2 (testing occasion) MANOVA was conducted to determine differences in disability type within the E group at posttest compared to pretest. A 2 (disability type) x 2 (group) MANOVA was conducted to determine differences in disability type between the E and C group at posttest. A 2 (disability type) x 2 (testing occasion) MANOVA was conducted to determine differences in disability type within the E group at retention compared to posttest. Post hoc one-way ANOVAs were conducted to determine which independent variables had a significant effect on which dependent variables. The α-level was set at .05; however, since this study was an exploratory study with few participants, differences at the .10 α-level were also reported.

*Severity of Disability.* Differences in the dependent variables were analyzed by severity of disability. The participants were separated into three groups according to scores on the ADL scale. The three groups were seldom needs help, occasionally needs help, and frequently needs help. If a participant had an average score on the ADL scale between 1.0 and 1.4, then they were placed in the seldom needs help group. If a

participant had an average ADL score between 1.5 and 2.4, then they were placed in the occasionally needs help group. If a participant had an average score of 2.5 to 3.0, then they were placed in the frequently needs help group.

Once the groups were formed, a one-way MANOVA was conducted. If there were no significant severity differences for any dependent variable at pretest, then hypothesis testing ended. If there were significant disability severity differences for any dependent variable at pretest, severity differences for each hypothesis were tested. A 3 (severity) x 2 (test occasion) MANOVA was conducted to determine disability severity differences within the E group at posttest compared to pretest. A 3 (severity) x 2 (group) MANOVA was conducted to determine disability severity differences between the E and C group at posttest. A 3 (severity) x 2 (test occasion) MANOVA was conducted to determine disability severity differences within the E group at retention compared to posttest. The $\alpha$-level was set at .05; however, since this study was an exploratory study with few participants, differences at the .10 $\alpha$-level were also reported. If differences on the dependent variables were found for any hypothesis, a Scheffe post hoc test was conducted to determine which severity group was different from the others.

*RQ #4: Age Differences*

In order to examine age differences, age frequencies, mean, and median were determined. The mean and median age for the participants was 14.08 ($SD = 2.90$) and 13.50 years respectively. Because of these results two different age groups were formed. Participants ages 13 and under were placed in one group and participants ages 15 and over were placed in the other age group. Participants who were 14 years of age were excluded from the analyses.

Once the age groups were determined, two-tailed independent sample t-tests were conducted on pretest scores. If there were no significant age group differences for any dependent variable at pretest, then hypothesis testing ended. If there were significant age group differences for any dependent variable at pretest, age group differences for each hypothesis were tested. A 2 (age group) x 2 (testing occasion) MANOVA was conducted to determine age group differences within the E group at posttest compared to pretest. A 2 (age group) x 2 (group) MANOVA was conducted to determine age differences between the E and C group at posttest. A 2 (age group) x 2 (testing occasion) MANOVA was conducted to determine age differences within the E group at retention compared to posttest. Post hoc one-way ANOVAs were conducted to determine which independent variables had a significant effect on which dependent variables. The $\alpha$-level was set at .05; however, since this study was an exploratory study with few participants, differences at the .10 $\alpha$-level were also reported.

# CHAPTER 4

## RESULTS

This study makes two major contributions to the research literature: (a) a comprehensive life skills and sports intervention program and (b) results of hypothesis testing related to an application of that intervention for children with physical disabilities. Sample characteristics are presented first, followed by evidence related to implementation of the sports and life skills intervention, followed by results related to the research hypotheses and questions. For each of these sections, first quantitative results are presented, followed by qualitative results.

### *Sample Characteristics*

The E group included 21 children (12 males and 9 females) aged 10 to 19 years who have physical disabilities (Table 13). The disabilities self-reported by the 21 members of the E group were cerebral palsy ($n = 10$), low muscle tone ($n = 2$), congenital disorders of glycosylation ($n = 1$), cerebellar hypoplasia ($n = 1$), hydrocephalus ($n = 1$), scoliosis ($n = 1$), spinal cord injury ($n = 1$), transverse myelitis ($n = 1$), Turner syndrome ($n = 1$), and unsure ($n = 2$). There were an additional 9 children who participated in the program but were not included in data analyses because of too many absences (see attendance on page 127).

The C group included 25 children (15 males and 10 females) aged 10 to 19 years who have physical disabilities (Table 13). The disabilities self-reported by members of the C group were cerebral palsy ($n = 8$), spina bifida ($n = 3$), arthritis ($n = 2$), limb deficiencies ($n = 1$), polio ($n = 1$), spinal cord injury ($n = 1$), other ($n = 2$), and did not answer ($n = 7$).

Table 13

*Sample Characteristics*

| | E group (*n* = 21) | C group (*n* = 25) |
|---|---|---|
| **Gender (n)** | | |
| Male | 12 | 15 |
| Female | 9 | 10 |
| **Age (yrs)** | | |
| Mean and SD | 14.05 ± 2.84 | 14.11 ± 3.04 |
| Range | 10 to 19 | 10 to 19 |
| **ABILITIES (M, SD)[1]** | | |
| Audition | 1.00 (.00) | 1.29 (.69) |
| Behavior and Social Skills | 1.87 (1.10) | 1.25 (.87) |
| Intellectual Functioning | 2.81 (1.29) | 1.42 (1.17) |
| Limbs | 2.84 (1.20) | 2.57 (.75) |
| Intentional Communication | 2.04 (.91) | 1.25 (.87) |
| Tonicity | 3.15 (1.16) | 2.83 (1.32) |
| Integrity of Health | 2.13 (1.45) | 1.50 (1.17) |
| Eyes | 1.79 (1.12) | 2.04 (1.21) |
| Structural Status | 1.92 (1.06) | 2.18 (1.40) |
| **Multiple Disability (n)[2]** | | |
| Physical disability only | 11 | 13 |
| Multiple disabilities | 10 | 6 |
| **Activities of Daily Living Scale (n)[3]** | | |
| Seldom needs help | 6 | 9 |
| Occasionally needs help | 9 | 7 |
| Frequently needs help | 3 | 1 |
| Did not answer | 3 | 8 |
| **Quality of Life (M, SD)[4]** | | |
| Assessed by interviewed children | 4.11 (.78) | 4.33 (.58) |
| Assessed by interviewed parents | 4.00 (.83) | 3.63 (1.11) |

[1]Each area was rated on a scale of 1 to 6, with 1 indicating normal ability and 6 indicating extreme or profound lack of ability.

[2]Multiple disability includes physical disability plus a cognitive, sensory, or behavioral disability as assessed by scores of 4 or higher on the respective ABILITIES subscales.

[3]ADL was scored on a scale of 1 to 3, with 1 indicating seldom needs help and 3 indicating frequently needs help. An average score for all 10 items of 0-1.4 equals seldom needs help; 1.5-2.4 occasionally needs help; 2.5-3.0 usually needs help.

[4]Quality of life was rated by interview participants only on a scale of 1 to 5, with 1 indicating the worst life and 5 indicating the best life.

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Results of demographic questions, the ABILITIES Index, and the ADL scale showed that the E and C group are similar on most variables. However the E group seemed to have more cognitive disability as shown by the higher scores on the behavior and social skills, intellectual functioning, and intentional communication subscales of the ABILITIES Index. The E group also had a higher representation of children with more severity of disability than the C group as shown by the ADL scale.

The interview data also provided background information about the participants in the E and C groups. These data were obtained from interviews conducted with 9 randomly selected members of the E group and 4 randomly selected members of the C group. There were 10 E group participants interviewed. However, one participant was dropped because he did not meet the attendance criteria. There were 5 C group participants interviewed. However, one participant was dropped because the data were misplaced.

The four themes about sample characteristics that were derived from the interviews were disability, activities, life skills, and quality of life (Figure 9).

*Disability theme.* The qualitative data were consistent with the results of the ABILITIES Index (Simeonsson & Bailey, 1991) and Activities of Daily Living Scale (Dummer & Lee, 2003), and confirmed that participants satisfied the selection criteria. The interview data showed that the children's primary disabilities were physical. For instance, Cal said, "She has CP. She's a little slow on that [left] side." Dana said, "Since he's been in elementary, I tried to mainstream him so he was one of the only children there in a wheelchair."

*Figure 9.* Themes and subthemes related to sample descriptors

| Themes | Subthemes |
|---|---|

**Sample Descriptors**

- Disability
- Activities
  - Church groups
  - Community programs
  - School programs
  - Socialization with friends
  - Organized sports programs
  - Other
- Life Skills
  - Goal-setting skills
  - Positive self-talk
  - Assertiveness skills
  - Social skills
  - Coping skills
  - Other
- Quality of Life
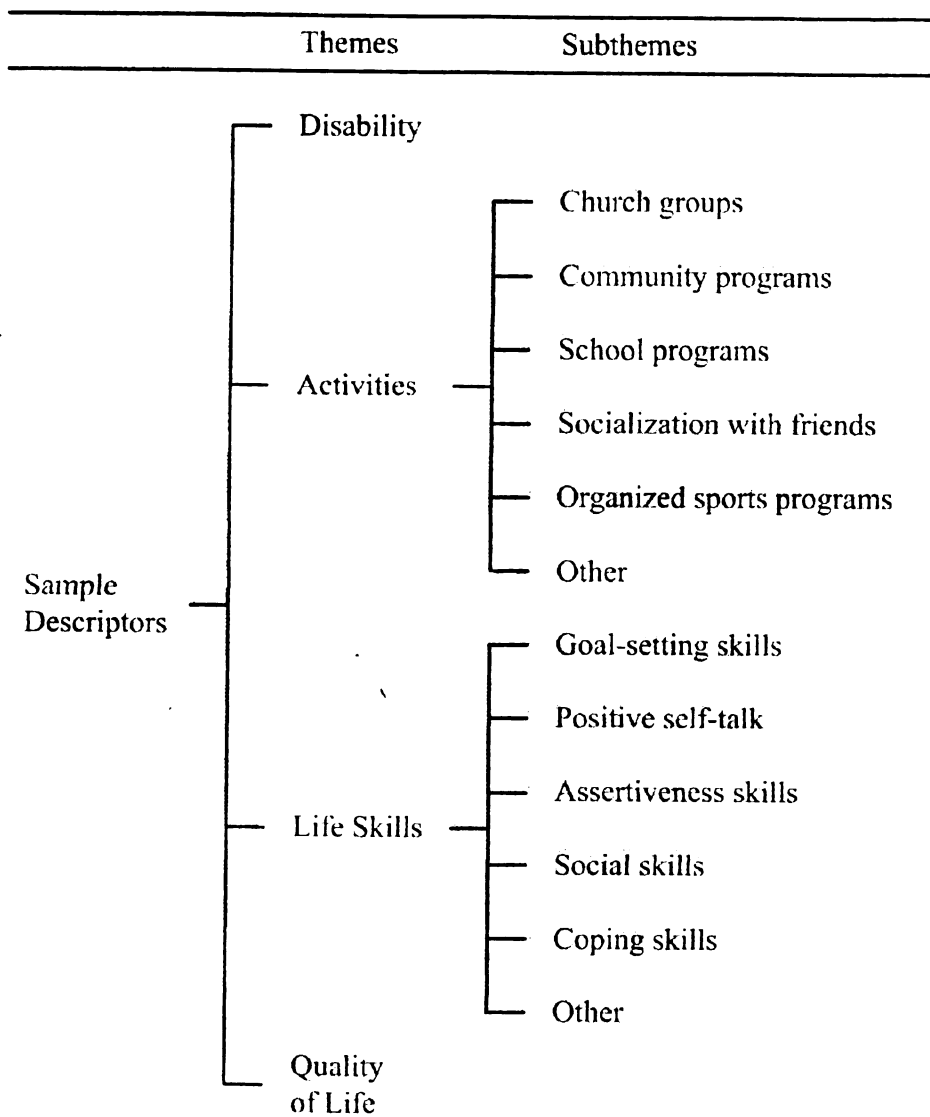
*Activities theme.* The interviewed participants from the E group participated in more activities, especially social activities, than interviewed members of the C group (Table 14). The E group children who were interviewed participated in church, community, school, social, sports, and other activities for an average of 5.22 (SD = 1.92) activities per person and a range of 3 to 9 activities. The number of activities in which an interviewed C group member participated in an activity ranged from 1 to 6 for an average of 3.75 (SD = 2.22) activities per athlete. Activities were counted in these totals only if the interviewee reported that the child participated in the activity at least twice a month. Though not counted in the total number of activities, children or parents commented that members of both groups also hunt, fish, read, and play pinball or computer/video games. These activities were not counted because the athletes either did not participate regularly or it was not an activity that involved interaction with peers.

*Life skills theme.* The life skills theme provided a baseline assessment of the children's ability to use the life skills taught in the Sports and Life Skills (SLS) program. It is important to note that the interviewed participants were specifically asked about how they cope with a difficult situation, if they use self talk, and whether they use social skills. As should be expected, the participants ranged in their abilities to use their life skills. For instance, the athletes ranged in their coping skills from being passive and relying on authority figures to yelling at parents about problems. Barb was a person who had an effective coping skill. Barb said, "When it gets hard I try putting myself in another like position to see how they would feel, or I like if something's like really hard and I couldn't figure it out, talk to like coach or something." Most of the athletes and parents in both groups said that the athletes did not use self-talk in the pretest interviews. Finally,

Table 14

*Number of interviewed children who participate in various activities*

| Activity | E Group (n = 9) | C Group (n = 4) |
|---|---|---|
| Church groups | 6 | 1 |
| Community organizations | 2 | 1 |
| School programs | 6 | 2 |
| Social activities | 8 | 1 |
| Organized sports programs | 8 | 3 |
| Other | 0 | 1 |

the children also varied in their social skills. For example, Carol did not really have any friends outside of her family, and her leisure activities consisted of playing on the computer, playing cards, reading, and watching TV. On the other extreme, Fred said that he hangs out with his neighborhood friends everyday.

*Quality of life theme.* Both the C and E group ranked the quality of life of the children fairly high (Table 13 on p. 119). Both athletes and parents were asked to rate the children's quality of life on a scale of 1 to 5, with 1 rated as the *worst life* and 5 being rated the *best life*. The pretest range of scores for quality of life rated by the children was 3 to 5 for the E group and 4 to 5 for the C group. At pretest, the parents' assessment of their child's quality of life ranged from 3 to 5 in the E group and 2½ to 5 in the C group.

The reason given for the lowest score of quality of life was social isolation. Linda, a parent of a C group member, rated Lisa's quality of life as a 2½ because

> I mean it is great here because she has loving parents and we do everything for her as much as we can. But, there is no social life and that really bothers her. Nobody talks with her on the phone. That's kinda very lonely. That's what I am basing it on because kids are out doing things and getting together and going to the mall. It really hurts me as a mother to see my daughter like that and go through high school like that. It doesn't bother her, because she's not used to it, even though she had has friends in the past. She went to the mall with her friends but it's just lonely.

The other major reason for the lowest quality of life scores was because 3 is in the middle. For instance, Dave said, "Cause it's like some worse and some good things and some are better than others. So, I'm just like the middle."

In comparison, the reason most frequently given for the highest score of quality of life was parental support. Cal, the father of Carol and a member of the E group, said, "Oh, that's five! We take good care of her." Hal rated his quality of life as a 5.0, "Cause I have good parents."

The qualitative demographic information provided support for the quantitative data. The qualitative data supported the ABILITIES and ADL scale and suggested that the children's primary disabilities were physical. The number of activities were slightly higher in the E group in comparison to the C group at pretest. The participants ranged in their abilities to use the life skills. Finally, both groups rated their quality of life fairly high. The most frequently cited reason for having a high quality of life was family support.

*Integrity and Quality of the E Group Intervention*

The life skills program was consistently delivered to all E group sections. All PowerPoint slides were delivered, and the time spent in the life skills room was consistent between groups. In one of the posttest interviews, Barb summed up the logistics of the program perfectly. She said:

> Before gym, we would talk about what went with the week and we talked about things that happened to us. We'd start out with a lesson and then we'd talk about it. Then, we'd go to gym. After gym was more of the time that we could talk more about it. And like, let's say SMART goals. After gym was a better time to talk about SMART goals, specific, measurable, applicable, realistic, and time goals. And we set some goals about it. Aaron would ask us about soccer, and what kind of soccer goals we could set. Then, we would set our own goals for the next time we have soccer and taekwondo.

The major weakness to fidelity of the program was that 9 of the 30 original E group members were dropped from the data analyses because of poor attendance.

*Using PowerPoint Script*

A PowerPoint script was used everyday to ensure that all E group sections received the same intervention script. For one of the summer groups, on Day 11, there were bad storms in the area and so the sessions started late. Therefore, that group was not able to complete the script that was scheduled to be presented before gym. However, the

investigator was able to extend the time after gym and presented the rest of the script after gym.

The children were able to use the PowerPoint scripts to follow along with the teacher. For instance, Barb said, "Well, we had a little binder. It has things, the slides that Aaron's gonna show, and Lissa and Jacob, and even Aaron, would walk around the room and help us when we were working. Besides Aaron showing slides." Thus, the children were able to use the PowerPoint scripts as a learning tool.

*Consistency Across Groups*

The delivery of the script was fairly consistent across groups. The classes were videotaped and the time spent in each session was recorded. The average number of minutes learning life skills before gym ranged from 20.00 to 21.40 minutes (Table 15). The average number of minutes learning life skills after gym ranged from 19.78 to 20.39 minutes (Table 15). The average time spent in gym was not calculated for each group because the camera person did not begin recording the gym session until a few weeks into the program. Also, the camera was not always set-up at the beginning of gym, and so taping began late for some gym sessions.

*Attendance*

To be included in data analyses, participants were required to attend at least 16 of the 24 sessions. With a mean attendance of 20.32 ($SD$ = 2.17) days, 21 subjects in the E group satisfied the attendance criterion. There were 9 participants who did not meet the attendance criterion for reasons such as health, transportation difficulties, and commitments to other activities. These participants are not considered dropouts because the absences were sporadic. These participants also did attend the last day of the program.

Table 15

*Amount of Minutes Spent in the Classroom Before and After Gym*

| Group | Location | Minutes Before Gym (M/SD) | Minutes After Gym (M/SD) |
|-------|----------|---------------------------|--------------------------|
| E1 | Community Center | 20.00 (4.09) | 20.39 (3.63) |
| E2 | School | 21.40 (3.24) | 19.96 (3.27) |
| E3 | School | 20.30 (3.59) | 20.10 (4.09) |
| E4 | Community Center | 20.15 (3.34) | 19.78 (3.34) |

Children also thought it was important to come to the program every day. Fran said,

"Once he knew what it was going to be like, he wanted to be sure that he didn't miss it."

*Quality of the Program*

Interview data revealed that both the parents and athletes seemed to enjoy the

program. Themes comments related to evaluation of the program were overall enjoyment;

sports and life skills curriculum; program staff; teaching style; and other factors (Figure

10). Each of these themes will be discussed separately.

*Enjoyment theme.* The children and parents of the E group talked about the overall

enjoyment of the program, enjoying the social aspect of the program, and enjoying the

opportunity to participate in an activity that was positive. For instance, Kari's mom said,

"We enjoyed it very much. Tuesdays and Thursdays were special. Now that it's over, she

often says, 'I wish I still could go to taekwondo and soccer'. She misses it." The children

also seemed to enjoy the program because of the social aspect. Allen said, "I spent all the

time with my friends." Finally, the parents liked the program because it gave their child

something constructive to do during the summer. Guy said:

> It's an opportunity for him to be exposed to something other than the down time.
> In other words, the summer programs are very few and far between, and any time
> we can find something for him to do that's constructive, as well as the topics and
> the situations they tried to give them, is just a huge benefit. I mean, his alternative
> to that is he's on the computer, watching TV, or playing pinball, or running the
> dog, you know. So having interaction with some other people with similar
> situations during the summer was great. It was great. It's a great way to spend the
> summer.

Therefore, some of the reasons that the children and parents enjoyed the program were

for overall enjoyment, social interaction, and participation in an activity that met the

child's needs.

*Figure 10.* Themes related to program evaluation

| Themes |
| --- |

```
                        ┌─── Enjoyment
                        │
                        ├─── Sports and Life Skills Curriculum
                        │
   Program             ─┼─── Program Staff
   Evaluation           │
                        ├─── Teaching Style
                        │
                        └─── Other
```
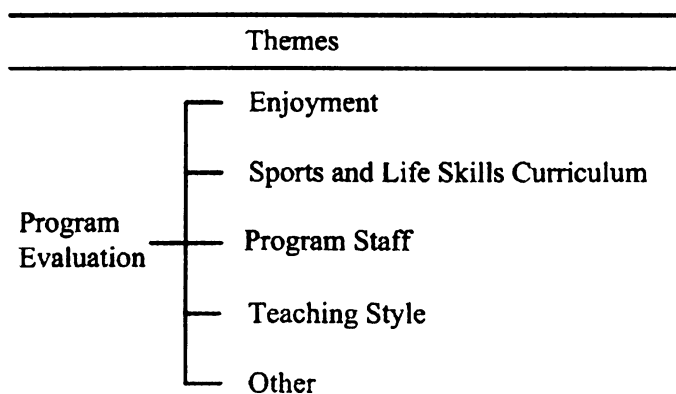
*Sports and life skills curriculum theme.* The program curriculum was also a positive aspect of the program. Participants suggested that athletes needed the life skills that were taught because they were practical lessons that they would need in life. For instance, Guy said, "the concept, the stuff that they've tried to teach the kids is a really good idea. They've tried to deal with things that they may encounter, and how to handle the situations they run in to."

Interview participants also suggested that it was valuable to teach the life skills in a sports context because the sports interested the children. For instance, Dana said, "of course they incorporated some of the sport activities and for him, that's great. That's his life." Additionally, the sport setting was influential in teaching the life skills. Kari's mom said, "But I think more effectively was when they were actually putting it into practice. When they were going to the gym or form a circle and do the skills that would refer back to what they had learned about." Ellen reiterated Kate's comment when she talked about how she learned the life skills. "Aaron, I guess, like talked to like whoever was teaching us soccer or taekwondo, and told them what we were learning a little bit about the classroom, and they would try to apply it with soccer or taekwondo. It was really cool." Some of the skills that interview participants suggested that the children learned by combining the sports and life skills portion were confidence, teamwork, assertiveness, and goal setting.

*Program staff theme.* According to the interview participants, members of the project staff were able to connect with the children, and therefore the children enjoyed coming to the program. Amy talked about the relationships that the athletes made with the coaches. She said, "They definitely had leadership that he could connect with. I mean,

if you ain't got that, you don't have much. I mean, he connected with every one of those people." Guy agreed with Amy. He said:

> The strengths of the program were, first and foremost, the people who were organizing it. The personalities, the persistence, and the ability to understand the needs of each of the people involved with it. I think that was a huge benefit to the program. Not just anybody could do that.

A few of the athletes even mentioned becoming friends with the personnel. Allen said, "It was good being friends with Jacob and Anna. A significant strength of the program was the personnel and the ability of the personnel to understand each child's individual needs.

*Teaching style theme.* The investigator used a positive psychology approach to teaching the program and the interview participants enjoyed this teaching style. For instance, Dana said, "I know that he came home several times with different things as far as like positive affirmation and I felt that that was good for them to be able to look at things from the positive versus the negative. So in that aspect I felt that it was good for them." The program directors tried to focus on what the children could do instead of what they could not do, and the parents and athletes responded well to this approach. Fran said, "I think they were good at encouraging kids to try their best." Finally, participants suggested that the teaching style matched each child's leaning style. Emma said, "Aaron explained it to me in a way that I could understand what he was talking about."

*Other theme.* The parents did suggest that in the future parents should be involved in the program more than what they were in this program. Emma suggested inviting parents to watch the sports activities so that she could learn how to do the sport with her daughter. Emma said:

> The weaknesses, I think, like I said, was about involving the parents more. I guess I would say getting the parents to see what the kids see, see what Aaron [and] Ellen sees when she is learning taekwondo makes her feel that way or that she's

you know like also playing soccer. She said she played soccer and I just can't see myself seeing her play soccer... Yeah, what is soccer for Ellen and what were they doing that she could play soccer? You know and how were they doing it? So like, if we could play a game or play soccer, I would know how to play soccer with her.

Other parents suggested that they did not know much about the program because of their little involvement. For instance, when Betty was asked about the strengths of the life skills portion of the program, she said, "If I had been more involved with it, I would be more able to answer that."

It was a large commitment for families to attend as many sessions as the children came. Kari's mom said the major weakness of the program was, "For parents, it's a pretty big commitment. You know, twelve weeks, two days, when you live thirty minutes away... I don't know if they could they cut it down once a week and make it as effective?" Though it was a large commitment, most families also wanted to have the program continue or have a Part II. When asked how the investigator could improve the program, Dana said:

Probably by continuing the program or let's say for instance, even after the program is completed maybe, you've covered a lot of kids in the area. Say for instance, if you restructured a program maybe you could incorporate that again in a different setting or in different ways.

Thus, the parents thought it was a large commitment to come to the program so often, but they wanted their children to continue participating in the program.

*Hypothesis Testing*

The hypotheses for this study were: (a) life skills can be learned as shown by a comparison of E group pretest and posttest data; (b) increases in skills can be attributed to the SLS program as shown by a comparison of E group and C group posttest data; (c) life skills can be retained as shown by a comparison of E group posttest and retention data.

The results associated with each hypothesis are presented next. First, the quantitative data are presented followed by the qualitative data.

*H #1: E Group Increased Their Pretest Scores at Posttest*

Generally, the data supported the hypothesis that the E group increased their scores on the dependent variables from pretest to posttest (Figure 11). The E group significantly increased their coping skills, athletic perceived competence, and general self-worth at posttest compared to pretest, but did not significantly increase their optimism, social perceived competence, or academic perceived competence at posttest compared to pretest (Figure 5 and Table 16). The average optimism score for the E group was relatively the same at pretest ($M = 2.45$, $SD = .54$) and posttest ($M = 2.49$, $SD = .51$). The E group was able to increase their coping score over half a standard deviation from pretest ($M = 2.57$, $SD = 1.06$) to posttest ($M = 3.18$, $SD = .68$). At both pretest and posttest, social perceived competence was the highest domain specific perceived competence score. The E group participants had a high pretest general self-worth score ($M = 3.18$, $SD = .55$), but they were able to increase their general self-worth score almost one standard deviation at posttest ($M = 3.59$, $SD = .45$).

The qualitative data also supported the hypothesis that the E group increased their skills at posttest compared to pretest. The interview participants suggested that the children improved on their life skills throughout the program, especially assertiveness and social skills. The children seemed to improve the skills that they believed they needed the most or captured their interest the most. In addition, the children increased their athletic perceived competence in that they learned taekwondo and soccer skills.

*Figure 11.* E group pretest and posttest scores for the dependent variables
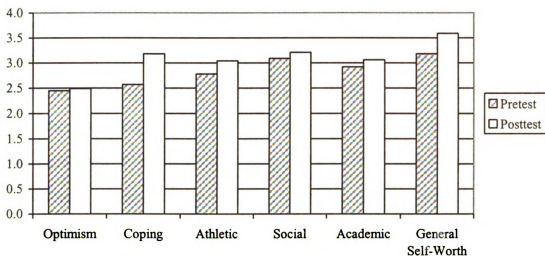


Table 16

*E Group Pretest and Posttest Scores for the Dependent Variables*

| Variable | N | Pretest M (SD) | Posttest M (SD) | t (20) | p |
|---|---|---|---|---|---|
| Optimism[1] | 21 | 2.45  (.54) | 2.49 (.51) | .28 | .78 |
| Coping[1] | 21 | 2.57 (1.06) | 3.18 (.68) | 2.56 | .02* |
| Athletic[2] | 21 | 2.78  (.51) | 3.04 (.49) | 1.97 | .06* |
| Social[2] | 21 | 3.09  (.49) | 3.21 (.50) | .99 | .34 |
| Academic[2] | 21 | 2.92  (.52) | 3.06 (.53) | .90 | .38 |
| General Self-Worth[2] | 21 | 3.18  (.55) | 3.59 (.45) | 2.93 | .01* |

[1] Optimism and coping were measured on a 0-4 Likert type scale in which 4 represents the most desirable score.

[2] Perceived competences and general self-worth were measured on 1-4 Likert type scale in which 4 represented the most desirable score.

* Significant one-tailed t-test at p ≤ .05.

Figure 12 represents the themes that support the hypothesis that the E group increased their sport and life skills. Each of these themes is discussed separately.

*Assertiveness theme.* The development of assertiveness was a major finding in the qualitative data. There were no interview questions that specifically asked if the children were more or less assertive after participating in the program. However, the parents were asked if they had seen any changes in their children that were a result of the program. Both parents and children were also asked if the child learned anything in the program. Both parents and children responded to these questions that the children increased their assertiveness.

At pretest, three people made comments that fit the assertiveness theme. Emma said that Ellen was passive instead of assertive. Hal's mom said that Hal is both assertive and passive. She said that Hal does tell her when something is bothering him, but he also buries his feelings when someone has been mean to him. Gerrit's dad said that he does express his atypical teenager opinions. However, Gerrit's father also said that when Gerrit faces a problem at school, "He'll just avoid it, blow it off, try to pretend it doesn't exist."

Although only three parents of the E group members talked about assertiveness during the pretest interviews, all nine parents talked about assertiveness at posttest interviews. At pretest, Ellen's mom said that she was passive. In contrast, during the posttest interview, Emma stated, "She can stand up against her best, or uh, one of her friends, and tell them how she didn't like them throwing fits… I had to pick her up because of that." However, the parents also suggested that the children needed to further develop this skill. Emma suggested to, "teach them properly how to express themselves

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*Figure 12.* Themes related to improvement of sport and life skills by the E group

| Themes |
| --- |

Learning
- Assertiveness skills
- Social skills
- Soccer skills
- Taekwondo skills
- Coping skills
- Positive self-talk
- Goal- setting skills
- Other
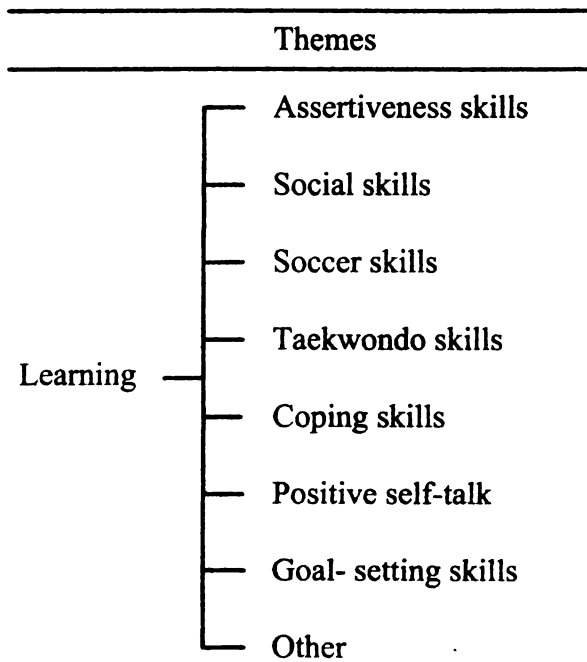
without hurting other people, anger-wise, word-wise." Carol's dad also stated that Carol was more assertive, but sometimes did it in an aggressive way. For instance, Cal quoted his wife as saying, "You can be assertive, but be polite." Thus, some of athletes increased their assertive, but the parents wished that the children were assertive in a more polite way.

At pretest, Hal's mom said that he was both passive and assertive, but at posttest Hal said he learned a way to be assertive. The children were taught the acronym DEAL (*describe problem, explain feelings, ask for change, list how change fix problem*) to remind them how to be assertive. Hal tried to teach the interviewer about DEAL. When asked to talk about the life skills room, Hal said, "Learning DEAL, the stuff you say when people say something that make you feel bad. You have to ask them for a change." Hal learned a way to become more assertive than he was at pretest.

Gerrit was the third participant about whom an assertiveness comment was made at pretest. At pretest, Guy said that Gerrit does express his opinions, but he also tries to ignore his problems. At posttest, Gerrit suggested that he was taught how to be assertive, but that he did not use his assertiveness during the sport portion of the program or in his daily life. For instance, when he was asked what he learned in the program, Gerrit said, "It taught us a lot about being assertive." Later in the interview, Gerrit said that he did not use it in gym and that he only plans on using it outside of the program. Therefore, Gerrit mentioned that he was taught how to be assertive, but he has not used his assertiveness new skills.

Other parents also noticed that their children were more assertive and more willing to take the initiative to do things by themselves after the program than before the

program. For instance, before the program, Kari was very timid in trying new activities in front of other people. However, on the last day of taekwondo and in front of an audience of parents, athletes, and supporters of the program, Kari volunteered to demonstrate her newly developed taekwondo skills. Kari's mom said that this experience "totally boggled my mind, to do it in front of everybody." Other children and parents also stated that the children were more independent because they were riding the bus by themselves, riding their bike to and from the program by themselves, and obtaining a job. Thus, the children were becoming more assertive and independent.

