University of Alberta

Understanding Perceived Competence and Inclusion from the Perspective of Children with Disabilities

by

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Abstract

The general purpose of this dissertation was to investigate perceptions of competence and feelings of inclusion in sports and games from the perspective of children with disabilities between the ages of 8 and 12 years old. These constructs were central to this program of research given that perceptions of competence are linked to children's motivation to take part in activity and feeling included appears to be an important feature of children's positive activity experiences. The purpose of Study 1 was to explore the construct validity of Harter's (1985) Self-Perception Profile for Children – Athletic Competence Domain Subscale idiographically through the use of cognitive interviews. Children's comprehension, retrieval, judgment and response were examined in accordance with Tourangeau's (1984) question-and-answer model. Results led to concerns in the areas of comprehension and response. Specifically differing interpretations, limited response options and vulnerability featured in children's responses. In Study 2 this same questionnaire was used to investigate sources of comparison, the bases for self-judgments and determinants of competence. Most children appeared to hold high perceptions of competence. It was revealed that these children's primary