At the completion of the intervention, the children showed more assertive and independent behavior, which had not been demonstrated prior to the program. The children suggested that they were taught a new way to act assertively. The parents suggested that the skill needs to be further developed so that the children are assertive in a polite way instead of a negative way.

*Social skills theme.* Contrary to the quantitative data, the qualitative data suggested that children improved their social skills during the program. During the interviews, the children and parents were asked if the children hang out with kids at school and home. The parents were also asked about the athletes' strengths or best qualities. However, neither the parents nor athletes were asked specifically if the athlete has effective or ineffective social skills or how significant the friendships were.

Some athletes suggested that they already had social skills, but they were able to develop new skills during the program. For instance, Barb stated, "I learned a better way of making friends even though I do have friends. But, it's another way of making more friends." Children reported that they were taught how to develop a web of friends, find

other people's interests, and converse with people in their web about their common interests. Gerrit said that he learned, "how to make friends and what kinds of conversations you can have with friends."

These newly developed skills also helped the athletes make new friends in the program. Several athletes mentioned that their favorite part of the program was developing new friendships. Dave said, "It was fun. You make a lot of friends." Thus, many children were able to develop and apply their social skills in the program.

*Soccer and taekwondo theme.* The interview participants stated the children developed new soccer and taekwondo skills, helping to explain increased quantitative scores for athletic perceived competence. Prior to the intervention program, the children were asked about the different activities in which they participated. Only Kari mentioned that she played soccer. None of the child participated in any form of martial arts. But after the program, several participants commented on specific soccer and taekwondo skills they had developed.

Each of the interviewees said that the children improved their soccer skills, and they were excited about their newly developed skills. The soccer skills that the children said they improved were goalie skills, kicking, trapping, ball controlling skills, and dribbling. For instance, Dave uses a wheelchair for mobility and played soccer in his wheelchair during the program. He said, "I learned how to kick the ball. When I first started, I couldn't [kick the ball]." Hal said that he learned to, "kick, dribble… and goalies." The athletes were excited about their newly developed soccer skills. Ellen would talk to her mom about her excitement. In her posttest interview, Emma said, "[Ellen] couldn't believe that she was playing soccer."

The athletes were also excited about the taekwondo skills that they developed. As Gerrit stated, the athletes were taught, "everything from the basics to self-defense." The athletes were able to develop their skills so much that they were able to earn a yellow belt in the program. Several interview participants said that earning the yellow belt gave them a sense of pride. Kate said, "[My daughter is] very proud of that yellow belt… Any time we hear on the Olympics or anything about taekwondo, she will say, 'I did that. I can do that'." Therefore, the increases in sports skills support the increases in athletic perceived competence.

*Coping skills theme.* Both the qualitative and quantitative data support the hypothesis that the E group increased their coping skills at posttest compared to pretest. During each interview, the interview participants were asked *what are some of the hard things about (name of activities in which athlete participates)?* Then, the participants were asked *what do you do when it starts to get hard?* Prior to the intervention program, children's coping skills ranged from doing nothing, to relying on parents or authority figures for help, to trying to problem solve for oneself, to yelling at parents for people's misdoings. The coping skills that the children commented that they were taught in the program were breathing skills, avoiding conflicts and walking away, talking to their web of people who care, being assertive, and thinking though problems. Gerrit said he learned, "what to do with bad situations." Some of the other interviewees were more specific about the skills the children developed. For instance, Allen's mom said, "[Allen] doesn't just blow-up, get angry, whatever. He has actually gone to talking about it when things happen that he doesn't like." Ellen learned "how to, like, talk to somebody if I'm upset… just know that there's a lot of people out there."

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*Positive self-talk theme.* The quantitative data indicated the E group did not increase their optimism, but the qualitative data suggested that some participants increased their positive self-talk, a measurement of optimism. During the interviews, the athletes were asked *do you ever talk to yourself when you're doing something that's hard?* If the athlete stated that he/she did talk to him/herself, then the participant was asked *what do you say to yourself?* At pretest, seven of the athletes stated that they use some type of positive self-talk. At posttest, all nine interviewed athletes stated that they use positive self-talk. For instance, Carol stated that she says, "I can do it!" when things start to get hard for her.

Depending on the child's needs for self-talk, the children said they used self-talk to help them behave, decide what to do, motivate or keep trying, decide how to prevent the problem in the future, and cope with anxiety, frustration, and negative thoughts. At pretest, the purposes of self-talk were to help decide what to do and to motivate the person to keep trying. Ellen uses her self-talk to help her decide how to prevent future problems and how to fix the current problem. She said, "[I] try to think of ways to make it better so [mom's] not so mad the next time, or not do whatever I did the next time. I talk to myself a lot."

A few of the athletes also mentioned different lessons that were taught as part of the positive self-talk curriculum. During the positive self-talk curriculum the children were taught the relationship between thoughts, feelings, and behaviors; cue words; and positive and negative thoughts. The children also played *Hot Seat* to practice using their cue words to change negative thoughts to positive thoughts. During this game, the

children were given a negative thought and they had to use their cue word to rapidly change the negative thought to a positive thought.

Each of these positive self-talk topics were discussed in the interviews. For instance, Dave stated, "We talked about using the cue words, like if you get stuck on something and say something to yourself like 'keep trying'." Kari's mom also talked about how Kari uses her stop sign to remind herself to stop her negative thoughts. Allen talked about many of the different lessons from the positive self-talk curriculum. He talked about playing *Hot Seat* and being a detective and finding evidence for our positive and negative thoughts. Allen also discussed the relationship between thoughts, feelings, and behaviors. The children were taught that thoughts lead to feelings and feelings lead to behaviors, but Allen could not remember the whole equation. Allen said, "Thoughts can lead to behaviors and behaviors lead to your anger... I can't remember what the rest of it is." The athletes were also able to mention various lessons taught during the self-talk curriculum.

Seligman (1995) states that positive self-talk is a measurement of optimism. Though the quantitative data showed that the E group did not increase their optimism, more E group interview participants used positive self-talk at posttest than pretest. The reasons for using this technique varied depending on the child's needs. Some of the athletes were also able to talk about different lessons from the self-talk curriculum.

*Goal setting theme.* There were five interviewed athletes who mentioned that they developed goal setting skills in the program, compared to only one athlete mentioning goal setting during pretest. In the interviews, the children were not specifically asked if they learned goal setting in the program or how they learned goal setting. Instead, the

athletes were asked what they remembered about the life skills room, if they learned anything in the life skills room, and if they used any of the learned skills during soccer or taekwondo. An example of an athlete talking about what she learned in the life skills room was given by Barb. She said:

> For taekwondo, I put, 'I want to have really good form in the upper block', and then I put 'first 10 out of 10 times by the end of the program' and that's specific, telling me what I want to do. And it's measurable, and it's applicable, and it's realistic because I really want to do it and it's timed because it's to the end of the program.

Gerrit also said that he learned about short-term and long-term goals when he said he learned, "How to make small goal to meet you big goals." Therefore, some of the children suggested they developed goal setting strategies.

*Other.* Though it was not a lesson that was a focus of the curriculum, some of the children gained a new perspective or understanding of disability. The parents suggested that the children learned this lesson because the program was specifically designed for children with disabilities. Dave's mom said:

> When he was in the program, for one thing, there were other kids in the program with disabilities. You see different kids with different disabilities. You realize that you're not necessarily alone. The other things is them being able to talk about different things, to open up and be able to talk about their disabilities and being able to express themselves as far as how they felt about other people. To see some of the things that they encounter with the disability that they have.

Thus, some of the children were also able to gain an understanding that there are other people like them who have a disability. Parents even suggested that this gave their child confidence. For instance, Harriet said, "Now, he can be around other kids where he is not like the one that feels like he can't do it… So, I thought maybe it would be good for his confidence and it has been." Therefore, some children gained confidence by participating in a program where other children are similar to them.

*Hypothesis 2: Treatment Effects*

Original plans called for random assignment of participants to groups as a means of facilitating group equivalence at the start of the study; however, random assignment could not be accomplished. Therefore, it was necessary to conduct statistical tests to determine whether the groups were equivalent at the pretest. Thus, efforts to assess pretest equivalence are presented first, followed by test of posttest differences between E and C groups.

*Equivalence of E and C Groups at pretest.* The results of the independent, two-tailed t-test indicated that the E and C group were significantly equivalent on group pretest scores (Figure 13 and Table 17). Though the differences were not significant, the C group was slightly higher in optimism, coping, and academic perceived competence. The E group was slightly higher than the C group in athletic and social perceived competence. The general self-worth mean scores for the E ($M$ = 3.18, $SD$ = .55) and C groups ($M$ = 3.21, $SD$ = .70) were almost identical at pretest.

The qualitative data suggested that the C and E groups were equivalent in their use of life skills at pretest. For instance, at pretest, the E group interview participants that commented about assertiveness suggested that the athletes ranged in their assertiveness from passive to inappropriately assertive. The comments from the C group participants were similar about assertiveness. For instance, Nancy commented that Nick (C group member), was passive:

> I think that he probably just pushes it way down deep you know. It's painful and it hurts but it's not any different from yesterday or the day before that and the day before that. So, he just like gets down a bit you know. He really tries to anything else that is going to be too difficult, he'll just say, 'oh no, I don't want to do it'.

*Figure 13.* E and C group pretest scores for the dependent variables



Table 17

*E and C Group Pretest Scores for the Dependent Variables*

| Variable | N | M | SD | T | df | p |
|---|---|---|---|---|---|---|
| Optimism | | | | | | |
|     Experimental | 21 | 2.45 | .54 | 1.89 | 44 | .07 |
|     Control | 25 | 2.79 | .65 | | | |
| Coping | | | | | | |
|     Experimental | 21 | 2.57 | 1.06 | 1.08 | 44 | .29 |
|     Control | 25 | 2.90 | 1.04 | | | |
| Athletic | | | | | | |
|     Experimental | 21 | 2.78 | .51 | 1.46 | 44 | .15 |
|     Control | 25 | 2.50 | .74 | | | |
| Social | | | | | | |
|     Experimental | 21 | 3.09 | .49 | 1.88 | 44 | .07 |
|     Control | 25 | 2.65 | .98 | | | |
| Academic | | | | | | |
|     Experimental | 21 | 2.92 | .52 | 1.27 | 44 | .21 |
|     Control | 25 | 3.16 | .70 | | | |
| General Self-Worth | | | | | | |
|     Experimental | 21 | 3.18 | .55 | .16 | 44 | .87 |
|     Control | 25 | 3.21 | .70 | | | |

* Significant two-tailed t-test at $p \leq .05$.

Gerrit's dad said that Gerrit (E group member) expresses his atypical teenager opinions. Lisa's mom made a similar comment. "She alienates herself from people. She does tend to, like, if two kids argue or whatever. She'll go up to them, 'Stop it. Shut up.' And that kind of harms her with friends because kids don't want that."

The C group children also had a need to further develop their social skills. Paul's mom said that Paul's strength was, "probably just interacting with other people." However, Lisa's mom said, "She just wants to be normal like anybody else, and have a boyfriend, and go out and do things, and it just isn't happening, and so she feels left out."

Like the E group, the C group also had a wide range of coping skills at pretest. The C group coping skills ranged from doing nothing, to seeking help from parents or authority figures, to trying to problem solve for oneself, to yelling at others. Matt's dad said that he reacts to losing by "He gets angry... He tells me he wants to get them." In comparison, Nick is at first quiet when something bad happens to him, but then he talks to his parents. "He is quiet and so it take him awhile to feel comfortable enough and then he usually pulls one of us aside. He wants to do it private... and then he would tell us what happened."

The only comment about self-talk at pretest for the C group was that Nick does talk negatively to himself at times. However, there was not enough C group data concerning talk to evaluate equivalence between groups. Finally, neither group talked about goal setting at pretest.

*Comparison of E and C group at posttest.* Given the statistical equivalence of the E and C groups for all dependent variables at pretest, independent sample, one-tailed t-tests were used to test Hypothesis #2. The E group was significantly higher than the C

group on coping, perceived athletic and social competence, and general self-worth at posttest (Figure 14 and Table 18). Though the E group ($M$ = 2.57, $SD$ = 1.06) was insignificantly lower than the C group ($M$ = 2.90, $SD$ = 1.04) on coping at pretest, the E group ($M$ = 3.18, $SD$ = .68) was significantly higher than the C group ($M$ = 2.71, $SD$ = .73) at posttest. The two experimental groups were equal at the start on general self-worth ($t$ = .16, $p$ = .87) but they were significantly different at posttest ($t$ = 2.69, $p$ = .01). The E group was insignificantly higher at pretest on athletic ($t$ = 1.46, $p$ = .15) and social perceived competence ($t$ = 1.88, $p$ = .07). At posttest, the E group was significantly higher than the C group on both athletic ($t$ = 4.60, $p$ = .00) and social perceived competence ($t$ = 2.42, $p$ = .02).

Since most of the comments from the E group about their life skills came from questions related to what the athletes learned in the program, and the C group did not answer any interview questions concerning the life skills program, a comparison between the two groups would not provide valid data. Therefore, qualitative data concerning treatment effect are not presented.

*Hypothesis 3: Comparison of E Group Posttest and Retention Data*

When testing Hypothesis 1, improvement on the dependent variables at posttest, the E group was higher in coping, athletic perceived competence, and general self-worth at posttest compared to pretest. However, the gains were temporary since the E group was lower at retention than posttest on athletic perceived competence and general self-worth (Figure 15 and Table 19). The E group decreased almost one standard deviation from posttest ($M$ = 3.59, $SD$ = .54) to retention ($M$ = 3.17, $SD$ = .49) on general self-worth

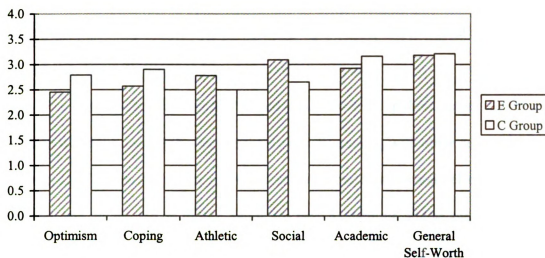*Figure 14*. E and C group posttest scores for the dependent variables
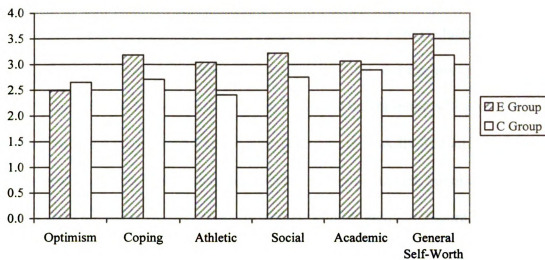


Table 18

*E and C Group Posttest Scores for the Dependent Variables*

| Variable | N | M | SD | t | df | P |
|---|---|---|---|---|---|---|
| Optimism | | | | | | |
| Experimental | 21 | 2.49 | .51 | .97 | 44 | .34 |
| Control | 25 | 2.65 | .62 | | | |
| Coping | | | | | | |
| Experimental | 21 | 3.18 | .68 | 2.26 | 44 | .03* |
| Control | 25 | 2.71 | .73 | | | |
| Athletic | | | | | | |
| Experimental | 21 | 3.04 | .49 | 4.60 | 44 | .00* |
| Control | 25 | 2.41 | .43 | | | |
| Social | | | | | | |
| Experimental | 21 | 3.22 | .50 | 2.42 | 44 | .02* |
| Control | 25 | 2.75 | .76 | | | |
| Academic | | | | | | |
| Experimental | 21 | 3.06 | .53 | 1.00 | 44 | .32 |
| Control | 25 | 2.89 | .60 | | | |
| General Self-Worth | | | | | | |
| Experimental | 21 | 3.59 | .46 | 2.69 | 44 | .01* |
| Control | 25 | 3.18 | .55 | | | |

* Significant one-tailed t-test at p ≤ .05.

scores. The E group also decreased almost half a standard deviation from posttest ($M =$ 2.99, $SD$ = .52) to retention ($M$ = 2.73, $SD$ = .63) on athletic perceived competence.

Only eight retention interviews for E group members were evaluated because both the athlete and parent retention interviews for Hal were lost. For the most part, the interview participants still remembered what they were taught in the SLS program at retention but most did not report active attempts to use their skills. The athletes remembered the soccer and taekwondo skills that they were taught, but only a few of the athletes were still using the soccer or taekwondo skills at retention. Figure 12 (p. 136) represents the data that supports the hypothesis that the E group retained their skills 12 weeks after the program. Each of the themes will be discussed separately.

*Assertiveness.* Assertiveness was a skill that was frequently discussed during the retention interviews. At posttest, assertiveness was discussed in nine interviews about the athletes. At retention, assertiveness was reported in five of the interviews about the athletes. For instance, Barb suggested, "We learned about assertiveness, passiveness, and aggressiveness... I started being assertive about things. Instead of like, if you wanted to say something be assertive, be assertive about it. Don't be passive and just pretend to." The children were able to remember the difference between being passive, aggressive, and assertive and were able to apply the skills taught during the program.

*Social skills.* The athletes also talked about using their social skills and making new friends at retention. Carol stated that she had "learned to ask questions" to people so that she could learn their interests and have conversations about common interests. Ellen stated that she uses her social skills to "tell somebody what I'm upset about." Finally, Allen's mom suggested that he had developed conversation skills because he could

*Figure 15*. E group posttest and retention scores for the dependent variables
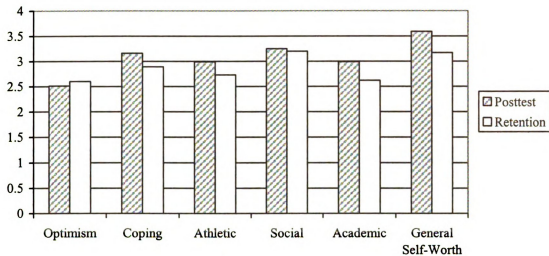


Table 19

*E Group Posttest and Retention Test Scores for the Dependent Variables*

| Variable | N | Posttest M (SD) | Retention M (SD) | t (17) | p |
|----------|---|-----------------|------------------|--------|---|
| Optimism[1] | 18 | 2.51 (.51) | 2.60 (.50) | .90 | .38 |
| Coping[1] | 18 | 3.16 (.61) | 2.89 (1.13) | .90 | .38 |
| Athletic[2] | 18 | 2.99 (.52) | 2.73 (.63) | 2.58 | .02* |
| Social[2] | 18 | 3.25 (.51) | 3.20 (.56) | .59 | .56 |
| Academic[2] | 18 | 2.99 (.51) | 2.62 (.45) | 2.42 | .03* |
| General Self-Worth[2] | 18 | 3.59 (.54) | 3.17 (.49) | 3.01 | .01* |

[1] Optimism and coping were measured on a 0-4 Likert type scale in which 4 represents the most desirable score

[2] Perceived competences and general self-worth were measured on a 1-4 Likert type scale in which 4 represents the most desirable score

* Significant one-tailed t-test at p ≤ .05.

communicate what he had learned in the program to him but he needed to further develop these skills. She said that learning how to get your point across should be in Part II of the program.

*Soccer and taekwondo themes.* At retention, the children talked about the sports skills in which they developed. The soccer skills in which the children suggested they were taught included how to score, kick the ball, and follow through on the ball. Carol said she learned to "kick my feet when the ball is moving." The taekwondo skills the children suggested they learned at retention were hand strikes, blocks, and self-defense. For instance, Dave said that he learned, "how to defend yourself."

*Coping skills.* Coping skills were also still being used at retention. At retention, the athletes and parents suggested they were taught breathing techniques, problem solving techniques, cue words or positive self-talk, assertiveness, and proper behavioral techniques for staying out of trouble. One of the examples of an athlete using his breathing techniques was stated by Allen. He said he uses his breathing techniques when he is nervous or mad. Kari's mother provided another example of a coping skill. Kate said, "When there is a situation that she isn't comfortable with, she's able to rationally think it through."

Some of the children may need to still further develop their coping skills. First, a few parents said that their children are being more assertive and telling people that they do not like what another person did. However, the children need to further develop this skill so that they do not hurt the other person's feelings when they are being assertive. For example, Amy said that Allen needs to further develop his problem solving skills.

She said, "Part of the time, he manages to go, 'Ok, and how do I get from a difficulty to a solution'.... He still needs to work on figuring out how to get to the solution."

*Positive self-talk.* At posttest, all nine interview participants mentioned improving their positive self-talk and could also talk about different lessons used to teach self-talk. In comparison, seven of the eight athletes interviewed stated that they used positive self-talk. At retention, when asked what he learned in the life skills room at retention, Fred stated that he learned to, "talk to myself when stuff gets hard" and that he uses this technique during test and swimming. During the retention interviews, only a few participants talked about the lessons used to teach self-talk. Instead the athletes said, "They taught us never say you can't do it." The athletes were able to remember their self-talk skills, but the athletes did not recall the specific lessons that were taught.

*Goal setting.* Four athletes mentioned goal setting during the posttest interviews and three of those four athletes plus another athlete mentioned goal setting during the retention interviews. These athletes talked about were taught about short-term and long-term goals and SMART goals. Ellen also talked about setting goals for soccer and taekwondo. She said, "We'll all remember what we talked about, like how many goals we set, what goals we set."

The interview data suggested that the athletes did remember many of the skills that were taught 12 weeks after the program. However, there were not as many children actively applying the skills at retention as there were at posttest. Parents suggested that the children have improved their life skills since pretest but that they still needed to further develop these skills. For instance, Ellen's and Carol's parents both suggested they needed to further develop their assertiveness skills while Allen needs to further develop

his coping skills. At retention, the children also talked about the sports skills that they had developed in the program and demonstrated many of the taekwondo skills to the interviewer. Thus, the retention interview data is mixed; the athletes could remember what they were taught but they were not actively applying their knowledge as much as they were at posttest.

<div align="center">*Test of Research Questions*</div>

The four research questions were concerned with generalization of sports and life skills to other settings, gender differences, disability differences, and age differences. Results related to these research questions are presented in the following paragraphs.

*RQ #1: Do E Group Participants Generalize Skills to Other Domains?*

Members of the E group were able to generalize the skills that they developed in the program to other domains including school, home, other sports programs, and work. Figure 16 represents the themes associated with this research question. Each of these themes will be discussed separately.

*Assertiveness theme.* Assertiveness was a skill the children increased during the program. Eight of the nine E group interviewees reported that they were assertive with friends, parents, teachers, or schoolmates outside of the program. Barb explains how she was assertive earlier at a friend's house. She said:

> I was at my friend's house helping her study. She was asking me what I wanted for a snack, and I was like, 'I don't know.' She was like 'Okay.' I'm like, 'What is there?' And then she gave me a Snickers and I'm like 'Okay, I'll have a mini one.' But at first, I wasn't all that assertive about it. I was passive thinking about it.

Ellen used her newly developed assertiveness skills because she needed some time off at work. She said, "I started out like working too many days. I started out Monday through

*Figure 16.* Themes related to generalizing life skills to settings outside of the program

| Themes |
| --- |

Application
- Assertiveness skills
- Social skills
- Soccer skills
- Taekwondo skills
- Coping skills
- Positive self-talk
- Goal-setting skills
- Other
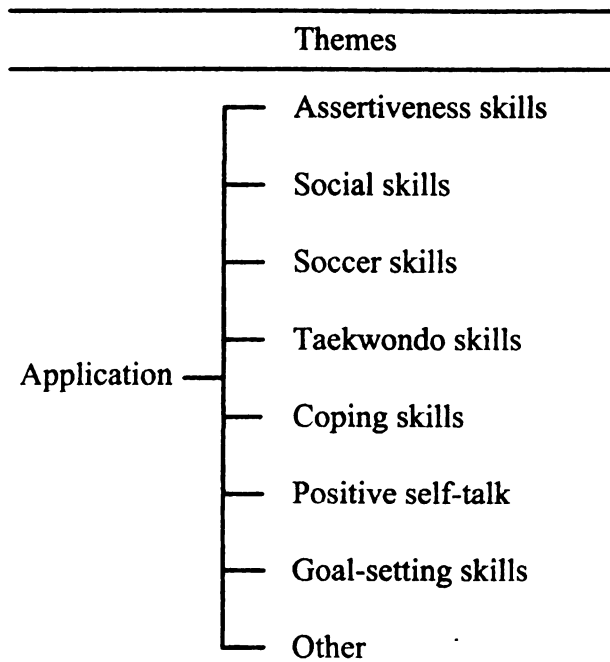
Friday and I think I pushed myself a little bit. So, I'm like limiting. I'm going to work Wednesday, Thursday, Friday now and have Mondays and Tuesdays off."

The athletes also used assertiveness as a coping strategy at home, work, and school. Carol uses her assertiveness at home. She says that she uses it when, "my parents are bothering me." Before the program Fred was very quiet, but now Fred used his assertiveness when being teased on the bus. The bus driver commented to his mom that, "he's starting to hold his own." Therefore, some interview participants said that the children use their assertiveness as a way to cope with situations that they do not like.

*Social skills theme.* The quantitative data suggested that children did not increase their social perceived competence, but the interview participants stated that the children developed some social skills and that they were able to use them outside of the program. If the parents or athlete described a setting for where the social skills were used, it was typically at school. For instance, Kari has become more talkative at school. Kari's mom said:

> I got a call from Ms. S saying, 'I can't get over Kari. She is talking all the time.' She told her whole class the story about Labor Day, when she went boogie-boarding and tubing at the lake, and in front of the whole class.

However, Ellen's mom has noticed the social skills more at home. Emma said:

> She's not as quiet as she usually is. She's more talkative. She doesn't go hide in her room like she normally does. She's out with me sitting down watching TV or trying to be more helpful. That's why I know its helping her. She doesn't hide in her room all the time like she normally does.

*Soccer and taekwondo themes.* Each of the athletes talked about developing new soccer skills, but only Carol, Gerrit, and Kari reported using their skills outside of the program. Carol said that she practiced kicking at home. Gerrit registered for a power

soccer program. Finally, Kari has been playing soccer for several years and continued playing for another program.

Similarly, only a few athletes use their taekwondo skills outside of the program. Barb stated that she used her skills to practice with her friends. She said:

> I would sometimes do a couple upper blocks to show my friends what I've learned. And sometimes my friend Bridgette, since she took karate, even though they're from different places, we'd kind of think of them as the same so we'd try. We wouldn't exactly hit each other, but Bridgette's hand would just come softly towards my face and I would take it and block it.

Dave said that he would practice his skills at the YMCA on a punching bag.

*Coping skills theme.* The quantitative data suggested that the E group developed coping skills, and the qualitative data suggested that the athletes apply their coping skills at home, school, and work. As previously stated, Ellen uses her positive self-talk to calm herself down at work and home, and Fred uses his positive self-talk to help him at practice and school. Allen's mom stated that he has used his self-control as a coping skill at home. For instance, Allen rode his bike beyond the area in which his mom allows him to ride his bike. When she found out, Amy took the bike away from him. Usually, when this would happen, he would try to con his mom into riding it more, but this time he did not. She said:

> Of course last week, when we hung the bike up, he didn't bother blowing off steam cause he knew he'd screwed up... He didn't bother to blow off at me when he got home. He didn't even bother trying to con me into letting him ride my bike, and I was sure that would happen.

*Positive self-talk theme.* Eight of the nine athletes said that they use positive self-talk at school, work, other sports programs, home, or just as a general coping skill. For instance, Fred said that he uses his motto to never give up "during a test" and at swim

practice he tells himself "to go faster." Ellen said that she uses self-talk as a way to calm down at either home or work. She said:

> At work, I usually go in the bathroom and I'll talk to myself in there and come back out... I usually say to myself, this is really hard. Or like, I'll get frustrated with another employee, and I'll get frustrated and I don't want to like, yell at him and say things I don't need to be saying... Yeah, so I'll go in the bathroom and talk to myself real quick.

There were examples from the data that suggest that the athletes used their positive self-talk in different settings from the program.

*Goal setting theme.* Overall, the athletes did not seem to use goal setting on a regular basis outside of the program. There were five athletes who said that they were taught and used goal setting in the program, but there were only two athletes that said that they set goals outside of the program. Of the two athletes that said that they used goal setting outside of the program, Barb said that she used it at Special Olympics, school, and for her future. The goal that Barb set for school was related to her future goal for to go to veterinary school. She said:

> At school, I make goals for me. Like, my biggest goal is to be accepted at [name of college] for vet school. That is a big goal for me... I actually have two goals, the other goal is to get really good at my math and science skills right now.

Fred said he used goal setting in swimming.

Members of the E group were able to generalize their skills to other domains. The themes that were most prevalently discussed were assertiveness, social skills, and positive self-talk. However, only two participants suggested that they used goal setting outside of the program. Also, only a few participants said that they used their new sports skills outside the program. However, the lack of using the sports skills was due to lack of opportunity to use the skills.

*RQ #2: Are There Gender Differences at Any Testing Occasion?*

Two-tailed, independent sample t-test results for combined E and C group pretest data indicated that female participants were significantly lower in coping (t = 2.35, p = .02), but not on any of the other dependent variables at pretest (Figure 17 and Table 20). Because of there was significance in only one of the six dependent variables, and this difference seemed to be a rogue difference, follow-up analyses of gender effects related to the three hypotheses were not performed.

*Figure 17.* Male and female pretest scores for the dependent variables
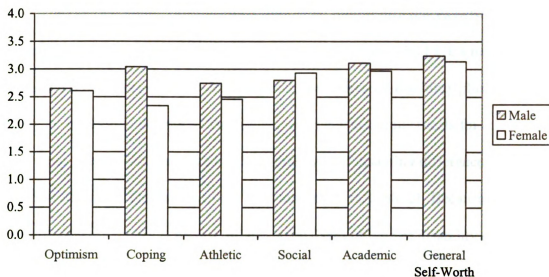


Table 20

*Male and Female Participants Pretest Scores for the Dependent Variables*

| Variable | N | M | SD | t | Df | p |
|---|---|---|---|---|---|---|
| Optimism | | | | | | |
|    Male | 27 | 2.65 | .65 | .26 | 44 | .80 |
|    Female | 19 | 2.61 | .59 | | | |
| Coping | | | | | | |
|    Male | 27 | 3.04 | .97 | 2.35 | 44 | .02* |
|    Female | 19 | 2.34 | 1.05 | | | |
| Athletic | | | | | | |
|    Male | 27 | 2.75 | .65 | 1.54 | 44 | .13 |
|    Female | 19 | 2.46 | .64 | | | |
| Social | | | | | | |
|    Male | 27 | 2.80 | .91 | .53 | 44 | .60 |
|    Female | 19 | 2.93 | .68 | | | |
| Academic | | | | | | |
|    Male | 27 | 3.11 | .60 | .72 | 44 | .48 |
|    Female | 19 | 2.97 | .67 | | | |
| General Self-Worth | | | | | | |
|    Male | 27 | 3.24 | .60 | .56 | 44 | .58 |
|    Female | 19 | 3.14 | .69 | | | |

* Significant two-tailed t-test at $p \leq .05$.

*RQ #3: Are There Disability Differences at Any Testing Occasion?*

    *Type of Disability.* There were no significant pretest differences between participants with only a physical disability versus participants who have a multiple disability. The category *multiple disability* includes a physical disability plus a cognitive, sensory, or behavioral disability. Two-tailed, independent sample t-tests for combined E and C group pretest data were used to determine type of disability differences on the dependent variables. The results of the t-test are shown in Table 21. Because there were no significant differences at pretest, follow-up analyses of type of disability effects related to the three hypotheses were not performed.

*Figure 18.* Physical disability only and multiple disability
pretest scores for the dependent variables
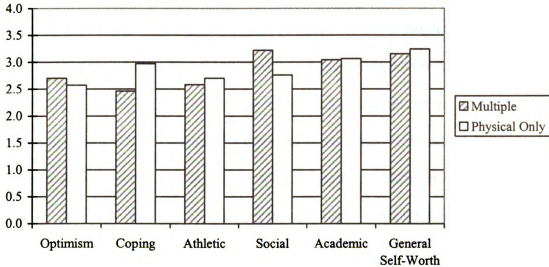


Table 21

*Disability Type Differences on Pretest Scores for the Dependent Variables*

| Variable | N | M | SD | T | df | p |
|---|---|---|---|---|---|---|
| Optimism | | | | | | |
|     Multiple | 16 | 2.70 | .60 | .70 | 38 | .49 |
|     Physical Only | 24 | 2.57 | .56 | | | |
| Coping | | | | | | |
|     Multiple | 16 | 2.46 | 1.36 | 1.43 | 38 | .16 |
|     Physical Only | 24 | 2.97 | .89 | | | |
| Athletic | | | | | | |
|     Multiple | 16 | 2.58 | .73 | .56 | 38 | .58 |
|     Physical Only | 24 | 2.70 | .66 | | | |
| Social | | | | | | |
|     Multiple | 16 | 3.22 | .45 | 1.85 | 38 | .07 |
|     Physical Only | 24 | 2.76 | .92 | | | |
| Academic | | | | | | |
|     Multiple | 16 | 3.04 | .53 | .10 | 38 | .92 |
|     Physical Only | 24 | 3.06 | .67 | | | |
| General Self-Worth | | | | | | |
|     Multiple | 16 | 3.15 | .61 | .43 | 38 | .67 |
|     Physical Only | 24 | 3.24 | .62 | | | |

*Note.* Multiple disability includes physical disability plus a cognitive, sensory, or
behavioral disability.

*Severity of Disability*

One-way MANOVA results for combined E and C group pretest data indicate that severity of disability did not significantly affect the combined dependent variables at pretest ($F(12, 54)=1.04, p=.43, \eta^2=.19$). Follow-up univariate ANOVA results also indicated that severity of disability did not significantly affect any of the dependent variables at pretest. Table 22 presents the results of the MANOVA and Table 23 presents the results of the ANOVA. Because there were no significant differences at pretest, follow-up analyses of severity of disability effects related to the three hypotheses were not performed.

Table 22

*One-Way MANOVA for Severity of Disability*

| Effect | F | Hypothesis df | Error df | p | $n^2$ |
|---|---|---|---|---|---|
| Intercept | 178.17 | 6 | 27 | .00 | .98 |
| Severity | 1.04 | 12 | 54 | .43 | .19 |

Table 23

*Disability Severity Differences on Pretest Scores for the Dependent Variables*

| Variable | N | M | SD | F (2, 32) | p |
|---|---|---|---|---|---|
| Optimism | | | | | . |
|    Seldom | 15 | 2.60 | .65 | .34 | .71 |
|    Occasionally | 16 | 2.70 | .45 | | |
|    Frequently | 4 | 2.46 | .50 | | |
| Coping | | | | | |
|    Seldom | 15 | 3.17 | .96 | 1.88 | .17 |
|    Occasionally | 16 | 2.45 | 1.14 | | |
|    Frequently | 4 | 2.47 | 1.27 | | |
| Athletic | | | | | |
|    Seldom | 15 | 2.72 | .68 | .39 | .68 |
|    Occasionally | 16 | 2.52 | .72 | | |
|    Frequently | 4 | 2.52 | .38 | | |
| Social | | | | | |
|    Seldom | 15 | 2.85 | .96 | .52 | .60 |
|    Occasionally | 16 | 3.12 | .78 | | |
|    Frequently | 4 | 2.79 | .31 | | |
| Academic | | | | | |
|    Seldom | 15 | 3.23 | .55 | 2.35 | .11 |
|    Occasionally | 16 | 2.87 | .62 | | |
|    Frequently | 4 | 2.66 | .36 | | |
| General Self-Worth | | | | | |
|    Seldom | 15 | 3.31 | .69 | .33 | .72 |
|    Occasionally | 16 | 3.19 | .62 | | |
|    Frequently | 4 | 3.03 | .64 | | |

*RQ #4: Are There Age Differences at Any Testing Occasion?*

There were no significant pretest differences between participants under age 14 and participants over age 14. In order to assess age group differences on the dependent variables, two tailed, independent sample t-tests were conducted for the combined E and C group at pretest. The results of the t-test are present in Table 24. Because there were no significant differences at pretest, follow-up analyses of age difference related to the three hypotheses were not performed.

*Figure 19.* Under 14 age group and over 14 age group pretest scores for the dependent variables
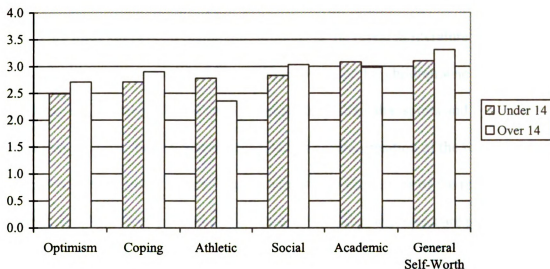


Table 24

*Under 14 Age Group and Over 14 Age Group Pretest Scores for the Dependent Variables*

| Variable | N | M | SD | T | df | p |
|---|---|---|---|---|---|---|
| Optimism | | | | | | |
|     Under 14 | 20 | 2.49 | .62 | 1.11 | 34 | .28 |
|     Over 14 | 16 | 2.71 | .55 | | | |
| Coping | | | | | | |
|     Under 14 | 20 | 2.71 | 1.11 | .48 | 34 | .64 |
|     Over 14 | 16 | 2.90 | 1.24 | | | |
| Athletic | | | | | | |
|     Under 14 | 20 | 2.78 | .66 | 1.92 | 34 | .06 |
|     Over 14 | 16 | 2.36 | .65 | | | |
| Social | | | | | | |
|     Under 14 | 20 | 2.83 | .92 | .72 | 34 | .48 |
|     Over 14 | 16 | 3.03 | .72 | | | |
| Academic | | | | | | |
|     Under 14 | 20 | 3.08 | .62 | .49 | 34 | .63 |
|     Over 14 | 16 | 2.98 | .64 | | | |
| General Self-Worth | | | | | | |
|     Under 14 | 20 | 3.10 | .73 | 1.01 | 34 | .32 |
|     Over 14 | 16 | 3.31 | .47 | | | |

CHAPTER 5

DISCUSSION

This study makes two major contributions to the research literature: (a) the

development of a sports and life skills (SLS) intervention for children who have physical

disabilities; and (b) the results of an experiment to evaluate that sports and life skills

intervention program. In this chapter, conclusions or interpretation of the results are

compared with previous literature. Then, strengths and limitations of the research are

discussed. Finally, recommendations for researchers and practitioners are presented.

*Contributions to the Research Literature*

*Development of a Sports and Life Skills Program*

The development of a comprehensive sports and life skills intervention that can be

used by teachers, parents, and coaches represents a contribution to the literature. The

National Collaborative on Workforce and Disability for Youth (2002) reported that at

least three quarters of students with disabilities need life skills training. The participants

in this study were taught team building, goal setting, positive self-talk, assertiveness,

social skills, and coping skills to increase optimism, coping skills, academic, social, and

athletic perceived competence, and general self-worth. In this section, the following

topics are covered: (a) selection of life skills; (b) the choice to teach the life skills in a

sport context; (c) selection of cognitive-behavioral approach to teach life skills; and (d)

the choice to focus on external validity.

*Selection of life skills.* The investigator decided to develop a comprehensive life

skill program that taught team building, goal setting, positive self-talk, assertiveness,

optimism, social skills, and coping skills because each of the life skills are invaluable in

helping children who have physical disabilities succeed in life (Elliot, Kurylo, & Rivera, 2002). Through a synthesis of the literature, it was determined that these skills were the most appropriate life skills to teach to children who have physical disabilities. Previous researchers (e.g., Hepler, 1997; Starke, 1987) have only focused on one or two life skills during an intervention program. However, in the SLS, the children were taught several important skills. Parents reported appreciation of the life skills that were taught in the program and reported that the children enjoyed learning the skills. Success in selection of the topics was also revealed through the many comments about how the children applied the life skills to their daily lives.

*Choice to teach life skills in a sport context.* The investigator chose to teach life skills in a sport context because sport is a fun achievement domain in which results of mastery attempts are immediately visible. Seligman (2002) has stated that life skills need to be taught in an entertaining way; a condition that was satisfied by teaching life skills in a sport context. Previous life skills teachers have used different sports such as basketball, golf, and karate to teach various life skills (Hellison, et al. 2000; Leme, 2002; Modell & Megginson, 2001; Petlichkoff, 2001). In this program, the children participated in soccer and taekwondo. These sports were effective in teaching life skills. Also, the sport activities were popular with the parents and children. The interview data suggested that taekwondo helped teach assertiveness and confidence while soccer helped with building a team atmosphere.

The investigator also chose to teach life skills in a sports context because sport is an achievement domain where many people do not expect success from people with physical disabilities (Blinde & McClung, 1997; Blinde & Taub, 1999). Previous sport or

physical activity programs (Hellison, et al. 2000; Weiss, 1991) have been used to teach life skills to children without disabilities, but this program demonstrated that children with physical disabilities can develop life skills AND participate in sports. The children increased their self-efficacy to be able to participate in both soccer and taekwondo during the program. One child even shared her excitement with her mom about being able to participate in a sport that she thought she could not do.

*Selection of cognitive-behavioral approach to teach life skills.* The investigator decided to use cognitive behavioral approach to teach life skills because of the positive focus on teaching tools to help people succeed instead of focusing on why people are not succeeding. Previous authors (Seligman, 1995; Hellison et al., 2000) have suggested the need and ways to use a positive approach to teaching life skills. The program was effective on focusing on abilities instead of disabilities by training the program staff to emphasize this positive approach. From the outset of the program, the children were notified that they must be encouraging and supportive of each other. Team building exercises were used at the beginning to help build a positive environment. The parents remarked about how positive the program was and remarked that it was highly beneficial that the personnel focused on the positive and were constantly supportive. Therefore, it is suggested that other programs follow the positive psychology approach (Seligman & Csikszentmihalyi, 2000) and focus on building strengths instead of minimizing disability.

The cognitive behavioral approach to life skill development was also chosen because of the feasibility of applying the assumptions and techniques of the approach when working with children with physical disabilities. Cognitive behaviorists (Beck & Weishaar, 2000; Ellis, 1996) suggest that: (a) children should learn how thoughts,

feelings, and behaviors interact with each other; (b) practitioners should use both cognitive and behavioral techniques; (c) program should last 12 to 25 sessions; and (d) life skills should be taught to be applied outside of the program. The program was successful in implementing the advice of the cognitive behaviorists. The children in the SLS program were able to apply the thoughts, feelings, and behavior lessons when using their cue words and positive self-talk in their daily lives. The interviewees stated that the cognitive behavioral teaching techniques were effective in teaching the life skills to the children. Finally, the SLS program was a 24-session, 12-week program, which is the typical duration of a cognitive behavioral intervention. However, it is inconclusive if the program could be more efficiently taught in less time and increase retention of the sports and life skills.

*Choice to focus on external validity.* The investigator decided to focus more on external validity instead of internal validity so that the curriculum could be easily implemented into other programs. The SLS curriculum was successfully implemented in a school and community setting. Prior to conducting the program, the advisory board and dissertation committee reviewed the curriculum and suggested that the program could be implemented with children with physical disabilities. The committees also ensured that the skills were practical and valuable for the population so that they can be successful in life. The results of the research questions also demonstrated that the program can be implemented across genders, ages, and disability types and severities.

*Treatment Effects*

The E group participants did improve their sport and life skills as evidenced by (a) pre-post assessment of E group performances and (b) comparison of E and C group performances on the posttest. The researchers intended to teach goal setting skills, positive self-talk, assertiveness, social skills, coping skills, soccer, and taekwondo to increase optimism; coping skills; athletic, social, and academic perceived competence; and general self-worth. The quantitative data suggested that the greatest increases on the dependent variables for the E group were coping; athletic and social perceived competence; and general self-worth. However, the quantitative data revealed that the E group did not increase their optimism and academic perceived competence at any testing occasion. The qualitative data showed that assertiveness and social skills were taught more successfully than other skills. Conclusions and implications of these results are discussed in relation to the research literature.

*Coping skills.* This program was successful in teaching coping skills. One of the probable reasons that teaching coping skills was so effective is that each of the life skills taught can be considered a coping skill. Previous researchers (Morley, Eccleston, & William, 1990; Stevens & Pihl, 1982), who have focused on teaching coping skills to people who have disabilities, have suggested teaching a multitude of skills so that the participants can choose which coping skill is most effective for different situations. They have suggested teaching problem solving, decision making, goal attaining, cognitive restructuring and reframing, self-monitoring, biofeedback, progressive muscle relaxation, and stress inoculation. In this program, the children were taught problem solving,

decision making, goal attaining, cognitive restructuring and reframing, self-monitoring, and progressive muscle relaxation. The interview participants suggested that the children used multiple coping strategies when dealing with problems. This study demonstrated the importance of teaching multiple coping strategies so that the children can choose which strategy is most effective for them.

Previous researchers (Gillham, et al. 2003; Hepler, 1997) suggested using real-life situations or problems to teach coping skills; thus, the SLS instructor used real-life examples to ensure coping skills were taught. In the PRP (Gillham, et al. 2003), students were expected to write down problems that they had experienced during the week on a card. The teacher then used these problems as examples when teaching various coping skills. Similarly to the PRP, the instructor of the SLS program asked the participants to talk about good and bad things that occurred during their week. These situations were then developed as examples for the various games or scenarios that the children had to problem solve or fix. In this way, the examples were meaningful to the participants, and they learned how to handle a problem that was likely to occur in their lives. This study further developed the argument to use real-life examples that are obtained from the participants to teach coping skills.

*Assertiveness.* As was the case with previous assertiveness interventions (Morgan & Leung, 1980; Starke, 1987; Glueckauf & Quittner, 1992), the E group increased their assertiveness in the SLS program. The children may have been able to improve assertiveness because promoting assertiveness was a priority from the beginning of the program. As suggested by Morgan & Leung (1980), the children were provided with as much control over their environment as possible. The children also received positive

feedback throughout the program for being assertive and making decisions for themselves. Because the children received the positive feedback for being assertive, they were more likely to continue their assertive behaviors (Starke, 1987). Thus, it is important to reward participants for practicing the taught life skills.

The children increased their assertiveness possibly because they were taught and practiced an easy, concrete way to act assertively. Other practitioners (Connelly & Rotella, 1991, Gillham, et al., 2003) suggested using the acronym DEAL (*describe problem, explain feelings, ask for a change,* and *list how change will fix problem*) to teach assertiveness. During the program, the children practiced using DEAL in several role-play scenarios. One of the interview participants tried to explain DEAL to the interviewer. By teaching the children a concrete way to being assertive, the children were able to apply the new skill in the program and in their daily lives.

Although all of the interventions (Morgan & Leung, 1980; Starke, 1987; Glueckauf & Quittner, 1992) that were reviewed for this study taught assertiveness to adults with disabilities, this study taught assertiveness to children with physical disabilites. Dunn (1977) suggested that assertiveness is vital for social development and problem solving skills. Therefore, the instructor of the SLS program taught assertiveness to enhance social skills and coping skills. Since the children in the SLS program did increase their assertiveness and enhanced their coping and social skills, this study contributed to the assertiveness literature by developing an assertiveness intervention for children with physical disabilities.

Although none of the previously reviewed literature on assertiveness reported problems related to participants being too assertive, some of the parents of this program

thought children needed to learn a better way to be assertive in a polite way. Cal quoted

his wife as saying, "You can be assertive, but be polite." Perhaps the children in this

study needed more time to develop their assertiveness skills or to be taught assertiveness

in a different way. In this program, children were taught to be assertive to express what

they need or want in difficult situations. However, children could have also learned how

to be assertive to reinforce other people's positive behaviors that they want to occur

again. In this way, the participants would learn to express what they need, reinforce other

people's positive behaviors, and decrease negative behaviors.

An unexpected benefit of the program was the combination of teaching

assertiveness and taekwondo. Taekwondo was chosen as a sport activity because of the

benefits to the mind, body, and character of a person (Morris, 1997). There has been

previous literature stating a correlation with taekwondo and less aggressive behavior

(Bell & Chang, 2002; Skelton, Glynn, Berta, 1991) and an independent personality

(Kurian, Caterino, Kulhavy, 1993). Morgan & Leung (1980) have suggested that it is

important to build confidence so that the person is willing to be more assertive. The

parents in the interviews remarked that the children gained confidence when participating

in taekwondo and the confidence helped them be more assertive. This possible

correlation between taekwondo, confidence, and assertiveness needs to be further

researched before any conclusion can be made, but the results of this program do suggest

that there is a relationship between the factors.

*Athletic perceived competence.* Similarly to other sports programs (e.g., Shapiro,

Moffett, Lieberman, & Dummer, 2005), the E group was higher in perceived competence

at posttest compared to pretest. The children may have been able to increase their

perceived competence because the instructors and coaches followed the suggestions put forth by Harter's (1981) Model of Perceived Competence. In the program, the children were successful at optimal challenges and received positive social influence from coaches, other athletes, and parents for their challenging attempts. The coaches also provided positive feedback, technical instruction, and error contingent encouragement as is suggested by Barnett, Smoll, & Smith (1992). Finally, Epstein's (1989) TARGET (task, authority, reward, group, evaluation, time) method to develop a mastery-oriented climate was also used. These techniques could be the reason why the E group was higher in athletic perceived competence at posttest compared to pretest.

*Sports skills.* The children may have been able to increase their athletic perceived competence, because they learned new sports skills within program. The coaches taught introductory soccer and taekwondo skills in a success oriented environment. Many of the interview participants suggested that they were initially doubtful about their abilities to participate in soccer and taekwondo. For instance, many of the participants used wheelchairs and originally indicated that would not be able to kick in taekwondo. However, the children were taught to use their wheelchairs to kick over several football pylons. According to Harter's (1981) model these successes in sport would then increase the children's athletic perceived competence and help them further continue in sports programs.

*General self-worth.* The children were able to increase their general self-worth because the coaches used the recently stated strategies, but also because they showed personal interest in each child. Harter (1981, 1999) suggests that children need to receive positive social support and feedback to increase their general self-worth. Many of the

interview participants stated that the athletes were able to make a connection with the program staff. The interview participants also stated that the children gained confidence because of the positive social support and feedback that both the other children and staff emphasized during the program. The groups demonstrated that they personally cared about each other and this increased the children's overall confidence and perception of their general self-worth.

Another reason that the children increased their general self-worth was because of the bonds the participants developed with each other. Harter (1999) states that adolescents compare themselves to their peers to judge their competencies and general self-worth. Several parents suggested that, prior to the program, their children were losing confidence in themselves due to the lack of peer comparison with children of similar needs. However, these parents said that their children learned that they are not the only children with special needs. The children also developed a new peer group that consisted of children with similar needs. The children were then able to compare themselves to a more equivalent comparison group and increase their general self-worth.

*Social skills.* Though this program used previous successful interventions (Bierman, 1986; Bierman & Furman, 1984; Hepler, 1997; O'Reilly & Glynn, 1995) to develop the social skills lessons, the social skills results were mixed. The E group did not significantly increase their social perceived competence at posttest compared to pretest. However, according to the qualitative data, the interviewed participants in the E group increased their social skills at posttest. A possible reason that the children did not increase their social perceived competence, as measured by the SPPC, could be due to their high pretest scores. The E group did score a 3.09 at pretest and a 3.21 out of a

possible 4.00 at posttest. The E group did increase their skills, but a ceiling effect could have prevented the scores from increasing any more. Another possible reason is that the survey was not sensitive to the changes to the social skills in which the children were taught.

Another reason that there were mixed results could have been due to some children having social skills prior to the program. Social skill interventions that were analyzed for this study (Bierman, 1986; Bierman & Furman, 1984; Hepler, 1997; O'Reilly & Glynn, 1995) were developed for children low in peer acceptance and social skills. The high social perceived competence scores and the number of social activities in which E group members participate showed that some of the participants in the study came into the program with good social skills. Barb even suggested during her posttest interview that she already had many social skills when she started the program, but she did develop new skills that help her when interacting with friends. Having previous social skills could explain why the E group had a high level of social perceived competence at pretest while only slightly increasing their scores at posttest.

The E group pretest and posttest quantitative results contradict the results found by earlier researchers. The reason for opposing results could be because of the duration that social skills were taught in the SLS program. The children were practicing their social skills throughout the program, but social skills were the primary focus of the life skills program for only 2 days. Of the studies that taught social skills to people who have disabilities reviewed for this study, the shortest duration for teaching social skills was eight weeks. Therefore, it is suggested that social skills be taught for longer than just three hours.

Like assertiveness and coping skills, O'Reilly and Glynn (1995) state that it is

vital to teach social problem solving skills. They suggest that intervention programs that

teach social skills to children who have disabilities should focus on:

> discriminating salient social stimuli (decoding), identifying alternative social
> behaviors and identifying the most appropriate social behavior for the social
> situation (deciding), performing the social behavior (performing), and evaluating
> the effectiveness of the social behavior once it has been performed (evaluating)
> (O'Reilly & Glynn, 1995; p. 188).

During this program, the children were taught how to identify people's interests

(decoding), how to talk to someone about mutual interests (deciding and performing), and

how to continue developing the social relationship (evaluating and performing). The

children in this study suggested that they used these social problem solving skills in other

settings after the program. Therefore, this study provides support for the argument that it

is important to teach social problem solving skills so that the skills can be applied to

various situations.

Bierman and Furman (1984) and Bierman (1986) also suggested that it is

important to teach social skills in a safe environment where participants are able to test

their newly acquired skills without worrying about ridicule for failing to appropriately

use the new skills. In this program, the researchers purposely developed a positive

environment where children were expected to try new skills. Many of the interviewed

children talked about developing new social skills. They also suggested that their favorite

part of the program were the friendships that they developed when using their social

skills.

This program extended the literature on social skill development because most of

the previous literature on social development for children who have disabilities has been

conducted with dyads or triads. This program focused on developing social skills within a larger group setting. The different group sizes in this intervention ranged from 6 to 10 participants. Future research should further evaluate if teaching social skills in smaller groups is more effective than larger groups.

*Optimism.* Unlike Seligman and colleagues (Cardemil, Reivich, & Seligman, 2002; Gillham, et al., 1995; Gillham & Reivich, 1999; Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al., 1999), the E group did not increase their optimism scores at pretest compared to posttest. The reasons for the unexpected results could include: (a) the PRP is not as effective with children with physical disabilities as it is with children who are at risk for depression; (b) the investigator used an inappropriate measure of optimism; (c) the investigator modified the PRP protocol.

The PRP may be most appropriate for children who are at risk for depression. Seligman and colleagues have been successful in teaching optimism to both Caucasian middle class (Gillham, et al., 1995; Gillham & Reivich, 1999; Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al., 1999) and Latino children (Cardemil, et al., 2002) who are prone to depression. However, Cardemil, et al., (2002) were not effective in changing optimism levels in African American students. Cardemil et al. (2002) suggested that one reason that the Penn Resiliency Program may not have been effective in increasing optimism in African Americans is that the African Americans were significantly less depressed than the Latino group. The interview participants made no comments that suggested the children in this study were depressed. During the interviews, the parents and participants were asked about their quality of life, and all interviewees suggested the

children's quality of life was high. Thus, the SLS program may not have been effective in increasing optimism, because the participants were not initially pessimistic or depressed.

Optimism may not have changed because the Life Orientation Test – Revised (Scheier, Carver, & Bridges, 1994) was not the correct instrument to use. The LOT-R may not have been the correct instrument because it may not detect slight changes in optimism and it does not measure cognitive restructuring. The instrument may have been ineffective in detecting slight changes in optimism because it is used to measure dispositional optimism instead of a state-like optimism (Lindsey, 2001). A life skills intervention program is unlikely to be effective in changing dispositional optimism. Thus, perhaps a different instrument with more sensitivity to changes in children's optimism should have been used.

Perhaps, there would have been a significant difference in posttest scores compared to pretest scores if the children completed another assessment of positive self-talk instead of the LOT-R. Seligman and colleagues (Cardemil, Reivich, & Seligman, 2002; Gillham, et al., 1995; Gillham & Reivich, 1999; Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al., 1999) used the Children's Attributional Style Questionnaire (CASQ, Seligman, et al., 1984) to measure optimism because cognitive restructuring and positive self-talk are the centerpieces of the PRP (Gillham, et al. 2003). In the present study, qualitative interviews were used to measure positive self-talk instead of the CASQ, because it was too long for the children to complete in conjunction with the other surveys. The interviewed participants suggested that the children were able to use positive self-talk in various settings and for various reasons. Thus, optimism scores may have changed if positive self-talk was assessed using a different instrument.

Finally, the children may not have increased their optimism scores because the SLS protocol was different to the PRP protocol in two ways: (a) the optimism curriculum was adapted to make it relevant to the study sample and (b) the optimism curriculum was incorporated within a comprehensive life skill program. For instance, in the PRP, children practiced searching for possible causes of problems by hearing a story about a girl who had her *bike* stolen. In the SLS program, the children practiced the same lesson by hearing a story about a girl who had her *motor scooter* stolen. It is unlikely these slight modifications resulted in the differences in optimism outcomes found for the PRP program compared to the present study.

In comparison with the PRP protocol, optimism was taught within a comprehensive life skills program in the present study. Previous researchers have suggested teaching multiple life skills in order to increase quality of life (Elliot, Kurylo, & Rivera, 2002). Teaching multiple life skills may have masked the changes in optimism. Thus, future research could compare teaching multiple versus a single life skill intervention to children with physical disabilities.

*Academic perceived competence.* Academic perceived competence was not a primary focus of the program; thus, this could be a reason why the E group did not increase their academic perceived competence scores. The information about schooling and academic perceived competence was a way to evaluate if the children were using the life skills in other settings. The SLS curriculum included some examples of how to use life skills in school, but the main focus of the SLS was the application of skills to everyday life. Hellison (1978) promotes his model to be included in schools and has had success in increasing academic performance. If a person taught the skills using more

school examples; taught the life skills program as an academic class; or used an academic activity instead of sports, perhaps academic perceived competence would be increased.

*Retention*

There were significant treatment effects for the E group on coping, athletic and social perceived competence, and general self-worth. However, the E group did not maintain the high scores in athletic perceived competence or general self-worth. They did maintain high scores in coping skills and social perceived competence at retention. The interview participants also suggested that the E group remembered skills they were taught 12 weeks after the program. However, the children could benefit from more life skills training so that they could learn more about how to apply the life skills to their daily lives.

*Coping skills*. The high coping scores were maintained at retention possibly because the children used multiple types of coping that were taught in the program. Previous researchers (Hepler, 1997) suggested teaching multiple coping strategies so that people can choose which coping strategy is most effective for a situation or individual. Even 12 weeks after the program, the interview participants suggested that the children in the E group did develop multiple ways to cope with difficult situations. The interview participants suggested that the children used breathing techniques, problem solving techniques, cue words or positive self-talk, assertiveness, and proper behavioral techniques for staying out of trouble. The results of this program further established the argument that teaching multiple ways of coping is necessary so that children who have physical disabilities can select which coping skills are most effective for different situations.

*Coping and social skills.* Previous authors (Chadsey-Rusch, Rusch, & O'Reilly, 1991; Hepler, 1997) have suggested that it is important to teach problem solving skills to increase coping and social skills. In contrast, researchers such as Bierman & Furman (1984) taught situation-specific skills which are more difficult to generalize to other situations. As was advised by Chadsey-Rusch, et al. (1991) and Hepler, (1997), the leaders of the SLS program taught problem solving skills because these skills can be used in various situations. The interview participants suggested that they were able to apply their social and coping problem solving skills in various situations. For instance, Ellen talked about using her assertiveness and relaxation skills at work and home. Ellen's mom talked about Ellen using her assertiveness skills with her friends. The results of this study provides support for the claim that problem solving skills should be taught instead of situation-specific skills when trying to develop social and coping skills.

*Athletic perceived competence.* The E group members did not retain their increases in athletic perceived competence. Some of the interviewees suggested that they never knew that they could do the sports in which they participated in this program and thus had a high athletic perceived competence at posttest. Interviewees also suggested that they did not have role models or people with similar disabilities in which they could compare themselves. As previously stated, the children this age start to compare themselves to their peers in order to judge their competence (Harter, 1999). At posttest, the children completed the surveys immediately after the gym session and thus could compare their skills to their similar peer group. However, at retention, the children may have resorted to comparing themselves to children with greater abilities. This comparison could then be a cause for the decrease in athletic perceived competence.

*General self-worth.* The E group members also did not retain their high general self-worth 12 weeks after the intervention. The children in the present program may not have retained their skills because they were not continuing to be successful in mastery attempts and/or they did not receive the positive support that the personnel constantly gave the children (Harter, 1999). The spring E group participants went back to school at retention and thus they were placed back into an environment that may not have been as supportive for the children. Many interview participants suggested that their school environment was not a positive environment for the children and that they were teased by classmates. For instance, Fred was being teased on the school bus for wearing diapers when he slept at night. Some of the children were also having difficulties with their teachers. For instance, Dave was having difficulty with being allowed to participate in physical education classes. Instead, his teacher was sending him to study hall. Thus, these negative experiences could be the reason why the children did not retain their general self-worth 12 weeks after the program.

*Generalization*

There were three major findings for this research question: (a) the children were able to generalize life skills to other domains with the exception of goal setting; (b) the children did not generalize their new soccer or taekwondo skills to other programs; and (c) the children need to further develop their life skills. This information is important to know because previous researchers (e.g., Cardemil, Reivich, & Seligman, 2002; Gillham, et al., 1995; Gillham & Reivich, 1999) have not evaluated if children have used the taught life skills in other domains.

*Life skills.* This study extended the life skill literature by evaluating children's use of life skills outside of the research setting. Previously researchers did not evaluate the application of the life skills outside of the research program; they evaluated the use of skills only in the environments (e.g., school) in which the participants were taught (Bierman & Furman, 1984). With the exception of goal-setting, the participants in this study were able to generalize their skills to other domains. A possible reason for this finding is that the examples and scenarios were real life examples provided by the participants. Researchers (e.g., Gillham, et al. 2003; Hellison, 2000) have stated that it is important to use real life examples so that the participants can relate the scenarios. It is also important so that the participants can learn how to apply the life skills to other domains.

A few of the interviewed children suggested that they were taught how to set goals, but only two children mentioned that they used goal setting outside of the program. The athletes who did use goal setting suggested that they used it effectively, but more of the children should also been able to reap the benefits of goal setting. According to the Online Women's Business Center (1997), only 3% of people use goal setting even though most people know the benefits of setting goals. Perhaps this is the reason why only 2 of the 9 children interviewed said that they used goal setting.

There were only two athletes who stated that they used goal setting outside of the program. Instead of asking if the children used goal setting outside of the program, the interviewer asked, "What did you learn in the life skills room?" and "Do you use any of the skills that you learned outside the program?" Though the athletes were asked these questions, most times the athletes answered how they used goal setting in the program.

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Because the researcher did not follow-up on the children's responses, results are unclear if the athletes actually did use goal setting outside of the program. Thus the results should be viewed with caution.

*Sports skills.* For the most part, the children did not use their sports skills outside of the program. Many of the children wanted to continue the sports activities, especially taekwondo, but there were limited opportunities for the children. The children did seem to remember the skills that they were taught, but the parents had limited knowledge of places where their children with disabilities could successful be integrated into other programs. Thus, it is important for future practitioners and researchers to establish or recommend other sports programs in which the participants can join.

*Further development of life skills.* The children were able to generalize their life skills to other domains, but the interviewed parents suggested that the children needed to continue practicing and developing their skills. The children were applying their skills in their daily lives but sometimes they used the skills ineffectively. For instance, some of the children were more aggressive instead of assertive. Parents suggested that they would like to see the program continue or to develop a Part II. Children could also start participating in community-based education programs as some of the participants already did.

*Gender, Disability, and Age Differences*

There were no systematic significant differences at pretest for gender, severity of disability, type of disability, or age. One reason that there were no differences between groups could be the small number of participants. Power analysis results suggested that 24.5 participants in each group were needed in order to find a large effect size between

groups. In this project, gender was the only independent variable grouping that came close to meeting the comparison criteria. There were 27 males and 19 females in the whole sample. There were only 12 males and 9 females in the E group. Thus, there could be significant differences between the groups, but the small sample size prevented finding the differences.

Since there were no disability or age differences, but there were significant findings for the hypotheses, the results indicate that the program can be effectively taught to both genders, and children with multiple disabilities, varying levels of severity of disability, and of different ages. Cognitive behaviorists have been successful in teaching life skills to people with mild to moderate cognitive disability and children. Thus this project further supports this claim.

*Conclusions*

The data suggested the greatest increases in skills were coping skills, assertiveness, athletic perceived competence, general self-worth, and social skills. The program was least effective in increasing optimism and academic perceived competence. The following list includes possible reasons why the children increased or did not increase their skills.

- The program was effective in teaching coping skills because the children were taught multiple ways of fixing their problems.

- The children increased their coping skills, assertiveness, and social skills because they were taught problem solving skills instead of situation specific techniques.

- Athletic perceived competence and general self-worth were increased because of the design of the program and the personnel. The personnel designed the program so that the children were consistently successful in their mastery attempts and that the children's individual needs were met.

- Optimism may have increased but the wrong assessment may have been used to evaluate the children's optimism. The children should have completed the Children's Attributional Style Questionnaire to assess changes in their self-talk.

- Academic perceived competence did not change because it was not a primary focus of the program.

*Limitations of Research Methods*

As with all research there were limitations to this study. Many of the limitations were the result of the natural compromises of internal validity associated with the strong external validity of a field study. Other limitations are associated with the fact that this research topic was relatively new and undeveloped. Finally, other limitations were due to the investigator's novice status as a researcher.

*Sample*

An example of a compromise between external validity and internal validity is seen in the sample demographics. It is typical to have a classroom or disability program that includes children who have physical disabilities and another disability. This program represented a typical sample in that some of the children had multiple disabilities. For instance, cerebral palsy, which can affect cognitive development, was the most frequent disability in this study. Some of these children did have mild cognitive impairment which

may have affected the results. Therefore, with this diverse sample came limitations to the study.

The participants were not randomly assigned to the treatment groups, and thus there were unanticipated differences between the two groups. For instance, the randomly selected interview participants in the C group participated in fewer activities compared to the E group interview participants. These were surprising results since participants in the C group were recruited from physical activity programs. Differences in sport participation were only one difference and there probably were more undetected differences. These differences may have been the reason why the E group compared to the C group was higher on the dependent variables at posttest. Obviously, random assignment is a preferred method to test treatment effects.

Multivariate analysis allows for comparison between one or more independent variables and two or more dependent variables. This study had multiple independent and dependent variables; however, the sample size prevented the extensive use of multivariate analysis. The program taught multiple skills that probably affected multiple dependent variables at one time but having a small sample size prevented an analysis to better understand the relationships between the variables.

*Instrumentation*

There were several strengths of the research methods related to instrumentation such as the use of readily available instruments to allow for comparison with the published research literature, and triangulation of data between parent and athlete interviews. However, the limitations are that some of the quantitative tests may not have been sufficiently sensitive to detect programmatic changes or may not have assessed

exactly the skills that were taught in the SLS program. For instance, the E group did not change their optimism scores, but did change their self-talk. It may have been wiser to use a different assessment instead of the LOT-R to measure changes in optimism.

Another limitation was seen in the qualitative instrumentation. The qualitative data did allow for triangulation with the quantitative data, but it also fell short in other aspects. For instance, more training was needed for the interviewer. The interviewer followed the interview guide strictly, but did not adequately follow-up on the interviewee responses. An example is when the interviewer asked the children if they thought they were good, bad, or okay at an activity. However, many times, the interviewer did not follow-up this question with why the children thought they were good, bad, or okay. Perhaps with more training, the interviewer would have used more follow-up questions and more information would have been learned from the interviews

*Intervention*

The strengths of the intervention program related to the content of the program, the strong personnel, the realistic settings, and the applications of the cognitive behavioral and positive psychology approaches. However, the limitations relate to the strong personnel, the duration of the program, the involvement of the parents, and the need for training to develop a similar program.

The personnel were both a strength and limitation of the research project. The positive personalities of the staff members were a strength. In fact, many of the interviewed participants and their parents commented favorably about the staff's personal positive relationships with each child. However, the relationships developed between the staff and participants may have been a confounding variable to treatment effects.

Research has demonstrated that counselor characteristics often overshadow theoretical approaches to psychological interventions. For example, Wampold (2001) conducted a meta-analysis to investigate the relative contributions of counselor effects and treatment effects of various interventions. He found that counselor characteristics are the most important variable in a successful intervention. However, in the present study no efforts were made to evaluate the effect of a counselor characteristics in treatment effects. Future studies should evaluate these effects.

The program was twice a week for 12 weeks. Many parents suggested that it was difficult to transport their children to so many sessions. The program was also the full length of the summer for the summer group. Some of the participants suggested that it was difficult to meet the attendance criteria and have summer vacations. The parents wondered if the program could be shorter but include more follow-up sessions, reunions, or discussion boards for the children.

To promote the children feeling comfortable to talk about any topic, the children were promised confidentiality. Parents were not allowed in the life skills room during the program sessions so their children could speak freely. However, in hindsight, this was a limitation because the parents wanted to learn more about how to teach life skills to their children. Children may be more comfortable to speak freely about their problems when the parents are not in room, but parents could still receive a daily or weekly report about the topics that were covered that day or week. In this way, parents could have followed-up lessons that were taught in the program at home.

Finally, participants in the program had various disabilities, which meant that the children had various needs and talked about different sensitive issues. The head teacher

and assistant teacher did have some education in both special education and the cognitive behavioral approach to teaching life skills. Because of this education, the leaders of the program were able to develop a positive rapport with the children. Future researchers should have similar backgrounds in order to implement the SLS program.

*Recommendations*

1. Researchers should increase the sample size to enable use of multivariate analyses and to develop multiple treatment groups. Participants could be randomly assigned to a sports and life skills intervention, a sports only intervention, a life skills only intervention, and a no intervention control group. Because of an emphasis on evidence-based interventions (President's Commission on Excellence in Special Education, 2002), each of these groups should be taught by the same leader. Researchers would learn if participants increase their scores on the dependent variables because of a certain intervention or other reasons such as the Hawthorne effect.

2. Positive self-talk was taught for four weeks in the SLS program, but a quantitative method of assessment was not used to measure changes in self-talk. This program focused on teaching positive self-talk for four weeks yet there was no quantitative assessment used to measure positive self-talk. Seligman and colleagues use the CASQ (Seligman, et al., 1984) to measure optimism and positive self-talk; future researchers could also use this assessment or another assessment in order to quantify positive self-talk and optimism.

3. A better interview guide and training manual should be used in future research. As previously stated, the interviewer needed more training in using follow-up

questions during the interviews. Follow-up questions that specifically ask participants about each topic that was covered in the program and how effective they use each skill will provide in-depth data about which topics are most significant and practical to learn.

4. Researchers should evaluate the various lessons to assess which life skills and lessons are most efficiently taught. The Sports and Life Skills Program was a comprehensive 12-week program but some of the lessons may need to be taught longer while other lessons may not have needed to be taught for so long. It is typical for a cognitive behavioral intervention to last 12 to 25 sessions, as did this program, but was the time spent efficiently within each life skill learning unit. Researchers could develop future research projects to see what lessons were most effective to determine the most efficient way to present the topics.

5. This program was taught twice a week for 12 weeks. Researchers could develop a similar program to assess massed versus distributed learning. Is it better to conduct a similarly comprehensive program over a shorter period of time with longer sessions or would it be better to spread out the program over more days and weeks so that the children can practice the skills more frequently at home before learning more skills?

6. Assertiveness should be taught differently or for a longer duration. The parents suggested that assertiveness was a benefit of the program, but they also said that the children needed to be assertive in a nicer way. Future researchers may want to teach the children how to be assertive to reinforce other people's good behaviors instead of asking people to stop negative behaviors. Researchers could also spend

more time on assertiveness so that the children can learn the appropriate boundaries between passive, assertive, and aggressive. The parents enjoyed that their children were not passive anymore, but they thought that their children may be too aggressive. Thus, teaching assertiveness in a different way or spending more time on assertiveness may lead to more appropriate assertive behaviors.

7. Parents should be provided with more information about the life skills so that emerging life skills can be reinforced at home. Parents could receive a report each day about the topic of the day. The report could also include ways that parents could help further develop the skills at home. The end-of-the-day report would then help the parents understand what is happening in the program and also help the children learn how to apply the skills at home.

8. Teachers and other youth service providers should learn how to develop these life skills. Interview participants suggested that they wanted the program to continue and thought that the children needed the life skills in all areas of their life. Once other service providers learn how to teach the skills, they could develop their life skills programs into their curriculum and thus increase the children's life skills in other domains. However, it is important to note that the leaders of the SLS program did have some education in adapted physical education, special education, and sport psychology. This background would also help other practitioners when developing similar programs.

9. Additional research is needed to determine ways to facilitate retention of life skills. In this study, results were equivocal with most of the data suggesting poor retention. Perhaps by involving parents, teachers, or other support personnel who

could reinforce the use of life skills outside the program, the children might retain the life skills. Interview participants also suggested having follow-up sessions or discussion groups so that children could talk about their experiences using life skills after the program.

10. Additional research is needed to determine the effectiveness of the SLS program for different populations of children with and without disabilities. This program was designed for children with physical disabilities; future researchers should extend the program to at risk children or children with different disabilities and ages.

11. Future programs should evaluate the effectiveness of an inclusive or integrated SLS program. By developing such programs, researchers would be able to assess if the SLS program would be more effective if classmates, siblings, or other peers who do not have disabilities were included in the program.

12. Finally, practitioners and researchers should develop more life skills programs. The children were able to learn necessary life skills. Both the parents and athletes truly enjoyed the program and said that they wish that it would continue. They thought that their children had learned a great deal but they thought that their children could learn a lot more. The parents also wanted the life skills training to be continued in other parts of their children's lives. The children in this program were taught life skills in a sports setting. So the question is could life skills be taught in any achievement context that is enjoyable to children?

APPENDIX A


IRB Approval

# MICHIGAN STATE
## U N I V E R S I T Y

December 10, 2003

TO:      Gail DUMMER
          132 IM Sports Circle
          MSU

RE:      **IRB# 03-743**  CATEGORY: FULL REVIEW

          **APPROVAL DATE: December 8, 2003**

          **EXPIRATION DATE November 8, 2004**

TITLE:  SEEING THE GLASS HALF FULL: DEVELOPING LEARNED OPTIMISM AND
         PERCEIVED COMPETENCE IN MIDDLE SCHOOL STUDENTS WITH
         PHYSICAL DISABILITIES

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the **UCRIHS approved this project.**

**RENEWALS:** UCRIHS approval is valid until the expiration date listed above. Projects continuing beyond this date must be renewed with the renewal form. A maximum of four such expedited renewals are possible. Investigators wishing to continue a project beyond that time need to submit a 5-year application for a complete review.

**REVISIONS:** UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please include a revision form with the renewal. To revise an approved protocol at any other time during the year, send your written request with an attached revision cover sheet to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

**PROBLEMS/CHANGES:** Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of further assistance, please contact us at (517) 355-2180 or via email: UCRIHS@msu.edu. Please note that all UCRIHS forms are located on the web: http://www.humanresearch.msu.edu

Sincerely,

Peter Vasilenko, Ph.D.
UCRIHS Chair

OFFICE OF
**RESEARCH
ETHICS AND
STANDARDS**

:lty Committee on
esearch Involving
Human Subjects

gan State University
202 Olds Hall
East Lansing, MI
48824

517/355-2180
FAX: 517/432-4503
nsu.edu/user/ucrihs
il: ucrihs@msu.edu

PV:  kj

cc:  Aaron Moffett
     1 IM Sports Circle

# APPENDIX B


Surveys and Interview Guides

# Life Orientation Test – Revised

We would like to know about how much you agree with these thoughts. You have five choices for these questions: Strongly disagree; Disagree; Neutral; Agree; and Strongly agree. Circle or mark the answer that is most like you. Please, be as honest as you can and don't let one answer influence the other answers. And, remember, there are no right or wrong answers.

1.    In uncertain times, I usually expect the best.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

2.    It's easy for me to relax.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

3.    If something can go wrong for me, it will.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

4.    I'm always positive about my future.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

5.    I enjoy my friends a lot.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

6.    It's important for me to keep busy.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

7.    I hardly ever expect things to go my way.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

8.    I don't get upset too easily.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

9.    I rarely count on good things happening to me.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

10.    Overall, I expect more good things to happen to me than bad.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

Disability and Sports Coping Survey

In this survey you will be asked to describe ways in which you cope with problems and challenges in physical education and sport. Here are some sample problems:

- Have you ever been teased about your disability in school or sports? For example, Johnny was called mean names because he can't do the same sports skills as the other kids.

- Has your physical education teacher or coach treated you differently because of your disability? For example, Desiree's teacher has her watch while the other kids do activities.

- Have you ever had trouble participating in physical education or sports because of lack of accommodations? For instance, Miguel could not participate in swimming because there wasn't a lift to help him into the pool. And, Michael could not understand instructions because there was no sign language interpreter and no one helped him to understand.

- Have you ever had a problem with doing worse than others in sports or physical activity? For instance, Margarita was not able to do all the push-ups that everyone else in the class was able to do.

Think about similar situations that have happened to you. Describe one problem like this that you have faced while participating in sports or physical education classes.

_____

_____

_____


Please, mark your thoughts for each question. Remember, there are no wrong or right answers.

1. How did you handle this problem when it happened to you? (circle one number in each row)

|  | Never | Sometimes | Often | Usually |
|---|---|---|---|---|
| Try harder | 1 | 2 | 3 | 4 |
| Ignore it | 1 | 2 | 3 | 4 |
| Get mad | 1 | 2 | 3 | 4 |
| Talk to the person who teased me | 1 | 2 | 3 | 4 |
| Ask for help | 1 | 2 | 3 | 4 |
| Make a plan | 1 | 2 | 3 | 4 |
| Think nothing happened | 1 | 2 | 3 | 4 |
| Wish I was someone else | 1 | 2 | 3 | 4 |
| Think about good stuff | 1 | 2 | 3 | 4 |
| Other _____ | 1 | 2 | 3 | 4 |

2. Looking back, how would you have liked to handle such problems? (circle one number in each row)

| | Poor way | Good way | Best way |
|---|---|---|---|
| Try harder | 1 | 2 | 3 |
| Ignore it | 1 | 2 | 3 |
| Get mad | 1 | 2 | 3 |
| Talk to the person who teased me | 1 | 2 | 3 |
| Ask for help | 1 | 2 | 3 |
| Make a plan | 1 | 2 | 3 |
| Think nothing happened | 1 | 2 | 3 |
| Wish I was someone else | 1 | 2 | 3 |
| Think about good stuff | 1 | 2 | 3 |
| Other _____ | 1 | 2 | 3 |

3. How helpful were these people in helping you handle these types of problems? (circle one number in each row)

| | Not Helpful | Somewhat Helpful | Helpful | Very Helpful |
|---|---|---|---|---|
| Parent | 1 | 2 | 3 | 4 |
| Self | 1 | 2 | 3 | 4 |
| Brother or sister | 1 | 2 | 3 | 4 |
| Friend | 1 | 2 | 3 | 4 |
| Classmate | 1 | 2 | 3 | 4 |
| Teammate | 1 | 2 | 3 | 4 |
| Coach | 1 | 2 | 3 | 4 |
| Teacher | 1 | 2 | 3 | 4 |
| Other_____ | 1 | 2 | 3 | 4 |

4. How likely are you to be successful in fixing problems like this problem in the future?

[  ] Definitely

[  ] Very likely

[  ] Somewhat likely

[  ] Not very likely

[  ] Not at all likely

Self-Perception Profile for Children

These questions are about what you are like. I will read a description about two types of children. First, I want you to decide which child you are more like. Sometimes, you may think that you are like both children but I want you to select which child you are more like. Once you have selected which child you are more like, I want you to decide if you are really like that person or sort of like that child. Then, check the box with that answer. Remember, there are no right or wrong answers. Are you ready to try the example!

What I Am Like

Sample Sentence

| | Really True For me | Sort of True for me | | | | Sort of True for me | Really True for me |
|---|---|---|---|---|---|---|---|
| a | | | Some people would rather play outdoors in their spare time | BUT | Other people would rather watch T.V | | |
| 1 | | | Some people feel that they are good at their schoolwork | BUT | Other people would rather watch T.V. | | |
| 2 | | | Some people find it *hard* to make friends | BUT | Other people find it's pretty *easy* to make friends. | | |
| 3 | | | Some people do very *well* at all kinds of sports | BUT | Other people *don't* feel that they are very good when it comes to sports. | | |
| 4 | | | Some people are often *unhappy* with themselves | BUT | Other people are pretty *pleased* with themselves. | | |
| 5 | | | Some people feel like they are just as smart as other people their age | BUT | Other people aren't so sure and wonder if they are as smart. | | |
| 6 | | | Some people feel like they are just as smart as other people their age | BUT | Other people aren't so sure and wonder if they are as smart. | | |
| 7 | | | Some people wish they could be a lot better at sports | BUT | Other people feel they are good enough at sports. | | |
| 8 | | | Some people *don't* like the way they are leading their life | BUT | Other people *do* like the way they are leading their life. | | |
| 9 | | | Some people are pretty slow in finishing their schoolwork | BUT | Other people can do their schoolwork quickly. | | |

| | Really True For me | Sort of True for me | | | | Sort of True for me | Really True for me |
|---|---|---|---|---|---|---|---|
| 10 | | | Some people would like to have a lot more friends | BUT | Other people have as many friends as they want. | | |
| 11 | | | Some people think they could do well at just about any new sports activity they haven't tried before | BUT | Other people are afraid they might *not* do well at sports they haven't ever tried. | | |
| 12 | | | Some people are usually *happy* with themselves as a person | BUT | Other people are often *not* happy with themselves. | | |
| 13 | | | Some people often forget what they learn | BUT | Other people remember things easily. | | |
| 14 | | | Some people are always doing things with *a lot* of people | BUT | Other people usually do things *by themselves*. | | |
| 15 | | | Some people feel that they are *better* than others their age at sports | BUT | Other people *don't* feel they can play as well. | | |
| 16 | | | Some people *like* the kind of *person* they are | BUT | Other people often wish they were someone else. | | |
| 17 | | | Some people do very well at their classwork | BUT | Other people don't do well at their classwork. | | |
| 18 | | | Some people wish that more people their age liked them | BUT | Other people feel that most people their age *do* like them. | | |
| 19 | | | In games and sports some people usually *watch* instead of play | BUT | Other people usually *play* rather than just watch. | | |
| 20 | | | Some people are very *happy* being the way they are | BUT | Other people wish they were *different*. | | |
| 21 | | | Some people have trouble figuring out the answers in school | BUT | Other people can almost always figure out the answers. | | |
| 22 | | | Some people are *popular* with others their age | BUT | Other people are *not* very popular. | | |
| 23 | | | Some people *don't* do well at new outdoor games | BUT | Other people are *good* at new games right away. | | |
| 24 | | | Some people *are* not very happy with the way they do a lot of things | BUT | Other people think the way they do things is *fine*. | | |

Child's Pretest Interview Guide

☐ 1. Tell me about the different activities that you do both in school and outside of school? (For interviewer: If athlete does not mention one of the programs below, ask the child the question.)

☐ A. Do you play on any sports teams?

a) How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|

b) Do you think you are good, bad, or okay at _____ (say the name of the sport. If child says more than one sport, than ask for each sport.)

☐ B. Do you do any activities or belong to any groups at Church?

a) How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|

b) Do you think you are good, bad, or okay at _____ (say the program's name)

☐ C. Do you belong to any clubs at school?

a) How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|

b) Do you think you are good, bad, or okay at _____ (say the program's name)

☐ D. Do you belong to any groups in the community? (e.g. boys/girls scouts, YMCA, 4H club)

a) How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|

b) Do you think you are good, bad, or okay at _____ (say the program's name)

☐ E. Do you hang out with friends?
a) How often do you hang out with your friends?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|-----------|-----------------|-------------|-------------------|--------------|------------------|
|           |                 |             |                   |              |                  |

☐      F. Do you hang out with any other neighborhood kids?

a) How often do you hang out with other neighborhood kids?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|-----------|-----------------|-------------|-------------------|--------------|------------------|
|           |                 |             |                   |              |                  |

☐      2. What are some of the hard things about _____ (use answers from 1).

     ☐      A. What do you do when it starts to get hard?

     ☐      B. Do you talk to yourself when you are doing something hard? (wait for response). What kind of things do you say to yourself?

For interviewer: If struggling; give example. Like, the other day, I didn't do well on a test but I knew that I really didn't try hard. I said that I need to study a lot harder for the next test.

___3. What things do you like best about yourself?

     ☐      A. Why do you like these things about yourself?

     ☐      B. How do you know that you are good at these things?

☐      4. Here is a picture of a staircase with 5 stairs. If the top of the stairs means you have the best life and the bottom of the stairs means you have the worst life, which stair would you be standing on?
Why?

**Best Life**

**5**

**4**

**3**

**2**

**Worst Life**    **1**

Parent's Pretest Interview Guide

☐ 1. Tell me about the activities in which your child participates?

☐  A. Does your child participate in any other sports?

a) How often does your child go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
| | | | | | |

b)Do you think your child is good, bad, or okay at _____ (say the program's name) Why?

☐  B. Does your child participate in any Church programs?

a) How often does your child go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
| | | | | | |

b) Do you think your child is good, bad, or okay at _____ (say the program's name) Why?

☐  C. Does your child participate in any programs at school?

a) How often does your child go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
| | | | | | |

b)Do you think your child is good, bad, or okay at _____ (say the program's name)

☐  D. Does your child participate in any programs in the community (e.g. boy/girl scouts, YMCA, 4H club)

a) How often does your child go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
| | | | | | |

b)Do you think your child is good, bad, or okay at _____ (say the program's name)

☐ 2. Describe your child's greatest strengths? (e.g. he smiles a lot, she's very friendly)

☐  A. What strengths do you think your child uses during program a, b, and c?
☐  B. How does your child use these strengths in program a, b, and c?

☐ 3. Tell me about the challenges or obstacles your child faces when he/she participates in program a, b, and c?

    ☐      A. Describe your child's reaction when he/she faces these challenges/ obstacles?

    ☐      B. Some people talk either to themselves or to others about the challenges. What does your child say to him/herself, to you, or to others about these challenges?

For interviewer: If struggling to answer the question use both examples) For instance, the other day I was working out and I almost dropped a weight on my foot. I remember thinking to myself, "I am such a dummy. If that had landed on my foot, I would have broken it and I would never be able to run well again". Another example is, "I received a 70 on a test the other day but I knew that I really didn't study hard. I realized that I need to study a lot harder for the final."

    ☐      C. Say that I am (child's name) and I (use one of their challenges) what would you say to me or what would you do?)

☐ 4. Describe your child's report card or end of marking period assessment.

    ☐ A. What kind of grades does your child receive?

    ☐ B. What kind of comments does the teacher write about your child?

☐ 5. Here is a picture of a staircase with 5 stairs. If the top of the stairs means your child has the best life and the bottom of the stairs means your child has the worst life, which stair would your child stand on? Why?

**Best Life**

5

4

3

2

**Worst Life**

1

☐        1. During your last interview, you said that you do a) _____,
b)_____, c)_____.

☐        A. Do you still do a, b, and c?

a)   How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
|  |  |  |  |  |  |

b) Do you think you are good, bad, or okay at _____ (say the program's name) Why?

☐        B. Do you belong to any new teams or clubs?

a)   How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
|  |  |  |  |  |  |

b)   Do you think you are good, okay, or bad at a, b, and c? Why?

☐        2. What are some of the hard things about _____ (use answers from 1).

☐        A. What do you do when it starts to get hard?

☐ B. Many kids talk to themselves when they are doing something hard. What kind of things do you say to yourself?
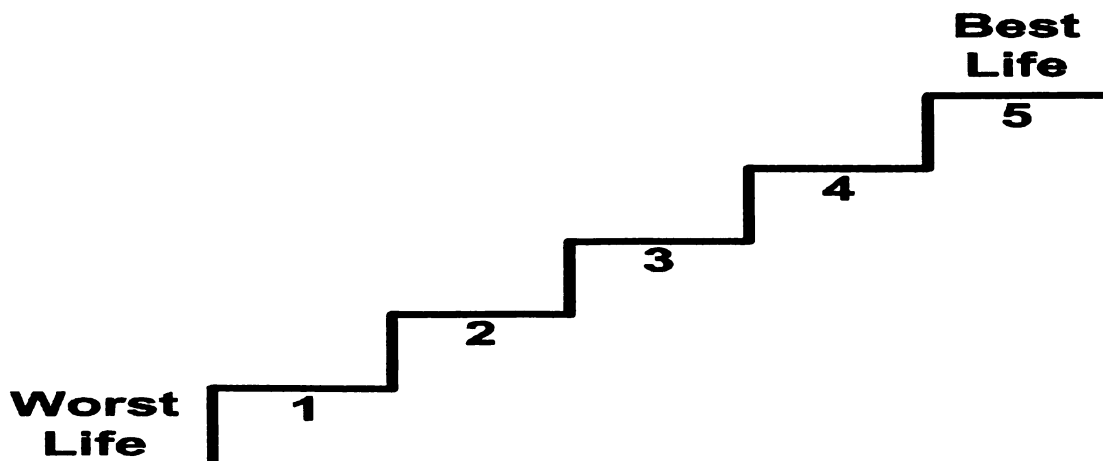
For interviewer: If struggling, give example. Like, the other day, I didn't do well on a test the other day but I knew that I really didn't try hard. I said that I need to study a lot harder for the final.

☐        3. What things do you like best about yourself?

☐        A.  Why do you like these things about yourself?

☐        B. How do you know that you are good at these things?

☐   4. Remember when we would be in the gym playing

☐        A. soccer? (stop for answer) What did you like best about playing soccer? What did you like the least about playing soccer?

☐        B. Tae Kwon Do? (stop for answer) What did you like best about playing Tae Kwon Do? What did you like the least about playing Tae Kwon Do?

☐   5. Do you remember when we were in the life skills room before and after being in the gym? (stop for answer). Tell me about it.

☐        A. Did you learn anything when we were in the life skills room? If so, what? (If no, skip to question 7).

☐     B. If yes to question 5a, How did you learn a, b, and c?

☐     C. If yes to question 5a, did you use this information when we played soccer (pause for response) or did Tae Kwon Do (pause for response)?

☐     D. If yes to question 5c, can you give me an example of how you used the information when you practiced the sports? If no to question 5b, is there a reason why you didn't use it in soccer or Tae Kwon Do?

☐  6. Now I will ask you a couple questions about the skills you learned in the life skills room and how you use them outside of sports. First, you said you learned _____. (If the child says they did not learn anything, skip to question 7.)

☐     A. Do you use these skills at home or somewhere other than sports?

☐     B. If yes to question 6a, Can you give me an example of how you use this information now?

☐  7. What did you like best about being in the life skills room?

☐  8. What did you like least about being in the life skills room?

☐  9. Did you learn anything when you played soccer or Tae Kwon Do in our sports program? If so, what?

☐     A. If yes to question 9, how did you learn a, b, and c? If no, skip this question.

☐     B. If yes to question 9, can you give me an example of how you use this information now? If no to question 9, why don't you think you learned anything?

☐     C. What did you like best about playing soccer or Tae Kwon Do?

☐     D. What did you like the least about playing soccer or Tae Kwon Do?

10. Here is a picture of a staircase with 5 stairs. If the top of the stairs means you have the best life and the bottom of the stairs means you have the worst life, which stair would you be standing on? Why?

Best
Life
5
4
3
2
Worst
Life
1
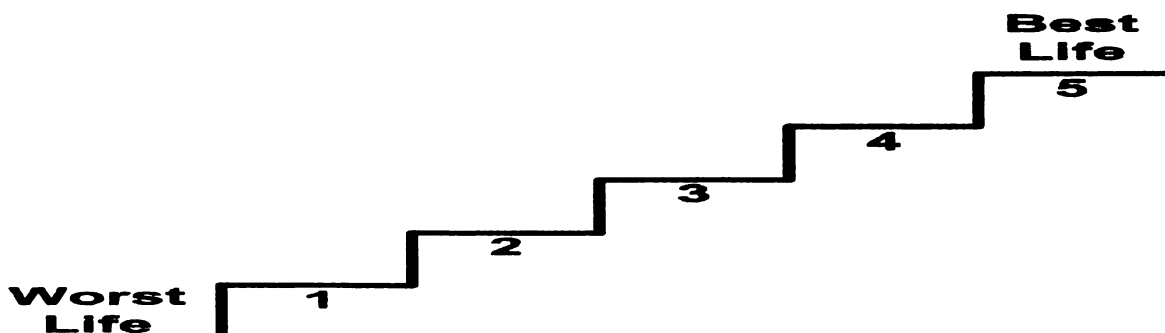
## C Group Child's Posttest Interview Guide

☐ 1. During your last interview, you said that you do a) _____,
b)_____, c)_____.

  ☐ A. Do you still do a, b, and c?

     b) How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
| | | | | | |

     b) Do you think you are good, bad, or okay at _____ (say the program's name) Why?

  ☐ B. Do you belong to any new teams or clubs?

     b) How often do you go to _____ (say the program's name)?

| Every day | Few times a week | Once a week | Few times a month | Once a month | Few times a year |
|---|---|---|---|---|---|
| | | | | | |

     b) Do you think you are good, okay, or bad at a, b, and c? Why?

☐ 2. What are some of the hard things about _____ (use answers from 1).

  ☐ A. What do you do when it starts to get hard?

  ☐ B. Do you talk to yourself when you are doing something hard? (wait for response). What kind of things do you say to yourself?

For interviewer: If struggling, give example. Like, the other day, I didn't do well on a test but I knew that I really didn't try hard. I said that I need to study a lot harder for the next test.

___3. What things do you like best about yourself?

  ☐ A. Why do you like these things about yourself?

  ☐ B. How do you know that you are good at these things?

☐ 4. Here is a picture of a staircase with 5 stairs. If the top of the stairs means you have the best life and the bottom of the stairs means you have the worst life, which stair would you be standing on?
Why?



210

☐ 1. Describe your child's greatest strengths.

☐ 2. In your last interview, you said your child participated in a, b, and c.

    ☐    A.. Does your child still participate in those programs?

    ☐    B. Does your child participate in any other programs?

    ☐    C. How successful is your child in these programs and at school?

    ☐    E. What strengths do you think your child uses during program a, b, c, and d?

☐ 3. Tell me about the challenges or obstacles your child faces when he/she participates in program a, b, and c.

    ☐    A. Describe your child's reaction when he/she faces these challenges?

    ☐    B. Some people talk either to themselves or to others about the challenges. What does your child say to themselves or to others about these challenges?

For interviewer: (If struggling to answer the question use both examples) For instance, the other day I was working out and I almost dropped a weight on my foot. I remember thinking to myself, "I am such a klutz. If that had landed on my foot, I would have broken it and I would never be able to run well again". Another example is, "I received a 70 on a test the other day but I knew that I really didn't study hard. I realized that I need to study a lot harder for the upcoming test."

    ☐    C. What do you say or do when your child faces these challenges/obstacles?

Now, we are going to talk about the Sports and Life Skills program.

☐ 4. Tell me what you think about the Sports and Life Skills Program.

    ☐    A. What do you think were the strengths of the program?

    ☐    B. How can we best use these strengths?

☐ 5. What benefits do you think your child has gained from this program?

    ☐    A. How do you know that your child has learned x, y, and z?

    ☐    B. When does your child use the assets that he/she learned from this program?

    ☐    C. How did your child learn x, y, and z?

    ☐    D. If you were the director of the program, what would you do in order to make sure that each child learned x, y, and z?

☐ 6. Tell me about the weaknesses of the program.

☐ A. How can we minimize these weaknesses or how can we improve the program?

☐ 7. What challenges or obstacles has your child faced while participating in the program?

☐ A. Describe your child's reaction to these challenges or obstacles.

☐ 8. Has your child learned or developed any negative beliefs or characteristics from this program? (If the guardian says no, skip to question 9.)

☐ A. How do you think your child learned these negative beliefs or characteristics?

☐ B. How do you think the program could change in order to prevent this development?

☐ 9. Describe your child's report card or end of marking period assessment.

☐ A. What kind of grades does your child receive?

☐ B. What kind of comments does the teacher write about your child?

☐ 10. Here is a picture of a staircase with 5 stairs. If the top of the stairs means your child has the best life and the bottom of the stairs means your child has the worst life, which stair would your child stand on? Why?

**Best Life**

5

4

3

2

**Worst Life**

1
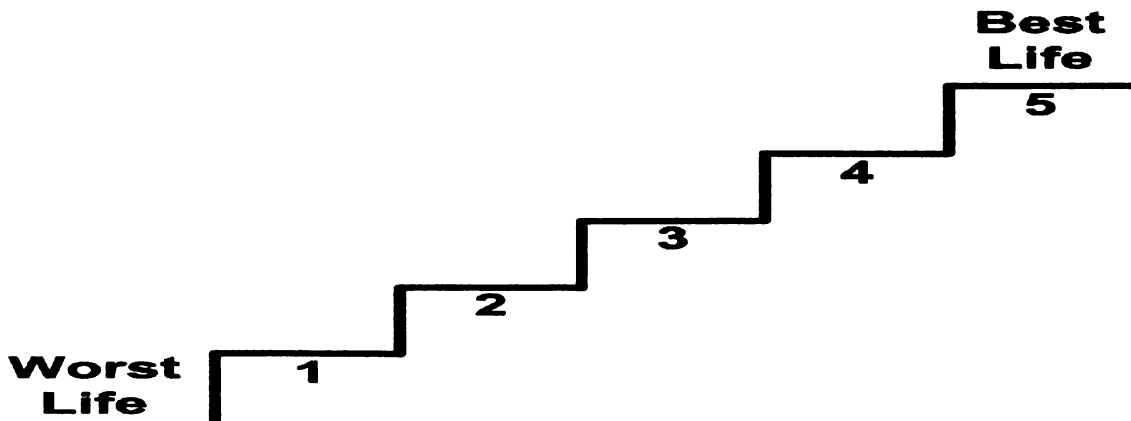
☐ 1. Describe your child's greatest strengths.

☐ 2. In your last interview, you said your child participated in a, b, and c.

    ☐    A.. Does your child still participate in those programs?

    ☐    B. Does your child participate in any other programs?

    ☐    C. How successful is your child in these programs and at school?

    ☐    D. What strengths do you think your child uses during program a, b, c, and d?

☐ 3. Tell me about the challenges or obstacles your child faces when he/she participates in program a, b, and c?

    ☐    A. Describe your child's reaction when he/she faces these challenges/ obstacles?

    ☐    B. Some people talk either to themselves or to others about the challenges. What does your child say to him/herself, to you, or to others about these challenges?

For interviewer: If struggling to answer the question use both examples) For instance, the other day I was working out and I almost dropped a weight on my foot. I remember thinking to myself, "I am such a dummy. If that had landed on my foot, I would have broken it and I would never be able to run well again". Another example is, "I received a 70 on a test the other day but I knew that I really didn't study hard. I realized that I need to study a lot harder for the final."

    ☐    C. Say that I am (child's name) and I (use one of their challenges) what would you say to me or what would you do?)

☐ 4. Describe your child's report card or end of marking period assessment.

    ☐    A. What kind of grades does your child receive?

    ☐    B. What kind of comments does the teacher write about your child?

☐ 5. Here is a picture of a staircase with 5 stairs. If the top of the stairs means your child has the best life and the bottom of the stairs means your child has the worst life, which stair would your child stand on? Why?

**Best Life**

5

4

3

2

**Worst Life** 1

Appendix C


Pilot Study

# INTRODUCTION

It is important to establish reliability of a survey to ensure that the results are trustful. Reliability "pertains to the consistency, or repeatability, of a measure" (Thomas & Nelson, 2001). If researchers do not establish the reliability of a scale, then the test cannot have validity. The main focus of the primary study is to investigate the effectiveness of a sports and life skills program to increase optimism; copings skills; perceived athletic, social, and academic perceived competence; and general self-worth. In order to measure the efficacy of the program, children with physical disabilities will complete the Life Orientation Test-Revised (Scheier, Carver, & Bridges, 1994), the Disability and Sports Coping Survey, and the Self-Perception Profile for Children (Harter, 1985) prior to and after the intervention. Prior to this primary study, it is important to establish the reliability of the surveys that the children will complete. Thus, the purpose of this pilot study was to measure the reliability of the Life Orientation Test-Revised, the Disability and Sports Coping Survey, and the Self-Perception Profile for Children for children with physical disabilities.

The LOT-R (Scheier, et al. 1994) was developed to measure optimism levels in people. Optimistic people believe that good things will happen to them, that they can achieve their goals and overcome their adversities, and they persist longer at their mastery attempts (Carver, & Scheier, 2002; Seligman, 1991; 1995). Optimists also perceive themselves to be more competent and have greater control over the events of their lives, and thus can work at determining strategies to overcome challenges (Aspinwall & Taylor, 1992; Seligman, 1991; 1995). Quality of life is greater for people who are optimistic because of these previously stated factors (Scheier et al., 1989). Finally, optimists have longer survival rates (Cohen, et al. 1989), fewer general health problems (Aspinwall & Taylor, 1992), and better immune systems (Segerstrom, Taylor, Kemeny, & Fahey, 1998). The survey has been used in several studies (e.g., Lindsey, 2001; Scheier, et al., 1994) with adults; however, the survey has not been used with children with disabilities.

The Self-Perception Profile for Children (Harter, 1985) was developed to measure perceived competence levels in different achievement domains. A person's perception of their skills, whether true or not, are a major influence in one's achievement motivation (Harter, 1978). When developing this survey, Harter (1985) believed that it was vital in assessing perceived competence in different domains as well as globally because it gave a "richer and more differentiated picture than those instruments providing only a

single self-concept score" (p. 5). Some of the subscales have been used with children with physical disabilities prior to this study (Scholtes, Vermeer, & Meek, 2002); however, it is important to measure the reliability of the subscales used for this study with children of differing physical disabilities.

The Disability and Sports Coping Survey was developed by the investigator and his advisor to measure the coping skills of people with disability in sport. Both the Ways of Coping Checklist for Sport (WCCS; Madden, 1989; 1990) and the Modified-COPE (Carver et al., 1989) can be used to measure the coping skills that athletes use. However, Bouffard and Crocker (1992) found that 8 of the 13 subscales of the M-COPE were not reliable for athletes with physical disabilities. The WCCS is shorter than the M-COPE, but it has 54 questions which is too long for children. Thus, a new scale needs to be developed for children with physical disabilities.

## METHODS

### *Participants*

*Selection Criteria*

The child participants satisfied these criteria (a) age 9 to 19; (b) primary disability is a physical disability; (c) cognitively capable to complete the surveys; (d) child assent and caregiver consent. Types of physical disabilities include amputee/limb deficiency, ataxia, cerebral palsy, dwarfism, dystonia, juvenile rheumatoid arthritis, muscular dystrophy, osteoparesis imperfecta, spina bifida, spinal cord injury/paraparesis, traumatic brain injury/stroke, and other.

*Recruitment*

First, camp directors and coaches of programs for people with disabilities were contacted to provide information about the project and to ask permission to speak with parents and children at the camp, competition, or practice. Then, the investigator went to the sports program to speak with potential participants. All the age-appropriate participants and their parents at the sports programs were then notified of the purpose of the project, how the data was collected, and the contact information for the investigator and UCRIHS. Then, parents were asked to give consent and the children were asked to give assent to participate in the study.

*Sample size*

There were a total of 96 surveys distributed and 55 surveys were returned (57% return rate). There were 4 participants excluded from the analyses because one participant was too old and the other three participants had a visual impairment.

*Sample Characteristics*

There were 51 children (29 males, 22 females) who completed the surveys. The disabilities self-reported by the 51 participants were spina bifida ($n = 17$), cerebral palsy ($n = 12$), amputee/limb deficiency ($n = 10$), spinal cord injury/paraparesis ($n = 3$), traumatic brain injury/stroke ($n = 2$), ataxia ($n = 1$), dwarfism ($n = 1$), dystonia ($n = 1$), juvenile rheumatoid arthritis ($n = 1$), muscular dystrophy ($n = 1$), osteoparesis imperfecta ($n = 1$), other ($n = 1$). The mean age of the participants was 14.31 ($SD = 2.73$).

*Instrumentation*

*Life Orientation Test – Revised*

The LOT-R (Scheier, et al., 1994) is used to measure optimism. A sample question is, "In uncertain times, I usually expect the best". The LOT-R is a 10-item, 5-point Likert-scale survey. Only 6 of the 10 items are scored and 3 of these items are reverse scored. The LOT-R has been found to have a Cronbach alpha of .82 for undergraduate students.

*Self Perception Profile for Children*

The SPPC (Harter, 1985) was developed to assess perceived competence across six domains, namely social acceptance, athletic competence, scholastic competence, physical appearance, behavioral conduct, and global self-worth. Only the social acceptance, athletic competence, scholastic competence, and global self-worth subscales were used for this study. For the total survey, there are 36 items, but since this study only used four of the subscales, only 24 questions were used in this study.

For this assessment, participants were given examples of two children with opposite behaviors (e.g., "kid who is good at school work or kid who has a hard time figuring out the answers"). The participants first had to decide which child they were more like. Once they decided which child they were more like, then the participants decided if that person was sort of like them or really like them. For instance, the first question asked the children if they were more like a child who is good at their school work or more like a child who worries about whether he/she can do the schoolwork assigned to him/her.

Items were scored on a 1 to 4 scale, with subscale scores determined by averaging the six items for each subscale.

*Disability and Sports Coping Survey*

The DSCS was developed for this study. Coping skills were assessed by asking participants to describe a problem related to sport or physical activity that had happened to them. The children were then asked how they handled the problem when it happened to them (e.g., try harder on a 4-point Likert scale ranging from *never* to *usually*) and how they would have liked to handle the problem (e.g., try harder on a 3-point Likert scale with *poor way, good way*, or *best way* to cope as the possible responses). Additionally, the athletes were asked how helpful were people in fixing the problem (e.g., mom on a 4-point Likert scale ranging from *not helpful* to *very helpful*), and how successful they would be at coping with similar problems in the future (5-point Likert scale ranging from *not at all likely* to *definitely*).

### *Procedure*

Students with disabilities who participated in camps or sports programs, who were between the ages of 9-15, and who were cognitively capable of completing the survey were asked to participate in the project. Once they provided assent and their parent/guardian gave written consent, the student completed the SPPC, LOT-R and the DSCS. The surveys were administered by student investigators verbally to small groups or individually. The instructions and questions were read aloud to the participants and then the participants wrote their answers on the survey sheet. The children were free to ask questions during the administration of the surveys.

### *Data Analyses*

Listwise deletion procedures were used for each scale. Previously established subscales for the LOT-R and SPPC were used to determine internal consistency reliabilities for the whole group. The sum of the coping skills was used to determine the Cronbach alpha for the DSCS.

### *RESULTS AND DISCUSSION*

The main focus of the pilot study was to establish the internal consistencies for each of the surveys. Table 1 presents the Cronbach alphas and the number of participants that were included in each analysis. Overall, the surveys had acceptable reliability scores (Marion, 2002) with internal consistency scores ranging from .69 to .83. Therefore, the surveys can be used with children with physical disabilities.

A few of the participants misunderstood the directions for the SPPC. There were seven participants who answered twice for each question of the SPPC. Therefore, these participants were dropped from the analyses. However, it is important to note that future researchers should remind participants to only answer each question once or they run the risk of increasing testing error.

This study only measured the internal consistency scores of the previously established subscale scores. Future researchers should measure the test-retest correlations of the surveys with a similar population. Additionally, researchers should evaluate the validity of the surveys by comparing the surveys used in this study with the other previously established surveys that measure similar concepts. For instance, future researchers could compare the validity scores of the LOT-R with the Children's Attributional Style Questionnaire (Seligman, et al., 1984). The CASQ has been used to predict depression but Seligman (Cardemil, Reivich, & Seligman, 2002; Gillham, et al., 1995; Gillham & Reivich, 1999; Jaycox, et al. 1994; Seligman, 1995; Zubernis, et al., 1999) also uses it to measure optimism. Thus, future researchers should review both surveys and evaluate which survey is most appropriate to use to evaluate optimism in children.

This study found acceptable Cronbach alphas for each of the surveys. Therefore, these surveys can be used in future studies evaluating optimism, coping skills, or perceived competence of children with physical disabilities.

Table 1

*Internal Consistency Reliability Scores for each Survey*

| Survey | $\alpha$ |
|---|---|
| Life Orientation Test – Revised | .69 |
| Self-Perception Profile for Children | |
| Academic | .83 |
| Social | .81 |
| Sport | .76 |
| General self-worth | .82 |
| Disability and Sports Coping Survey | .81 |

Appendix D


Goal Setting Intervention Script

The following SLS goal setting script was developed based on a synthesis of the literature. The goal setting unit of the SLS program was chosen because there are no intellectual property concerns about sharing this information. The author did have permission to adapt the Penn Resiliency Program (Gillham, et al. 2003) materials to this population. However, the author of the SLS does not have permission to print the PRP materials in this dissertation. Please contact Jane Gillham if you have any questions about the Penn Resiliency Program. If you have any questions about the SLS, you can contact Aaron Moffett at acmoffet@hotmail.com. It should also be noted that the children in the SLS program saw these lecture notes in PowerPoint format.

### 3a) Benefits of Goal Setting

(*This day is very education oriented and the children are not very active. For this reason, the teacher needs to be exciting, goofy, and try to interact with the children as much as possible.*) Hey everyone, tell me about your week. What did you do today? Last week, we made up our own team motto. Did anyone use our team motto since we last met? *ADD MOTTO.* At the end of last session, I asked you to come up with your own personal motto. Does anyone want to share their personal motto with the group? (*pause. If no one speaks up, I will tell them my personal motto is "The harder I push. The further I'll go!" Then, I will say, so that's my motto that I use when I am struggling with something. Doesn't anyone else want to share what you say to yourself?*) Fantastic! You have some great mottos. Why do you use these mottos (if no one responds, when do you use these mottos or say these mottos to yourself?) Yeah, exactly. A lot of times, people use these mottos to help them reach their goals.

Well, what is a goal? Can anyone tell me an example of a goal? (*pause for a response*) Yeah, that's a great goal. Well, why do we set goals? (*pause for response and paraphrase answer.*) Yeah, goals can be just like a map. They help us get from one place to another. If I were to tell you that you need to jump in the car and drive to LA right now, would you be able to do it? (pause for response) Probably not, I know I couldn't do it. I wouldn't even know which way to go out of the parking lot. That's why we use a map. Well, goals are like a map and they have lots of different benefits. We came up with a word so that we can remember all the benefits of goals. Do you think that you are ready for the big word? Well, since they are so much like a map, let's use the word MAPED to help us remember these benefits.

*MAPED* actually stands for motivate, achievement, practice, endpoint, and do better.

So goals help motivate us when things are getting tough. Who wants to tell me a time when you used a goal to help motivate yourself when you were having a hard time? (*pause for response*) Yeah, that's a great example. People use goals to help motivate them all the time. The "A" of the word MAPED stands for achievement. When we complete a goal we feel really proud of ourselves because we feel we have achieved or completed something good. That's what makes us want to work hard when we are practicing. Practice is what the P stand for in MAPED. Sometimes, I just don't want to practice. I mean come on, isn't just watching TV easier. But, I know I can't achieve my goals without practicing. So how do we know when we have finally achieved something? Well, that is another benefit of a goal. Goals give us an ENDPOINT. They give us a final target to try to get to through practice. And, that gets us to the last letter.

What's the last letter in MAPED? (*pause for response*) Oh yeah that's right the letter D. With all of these benefits of setting goals, we are going to DO better. That's the best part of goals. They help us do better.

So, what does MAPED stand for? Give me an M? How about an A? P? I'm looking for an E? And last but definitely not least how about the great old D? Awesome work, I want you to start practicing using goals in gym today. We will learn about SMART goals when we come back but I want you to start to think about your goals and how they can help you in gym.

## 3b) Setting SMART Goals

Hey everyone! Tell me about your successes in gym today (give 2 minutes). Excellent, it sounds like you guys are ready to set some goals. Remember, the benefits of setting goals is MAPED. Let's go over MAPED one more time. (act goofy as the kids tell you what the letters stand for) But, when we set goals, we need to set SMART goals.

SMART actually stands for something when you are setting goals. It stands for specific, measurable, applicable, realistic, and time.

Okay, the s stands for specific. When we say specific, you say exactly what you want to accomplish. For example, you could say I would like to score 8 goals out of 10 tries in soccer. Many people say that their goal is to score "more goals" or "a lot of goals". However, we want you to use a specific number. The m stands for measurable. Measurable means that you and I both can see if you reached your goal. For instance, I can't really tell if you kicked the ball harder but I can tell if you kicked the ball three feet. If we don't make the goal measurable, then we will never know if we reached our goal. Next, the "a" equals applicable. All this means is that the goal should be important to you. If you don't care about it, why would you want to work hard for your goal? Realistic is what the "r" stands for. Realistic means that it is something that you should be able to reach in a short period of time. For example, "Mia Hamm is the best soccer player in the world. My goal is to kick her buttocks in soccer!" I would think that would be a pretty unrealistic goal. But, I could set my goal to be a member of the high school soccer team. Does that make sense to everyone? Yeah? Good. And the last one is t for time. When we set our goals, we want to set a specific date for when we want to reach our goal. When I said I want to score 8 out of ten shots, I should say I want score 8 out of 10 shots in 5 weeks. I want to be able to knock over the football pylon 8 out of 10 times with a knife punch by the end of the Tae Kwon Do program.

So, here's an example of a SMART taekwondo goal. So what part of this goal is specific? What do I want to do? (pause for response) Yeah, I want to knowck over the football pylon with a knife punch. How many times do I want to knock it over? Yeah 8 out of 10 times. Now, do you think that the goal is important to me. I mean we are doing taekwondo for six weeks. Is the goal realistic if I can already do it 5 out of 10 times?. And then what is the last letter of SMART? Oh yeah, the "t" and what does that stand for? (pause for response) Oh that's right, time. So when do I want to accomplish my goal by? Yeah by the end of the Tae Kwon Do program.

Now that we have learned how to set SMART goals, I want you to think of a goal that you want to achieve in this program. It can be one of the goals that I just said but you can also think up some of your

own goals. I want you to think about your goal for the next time we meet! Also, don't forget about MAPED. Why did we teach you the word MAPED? (pause for response) Right, it helps us remember the benefits of setting goals. Say success from gym. Alright, let's say our team motto and go on home!

## 4a) Setting SMART Goals

Alright, did everyone have a fun day at school? Did anyone think of a goal that they would like to achieve in the program this week? (give 2 minutes for athletes to talk about goals that they would like to achieve. If they say that they didn't set any goals, I will ask them some of the things that they would like to learn in the sports and life skills program). Excellent! Those are some great goals. Great! Now, we are going to set some goals together. Last time, we talked about SMART goals. Does anyone remember what any of the letters of SMART stand for? (give 1 minute for response) Yeah, SMART stands for Specific, Measurable, Applicable, Realistic, and Time. We want to make sure that when we set our goals today that they are SMART goals!

Here are some example goals that we have thought of. You can use these goals or set your own goals. A soccer goal that we could set is I want to be able to kick the ball into the net from 5 feet away on 8 out of 10 times by the end of the soccer program. Another soccer goal could be I want to be able to stop the ball when the coach kicks the ball to me from 5 feet away at least 7 out of 10 tries by the end of the April. A taekwondo goal could be I want to be able to knock over the football pylon 8 out of 10 times with a knife punch by the end of the Tae Kwon Do program.

In order to see our improvement towards our goals, we are going to put our goals on this piece of paper. Then, each week one of the coaches will help us work on the skills that we are trying to improve. Afterwards, we will write down our successes on our goal sheet. Then, we will be able to see how much we improved. Isn't that pretty cool!

First, we want you to write down a general goal for gym. Like my goal is to get better at punching in Tae Kwon Do. Then, we want you to try and figure out how to make your goal a SMART goal. So, first fill out information to make the goal specific. I want to punch the ball and make it move 12 inches. Then, we want to make it measurable. So, I want to be able to move the ball 12 inches 6 out of 10 times. Then, does this goal makes sense since we are doing Tae Kwon Do? Is it realistic. Write down how many times you can do it now. Then, when do you think I should be done this goal? By the end of the program? Finally, we want you to combine each of your boxes to make a complete SMART goal. So, my final goal is to punch the ball and make it move 12 inches 6 out of 10 times by the end of Tae Kwon Do. Lissa and I will come around and help you with your goals if you would like it. Any questions? Awesome, let's get started!

I have seen some pretty awesome goals! Does anyone have any questions before we go to the gym? Let's go get started on our goals.

## 4b) Practicing SMART Goals

*(As the kids enter the room, the meaning of each letter of SMART will be on the board)* It really looked like you guys were working hard on your goals today. Man, I am exhausted just watching you guys.

Way to go! Does someone want to tell us something that they accomplished in gym today? (*give 2 minutes*)

Now, we are going to become MASTERS at setting SMART goals. Alright, we are going to break up into groups of 3. Each group is going to be given the same goal. The problem is that the person that wrote these goals was not a MASTER at setting SMART goals like we are. What you need to do is try and find the missing part of the goal. Once you have figured out the answer, I want the team leader to yell out SMART!

But first, how about I give you guys an example. John wants to be able to run 10 feet really badly. Right now, he can run 8 feet. So what part of SMART are we missing? Is the goal specific? measurable? applicable? realistic? time? (pause for response after each question) Right, we are missing the time! John needs to add an end time to his goal. So, he should say, "I want to be able to run 10 feet really badly by June 10th. Do you guys get it? What type of questions do you have for me? (pause for response and answer questions as needed). We ready to break up into groups and get started? Ready, Set, Go!

Alright, here's the first one. *(rub hands together to show excitement)*. I like playing soccer a lot. I'm a pretty good goalie but I want to stop the ball by May 13th. So is the goal specific? measurable? applicable? realistic? or time? Right we are missing measurable.

I really like this girl Jenny in my class and I go out with girls all the time. My goal is to ask Jenny out on a date once. Is the goal Specific? Measurable? Applicable? Realistic? Time? Right, we are missing the time. So, it's a SMAR goal. Ha ha ha! Get it, a SMAR goal. I forgot the "t"

I really like swimming. My goal is to score from 10 feet away 5 times out of 10 when I play hockey with Jimmy by August 3rd. *(by now the kids should be able to do it without being asked each question. However, if they are not able to do this, then ask each question.)* Is the goal Specific? Measurable? Applicable? Realistic? Time? Right, it's not really applicable. I mean come on why would a person set a hockey goal if they only do swimming. I mean HELLO!

I usually receive D's in social studies. I need to get an A on my next test so that I don't fail the class. My goal is to score a 95 on my social studies test next Friday.
Is the goal Specific? Measurable? Applicable? Realistic? Time? There you go, yeah this goal isn't too realistic especially if I have never received an A in social studies.

At home, we want you to write down a general goal for school or home. Like my goal is to keep my room clean. Then, we want you to try and figure out how to make your goal a SMART goal. So, first fill out information to make the goal specific. I will clean my room after playing. Then, we want to make it measurable. So, I will clean my room after playing every other day. Then make it applicable, realistic, and time. Finally, we want you to combine each of your boxes to make a complete SMART goal. So, what does the s stand for (I will hold my hand to my ear to suggest I cannot hear them and they need to say it louder). What I couldn't hear you! What does the "s" stand for? How about the M! A! R! T! Wow, so I want you guys to teach someone about SMART goal setting before we meet again! I want you to have a fun weekend but first let's see how loud we can yell our team motto.

So, before gym, we set our goals for gym. Then, you guys did an amazing job working on your goals. I saw (pick successes from each athlete). After gym, you guys were awesome SMART goal masters!!!!! I was really impressed with how fast you became at figuring out what part of SMART was missing. Then, at home, we want you to set a SMART goal for home or school. Excellent job today and we'll see you on _____ (day of the week).

## 5a) Short-tem and Long-term Goals

So, you guys were supposed to come up with a SMART goal for home. Who wants to tell me about their SMART goal? And then, last time you guys got A LOT smarter at setting goals. Get it? SMARTer. I'm such a funny guy! Remember, we always want our goals to be SMART goals. Today, we are going to talk about short and long term goals.

Alright, so today I have a challenge for all of you SMART experts. I want you to go stand or sit on the bottom stair of the LONGEST, BIGGEST, STAIRCASE in the WHOLE ENTIRE WORLD. Now, in one jump, I want you to get to the top of the stairs. Do you think you can do it? (athletes will either say no or just look at me weird). Huh! You're telling me that you can't jump a 1000 stairs at one time?

Alright, I guess that is pretty unrealistic, huh? So, how do we get to the top of the stairs? Well, we have to do it one step at a time RIGHT? (pause for response) So, when we set our SMART goals, we have to keep this in mind. We cannot just jump from the bottom of the stairs to the top step. We have to take each step at a time. For instance, I want to be able to run a marathon but right now I can only run 10 feet without getting exhausted. I mean a marathon is a lot longer than 10 feet. A marathon is 27 miles long! That's a lot further than 10 feet! How am I ever going to be able to reach my goal?! Well, I need to set SMART goals for each step along the way. First, I need to be able to run 30 feet. Then, maybe a whole football field. And, then I just keep setting new SMART goals until I am able to run a whole marathon. Does this make sense? (pause for response) We need to make sure that we climb up every step. Each goal should help us get to the next step.

These steps actually have names. The one at the very tippity top is called a long-term goal. It is the goal that is far away and we will accomplish in the long run. So my long-term goal is to run a whole marathon. (Athletes will have diagram of a staircase with each goal on it in their student handbook.). The stairs in between running only 10 feet and running a marathon are called short-term goals. These are the goals we are trying to accomplish in the near future. All of our short-term goals should lead to our long-term goal. So, what's my long term goal? (pause for response) Yeah, I want to run a whole 27 miles. But, what are some of my short term goals?

So, when we come back we are going to practice taking small steps instead of trying to take the IMPOSSIBLE, GIANT leaps. Today, in gym, I want you to think about your first short-term SMART goal that you could set for the goal you made for gym. After gym, we will practice setting short-term goals.

## 5b) Practicing Setting Short and Long-Term Goals

How's was gym today? Did anyone reach a short-term goal today? (give 2 minutes for athletes to talk about their successes). Sounds like you guys are really developing some good sports skills. So, what

was the name of the stairs that lead to the top of the staircase. (*pause for response*) Oh, that's right, short-term goals. Man, you guys are GOOD! Now, we are going to practice setting these short and long term-goals.

Now that we have learned how to set short and long term goals, how about we make a staircase of short and long term goals for gym? We have a sheet that has a staircase on it. The sheet also has the SMART categories on it. What we are going to do is build a staircase starting with where you are now at the bottom of the staircase and finish with your final long-term goal at the top of the staircase. Remember you need to make short-term goals that are SMART. So, each goal should lead to the next goal and should have five checks next to it. One check for each part of SMART. Does everybody understand? (*Pause for a response*)

Awesome! Let's do one together. I want to score 7 out of 10 times from 10 feet outside the goal by May 30th . What are some of the skills that I will need to reach this goal? (*pause for a response*). Great, so if I need _____ skill, how can you get better at that skill? (*pause for a response*). Ok, good. Now, let's think of a SMART goal that will help me develop this skill. We want to make sure it is specific, measurable, attainable, realistic, and time. Any ideas? (*pause for a response*) (*walk through creating a SMART goal*) (*make sure to check off five categories on sheet while creating goal with group*).

Great job! You guys ready to try it yourselves? Lissa and I will walk around and help if you need it. If you are having a difficult time writing down your goals ask the person next to you or Lissa or I to help you. Who has a question? (answer as needed) Superb job guys! You guys are going to be reaching your goals in no time! We just need to remember that we need to set SMART short-term goals in order to reach our long-term goals. If we try to jump to the long-term goal to quickly, we might fall flat on our faces and then we will probably want to give up. So, we need to make sure that we set short-term goals where we can see that we are getting better and we are getting closer to our long-term goal.

Before the next time we meet, I want you to try setting a staircase of goals for something at home and something at school. We are giving you extra staircase goal sheets so that you can fill them out at home. (*We will give them extra handouts for developing their own staircase at home and school.*)

So, before gym we learned that we need to set SMART short-term goals to help us reach our long-term goal! Then in gym I saw _____ (pick successes that kids talked about after gym). After gym and at home I wanted you to set short-term goals that will help you reach your long-term goal. Great job today. Who wants to yell our team motto? Let's here it! Alright, everyone have a great day!

## 6a) Restrategizing

Hello everyone! How is your week going? Tell me about the staircase goals that you set for yourselves this weekend. (*give athletes 2 minutes to respond*). Great! Has anyone reached the top of any of his or her staircases yet? (*pause for response*) Remember last time, we learned that we need to set SMART short-term goals to help us reach our long-term goals. Today, we are going to talk about what happens if we are struggling to reach our goals.

Well, recently, I have been struggling to move up to the next step of my staircase. Remember, how I wanted to run a marathon? I am having a hard time being able to run 2 miles. I can run 1 mile but I am struggling to get to 2 miles. Sometimes, we get stuck on a step. Sometimes, we may even say to ourselves that we should give up. Like the other day, I didn't even want to go running because I knew that I wouldn't be able to run 2 miles. Instead of giving up, we need to create a smaller step that will help us keep climbing the staircase. So, if I know I can run a mile but I can't run 2 miles, what is an in-between goal that I could set? (pause for response) Yeah, I could set a goal to run _____ (athlete's answer) miles.

So, if I eventually reach my goal to run a marathon, did I fail are reaching my goal? (*pause for response*). No way! Just because I had to change my goal, it does not mean that I failed. It just means that I have to set new in-between goals that I can achieve. Sometimes, it may take us more steps to reach our goal than we expected. It is better to take a lot of baby steps than to quit when we are struggling to reach our next large steps.

The other day I REALLY wanted a candy bar. But I only had one quarter and it costs a dollar. If I have a quarter, it is a lot less than a dollar bill right? (wait for a response) But if I have four quarters, it is the same as a dollar bill. So, I went up to Jacob (coach) and asked, "Hey yo, can I borrow a quarta?" Then, I went up to Lissa and said, "Hey, I'm really hunger so can I borrow a quarter to buy a candy bar?". Then, I needed one more quarter so I asked Anna. "Man, I'm STARVING! I need one more quarter to buy a candy bar. Can I borrow one?" Then, I was able to buy a candy bar. Just because I have four smaller quarters doesn't mean it isn't the same as one big dollar bill. Both will buy me a candy bar. It is the same thing with goals.

Sometimes we need to set a lot of little "quarter-sized" goals when we are struggling to get a dollar. When it gets real tough, we may even need to use nickels and dimes.

Another thing we can do to not get discouraged is make a sign to remind us and others of our goal. If I hang my sign up over my bed, I will see it every night and every morning reminding me of what I want to do. Other people that come into my room will also see it. My friends and family can give me a lot of support and encouragement. This will help motivate me to keep going. What do you say we make our signs to remind us of a goal we want to achieve. It can be something you want to achieve in the program or something else in your life like in school. Here is mine. I know I'm not the best artist in the world, but it reminds me of my goal and come on this stick figure looks just like me! (*pass out paper, markers, stickers, stencils and crayons*).

So, was I able to get my candy bar even though I had to use quarter-size goals? Yeah, so when we are struggling, we can set quarter-size goals. We may even need to set nickel or dime goals. We can also make a sing so that we can get support or help from other people. In gym, I want you to keep working on your goals. I cant ell that you are improving a lot so keep up the good work. And then, after gym, we will be playing a FUN game.

## 6b) Goal-Setting Review

How was gym today? Did anyone reach one of their short-term goals? (pause for response) Great work! So, what are some of the things that you can do when you are struggling with your goal? (pause for response) Yeah, you could set a quarter-size goal and keep practicing, talk to a friend, or make a sign to help remind you of your goal. Where are some of the places that you would hang up your sign? Excellent, now we are going to play a game.

Today is the last day that we are going to be focusing on goal setting. So what do you say, we play a game to review all that we have learned? Here is the deal. We have a giant staircase. The goal of the game is to get to the top of the staircase first. You will break up into three groups of five. Each time it is your turn, you will role the dice. Then you will pull a random question out of the deck. If you get the question right you will move up the number of stairs that you rolled. Did I forget anything in the instructions? Alright, lets break up into groups. Who wants to be the red piece? (*continue to distribute colors*). I am thinking of a number between one and twenty. Who ever guesses closet to my number gets to go first. Hmmmmm..let me think. OK! I got a number. Red group, what is your guess? (*ask all groups*) (*play game*)

- What is a short term goal
- What is a long term goal
- What does the M in MAPED stand for
- What does the A in MAPED stand for
- What does the P in MAPED stand for
- What does the E in MAPED stand for
- What does the D in MAPED stand for
- What does the S in Smart stand for
- What does the A in Smart stand for
- What does the M in Smart stand for
- What does the R in Smart stand for
- What does the T in Smart stand for
- Give me a SMART goal
- Why do we set short term goals
- What stair is the long term goal
- List 2 benefits of setting goals
- What is Aaron's long term goal
- What do you do when you get stuck on a goal
- What can we do to help us reach the top step when we are on the bottom step of our goal-setting staircase? (*If struggling with question, what can we set to help us reach our long-term goals?*)
- How does goal setting help us when we are doing something hard

- Give us the names of 3 other people that are not in your group
- Name one of the coaches
- What is the name of the person who stands in the net in soccer or Say 2 words in Korean and what they mean
- What is the highest color belt in Tae Kwon Do? or, what part of your foot do you use to pass the ball in soccer
- Is Tae Kwon Do used to beat up people or for self-control and self-discipline? Or, name 1 skill that we have worked on in soccer
- What is it called when you move the ball down the field (demonstrate)? Is it passing, shooting, or dribbling? Or, name two different types of punches in TKD.
- What does applicable mean when we say we should set applicable goals
- My long term goal is to get an A in math by the time I get my report card. Right now I have a B-. What are three short term goals that I can do to reach my long term goal
- What part of SMART is missing? I want to do better at taking out the trash for mom by May 10th. Right now I only remember when she tells me.
- Name two of the stances in Tae Kwon Do. Or, name something that will help you get better in shooting the ball

Great job today! I think we had a lot of fun. Earlier today we talked about resetting our short-term goals and taking smaller steps to reach our long-term goals. After gym you guys showed me how you were SMART goal setting masters by doing an AWESOME job at the game! You guys are great. I am impressed by how much you remembered! We will always be setting and resetting our goals during gym. But next time, we are going to talk about things we think and say to ourselves, like our team motto. Come on into the circle and let's say the team motto. Great job today and we will see you on

_____.

# Appendix E


# Sample Coaching Plans

## Taekwondo Day 9
### Kicking Combinations

1. Bow in
2. Warm-ups (knee ups, dynamic, isometric) → roll the dice
3. Tag game
4. Combinations of Blocks/Strikes/Kicks in fighting stance:
   a. Go over:
      i. upper block front kick
      ii. down block double leg front kick/round kick,
      iii. front kick punch
      iv. middle block crossing kick low
   b. Allow for 5 (roll dice for # of minutes) minutes of drill work with partners or small groups
5. Rest/drinks
6. Review
7. Introduce forms/ Poomse (organized motions; "encyclopedia", shape)
   a. Turn left and down block with left arm
   b. Move forward punch with right hand
   c. Upper block with left
   d. Move forward knifehand with right
   e. 180 turn to right with outside-inside middle block with left
   f. move forward backfist with left
   g. Move forward inside-outside middle block with right
   h. Front kick with left (kihop) and elbow strike with right
8. Warm down
9. Questions

## Soccer Day 9
### Shooting

1. Line up
2. Warm-ups (relay with stretches)
3. Review shots
   a. Kick with laces
   b. Planted foot face target
   c. Follow-through
   d. Shoulders over ball
4. Drill stations for each technique (roll dice to decide number of minutes per activity)
5. Review
6. Pig
7. Warm down
8. Questions

# Appendix F

# Training Manuals

# Sports and Life Skills Program

# Coach's Training Manual

Aaron C. Moffett

Melissa G. Fraser

Gail M. Dummer

Department of Kinesiology

2004

The table of contents for each of the training manuals were erased to prevent confusion between training manual page numbering and dissertation page numbering.

# TARGET Coaching Style

One of the goals for the program is to increase athletes' levels of confidence. It is important to provide athletes with positive feedback, technical instruction, and error contingent encouragement. Thus, it is imperative for coaches to follow the TARGET method while working with the athletes. TARGET stands for task, authority, rewarding task oriented behavior, group evaluation and goals, evaluation of effort and improvement, and time on task.

T = Task oriented behaviors include behaviors focused on improvement, effort, and learning of skills. Ego oriented behaviors are behaviors focused on outcome such as winning and being better than others. Coaches in the Sports and Life Skills program should teach and focus their positive reinforcement on task oriented behaviors. For instance, athletes will be setting a goal for a particular skill during the second week of the program. Athletes should be given the opportunity every week to practice this skill. Additionally, coaches should evaluate and comment on the athlete's improvement on this skill. Coaches should never compare athletes on a particular skill.

A = Authority should be given to the athletes. Empowerment is an important value for the Sports and Life Skills Program. One way for athletes to gain a sense of empowerment is to be able to make some decisions in their activities. For instance, coaches should have athletes roll the dice to see how many times they have to do an activity. A coach could

R = Rewarding task oriented behaviors. Rewarding behaviors does not necessarily mean giving a athlete an extrinsic reward. The most powerful reward for a athlete can be positive encouragement for a significant other such as a coach. Thus, coaches should provide positive feedback on the athletes's task oriented behaviors such as effort, encouraging other athletes, and improvement in skills.

G = Group evaluation and goals. Athletes.should be evaluated using their goal sheets and provided individual technical instruction. However, athletes should not be singled out for mistakes without positive encouragement. At the end of each session, coaches should focus on group evaluation and not individual evaluation. The athletes are a team and thus they should be evaluated as a team. For instance, the head coach could say, "Man, I really saw some good hustle from everyone. Everyone was working really hard today. Way to go team!"

E = Evaluation on effort and improvement. Athletes should be evaluated individually on effort and improvement also. Coaches should reward these behaviors.reinforcing effort and hard work over time will lead to improvement.

T = Time. Coaches should allow athletes time to improve their skills. Coaches should also remind athletes that it might take a little time to see improvement. However, coaches should keep also give athletes the choice between two activities.

## Safety Handbook & Quiz

Please read the safety handbook before coming to training. We will take the open book safety quiz at the beginning of training.

## Equipment List

| | |
|---|---|
| 12 Disc Cones | 3 Kixz soccer balls |
| 6 Colored Cones | 5 Futsal balls |
| .5 inch colored floor tape | 4 Olympia tetherballs |
| 2 Mylec All-Purpose Folding goals | Matt-Kleen all purpose disinfectant cleaner |
| 4 Anchorless pylons | 5 3 section rest mats |
| 2 Coated foam dice | 3 Olympia stopwatches |
| 4 SuperSoft tetherballs | 4 Official soccer balls size 4 |
| 12 pinnies | 4 Official soccer balls size 5 |
| 6 Dino Skin 7" low bounce balls | |

## Attire

Coaches are a representative of Michigan State University, Department of Kinesiology, and Dr. Gail Dummer. Coaches are expected to dress for participating in physical activity. Clothing should be non-restrictive and age-appropriate. Clothing with logos for products such as alcohol, cigarettes, drugs, violence, etc. are not permitted. Jeans will not be permitted. Appropriate footwear is also mandatory. Coaches should not wear earrings or dangling jewelry.

## Incident Reports

We will be using the Department of Kinesiology's incident report forms. The incident report forms will be completed by Aaron Moffett or Lissa Fraser with coach's help. A copy of the completed form will be given to the child's legal guardian.

## Soccer Curriculum

| Week #1 | • Warm-up/stretching<br>• Dribbling drills: toe touches, soccer boxing, slalom, beat the clock<br>• Game: sharks and minnows, freeze tag, red light/green light<br>• Cool-down/wrap up |
|---------|---|
| Week #2 | • Warm-up/stretching<br>• Passing drills: relay passing, pass it on, control and pass<br>• Game: Clean up your own backyard, target ball, capture it<br>• Cool-down/wrap up |
| Week #3 | • Warm-up/stretching<br>• Receiving drills: relay passing, off the wall, control and pass<br>• Game: British knights, line soccer<br>• Cool-down/wrap up |
| Week #4 | • Warm-up/stretching<br>• Shooting drills: still shoots, charge, score it<br>• Game: Set em' up and knock em' down, target ball<br>• Cool-down/wrap up |
| Week #5 | • Warm-up/stretching<br>• Throw-in drills: pick a spot, reach back<br>• Game: Target ball, knock it off,<br>• Cool-down/wrap up |
| Week #6 | • Warm-up/stretching<br>• Blocking drills: keep it out, feed and go, pin block<br>• Game: Keep it out, scrimmage<br>• Cool-down/wrap up |

**Specific drills will be decided by the head coach and Aaron Moffett at the beginning of each week.

## Sample Activities

Warm-up
- Stretching – hip, knee, and ankle stretches
- Mild aerobic activity – e.g., jumping jacks, modified sit-ups, arm circles

Drills
- Toe touches – dribble in random fashion in order to learn how different touches has different results on the ball
- Soccer boxing – kicking the ball with the inside of the feet trying to keep the ball in between feet
- Relay passing – have kids line up in two lines. The ball is then passed from line to line in succession
- Off the wall – pass the ball towards a wall and receive the rebound
- Still shoots – place balls at various spots on field and shoot balls toward goal
- Pick a spot – exchange turns throwing in the ball to teammates at various places on the field
- Keep it out – have selected teammates toss the ball towards the goal and other teammates roll the ball towards the goal

Games
- Sharks and Minnows (Dribbling): Use a square playing area. The kids line up with a ball on the edge of the playing area-these are the minnows. 2-3 players begin in the middle of the square without balls-these are the sharks. The minnows attempt to dribble to the other side of the square. The sharks are restricted to a crab walk. The sharks attempt to get the minnows' balls. If a shark gets a minnow's ball, the minnow then becomes a shark. The surviving minnows should stop at the

opposite end of the square and wait for the coach to tell them to begin again. Any minnow that dribbles outside of the square also becomes a shark.

- Freeze Tag (Dribbling/Passing): Use a square playing area. Every kid has a ball. 2-3 kids (freezers) begin without a ball and are given scrimmage vests to wear. When the game begins the freezers attempt to tag the players. If a player is tagged, they must freeze by placing the ball on top of their head and spreading their legs. They can be unfrozen if a player passes the ball between their legs. If the person who is frozen uses a wheelchair, the teammate has to dribble the ball around the chair in order to unfreeze the person in the wheelchair.

- Red Light/ Green Light (Dribbling): Use a playing area that is long. Each player starts at the line. They are attempting to be the first to dribble over the far line. A coach yells red light or green light. If a player is dribbling during a red light, they must return to the beginning of the line. VARIATIONS: I always add other lights. An orange light may require the kids to dribble backwards. A purple light may require the kids to sit on the ball. A yellow light may require the kids to put their head on the ball. Therefore a yellow and green light would require the kids to dribble with their head.

- Bull's Eye (Passing/Shooting): The coaches will set up various targets on the field. Children kick or throw-in the ball at the various targets and receive different points depending on the difficulty of hitting the target.

- Simon Says (Everything): This activity can be used for many different skills. Use a square playing area. Yell commands just like the Simon Says Game. For example: dribble, toe touch, soccer boxing, sprint dribble, etc. If a player makes a mistake they should do an activity to be allowed back into the game. This could be ten toe touches or a lap around the playing area or five star jumps.

- Knockout (Dribbling/Shielding): Use a square playing area. Every player begins with a ball inside the square. They are attempting to keep the ball. If their ball gets knocked out by another player they must leave the square. The player who is the last to have their ball knocked out of the square wins. VARIATION: Split the square into two equal halves. Every player begins in one square. When they are knocked out of that square they enter the other square and play in that square. If they get knocked out of the second square they can reenter the first square.

- Shaggers (Shooting): You will need a goal for this game. A coach has a pile of balls just to the side of the goal. Every player lines up approximately 50-60 feet from the goal. A player must start as goalie, but the first goalie can never be eliminated during this time. A ball is passed to the first player in line and they must shoot on goal (first touch). If they make this shot then they come closer and receive a second pass on the ground (or are given a serve for a header) and they shoot the second ball (first touch). If both shots are successful the goalie becomes a shagger. This means they must shag (or retrieve) all of the balls that are not with the coach's pile. After shooting the player must be goalie for the next player in line. The players must always play goalie after shooting. If they are successful in playing goalie they go to the end of the line and wait their turn for shooting. If a player is unsuccessful with his first shot they become the goalie and do not receive a second shooting opportunity. VARIATION: If outdoors, the shaggers can catch any ball that is shot OVER the goal in the air (Of course they cannot be delinquent in their shagging). If they catch a ball, they reenter the game and shooter becomes a shagger.

## Sample Accommodations

Wheelchair users

- Wheelchair users will be able to dribble the ball in their lap or have a cardboard bumper placed on the front of the wheelchair so they can push the ball forward. They can pass the ball by throwing it.

Crutch users

- Crutch users will be able to use their crutches for balance while kicking the ball. They will also use the crutches for mobility. We will use balls that do not go far so that they will not have to move far to retrieve the balls.

Walker users

- Walker users will be able to place their walker over the ball. We will use balls that don't bounce as high and are light so that the ball will not hurt the frame of the walker.

Amputees
- Light balls will be used so that the prosthesis is not damaged nor is there jarring at the site of attachment.

### Tae Kwon Do Curriculum

| Week #1 | • Warm-up/stretching<br>• Flexibility: legs, hips, ankles, wrists, quadriceps, back, shoulders<br>• Cool-down/wrap up |
|---------|---|
| Week #2 | • Warm-up/stretching<br>• Stances: sitting, parallel ready, walking, and front stances<br>• Cool-down/wrap up |
| Week #3 | • Warm-up/stretching<br>• Punching: fist, knife hand, high, low, and straight punches<br>• Cool-down/wrap up |
| Week #4 | • Warm-up/stretching<br>• Kicking: front kick, back kick, descendent kick<br>• Cool-down/wrap up |
| Week #5 | • Warm-up/stretching<br>• Blocking: outer, inner, and rising form block<br>• Cool-down/wrap up |
| Week #6 | • Warm-up/stretching<br>• Self defense: grabbing, blocking, punching, kicking<br>• Cool-down/wrap up |

### Sample Activities

Warm-up
- Stretching – hip, knee, ankle, wrists, quadriceps, back, shoulders
- Mild aerobic activity – e.g. jumping jacks, modified sit-ups, arm circles

Order of skill development in each session
- Demonstration by coach for objective 1 (e.g. fist punch)
- Children practice skill by themselves without contacting any equipment or people
- Demonstration by coach for objective 2 (e.g. knife hand)
- Children practice skill by themselves without contacting any equipment or people
- Demonstration by coach for objective 3 (e.g. high, low, straight punches)
- Children practice skill by themselves without contacting any equipment or people
- Children do combinations of skills without contacting any equipment or people
- Children practice technique with tether ball – A tether ball is suspended from a line above the athlete and the athlete has to practice the skills with the ball
- Children take one or two step approaches and then perform skill with tether ball

### Sample Accommodations

Wheelchair users
- Wheelchair users may not have any motor control of their legs. Instead, they will demonstrate the same technique but they will use their arms.

Amputees
- The balls that we will use are very light. The coaches will also move the balls closer to the athlete so that they do not build too much momentum before striking the ball.

Walker users
- These athletes will be able to use their walkers while practicing. For instance, the athletes will turn their walkers around to practice front kicks.

Crutch users
- If the athlete needs both crutches to maintain balance while punching, the children will be able to sit and practice their punches.

Contractures or limited range of motion

- Some athletes may have contractures or limited range of motion. The children will only perform the skill as far as the range of motion allows. Therefore, the coaches will move the tether balls at an appropriate distance from the athlete.

<div align="center">Directions for Coach and Athlete<br>Goal Evaluation Sheet</div>

The athletes will be completing a goal-setting sheet during the life skills program on the third day of the program. Then, each athlete will give his/her coach his/her athlete goal evaluation sheet and coach's goal evaluation sheet. The coach is expected to print the athlete's name, coach's name, and spring or summer program on each athlete's goal evaluation sheet and each coach's goal evaluation sheet.

The athletes should be given the opportunity to practice the skills specified in their goal each week. After practicing the skills, the coach should give the athlete 10 trials to demonstrate the stated goal.

The athlete goal evaluation sheet includes the number of successful attempts at obtaining the goal. The coach and athlete should work together to mark the number of successful trials on the athlete goal evaluation sheet. For instance, if the athlete was successful on attempt 2, 4, and 8 in week 2, the coach and athlete should place three checkmarks in the column for week 2 (see sample on page 13).

The coach goal evaluation sheet includes which trials the athlete was successful. If the athlete is successful on trials 2, 4, and 8 in week 2, the coach should place a checkmark in the corresponding boxes for week 2 (see sample on page 14).

# Athlete Goal Evaluation Sheet – Soccer



| Number Correct | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|
| 10 | | | | | |
| 9 | | | | | |
| 8 | | | | | |
| 7 | | | | | |
| 6 | | | | | |
| 5 | | | | | |
| 4 | | | | | |
| 3 | X | | | | |
| 2 | X | | | | |
| 1 | X | | | | |

Name: <u>Amy</u>

Goal: <u>Kick the ball into the goal with my left foot standing 10 feet away from the goal on seven out of 10 trials.</u>

Coach: <u>Aaron</u>

Summer or Spring: <u>Spring</u>

## Coach Goal Evaluation Sheet - Soccer



| Trial Correct | | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|
| 10 | | | | | | |
| 9 | | | | | | |
| 8 | | X | | | | |
| 7 | | | | | | |
| 6 | | | | | | |
| 5 | | | | | | |
| 4 | | X | | | | |
| 3 | | | | | | |
| 2 | | X | | | | |
| 1 | | | | | | |

Name: Amy

Goal: Kick the ball into the goal with my left foot standing 10 feet away from the goal on seven out of 10 trials.

Coach: Aaron

Summer or Spring: Spring

# Athlete Goal Evaluation Sheet – Tae Kwon Do

| Number Correct | | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|
| 10 | | | | | | |
| 9 | | | | | | |
| 8 | | | | | | |
| 7 | | | | | | |
| 6 | | | | | | |
| 5 | | | | | | |
| 4 | | | | | | |
| 3 | | | | | | |
| 2 | | | | | | |
| 1 | | | | | | |

Name: _____

Goal: _____

_____

Coach: _____

Summer or Spring

# Coach Goal Evaluation Sheet – Tae Kwon Do

| Trial Correct | | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|
| | 10 | | | | | |
| | 9 | | | | | |
| | 8 | | | | | |
| | 7 | | | | | |
| | 6 | | | | | |
| | 5 | | | | | |
| | 4 | | | | | |
| | 3 | | | | | |
| | 2 | | | | | |
| | 1 | | | | | |



Name: _____

Goal: _____

_____

Coach: _____

Summer or Spring

## Field Notes

Each coach should write a paragraph or two about the day's activities. Field notes should include (see sample on page 23):

- General thoughts/concerns about the day's activity program
- Any injuries/situations that occurred during the physical activity program
- Any changes to the schedule
- Any major athletic or life skills accomplishments
- Any important coach/athlete interactions that may have an affect on others or the program (positive or negative)
- Success or failure of activities for future planning purposes

## Sample Field Notes

Coach's Name: Paul
Date: 2/5/04
Session #: sample
Sport: soccer
Coaching Objective: shooting

*General thoughts/concerns about the day's activity program*
- didn't realize Alison's very limited range of motion. May be due to earlier PA
- she gave direction of the ball but I gave it the push
- sister supportive of Alison and adapted well to activities. Instead of goalie, Brittany told us if ball passed the goal line
- Brittany hard time following through her kicks. May need adaptations later.

*Any injuries/situations that occurred during the physical activity program*
- No injuries or behavior problems
- Little encouragement needed all gave 100% effort

*Any changes to the schedule or accommodations made for the participants*
- needed to move Alison closer to cones (approx. 5ft)

*Any major athletic or life skills accomplishments*
- Alison able to direct the ball to left. Prior only kicked ball straight

*Any important coach/athlete interactions that may have an effect on others or the program (positive or negative)*
- both girls respond well to enthusiasm
- sisters interacted and laugh with each other
- Alison looked at dad when asked to kick with left leg; also needed encouragement for coach. Probably due to lack of confidence to use foot

*Success or failure of activities for future planning purposes*
- Alison – successful but needed move closer
- Alison & Brittany – may need more activities
- Brittany – needs work on shooting and planting foot; no follow through
- Brittany – needs activity when sister goes

# Sports and Life Skills Program

# Field Note Recorder's

# Training Manual

Aaron C. Moffett

Melissa G. Fraser

Gail M. Dummer

Department of Kinesiology

2004

<div align="center">Equipment</div>

- ☐ 2 lab notebooks
- ☐ Writing utensils

- ☐ Field notes general information labels
- ☐ 2 floppy disK

<div align="center">Field Notes Protocol</div>

## PREPARATION

- ☐ You will receive a photo sheet with each participant's name and photo. Become familiar with each participant's name and face prior to attending the first session.
- ☐ You will receive a copy of each week's curriculum for both the life skills sessions and the physical activity program. Become familiar with the schedule prior to arriving to each session. Bring this curriculum schedule with you.
- ☐ Field note recorders are a representative of Michigan State University, Department of Kinesiology, and Dr. Gail Dummer. Clothing with logos for products such as alcohol, cigarettes, drugs, violence, etc. are not permitted. Jeans with holes will not be permitted. Cologne or perfume should not be worn. Field note recorders should not wear jewelry that may be distracting to the participant.
- ☐ Bring
  - ❖ Field notes general information label
  - ❖ Two working pens
  - ❖ Field notes notebook
  - ❖ Anything else you feel you will need _____
- ☐ Upon Arrival
  - ❖ Check in with Aaron Moffett
  - ❖ Check to make sure that there is no change in curriculum
  - ❖ Check for any accommodations that are needed for the day and make a note in your lab notebook
  - ❖ Settle into a chair in the back of the room. Sit on the opposite side of the room from the other field note recorder
  - ❖ Fill out general information label and place on top of appropriate pages
    - o Date
    - o Session #
    - o Sport
    - o Recorder's name
    - o Location
    - o Time
  - ❖ Complete attendance sheet as each child arrives to the program

## INTERVENTION

- ☐ You are expected to sit in the room without interacting with the participants, coaches, life skills instructors or any other people in the room.
- ☐ During the interventions, you can choose one athlete to write field notes about for a minute or two and then move to the next athlete. During the life skills program, you are expected to write field notes about:
  - ❖ Attentiveness/level of participation of children during program
  - ❖ Accuracy of life skills teacher following the stated curriculum
  - ❖ Any accommodations that an athlete needed
  - ❖ Teacher/athlete interactions
  - ❖ Athlete/athlete interactions
- ☐ During the physical activity program, you are expected to write field notes about:
  - ❖ Any accommodations that an athlete needed
  - ❖ Any athletes not participating
  - ❖ Parents watching program
  - ❖ Coach/athlete interactions

- ❖ Athlete/athlete interactions
- ❖ Empowering/disempowering situations
- ❖ Abilities demonstrated by athlete
- ❖ Accuracy of coaches following the stated curriculum
- ❖ Success/failure of drills and activities during the program
- ❖ Information surrounding coach or athlete injuries and how it occurred
- ❖ Any general conflicts
- ❖ Other observations that you feel are important to note

## AFTER INTERVENTION

☐ At the completion of the day's session, you are expected to write a general overview of the day's activities and your overall thoughts. These notes should focus on your general thoughts and not the previously written field notes.

☐ All field notes should be typed and emailed to Aaron Moffett at moffetta@msu.edu each night.

☐ All field notes should be saved to a floppy disk each night.

YOU ARE RESPONSIBLE FOR CARING FOR YOUR LAB NOTEBOOK. DO NOT LOSE IT! You must turn in the whole notebook to Aaron Moffett, 39 IM Sports Circle, at the end of the study.

<center>Sample Field Notes Page</center>

Lissa and I taped a session with two "typical" athletes that may participate in our program. Below are the field notes that Lissa and I made from the videotape. These notes are just our thoughts as we saw the video. They will be grouped into the field notes topics at the end.

- coach give overview – practice shooting in soccer
- says what Brittany will be doing
- has Alison roll dice to decide # of trials (rolls 3)
- Allison put around 10 feet away from goal
- While coach sets up, sister helps athlete loosen straps
- Coach place ball on top of cone and holds with finger
- Athlete chooses to kick with right foot
- First trial ball falls about 3 feet short
- Coach moves athlete 2-3 feet closer
- 2nd trial ball crosses line but coach gives ball some push
- coach positive feedback – good work, good job
- while Alison is shooting, Brittany tells coach if ball crosses line instead of playing goalie
- coach asks Alison to kick ball with left foot, athlete looks back at parent for okay, athlete hesitates in actions, coach assures athlete can do it but if doesn't want to doesn't have to
- first two trials miss
- third trial success
- during trials coach continues to give positive feedback
- coach gets hit by the ball kicked by Brittany both athletes laugh and coach jokes and smiles with athletes
- Alison asked to roll dice, rolls a 1, coach jokes with athlete about cheating,
- coach uses athlete to take 1 step from goal
- coach explains directions
- coach continues to joke with athlete
- Brittany is now goalie since athlete is so close to goal...increase difficulty
- Alison chooses to kick with right foot and direction to kick ball
- Chooses to kick straight 3 times
- Coach points out athlete successful three times in a row
- In between trials, Alison looks at Brittany laughing, smiling, and moving arms a lot
- Coach says need to kick ball in new direction in joking manner
- Alison chooses to kick to left
- 1st trial misses

- When athlete fails to kick in stated direction, coach ask how she should move her foot so that she can kick the ball in the stated direction. Athlete is right in reply
- 2<sup>nd</sup> trial goes straight and then left
- 3<sup>rd</sup> trial goes left
- repeat using other foot
- chooses to kick ball straight
- all three go straight
- try kicking ball to right first trial goes straight and to left,
- second trial goes straight
- third trial goes straight and to right
- coach gives positive feedback throughout but not instructions
- coach gives high five at end and says, "excellent, wasn't that easy"
- Alison says, "Brittany's turn"
- coach wheels athlete and asks athlete where she wants to go to watch sister
- Brittany plays with the ball
- Brittany kicks ball hard at coach in goal and scores
- Both girls laugh when Brittany scores
- 3 trials all go passed coach
- Brittany kicks with toe straight forward, does not plant foot, and swings leg from knee
- Coach gives instructions and demonstrates planting foot next to the ball and swinging the leg through
- Athlete is successful and coach says perfect
- All three trials she steps through
- Alison cheered on at 3<sup>rd</sup> trial but couldn't hear on tape
- Coach stutters and pauses for directions after 5 seconds shows her open toed kick with foot planted next to ball,
- Brittany brings leg around in circular motion and does not plant other foot and swings from her torso. As a result the ball always goes left
- Coach redemonstrates open toed kick and planting foot
- Brittany still swings leg
- Coach asks athlete what direction she will shoot the ball
- Trial unsuccessful ball goes to left and not straight
- Athlete encouraged to do 1 more
- Coach says good when athlete kicks ball in stated direction
- still swings leg in circular motion and does not plant foot
- coach makes athlete do another trial
- Brittany appears to have good stopping ability when ball is kicked to her...uses ball of foot to stop ball
- Coach gives low 5 to both athletes asks Brittany if she wants to help with camera

Name: Aaron
Date: 2/4/04
Time begin: 5:13
Time end: 5:25
People present: Aaron, Alison, Brittany
Sport: Soccer
Objective: Shooting

❖ Any accommodations that an athlete needed for either the life skills or sports program.
  ➢ Coach place ball on top of cone and holds with finger
  ➢ First trial ball falls about 3 feet short so coach moves athlete 2-3 feet closer
  ➢ Brittany is now goalie since athlete is so close to goal…increase difficulty

❖ Any athletes not participating
  ➢ all athletes participating

❖ Parents watching program
  ➢ coach asks Alison to kick ball with left foot, athlete looks back at parent for okay, athlete hesitates in actions, coach assures athlete can do it but if doesn't want to doesn't have to

❖ Coach/athlete interactions
  ➢ 2$^{nd}$ trial ball crosses line but coach gives ball some push
  ➢ coach positive feedback – good work, good job
  ➢ coach gets hit by the ball kicked by Brittany both athletes laugh and coach jokes and smiles with athletes
  ➢ coach asks Alison to kick ball with left foot, athlete looks back at parent for okay, athlete hesitates in actions, coach assures athlete can do it but if doesn't want to doesn't have to
  ➢ during trials coach continues to give positive feedback
  ➢ Alison asked to roll dice, rolls a 1, coach jokes with athlete about cheating,
  ➢ coach continues to joke with athlete
  ➢ 1$^{st}$ trial misses
  ➢ Coach points out athlete successful three times in a row
  ➢ When athlete fails to kick in stated direction, coach asks how she should move her foot so that she can kick the ball in the stated direction. Athlete is right in reply
  ➢ coach gives positive feedback throughout but not instructions
  ➢ coach gives high five at end and says, "excellent, wasn't that easy"
  ➢ coach wheels athlete and asks athlete where she wants to go to watch sister
  ➢ Brittany kicks with toe straight forward, does not plant foot, and swings leg from knee
  ➢ Coach gives instructions and demonstrates planting foot next to the ball and swinging the leg through
  ➢ Athlete is successful and coach says perfect
  ➢ Brittany brings leg around in circular motion and does not plant other foot and swings from her torso. As a result the ball always goes left
  ➢ Coach redemonstrates open toed kick and planting foot. Coach asks athlete what direction she will shoot the ball
  ➢ Athlete encouraged to do 1 more
  ➢ Coach gives low 5 to both athletes asks Brittany if she wants to help with camera

❖ Athlete/athlete interactions
  ➢ While coach sets up, sister helps athlete loosen straps
  ➢ while Alison is shooting, Brittany tells coach if ball crosses line instead of playing goalie
  ➢ In between trials, Alison looks at Brittany laughing, smiling, and moving arms a lot
  ➢ Alison says, "Brittany's turn"
  ➢ Both girls laugh when Brittany scores

> Alison cheered on at 3<sup>rd</sup> trial but couldn't hear on tape

- ❖ Empowering/disempowering situations
  - ➤ has Alison roll dice to decide # of trials (rolls 3)
  - ➤ Athlete chooses to kick with right foot
  - ➤ Alison asked to roll dice, rolls a 1
  - ➤ coach uses athlete to take 1 step from goal
  - ➤ Alison chooses to kick with right foot and direction to kick ball
  - ➤ Chooses to kick straight 3 times
  - ➤ Alison chooses to kick to left
  - ➤ chooses to kick ball straight
  - ➤ coach wheels athlete and asks athlete where she wants to go to watch sister
  - ➤ Coach asks athlete what direction she will shoot the ball

- ❖ Abilities demonstrated by athlete
  - ➤ First trial ball falls about 3 feet short
  - ➤ Coach moves athlete 2-3 feet closer
  - ➤ 2<sup>nd</sup> trial ball crosses line but coach gives ball some push
  - ➤ first two trials miss
  - ➤ third trial success
  - ➤ Coach points out athlete successful three times in a row
  - ➤ 1<sup>st</sup> trial misses
  - ➤ 2<sup>nd</sup> trial goes straight and then left
  - ➤ 3<sup>rd</sup> trial goes left
  - ➤ all three go straight
  - ➤ try kicking ball to right first trial goes straight and to left
  - ➤ second trial goes straight
  - ➤ third trial goes straight and to right
  - ➤ Brittany kicks ball hard at coach in goal and scores
  - ➤ 3 trials all go passed coach
  - ➤ All three trials she steps through
  - ➤ Brittany brings leg around in circular motion and does not plant other foot and swings from her torso. As a result the ball always goes left
  - ➤ Brittany still swings leg
  - ➤ Trial unsuccessful ball goes to left and not straight
  - ➤ still swings leg in circular motion and does not plant foot

- ❖ Accuracy of coaches and life skills teacher following the stated curriculum
  - ➤ Coach stutters and pauses for directions after 5 seconds shows her open toed kick with foot planted next to ball, - curriculum accuracy

- ❖ Success/failure of drills and activities during the program

- ❖ Information surrounding coach or athlete injuries and how it occurred

- ❖ Any General conflicts

- ❖ Other observations that you feel are important to note
  - ➤ coach give overview – practice shooting in soccer
  - ➤ When athlete fails to kick in stated direction, coach asks how she should move her foot so that she can kick the ball in the stated direction. Athlete is right in reply
  - ➤ Brittany kicks with toe straight forward, does not plant foot, and swings leg from knee
  - ➤ coach makes athlete do another trial
  - ➤ Brittany appears to have good stopping ability when ball is kicked to her…uses ball of foot to stop ball

# Sports and Life Skills Program

# General Training Manual

Aaron C. Moffett

Melissa G. Fraser

Gail M. Dummer

Department of Kinesiology

2004

## Purpose Statement

The short-term purpose of the Sports and Life Skills program is to teach life skills using sports applications. The long-term purpose of the Sports and Life Skills program is to aid youth with physical disabilities in their transition from school to adult life in the community. The life skills that will be taught are team-building, positive self-talk, optimism, goal setting, social skills, and coping skills. These skills are related to success in school, positive interactions with peers, coping with challenges, and high self-esteem.

## Goal Statement

- All athletes will have fun
- All athletes will learn about optimistic attribution styles
- All athletes will improve social skills
- All athletes will have a better understanding of soccer and Tae Kwon Do
- All athletes will improve their soccer and Tae Kwon Do skills
- All athletes will be treated equally
- All athletes will receive positive coaching
- All athletes will receive instructional time each class period
- All athletes will be taught techniques to apply life skills in their daily activities
- All athletes will improve coping skills
- All athletes will learn about goal setting techniques
- All athletes will receive appropriate accommodations for their disability

## Confidentiality

Trust is a vital component of this program. In order to gain and maintain trust within the program, confidentiality must be upheld. Any personal information that is obtained about a participant or her/his parents is considered confidential. A practical definition of confidential is that you know, but you aren't telling anyone else. Personal and medical information that is disclosed to you should not be discussed with anyone, including other participants in the program. This information is disclosed to you for safety purposes only and should be highly secured. Each coach should have a copy of the participants' "need to know" medical information. This information should be within your immediate reach at all times, but should not be displayed in a manner that any other person could read it. For your information, we do plan to present and publish the findings from this study. We will not include names or personal information in any of these reports. Confidentiality continues past the completion of the program and publication of data.

## Empowerment

It is important for the athletes to gain a sense of empowerment, defined as having control over one's environment. For athletes with disabilities, especially severe disabilities, it may be hard for them to learn that they do have control over their actions and their environment. Therefore, it is important for coaches to provide athletes every opportunity possible to make responsible choices, to act in leadership roles, and to offer their opinions and observations. For instance, coaches should allow athletes to volunteer to demonstrate an activity instead of selecting volunteers. Athletes should also be given the opportunity to lead an activity or select an activity. One example is for one athlete to roll the dice to see how many repetitions the athletes will do during a warm-up exercise , with another athlete selecting the warm-up activities. Please be sensitive to opportunities that can empower the athletes and include them into your daily activities.

## Person First Language

Athletes should always be referred to by their name of choice. Terms such as babe, bud, sweetheart, gal, sweetie, etc., should not be used. You will receive an attendance sheet with each athlete's name and picture to help you learn their names.

When referring to a person with a disability, please use person-first language. Person-first language is acknowledging an individual before their disability. For example, Johnny is an athlete who uses a wheelchair instead of Johnny is a wheelchair athlete. Do not use slang terms that could be considered offensive such as retarded, impaired, gay, dumb, or crippled.

## Staff Responsibilities

```
┌─────────────────────┐         ┌─────────────────────┐
│ Gail Dummer         │─────────│ Aaron Moffett       │
│ Faculty Investigator│         │ Student Investigator│
└─────────────────────┘         └─────────────────────┘
                                            │
                                   ┌─────────────────────┐
                                   │ Lissa Fraser        │
                                   │ Research Assistant  │
                                   └─────────────────────┘
```

| Interviewer (2) | Survey Administrator (4) | Field Notes Recorder (2) | Head Coach (2) | Assistant Coach (2) |
|---|---|---|---|---|
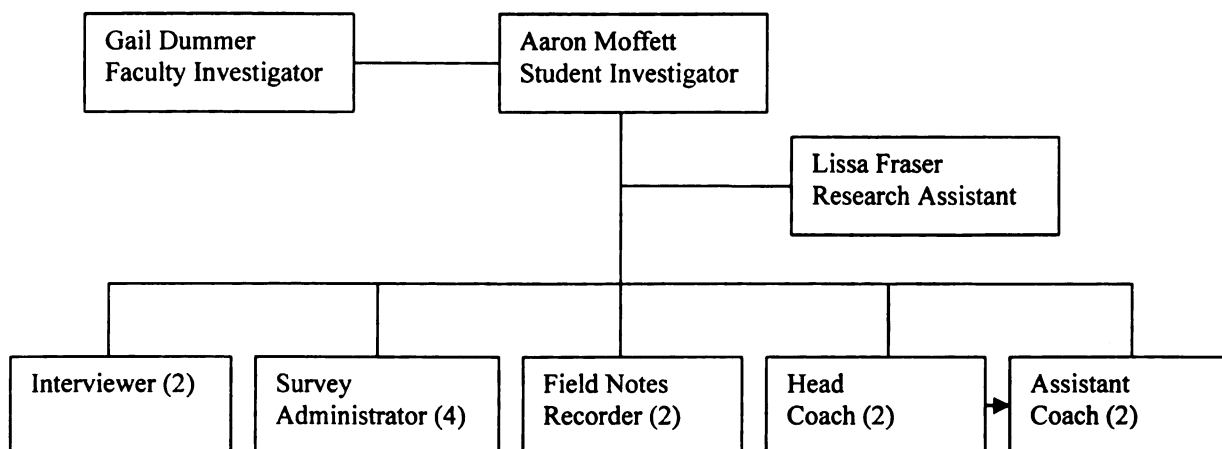
Dr. Gail Dummer: Faculty Investigator. Dr. Dummer's responsibilities include:

☐ overseeing research project

Please see Dr. Dummer if you are not able to communicate with one of the supervisors and if you feel the situation needs immediate attention. You can contact Dr. Dummer at xxxxxxxxxxxxxx.

Aaron Moffett: Student Investigator. Aaron Moffett's responsibilities include:

☐ overall responsibility for conducting the project
☐ supervising and coordinating all activities and life skills programs
☐ escorting athletes to the restrooms
☐ responding to emergencies
☐ speaking to parents about questions or concerns related to the program

Please see Aaron Moffett if you have any questions, conflicts, or concerns about the program or research. You can contact Aaron Moffett at xxxxxxxxxxxxxx.

Lissa Fraser: Research Assistant. Lissa Fraser's responsibilities include:

☐ assist in supervising and coordinating all activities
☐ responding to emergencies

You can contact Lissa Fraser at xxxxxxxxxxxxxxxx.

Head Coach: The head coach is responsible for:

☐ developing lesson plans with Aaron Moffett prior to the activity
☐ providing the general instruction for the daily activities to the assistant coaches prior to the physical activity session
☐ supervising set-up and clean-up for daily activities and storing equipment
☐ delivering the instruction during the physical activity sessions (with help from assistant coaches). During whole group activities, the head coach is responsible for explaining the activities and answering any questions based on the lesson plan previously established. During small group activities, the head coach is responsible for directing a small group.
☐ giving praise and feedback to the athletes and assistant coaches throughout the program
☐ being hands-on and active at all times
☐ helping athletes set short and long term goals and evaluating these goals every week
☐ writing field notes about the day's activities
☐ addressing any behavior problems
☐ assisting Aaron Moffett with the completion of accident report forms
☐ being available to answer parents' questions regarding their child's progress in the physical activity program (It is not the head coach's responsibility to handle parents with concerns or frustrations with the program. Please send them to Aaron Moffett.)

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The head coach will be closely interacting with the athletes. Therefore, it is your responsibility to monitor behavior changes that may represent a medical concern. If a head coach notices a difference in an athlete's behavior, the change of behavior could be due to a medical problem. Therefore, the head coach should notify Aaron Moffett or Lissa Fraser immediately.

Assistant Coach: The assistant coaches are responsible for:
☐ assisting the head coach set-up and clean up for daily activities and storing equipment
☐ aiding the head coach during whole group activities
☐ directing small group activities (i.e. ball drills, dribbling activities)
☐ giving praise and feedback to the athletes throughout the program
☐ helping athletes set short and long term goals and evaluating these goals every week
☐ writing field notes about the day's activities
☐ assisting Aaron Moffett with the completion of accident report forms
☐ being available to answering parents' questions regarding their child's progress in the physical activity program (It is not the assistant coach's responsibility to handle parents with concerns or frustrations with the program. Please send them to Aaron Moffett.)

The assistant coaches will be closely interacting with the athletes. Therefore, it is their responsibility to monitor behavior changes that may represent a medical concern. If an assistant coach notices a difference in an athlete's behavior, the change of behavior could be due to a medical problem. Therefore, the assistant coach should notify Aaron Moffett or Lissa Fraser immediately. The assistant coaches will help complete incident report forms.

Field Notes Recorder: The field notes recorder is responsible for:
☐ becoming familiar with the athletes' names and faces prior to the beginning of the program
☐ becoming familiar with the schedule prior to arriving at each session. You will receive the schedule at least one week in advance.
☐ bringing the curriculum schedule with you to each session
☐ bringing necessary material for data collection
☐ filling out general information labels to be placed on top of the appropriate page in the lab notebook
☐ taking attendance on a daily basis
☐ recording field notes during the life skills and physical activity programs. These notes will focus on:
   ❖ any accommodations that an athlete needed for either the life skills or sports program
   ❖ any athletes not participating
   ❖ parents watching the program
   ❖ coach/athlete interactions
   ❖ athlete/athlete interactions
   ❖ empowering/disempowering situations
   ❖ abilities demonstrated by athletes
   ❖ accuracy of coaches and life skills teacher following the stated curriculum
   ❖ success/failure of drills and activities during the program
   ❖ information surrounding coach or athlete injuries and how it occurred
   ❖ any general conflicts
   ❖ other observations that you feel are important to note typing field notes into a word document and emailing them to Aaron Moffett on a daily basis.

Survey Administrator: Survey administrators are responsible for:
☐ practicing administering surveys during training sessions and on your own
☐ understanding the surveys in advance in order to answer possible athlete's questions
☐ bringing a copy of the survey administrator's manual with you to data collection
☐ making any necessary accommodations for the athletes prior to data collection
☐ following predetermined survey administrator's protocol
☐ distributing surveys
☐ giving directions for the surveys
☐ assisting athletes with alternative ways of completing surveys when the athletes request aid
☐ collecting surveys

The surveys will be given before and after every twelve week session. The surveys that will be completed by the participants are: Life Orientation Test Revised, Disability and Sports Coping Survey, Self Perception Profile for Children.

Interviewer: Interviewers are responsible for:
- ☐ reading the interview protocol prior to data collection
- ☐ practicing interviews prior to data collection
- ☐ familiarizing themselves with recording equipment prior to data collection
- ☐ arranging convenient times and locations with the athletes and their guardians for their interviews
- ☐ bringing all equipment, interview guide, and interviewer's training manual to each interview
- ☐ meeting participant and finding a comfortable location for the interview
- ☐ making necessary accommodations for the participant
- ☐ following interview protocol
- ☐ allowing the participant to listen to a few minutes of the interview tape
- ☐ maintaining equipment in good condition
- ☐ downloading the interview session onto their computer. The interview should be saved onto a blank writable cd and also emailed immediately to Aaron Moffett. The cd should be labeled with the interview date, number, and child's pseudonym. Upon completion of each series of interviews, return re-writable cd to Aaron Moffett.

<div align="center">Personal Conflicts</div>

If you have a personal conflict with a participant, guardian, or another staff person, please see Aaron Moffett. If you have a personal conflict with Aaron Moffett, please see Lissa Fraser or contact Dr. Dummer directly at xxxxxxx. Lissa will relay your concerns to Dr. Dummer.

<div align="center">Medical Kit Supplies</div>

All coaches and field note recorders will be provided with first aid kits. Please carry them at all times and use them if needed. The medical kit includes:

- first-aid guide
- non-latex gloves
- non-latex band-aids
- CPR-microshield
- solar blanket
- compress bandages
- whistle and lanyard
- gauze compress
- athletic trainer's tape

- cooling gel
- antiseptic wipes
- hand sanitizer
- scissors
- tweezers
- sterile pads
- ace wraps
- ice packs

- blister gel
- feminine products
- paint stirring sticks
- skin lube
- emergency plan
- contact information sheet
- Kleenex
- Benadryl creme

<div align="center">Attendance Sheet</div>

I will include an attendance sheet once we have all of our participants.

# Sports and Life Skills Program

# Interviewer's Training Manual

Aaron C. Moffett

Melissa G. Fraser

Gail M. Dummer

Department of Kinesiology

2004

Equipment
- [ ] 2 Olympus DS-660 digital recorders
- [ ] 2 hand held tape recorders
- [ ] 4 packs of AAA batteries
- [ ] Extension cord for the digital recorder
- [ ] 60 90 minute tapes
- [ ] 2 clip on microphones
- [ ] 2 table microphones
- [ ] 10 re-writable compact discs
- [ ] 7 copies of the E Group Athlete Pretest Interview #1 (5 copies for interviews and 2 extra copies)(BLUE)
- [ ] 7 copies of the E Group Athlete Posttest Interview #2 (5 copies for interviews and 2 extra copies)(BLUE)
- [ ] 7 copies of the E Group Athlete Retention Interview #3 (5 copies for interviews and 2 extra copies)(BLUE)
- [ ] 7 copies of the E Group Parent Pretest Interview #1 (5 copies for interviews and 2 extra copies)(BLUE)
- [ ] 7 copies of the E Group Parent Posttest Interview #2 (5 copies for interviews and 2 extra copies)(BLUE)
- [ ] 7 copies of the E Group Parent Retention Interview #3 (5 copies for interviews and 2 extra copies)(BLUE)
- [ ] 7 copies of the C Group Athlete Pretest Interview #1 (5 copies for interviews and 2 extra copies)(Green)
- [ ] 7 copies of the C Group Athlete Posttest Interview #2 (5 copies for interviews and 2 extra copies)(Green)
- [ ] 7 copies of the C Group Athlete Retention Interview #3 (5 copies for interviews and 2 extra copies)(Green)
- [ ] 7 copies of the C Group Parent Pretest Interview #1 (5 copies for interviews and 2 extra copies)(Green)
- [ ] 7 copies of the C Group Parent Posttest Interview #2 (5 copies for interviews and 2 extra copies)(Green)
- [ ] 7 copies of the C Group Parent Retention Interview #3 (5 copies for interviews and 2 extra copies)(Green)
- [ ] 4 pens/pencils to write responses and field notes during interview
- [ ] Water bottle for each child participant
- [ ] Interview labels for tapes and compact discs

## Information on Recorders

Each interviewer is expected to use two tape recorders for each interview. We will use Olympus DS-660 digital recorders and Sony tape recorders for the interviews. Please give the Sony tape recorder to the participant to hold and lay the Olympus digital recorder on a flat surface. If the participant does not speak loud or clearly enough for the digital recorder to recognize the voice, use the microphone provided with the digital recorder. The digital recorder can hold up to 11 hours of recording in long play mode. Please keep the recorder in the long-play mode. Immediately after completing the interview, copy the interview to a re-writable cd. Make sure that the voice recognition is off on both recorders.

## Setting

The data collection environment should be a friendly, comfortable environment for the participant (athlete or parent). Select a quiet place for the interview. Ask the participant if she/he wants to bring a drink to the interview. Suggest that athletes use the rest room prior to the interview if needed. Although parents should not be encouraged to observe or listen to the interviews involving their children, it is appropriate for parents to be nearby, especially if they are concerned about the child being alone with the interviewer.

Use two tape recorders as instructed later in this manual. The participant should be allowed to hold the Sony tape recorder throughout the interview. This allows the participant a sense of empowerment and control over the interview. If the participant is not able to hold the recorder, make appropriate accommodations. The Sony tape recorder will provide a back-up recording in case the Olympus recorder runs into problems in the middle of the interview.

## Consent/Assent

Parents agreed to participate in interviews on an earlier date. In addition, also on an earlier date, parents gave consent and athletes gave assent for the athlete's participation in the interviews. Nevertheless, you should affirm that interviewees are willing to participate by reading the assent/consent statement before each interview. Also reassure the interviewees that they may skip questions that they don't want to answer, that they can stop answering questions at any time, and that they won't get in trouble for skipping questions or discontinuing.

## Accommodations

It is important to remember that each interviewee will be unique. The interviewer should be cognizant of each interviewee's needs to make the situation as comfortable as possible. Some of the participants may need accommodations in order for the interview to be a positive experience. As the interviewer, you should make the necessary accommodations. Possible accommodations that could be used during the interview are:

❖      Some disabilities may lead to a shortness of breath or stuttering. The interviewer should give the participant adequate time to respond to the questions. Additionally, the environment should be as comfortable to the participant as possible.

❖      Some participants may have spasticity in their facial muscles. Therefore, interviewers should turn the microphone to a higher sensitivity level and write down a brief description of the participant's answers. The interviewer could also offer to use a clip-on microphone. Finally, the interviewer should give the participant adequate time to respond to the questions.

❖      Soft speaking participants could be offered to use an external microphone. Interviewers should turn the microphone to a higher sensitivity level and write down a brief description of the participant's answers.

❖      Due to poor circulation, some participants may not be able to sit long in one position. The interviewer should allow for the participant to move or readjust their body position as needed.

❖      Some participants may have difficulties focusing their attention on the interview. The interviewer should conduct the interview in a quiet environment with few distractions. Also, the interviewer could allow the participant to play with a small, non-distracting item. The interviewer should also tell the participant approximately how much time they have left. If the participant is too inattentive to complete the interview, the interviewer should reschedule the completion of the interview at a later date.

❖      If a person cannot hold the tape recorder, allow the person to choose how he/she carries the microphone.

Make sure that you record any accommodations you make in your notes.

## Field Notes

You are expected to write field notes during and after the interview. During the interview, field notes should include the participant's responses to questions, participant's body language, and any other information that you deem important. After the interview, field notes should include general thoughts about the interview and participant's overall reaction to questions. These field notes should be typed after each interview and emailed to Aaron Moffett at moffetta@msu.edu.

## Sample Field Notes

These field notes are from an interview from a different project this summer. I just want to use this as an example for you.

The interview went okay but not as well as I expected. I am not sure if it is because Adam is nonverbal and young, if it's the questions, or if it is b/c Alison never thought about these before. I am hoping that the next few interviews go much better and I think that they will. The other interviews have more experience with sports.

I felt bad when Alison started to cry about the optimism questions. I will need to keep a lookout for other parents becoming emotional at this time also. I didn't expect the questions to be emotional. However, I do believe that this meant that Alison was giving me truthful answers and that she was seriously thinking about her answers.

I have coached Adam for the past few years and I have definitely built a rapport with the whole family. I don't think that this really caused any difference in the interview. Yes, she did give me a few compliments but I think that she truly believes that I have had a good impact on Adam.

The daughter kept interrupting the interview but I don't think it caused any real harm. About half way through the interview, she went and watched TV.

I asked very few follow-up questions and I am not really sure why. I don't know if it was because Alison was answering the questions easily (except for the benefits question) or if it was because I wasn't in the flow with the interview or what. The daughter may have distracted me and thus I didn't do many follow-up questions.

## Saving Interview and Field Notes

The field notes should be typed up after each interview and emailed to Aaron Moffett at moffetta@msu.edu. Along with the field notes, the digital copy of the interview should be emailed to Aaron Moffett. Finally, you should copy the interview and field notes to a cd and give this cd to Aaron Moffett by the end of the week.

# Sports and Life Skills Program

# Safety Handbook

Aaron C. Moffett

Melissa G. Fraser

Gail M. Dummer

Department of Kinesiology

2004

*1.    Sports and Life Skills Program*
*2.        Emergency Action Plan*
3.

4.    Staff Responsibilities
   1.    Athlete medical history form. Carry this form with you on your clipboard! This form should be the last sheet on your clipboard and placed upside down. This sheet is highly confidential and should not be shared with participants. Therefore, it is important that you do not leave your clipboard lying around in view of others.
   2.    Safety rules. Teach safety rules (e.g., don't run in the hallways) commensurate with the athlete's ability to understand. Provide a good example of safe behavior for the athlete at all times. Insist on safe behavior from your athlete.
   3.    Safe coaching. Be sure that the athlete has the necessary prerequisite skills and physical fitness for participation in the sports activities that you are coaching. All activity plans will include warm-up and cool-down activities. You should always emphasize the importance of these activities. As a staff member you should also maintain adequate supervision of the athletes at all times.
   4.    Continuous supervision. You are responsible for providing continuous supervision of the athletes. Arrive on time to assume supervision of the athletes. At the end of each session, remain with the athletes until parents or other care provider assumes responsibility for supervision. And, of course, you should supervise the athletes during all physical activities!
   5.    Parents and guardians. In order to ensure the athletes safety, you should be familiar with the athlete's guardian. An athlete should not be released into the care of an individual with whom you are not familiar unless authorized by Aaron Moffett or Lissa Fraser.
   6.    Safety conscience
        a.    Inspect the gymnasium area for hazards prior to each session. Do not allow participation in an unsafe area.
        b.    Inspect equipment, including first aid kits, at the end of each session. Notify Aaron Moffett or Lissa Fraser if first aid supplies need to be replenished and if there is any broken or unsafe equipment.
        c.    Supervise athletes to help ensure a safe environment for physical activity. Intervene immediately (or ask Aaron Moffett or Lissa Fraser to intervene) if you observe any conditions or actions that compromise the safety of participants.
5.    Response to Emergencies
   1.    Serious injury or illness
        •    Staff responsibilities
             o    Blow whistle to alert Aaron and Lissa.
             o    Call 9-1-1 if Aaron and Lissa are not available. Use the script provided in your fanny pack.
             o    The coach with the most first aid expertise should tend to the injured/ill athlete, administering first aid commensurate with experience. The other coaches should continue teaching and should reassure participants that the injured athlete is receiving appropriate medical care and will be okay.
             o    Help Aaron or Lissa to complete an incident/injury/illness report immediately following the incident, while details are fresh in your mind. Remember that medical information is highly confidential. Therefore, the athlete's injury should not be discussed with or in front of the other athletes or guardians.
             o    Stay at the scene until excused by Aaron or Lissa.
        •    Aaron's and Lissa's responsibilities
             o    Contact 9-1-1 if needed.
             o    Provide first aid and emergency care.
             o    Contact the athlete's parents.
             o    Complete an incident/injury/illness report.
   2.    Minor injury or illness
        •    Staff responsibilities
             o    Provide "mom and pop" tender loving care.
             o    Provide minor first aid using supplies from your fanny pack.
             o    Notify Aaron or Lissa of the incident as soon as practical.

- Aaron's and Lissa's responsibilities
  - Contact the athlete's parents as needed.
  - Complete an incident/injury/illness report.

6.  3. Incident requiring evacuation of the facility
- Emergencies requiring evacuation of the building (e.g., fires)
  - General instructions - Make sure that all participants are located at least 100 feet away from the facility. Once the participants have gathered outside, perform a head count to make sure all participants are present. If someone is not present, notify Aaron Moffett or Lissa Fraser immediately! Remember to assure all participants that the situation is under control and not to worry. Also, remember that when you are evacuating the building, bags and personal items should be left in the building.
  - Community Center – All participants should meet in the far back corner of the lower parking lot. If the participants are not able to gather at this location, the participants should meet on the grass on the east side of the building. Make sure to stay up on the grass and avoid any emergency assistance vehicles.
  - School - All participants should meet in the far back corner of the parking lot behind the school. If the participants are not able to gather at this location, the participants should meet on the grass on the east side of the building. Make sure to stay up on the grass and avoid any emergency assistance vehicles.
- Tornados - All participants should meet in the female locker rooms. Make sure all athletes are present. If someone is not present, notify Aaron Moffett or Lissa Fraser immediately! Remember to assure all participants that they are in a safe location and try to help them remain calm.

7.  Telephone Locations
- Cell phones - Aaron Moffett and Lissa Fraser will have their cell phones with them at all times.
  8.  Aaron's cell phone number is: (999) 999-9999
  Lissa's cell phone number is: (999) 999-9999
- Community Center - There are phones located in the kitchen off of the Life Skills classroom, at the main desk by the front entrance, and in the concession stand located across the hall from the gym.
- School - Phones are located inside the Life Skills classroom, in the main office, and the physical activity room.
- 

*9-1-1 Script - Community Center*

Hello. This is _____ (*name*). I am calling to report an accident. I have a child who has_____ (*describe injury*). We are located at Community Center, address. Please send the ambulance to (state specific location) the building. The child's name is _____ (*insert name*). The child is _____ (age) years old and is _____ (male or female). The child has _____ (*disability*).

STAY ON THE LINE WITH THE DISPATCHER UNTIL YOU ARE ASKED TO HANG UP!

*9-1-1 Script – School*

Hello. This is _____ (*name*). I am calling to report an accident. I have a child who has_____ (*describe injury*). We are located at (name of site), (address of site). Please send the ambulance to the (location) at building. You will need to go in (state specific entering location) of the building. The child's name is _____ (*insert name*). The child is _____ (age) years old and is _____ (male or female). The child has _____ (disability).

STAY ON THE LINE WITH THE DISPATCHER UNTIL YOU ARE ASKED TO HANG UP!

## First Aid for Minor Injuries and Bleeding

9.        Although precautions such as wearing appropriate clothing, using equipment according to instructions, providing coaching and supervision, and maintaining safe playing areas help to minimize the occurrence of minor injuries, problems such as cuts, scrapes, and bruises are a natural consequence of sports participation. Coaches and staff should be competent in first aid for these injuries.

### Cuts, Scrapes, and Bruises

10.        The types of wounds that will be most commonly seen in the Sports and Life Skills Program include cuts, scrapes, and bruises.

- Cuts. Cuts may happen in variety of ways, such as getting fingers caught in wheelchair spokes or cutting one's hand on a tennis can lid. Cuts bleed freely, especially cuts on the head. Deep cuts may bleed severely, and may damage nerves, large blood vessels, and other soft tissues.
- Scrapes. In a scrape, skin is rubbed or scraped away by an activity such as falling down onto a rough surface or poorly fitting braces that rub against the skin. The scraped area is usually painful. Cleaning the wound is important to prevent infection.
- Bruises. A bruise is bleeding under the skin caused by a blow to that area of the body. Bruises typically occur in collisions with other players or objects. At first the area may only appear red. Over time it may turn dark red or purple.

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### 11.        First Aid for Minor Bleeding

1. Wash the wound with soap and warm water
2. Place a sterile dressing over the wound
3. Apply direct pressure for a few minutes if needed to control bleeding
4. When bleeding is controlled, remove the dressing and apply an antibiotic ointment (use ointment only if you have parent consent - some athletes are allergic to antibiotic treatments)
5. Apply a new dressing and bandage.
6. If the wound was caused by an object that may carry infection, recommend that the athlete check with a physician about the need for a tetanus booster.

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### Severe Bleeding Injuries

12.        Severe bleeding refers to bleeding that cannot be stopped, wounds that show muscle or bone, wounds that involve joints, wounds that gape widely, serious wounds that involve hands or feet, large or deep wounds, large or deeply embedded objects in the wound, human or animal bites, any wound that would leave an obvious scar, and skin or body parts that have been partially or completely torn away.

---

### 13.        First Aid for Severe Bleeding

14.        If a severe wound happens in the program, your responsibility is to activate the emergency action plan immediately. Aaron Moffett or Lissa Fraser will call 9-1-1. Aaron Moffett or Lissa Fraser will provide emergency first aid.

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### Universal Precautions

15.        Always use universal precautions when treating bleeding emergencies. A universal precaution means that all blood and bodily fluids must be treated as though infectious for HIV, Hepatitis B, or other blood-borne pathogens.

- Wear personal protective equipment such as non-latex gloves or protective eye wear whenever you expect to come in contact with blood or body fluids.
- Wash your hands before eating, whenever you may have come in contact with an infectious agent, or whenever you become contaminated with blood or body fluids (your own or someone else's).
- In the event of exposure or suspected exposure to blood-borne pathogens: (a) wash contaminated skin for at least 10 minutes using an antibacterial soap and copious amounts of water, or if eyes are affected, flush the eyes and mucus membranes for 15 minutes with water or normal saline; (b) notify the instructor/supervisor.
- Ask Aaron Moffett or Lissa Fraser for assistance in cleaning equipment or areas and that have been contaminated with blood or body fluids, as well as disposing of materials that are contaminated with blood or body fluids. The spill kits are located with the field notes recorders. The spill kits are for use in cleaning-up blood and other body fluids.
- For more information on universal precautions, consult the ORCBS web site. Click on "biological" then look for "web-based training on blood-borne pathogens."

16. The information on this topic was adapted from *Sport Safety Training: Injury Prevention and Care Handbook* and the *Sport Safety Training: Injury Prevention and Care Workbook*, both published in 1997 by Mosby Lifeline. These materials were developed jointly by the United States Olympic Committee and the American Red Cross.

## First Aid for Nose Bleeds

1. Sit upright, leaning slightly forward.
2. Pinch nostrils for 5 to 10 minutes.
3. DO NOT blow your nose.
4. If bleeding continues, apply ice pack to bridge of nose or back of neck, or apply pressure to upper lip.

## Seizures

> Some of the following material is adapted from a pamphlet on *Seizure Recognition and First Aid* by the Epilepsy Foundation of America, 1998.

17. Many athletes with a disability have seizure conditions, possibly including some of the participants in the Sports and Life Skills Program. Learn to recognize the different types of seizures, and know appropriate first aid for each type of seizure. Also note any special first aid provisions that may be listed on the athlete's registration form.

Definitions

- Seizures. Seizures refer to sudden changes in consciousness or behaviors that are characterized by involuntary movement and abnormal electrical activity in the brain. Seizures may be partial (one part of the brain and one part/system of the body) or generalized (whole brain and whole body).
- Epilepsy. Recurring seizures are called epilepsy.

Types of Seizures

- Generalized tonic-clonic seizures (also called grand mal seizures) have a tonic stage in which muscle tone increases throughout the body (the athlete becomes rigid) and the athlete cries and falls. This is followed by a clonic stage of 2-5 minutes duration in which the muscles jerk, saliva is secreted, breathing is shallow or temporarily suspended, skin becomes bluish, and bowel and bladder control may be lost. The clonic phase is followed by a rest/fatigue phase after which the athlete returns to consciousness. Some athletes are "warned" of an impending seizure by an aura, which is a state of altered consciousness. Actually, an aura is a simple partial seizure which eventually spreads into a generalized tonic-clonic seizure. The exact symptoms experienced during an aura depend upon the part of the brain that is affected.
- Absence seizures (also called petit mal seizures) consist of a blank stare lasting only a few seconds. Absence seizures may be accompanied by rapid blinking, chewing movements of the mouth, or other purposeless, repetitive movements. The athlete may be unaware of his/her environment during the seizure, but quickly return to full awareness when the seizure has stopped.
- Simple partial seizures may be motor or sensory in nature. Partial motor seizures begin in the fingers or toes (usually the same location for every seizure), with jerking spreading to the hand/arm or legs. Sometimes partial motor seizures spread to the entire body and become tonic-clonic seizures. Partial sensory seizures typically begin with a preoccupied or blank expression. The athlete has unusual sensory perceptions such as seeing or hearing things that are not there, unexplained emotions, nausea, or odd smells. Sometimes partial sensory seizures spread to the entire body and become tonic-clonic seizures.
- Complex partial seizures (also called psychomotor or temporal lobe seizures) start with the symptoms of either a partial motor or a partial sensory seizure. These symptoms are followed by random activity. Athletes may be unaware of surroundings; may seem dazed and mumble; may be unresponsive and experience clumsy, non-directed actions; may pick at clothing; may pick up objects; may try to undress; may run and appear afraid; or may struggle. Usually the same actions occur with each seizure. Complex partial seizures usually last only a few minutes, but the confusion which follows can last substantially longer. There is no memory of activities during the seizure.

- Atonic seizures (also called drop attacks) refer to a lack of muscle tone in which the athlete's legs suddenly collapse. After 10-60 seconds the athlete regains consciousness and can stand and walk again. Atonic seizures tend to affect preschool-aged children.
- Myoclonic seizures are sudden, brief, massive muscle jerks that may involve the whole body or parts of the body.

First Aid for Seizures
- First aid for generalized tonic-clonic seizures
    - Remain calm.
    - Blow whistle to contact Aaron Moffett or Lissa Fraser
    - Look for medical identification.
    - Clear the area to prevent injury.
    - Protect the athlete's head from the floor or other hard surfaces.
    - Do not restrain the athlete, force anything into the mouth, try to hold the athlete's tongue (it can't be swallowed), or give oxygen or artificial respiration.
    - Turn the athlete on the side to allow saliva to drain and to keep the airway open.
    - Keep the athlete warm and calm.
    - Stay with the athlete until the seizure is over, consciousness has been regained, and confusion is over.
    - Allow the athlete to rest and monitor airway, breathing, and circulation.
    - Aaron Moffett or Lissa Fraser will contact medical assistance if the seizure lasts for more than five minutes, the athlete is injured during the seizure, the seizure is followed by another major seizure, or the athlete has no known history of seizures.
    - Observe and document the nature and duration of the seizure.
    - Assist Aaron Moffett or Lissa Fraser in complete the accident report form
- First aid for complex partial seizures. Blow the whistle to contact Aaron Moffett or Lissa Fraser. If the athlete is walking or moving, guide her/him away from obvious dangers. Stay with the athlete until she/he is completely aware of the environment.
- First aid for other types of seizures. Blow the whistle to notify Aaron Moffett or Lissa Fraser. First aid is usually not needed for other types of seizures unless the athlete suffered an injury during the seizure or unless a partial seizure becomes generalized (follow the first aid for tonic-clonic seizures).

Hints for Coaches and Staff
- Supervise athletes during activity, and especially during the cool-down period when seizures may be most likely to occur. Be aware of medication use and side effects.
- Understand first aid procedures, including first aid for bruises, etc. that may occur during falls or convulsive movements.
- Recognize factors that may precipitate seizures, such as head trauma, stressful conditions, changes in diet, hyperventilation, changes in blood alkalinity, onset of the menstrual period, psychogenic stimuli, changes in hormone levels, fatigue, or extreme exertion.
- Record the time, date, and conditions (e.g., exertion levels, stress factors, possible injuries) associated with the seizure.

### A Short Guide to First Aid for Seizures

| Cushion Head | Loosen Tight Clothing |
|---|---|
| Turn On Side | Nothing In Mouth |
| Look For ID | Don't Hold Down |
| As Seizure Ends | ...Offer Help |

### Wheelchair Transfers

18.    The information on this topic is provided to help you to teach or coach wheelchair users. The first set of guidelines consists of hints for using a wheelchair. The second set of guidelines are for people who push wheelchairs. The final set of guidelines describes ways of helping the wheelchair user transfer from the wheelchair to another location.

Basic Rules for Handling a Wheelchair
1.   If a seatbelt is needed, it should be snug at the athlete's hips.
2.   Use a seat insert to provide a firm base and back if necessary.
3.   Only push someone's wheelchair if they ask. Do not assume an athlete needs help.
4.   Take normal strides when pushing a wheelchair. Look ahead 5 to 10 feet for obstacles.
5.   On uneven ground, tip a chair onto its back wheels and push.
6.   On rough terrain, pulling may be easier and safer than pushing.
7.   Lock *both* brakes whenever the chair is stationary (with certain exceptions in sports to allow easy change of position).
8.   Lock brakes and remove footrests during transfers. *Never* allow an athlete to stand on footrests when transferring.
9.   If space is limited, fold the wheelchair when not in use, and place conveniently where the athlete can access the chair as needed.

Special Techniques for Maneuvering the Wheelchair
1.   Tilting - Place one foot on the tipping lever and push down while pulling back on the hand grips. Tip only until chair balances easily. Lower *slowly* using foot and hands.
2.   Ascending a curb - Tilt onto back wheels, push front wheels over curb, back wheels to curb, then place front wheels on curb and slowly lift and roll back wheels up the curb.
3.   Descending a curb - Preferred method is backwards. Rear wheels 90 degrees to curb, brace thigh against backrest and slowly roll rear wheels down the curb. Clear the curb in tilted position then lower.
4.   Ascending a ramp - Push wheelchair ahead. Place inside of foot and lower leg against a rear wheel and lock brakes if forced to stop.
5.   Descending a ramp - Turn chair around and go down backwards, unless ramp is very gentle and athlete has good trunk control.
6.   Doorways - If the athlete cannot assist, use your arm or leg to brace the door as you *pull* the chair through.
7.   Ascending stairs - Use two adults if possible. Pull chair up backwards, rolling over steps in tipped position. Second adult holds frame in front and helps lift and roll.
8.   Descending stairs - Use two adults if possible. Descend facing forward with chair tilted well back. Second adult stands on the lower step in front of the chair, ready to grab the frame if necessary. Roll chair down steps.
9.   Riding elevators - Enter backwards. If elevator does not stop level, exit backwards if it is possible to turn around in the elevator.
10.  Electric wheelchairs - Too heavy for curbs - use ramps only. Spot behind chair uphill, since electric wheelchairs don't have brakes. Drive zig-zag down steep inclines.

Body Mechanics for Persons Assisting with Transfers
1.   Plan the transfer

- Arrange the environment by removing obstacles and by positioning the wheelchair to minimize the distance the athlete must be carried.
- Prepare the wheelchair. Lock the wheelchair brakes. Clear away the footrests. Remove arm rests as needed.
- Determine the extent to which the wheelchair user can assist in the transfer. Encourage independence and/or partial assistance.
- Consider the position in which the athlete will be lifted. Avoid positions that cause interference from postural reflexes.
- Determine whether assistance is needed to lift the athlete. ALWAYS seek assistance if another adult is available to help. To lift heavier athletes, a third or even fourth person may be necessary. Protect both the wheelchair user and the people conducting the transfer from injury.

19.         2. Lift the athlete
- Prepare to lift the athlete. Position yourself at the same level as the athlete to be transferred, usually by squatting (bend the hips and knees). Keep your weight evenly distributed over both feet.
- Inform the athlete about the transfer and ask for his/her help.
- Hold the athlete close to your trunk. Position the feet to provide a stable base of support. Keep a slight arch in the lower back. Do not bend or twist the trunk. Tighten and hold the abdominal muscles (but continue breathing). Bend and straighten the hips and knees rather than the trunk -- let your legs do the work.
- When two or more persons conduct a transfer, one person should control the activity by giving directions to the others.

# Sports and Life Skills Program

# Survey Administrator's

# Training Manual

Aaron C. Moffett

Melissa G. Fraser

Gail M. Dummer

Department of Kinesiology

2004

## Setting

The surveys should be a friendly, comfortable environment for the participant. Make sure that each participant is seated comfortably and is provided with an appropriate writing implement. Ask participants to use the rest room before starting the surveys.

## Consent/Assent

On an earlier date, parents gave consent and athletes gave assent for the athlete to complete these surveys. You should use the assent script provided in the survey protocol (see below) to confirm that the athlete is willing to complete the surveys. Reassure participants that they may skip questions that they don't want to answer, that they can stop answering questions at any time, and that they won't get in trouble for skipping questions or discontinuing.

## Survey Protocol

### PREPARATION

- ☐ Bring this manual with you to data collection.
- ☐ Survey administrators are representatives of Michigan State University, the Department of Kinesiology, and Dr. Gail Dummer. Clothing with logos for products such as alcohol, cigarettes, drugs, violence, etc. are not permitted. Jeans with holes will not be permitted. Cologne or perfume should not be worn. Survey administrators should not wear jewelry that may be distracting to the participant.
- ☐ Prior to meeting for data collection, practice administering each survey and read the possible questions and answers for each survey. Make sure that you understand each question. If you have any troubles or questions about the surveys, please ask Aaron Moffett. You can contact Aaron Moffett at moffetta@msu.edu or at home (517-699-3806).
- ☐ Know where to locate the predetermined responses to possible athlete's questions.
- ☐ The lead survey administrator should practice the script below prior to data collection. The lead survey administrator will read the directions for each survey and start with the first question of each survey. The other survey administrators will make sure that the children understand the questions and help the athletes write their answers if they need help. Additionally, survey administrators should make sure that participants mark only one answer.
- ☐ Check in with Aaron Moffett 15 minutes prior to data collection. At this time, you will receive any last minute instructions, survey packets, blank pieces of paper, pens, pencils, markers, and stamps. You will also learn about your assignment for the day and the accommodations that some athletes may need or want. It is important to remember that each athlete is unique. The survey administrator should be cognizant of each athlete's needs to make the situation as comfortable as possible. Some of the sample accommodations that should be used while administering surveys include:
  - ❖ If an athlete cannot hold a writing instrument, allow the person to choose to use a stamp or highlighter. The athlete may also choose to have you mark their answers on the surveys.
  - ❖ Some children may not be able to write their own answers for the short-answer questions. Survey administrators should assist the participant in order to complete this part of the surveys. The participants may stutter or have spasticity in their facial muscles. Survey administrators must be patient and allow the participant time to tell them the answer. The survey administrator should then write the answer and ask if the participant would like to add to or change his or her answer.
  - ❖ Due to poor circulation, some participants may not be able to sit long in one position. The survey administrator should allow for the participant to move or readjust their body position as needed.
  - ❖ Some participants may have difficulties focusing their attention on the surveys. The survey administrator should conduct the surveys in a quiet environment with few distractions. Also, the survey administrator should be encouraging to the participants and tell the participant approximately how much time they have left. If the participant is too inattentive to complete the surveys, the survey administrator should take a break or reschedule the completion of the surveys at a later date.
- ☐ If a child is confused about a survey question, the survey administrator should make a stray mark next to the question without the child really noticing.

### INTRODUCTION

- ☐ Introduction. Each survey administrator should introduce him or herself before distributing the surveys. The introduction should include your name, your favorite sport, and your favorite color.
- ☐ Distribute surveys. Three survey administrators should distribute the survey packets and ask each child what type of writing utensil he or she would like to use while completing the surveys.
- ☐ Assent. The lead survey administrator will say, "Remember when you signed up for the program, we said that you would fill out a few surveys. Well, we have a few questions for you to answer because we want to learn about you and what you think about different things. If you do not want to answer a question, you are allowed to skip that question. You won't get in trouble for skipping questions. Just so you know, neither Aaron Moffett nor your coaches will know any of your answers because you will not be putting your names on the surveys. Are you ready to start?
- ☐ Guidelines to follow during the survey administration. The lead survey administrator will say, "The surveys ask several questions about you. Please be honest and tell us what you really think. There are no right or wrong answers. Please, let one of us know if you do not understand a question. We are not here to check on your answers but just to answer any questions you have and to help you. For example, there are some questions that you may need to write a couple of words down for an answer. We are here to help you write these answers if you would like. Just let us know if you think you want to go outside the classroom to tell one of the helpers your answer. Alright? (*pause for response*) When you are all done with the surveys, please put them back into your envelope and seal it. This way, no one will see any of your answers. Does anyone have any questions? (*pause for response*) Again, if you have a question while you are doing the surveys just let us know. You ready for the first survey? (*sound excited*)"

## WRAP-UP

- ☐ Thank the athlete for completing the surveys.
- ☐ Ask the athlete if he or she has any questions.
- ☐ Ask the athlete to put the surveys back into the survey envelope and seal it. If the child is unable to do it themselves, ask the athlete if you are allowed to put the surveys back into the envelope. Tell the athlete that you would like to put the survey in the envelope so that no one else will see his or her answers and so we can keep them in order.
- ☐ Ask the child to turn in the sealed survey packet to the survey administrator or assist the child with turning in the sealed survey packet if needed.
- ☐ Thank the child for completing the surveys again.

### Life Orientation Test - Revised

We would like to know about how much you agree or disagree with these thoughts. You have five choices for these questions: Strongly disagree; Disagree; Neutral; Agree; and Strongly agree. Circle or mark the answer that is most like you. Please, be as honest as you can and don't let one answer influence the other answers. And, remember, there are no right or wrong answers.

1.    In uncertain times, I usually expect the best.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

2.    It's easy for me to relax.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

3.    If something can go wrong for me, it will.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

4.    I'm always positive about my future.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|

5.    I enjoy my friends a lot.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

6.      It's important for me to keep busy.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

7.      I hardly ever expect things to go my way.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

8.      I don't get upset too easily.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

9.      I rarely count on good things happening to me.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

10.     Overall, I expect more good things to happen to me than bad.

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

## Responses to Possible LOT-R Questions

1. What does uncertain times mean?
"Oh, uncertain times means when you don't know what will happen next. So, when you don't know what will happen in a situation, do you think the best thing will happen?"

2. What do you mean to relax?
"Relax means that you think it is easy to just chill out or hang out and not worry about something."

3. Do good things, bad things, or both good and bad things usually happen to you? (Use your hands to explain. Wait for response) Okay, so do _____ things always or sometimes happen to you?

4. This means that you always think good things will happen to you.

5. What if I don't have any friends?
The survey administrator should say that we are asking about family and friends.

6. Is it important for you to always be doing something or do you like to relax and not do anything?

7. When you go into a new situation, do you think things will go your way, won't go your way, or both good and bad things will happen? (Use your hands to demonstrate. Wait for response) Okay, so do _____ things always or sometimes happen to you?

8. Upset means that you feel really bad about something.

9. "When you are making plans for an activity or something, do you think that everything is going to go well or do you think that bad things are going to happen."

10. In the future, do you think good things, bad things, or both will happen to you? (Use your hands to demonstrate. Wait for response) Okay, so do _____ things always or sometimes happen to you?

## Disability and Sports Coping Survey

In this survey you will be asked to describe ways in which you deal with problems and challenges in physical education and sport. Here are some sample problems:

- Have you ever been teased about your disability in school or sports? For example, Johnny was called mean names because he can't do the same sports skills as the other kids.
- Has your physical education teacher or coach treated you differently because of your disability? For example, Desiree's teacher has her watch while the other students do activities.
- Have you ever had trouble participating in physical education or sports because of lack of accommodations? For instance, Miguel could not participate in swimming because there wasn't a lift to help him into the pool. And, Michael could not understand instructions because there was no sign language interpreter and no one helped him to understand.
- Have you ever had a problem with doing worse than others in sports or physical activity? For instance, Margarita was not able to do all the push-ups that everyone else in the class was able to do.

Think about similar situations that have happened to you. Please, be as honest as you can, and remember, there are no right or wrong answers. Describe <u>one</u> problem like this that you have faced while participating in sports or physical education classes.

_____

_____

_____

Please, mark your thoughts for each question. Remember, there are no wrong or right answers.

1. How did you handle this problem when it happened to you? (circle one number in each row)

|  | Never | Sometimes | Often | Usually |
|---|---|---|---|---|
| Try harder | 1 | 2 | 3 | 4 |
| Ignore it | 1 | 2 | 3 | 4 |
| Get mad | 1 | 2 | 3 | 4 |
| Talk to the person who teased me | 1 | 2 | 3 | 4 |
| Ask for help | 1 | 2 | 3 | 4 |
| Make a plan | 1 | 2 | 3 | 4 |
| Think nothing happened | 1 | 2 | 3 | 4 |
| Wish I was someone else | 1 | 2 | 3 | 4 |
| Think about good stuff | 1 | 2 | 3 | 4 |
| Other _____ | 1 | 2 | 3 | 4 |

2. Looking back, how would you have liked to handle such problems? (circle one number in each row)

|  | Poor way | Good way | Best way |
|---|---|---|---|
| Try harder | 1 | 2 | 3 |
| Ignore it | 1 | 2 | 3 |
| Get mad | 1 | 2 | 3 |
| Talk to the person who teased me | 1 | 2 | 3 |
| Ask for help | 1 | 2 | 3 |
| Make a plan | 1 | 2 | 3 |
| Think nothing happened | 1 | 2 | 3 |
| Wish I was someone else | 1 | 2 | 3 |
| Think about good stuff | 1 | 2 | 3 |
| Other _____ | 1 | 2 | 3 |

3. How helpful were these people in helping you handle these types of problems? (circle one number in each row)

|  | Not Helpful | Somewhat Helpful | Helpful | Very Helpful |
|---|---|---|---|---|
| Parent | 1 | 2 | 3 | 4 |
| Self | 1 | 2 | 3 | 4 |
| Brother or sister | 1 | 2 | 3 | 4 |
| Friend | 1 | 2 | 3 | 4 |
| Classmate | 1 | 2 | 3 | 4 |
| Teammate | 1 | 2 | 3 | 4 |
| Coach | 1 | 2 | 3 | 4 |
| Teacher | 1 | 2 | 3 | 4 |
| Other_____ | 1 | 2 | 3 | 4 |

_____

4. How likely are you to be successful in fixing problems like this problem in the future?
[  ] Definitely
[  ] Very likely
[  ] Somewhat likely
[  ] Not very likely
[  ] Not at all likely

## Responses to Possible DSCS Questions

The lead survey administrator should read an example, pause, and then go to the next example. At this time, the other survey administrators should be helping the children that need help writing their answers. Some children may not want to say their problem out loud and thus you can have the athlete whisper his/her answer to you or you can go to another place for the child to fill out the first question.

The children will probably not have any questions about this question but they may be a little shy in answering it. If this is the case, survey administrators should ask the child if any of the examples have ever happened to them. If the child says yes, the survey administrator should ask the child if it is okay to ask a few more questions about his or her experience. Only if the child says it is okay to ask questions about his or her experience, the survey administrator should ask, "Tell me what happened when _____ (example: someone teased you)". Then, the child should write down the answer.

Some athletes will tell a very long and detailed story. Once the athlete finishes telling their story, ask the athlete if you can summarize the response. After the athlete gives permission, read the summary of the story to the athlete to make sure that you included the details that the athlete feels are important.

It is doubtful that this may occur but a child may not be able to think of a difficult situation. If this occurs, ask the child if he/she has ever not performed as well as they hoped or if they ever had difficulty learning a new skill. If they did, then ask them to write about this situation.

1a. What does handle mean?
"We're asking what did you do when _____ occurred. Like did you try harder, or ignore it, or get mad?"
1b. What does ignore mean?
"It means that you pretend nothing happened."
2. What do you mean?
"If this happened to you again, how would you like to solve or deal with the situation?"
3a. What if I don't have a brother or sister?
"You can skip this question and answer for the question about friends."
3b. What if I have a lot of brothers and sisters?
"Did any of your brothers or sisters help you?" If yes, "how helpful was your _____?"
4. "If this problem were to happen again. How successful do you think you would be in fixing the problem?"

Self-Perception Profile for Children

These questions are about what you are like. I will read a description about two types of children. First, I want you to decide which child you are more like. Sometimes, you may think that you are like both children but I want you to select which child you are more like. Once you have selected which child you are more like, I want you to decide if you are really like that person or sort of like that child. Then, check the box with that answer. Remember, there are no right or wrong answers. Are you ready to try the example!

What I Am Like

Sample Sentence

| | Really True For me | Sort of True for me | | | | Sort of True for me | Really True for me |
|---|---|---|---|---|---|---|---|
| a | | | Some people would rather play outdoors in their spare time | BUT | Other people would rather watch T.V | | |
| 1 | | | Some people feel that they are good at their schoolwork | BUT | Other people would rather watch T.V. | | |
| 2 | | | Some people find it *hard* to make friends | BUT | Other people find it's pretty *easy* to make friends. | | |
| 3 | | | Some people do very *well* at all kinds of sports | BUT | Other people *don't* feel that they are very good when it comes to sports. | | |
| 4 | | | Some people are often *unhappy* with themselves | BUT | Other people are pretty *pleased* with themselves. | | |
| 5 | | | Some people feel like they are just as smart as other people their age | BUT | Other people aren't so sure and wonder if they are as smart. | | |
| 6 | | | Some people feel like they are just as smart as other people their age | BUT | Other people aren't so sure and wonder if they are as smart. | | |
| 7 | | | Some people wish they could be a lot better at sports | BUT | Other people feel they are good enough at sports. | | |
| 8 | | | Some people *don't* like the way they are leading their life | BUT | Other people *do* like the way they are leading their life. | | |
| 9 | | | Some people are pretty slow in finishing their schoolwork | BUT | Other people can do their schoolwork quickly. | | |

| | Really True For me | Sort of True for me | | | | Sort of True for me | Really True for me |
|---|---|---|---|---|---|---|---|
| 10 | | | Some people would like to have a lot more friends | BUT | Other people have as many friends as they want. | | |
| 11 | | | Some people think they could do well at just about any new sports activity they haven't tried before | BUT | Other people are afraid they might *not* do well at sports they haven't ever tried. | | |
| 12 | | | Some people are usually *happy* with themselves as a person | BUT | Other people are often *not* happy with themselves. | | |
| 13 | | | Some people often forget what they learn | BUT | Other people remember things easily. | | |
| 14 | | | Some people are always doing things with *alot* of people | BUT | Other people usually do things *by themselves.* | | |
| 15 | | | Some people feel that they are *better* than others their age at sports | BUT | Other people *don't* feel they can play as well. | | |
| 16 | | | Some people *like* the kind of *person* they are | BUT | Other people often wish they were someone else. | | |
| 17 | | | Some people do very well at their classwork | BUT | Other people don't do well at their classwork. | | |
| 18 | | | Some people wish that more people their age liked them | BUT | Other people feel that most people their age *do* like them. | | |
| 19 | | | In games and sports some people usually *watch* instead of play | BUT | Other people usually *play* rather than just watch. | | |
| 20 | | | Some people are very *happy* being the way they are | BUT | Other people wish they were *different.* | | |
| 21 | | | Some people have trouble figuring out the answers in school | BUT | Other people can almost always figure out the answers. | | |
| 22 | | | Some people are *popular* with others their age | BUT | Other people are *not* very popular. | | |
| 23 | | | Some people *don't* do well at new outdoor games | BUT | Other people are *good* at new games right away. | | |
| 24 | | | Some people *are* not very happy with the way they do a lot of things | BUT | Other people think the way they do things is *fine.* | | |

# Responses to Possible SPPC Questions

Once all the athletes are done, the Disability and Sports Coping Survey, the lead survey administrator should read the directions for the SPPC and go over the first example. The lead survey administrator should say, "Some people would rather play outdoors in their spare time but other people would rather watch T.V. Which kid are you more like? I know some of you may think that you are like both people but which one are you more like? Did everyone pick the person they are more like? Now, are you sort of like this person or really like this person? Alright, now mark the box that fits that answer. Does anyone have any questions? Now, let's do the first question together. Some people feel that they are good at their schoolwork but other people worry about whether they can do the schoolwork assigned to them. Which person are you more like? Now, are you sort of like this person or really like this person? Does anyone have any questions? Alright, now you guys go ahead and answer the rest of the questions. Remember, there are no right or wrong answers. If you have any questions, just ask!"

As the lead investigator is going over the first example, the other survey administrators should be making sure the children are answering only one side of the question and do not have any questions about the survey.

The question on this survey are pretty easy to answer and children usually don't have trouble answering the questions. The only difficulty children have is that they answer both sides of the question or they can't pick between the two different types of children. If an athlete is having a hard time deciding between the two types of children, remind them that they should pick only one person but then they can mark sort of like.

Finally, a child may think that they are supposed to answer the way they feel most people would answer. They will say, "well, most people would like to play outdoors." If the child is confused, remind the child that he/she is supposed to choose the child that reminds him/her of him/herself.

# Sports and Life Skills Program

# Volunteer's Training Manual

Aaron C. Moffett

Melissa G. Fraser

Gail M. Dummer

Department of Kinesiology

2004

# Staff Responsibilities

Aaron Moffett: Student Investigator. Aaron Moffett's responsibilities include:
- supervising and coordinating all activities and life skills programs
- escorting athletes to the restrooms
- responding to emergencies
- speaking to parents about questions or concerns related to the program

Please see Aaron Moffett if you have any questions, conflicts, or concerns about the program or research. You can contact Aaron Moffett at 39 IM Sports Circle, 432-7121, or moffetta@msu.edu.

Lissa Fraser: Research Assistant. Lissa Fraser's responsibilities include:
- assist in supervising and coordinating all activities
- responding to emergencies

You can contact Lissa Fraser at 1 IM Sports Circle, 353-0728, or fraserm1@msu.edu.

Head Coach: The head coach is responsible for:
- developing lesson plans with Aaron Moffett prior to the activity.
- providing the general instruction for the daily activities to the assistant coaches prior to the physical activity session.
- supervising set-up and clean-up for daily activities and storing equipment. At Gier Community Center, the equipment is located in the storage closet in the gym. At Dwight Rich, the equipment is located in the storage closet in the computer room.
- wearing first-aid fanny pack at all times during the program.
- delivering the instruction during the physical activity sessions (with help from assistant coaches) During whole group activities, the head coach is responsible for explaining the activities and answering any questions based on the lesson plan previously established. During small group activities, the head coach is responsible for directing a small group.
- addressing any behavior problems.
- assisting Aaron Moffett with the completion of accident report forms.

Assistant Coach: The assistant coaches are responsible for:
- assisting the head coach set-up and clean up for daily activities and storing equipment.
- aiding the head coach during whole group activities. The assistant coaches are expected to help the coach to make sure the activity run smoothly.
- directing small group activities according to predetermined lesson plan (i.e. ball drills, dribbling activities.)
- wearing first-aid fanny pack at all times during the program.
- monitoring behavior changes that may represent a medical concern.
- assisting Aaron Moffett with the completion of accident report forms.

Volunteers: The volunteer ad responsible for:
- arriving 15 minutes before the program begins.
- checking in with Aaron Moffett or Lissa Fraser when you arrive.
- becoming familiar with the agenda for the day by talking with the coaches prior to the start of the activity.
- aiding children with mobility and general transportation.
- retrieving balls during an activity.
- holding balls on the cones.
- hold balls during Tae Kwan Do.
- assist as the head or assistant coach requests.

Volunteers are *NOT* responsible for:
- handling any medical situations.
- providing the general instruction for the daily activities.
- addressing any behavior problems.
- completing accident report forms.
- monitoring behavior changes that may represent a medical concern.

- set-up and clean-up.
- answering questions a parent may have about their child.
- discussing concerns a parent may have about the program or their child.
- assisting an athlete in the bathroom.

*If asked to do any of the previously listed tasks, you should direct that person to Aaron Moffett or Lissa Fraser. Under no circumstances should you perform any activities that are not listed under "Volunteers Responsibilities".*

## Attire

Volunteers are a representative of Michigan State University, Department of Kinesiology, and Dr. Gail Dummer. Volunteers are expected to dress for participating in physical activity. Clothing should be non-restrictive and age-appropriate. Clothing with logos for products such as alcohol, cigarettes, drugs, violence, etc. are not permitted. Jeans will not be permitted. Appropriate footwear is also mandatory. Volunteers should not wear earrings or dangling jewelry.

## Soccer Curriculum

| Week #1 | • Warm-up/stretching<br>• Dribbling drills: toe touches, soccer boxing, slalom, beat the clock<br>• Game: sharks and minnows, freeze tag, red light/green light<br>• Cool-down/wrap up |
|---|---|
| Week #2 | • Warm-up/stretching<br>• Passing drills: relay passing, pass it on, control and pass<br>• Game: Clean up your own backyard, target ball, capture it<br>• Cool-down/wrap up |
| Week #3 | • Warm-up/stretching<br>• Receiving drills: relay passing, off the wall, control and pass<br>• Game: British knights, line soccer<br>• Cool-down/wrap up |
| Week #4 | • Warm-up/stretching<br>• Shooting drills: still shoots, charge, score it<br>• Game: Set em' up and knock em' down, target ball<br>• Cool-down/wrap up |
| Week #5 | • Warm-up/stretching<br>• Throw-in drills: pick a spot, reach back<br>• Game: Target ball, knock it off,<br>• Cool-down/wrap up |
| Week #6 | • Warm-up/stretching<br>• Blocking drills: keep it out, feed and go, pin block<br>• Game: Keep it out, scrimmage<br>• Cool-down/wrap up |

## Sample Activities

Warm-up
- Stretching – hip, knee, and ankle stretches
- Mild aerobic activity – e.g., jumping jacks, modified sit-ups, arm circles

Drills
- Toe touches – dribble in random fashion in order to learn how different touches has different results on the ball
- Soccer boxing – kicking the ball with the inside of the feet trying to keep the ball in between feet
- Relay passing – have kids line up in two lines. The ball is then passed from line to line in succession
- Off the wall – pass the ball towards a wall and receive the rebound

- Still shoots – place balls at various spots on field and shoot balls toward goal
- Pick a spot – exchange turns throwing in the ball to teammates at various places on the field
- Keep it out – have selected teammates toss the ball towards the goal and other teammates roll the ball towards the goal

## Sample Games

- Sharks and Minnows (Dribbling): Use a square playing area. The kids line up with a ball on the edge of the playing area-these are the minnows. 2-3 players begin in the middle of the square without balls-these are the sharks. The minnows attempt to dribble to the other side of the square. The sharks are restricted to a crab walk. The sharks attempt to get the minnows' balls. If a shark gets a minnow's ball, the minnow then becomes a shark. The surviving minnows should stop at the opposite end of the square and wait for the coach to tell them to begin again. Any minnow that dribbles outside of the square also becomes a shark.
- Freeze Tag (Dribbling/Passing): Use a square playing area. Every kid has a ball. 2-3 kids (freezers) begin without a ball and are given scrimmage vests to wear. When the game begins the freezers attempt to tag the players. If a player is tagged, they must freeze by placing the ball on top of their head and spreading their legs. They can be unfrozen if a player passes the ball between their legs. If the person who is frozen uses a wheelchair, the teammate has to dribble the ball around the chair in order to unfreeze the person in the wheelchair.
- Red Light/ Green Light (Dribbling): Use a playing area that is long. Each player starts at the line. They are attempting to be the first to dribble over the far line. A coach yells red light or green light. If a player is dribbling during a red light, they must return to the beginning of the line. VARIATIONS: I always add other lights. An orange light may require the kids to dribble backwards. A purple light may require the kids to sit on the ball. A yellow light may require the kids to put their head on the ball. Therefore a yellow and green light would require the kids to dribble with their head.
- Bull's Eye (Passing/Shooting): The coaches will set up various targets on the field. Children kick or throw-in the ball at the various targets and receive different points depending on the difficulty of hitting the target.
- Ships and Icebergs (Dribbling): Use a square playing area with cones/disks spread out randomly. Have all the players except one start on the edge of the square with a ball. One player (the torpedo) should start at the opposite end without a ball. The players attempt to dribble to the other side of the square. If their ball touches a cone/disk they become an iceberg. When they are an iceberg they must stand on or near the cone. They cannot move from the cone, but can reach their arms out and tag other players. If a player is tagged by an iceberg they also become an iceberg. The torpedo attempts to tag players as well. If a player is tagged by the torpedo, they become an iceberg. The players are safe once they reach the other edge of the square.
- Pirates (Dribbling/Shielding): Use a square playing area. Half the players have balls and half do not. The players that do not have balls are pirates. They must cover one of their eyes with their hand and make pirate noises. The players who have balls must protect their treasure. The pirates attempt to take the treasure (no hands). If a player loses their treasure they become a pirate. If a pirate gains the treasure they just try to protect it and are no longer a pirate.
- Simon Says (Everything): This activity can be used for many different skills. Use a square playing area. Yell commands just like the Simon Says Game. For example: dribble, toe touch, soccer boxing, sprint dribble, etc. If a player makes a mistake they should do an activity to be allowed back into the game. This could be ten toe touches or a lap around the playing area or five star jumps.
- Knockout (Dribbling/Shielding): Use a square playing area. Every player begins with a ball inside the square. They are attempting to keep the ball. If their ball gets knocked out by another player they must leave the square. The player who is the last to have their ball knocked out of the square wins. VARIATION: Split the square into two equal halves. Every player begins in one square. When they are knocked out of that square they enter the other square and play in that square. If they get knocked out of the second square they can reenter the first square.
- Target Ball (Passing): Use a square playing area. A weird colored ball will be required. Split the players into two equal groups and have them line up on opposite ends of the square. Place the Target ball in the center of the square. Every player should have a ball. Both teams will attempt

to pass their ball into the target ball attempting to have it cross their opponent's line. The target ball can only be touched with other balls (not hands or feet). Players can only kick their ball from behind their own line. Players may enter the square to retrieve balls, but cannot kick those balls into the target ball.

- Shaggers (Shooting): You will need a goal for this game. A coach has a pile of balls just to the side of the goal. Every player lines up approximately 50-60 feet from the goal. A player must start as goalie, but the first goalie can never be eliminated during this time. A ball is passed to the first player in line and they must shoot on goal (first touch). If they make this shot then they come closer and receive a second pass on the ground (or are given a serve for a header) and they shoot the second ball (first touch). If both shots are successful the goalie becomes a shagger. This means they must shag (or retrieve) all of the balls that are not with the coach's pile. After shooting the player must be goalie for the next player in line. The players must always play goalie after shooting. If they are successful in playing goalie they go to the end of the line and wait their turn for shooting. If a player is unsuccessful with his first shot they become the goalie and do not receive a second shooting opportunity. VARIATION: If outdoors, the shaggers can catch any ball that is shot OVER the goal in the air (Of course they cannot be delinquent in their shagging). If they catch a ball, they reenter the game and shooter becomes a shagger.

## Sample Accommodations

Wheelchair users
- Wheelchair users will be able to dribble the ball in their lap or have a cardboard bumper placed on the front of the wheelchair so they can push the ball forward. They can pass the ball by throwing it.

Crutch users
- Crutch users will be able to use their crutches for balance while kicking the ball. They will also use the crutches for mobility. We will use balls that do not go far so that they will not have to move far to retrieve the balls.

Walker users
- Walker users will be able to place their walker over the ball. We will use balls that don't bounce as high and are light so that the ball will not hurt the frame of the walker.

Amputees
- Light balls will be used so that the prosthesis is not damaged nor is there jarring at the site of attachment.

## Tae Kwon Do Curriculum

| Week #1 | • Warm-up/stretching<br>• Flexibility: legs, hips, ankles, wrists, quadriceps, back, shoulders<br>• Cool-down/wrap up |
|---------|---------------------------------------------------------------------------------------------------------------------------|
| Week #2 | • Warm-up/stretching<br>• Stances: sitting, parallel ready, walking, and front stances<br>• Cool-down/wrap up |
| Week #3 | • Warm-up/stretching<br>• Punching: fist, knife hand, high, low, and straight punches<br>• Cool-down/wrap up |
| Week #4 | • Warm-up/stretching<br>• Kicking: front kick, back kick, descendent kick<br>• Cool-down/wrap up |
| Week #5 | • Warm-up/stretching<br>• Blocking: outer, inner, and rising form block<br>• Cool-down/wrap up |
| Week #6 | • Warm-up/stretching<br>• Self defense: grabbing, blocking, punching, kicking<br>• Cool-down/wrap up |

## Sample Activities

Warm-up
- Stretching – hip, knee, ankle, wrists, quadriceps, back, shoulders
- Mild aerobic activity – e.g. jumping jacks, modified sit-ups, arm circles

Order of skill development in each session
- Demonstration by coach for objective 1 (e.g. fist punch)
- Children practice skill by themselves without contacting any equipment or people
- Demonstration by coach for objective 2 (e.g. knife hand)
- Children practice skill by themselves without contacting any equipment or people
- Demonstration by coach for objective 3 (e.g. high, low, straight punches)
- Children practice skill by themselves without contacting any equipment or people
- Children do combinations of skills without contacting any equipment or people
- Children practice technique with tether ball – A tether ball is suspended from a line above the athlete and the athlete has to practice the skills with the ball
- Children take one or two step approaches and then perform skill with tether ball

## Sample Accommodations

Wheelchair users
- Wheelchair users may not have any motor control of their legs. Instead, they will demonstrate the same technique but they will use their arms.

Amputees
- The balls that we will use are very light. The coaches will also move the balls closer to the athlete so that they do not build too much momentum before striking the ball.

Walker users
- These athletes will be able to use their walkers while practicing. For instance, the athletes will turn their walkers around to practice front kicks.

Crutch users
- If the athlete needs both crutches to maintain balance while punching, the children will be able to sit and practice their punches.

Contractures or limited range of motion
- Some athletes may have contractures or limited range of motion. The children will only perform the skill as far as the range of motion allows. Therefore, the coaches will move the tetherballs at an appropriate distance from the athlete.

# APPENDIX G

## DATA

The data from this study is not included in an appendix because it is too voluminous. However, it is imperative to allow other researchers to have access to the data. If you would like a copy of the data, please contact Aaron Moffett or Gail Dummer.

| Aaron C. Moffett | Gail M. Dummer |
|---|---|
| College of Natural Sciences, California State University - San Bernardino 5500 University Parkway, San Bernardino, CA 92407-2397 Telephone: 909-880-5349 acmoffet@hotmail.com | Department of Kinesiology 138 IM Sports Circle Michigan State University, East Lansing, MI 48824 Telephone: 517-355-4744 Fax: 517-353-2944 dummer@msu.edu |

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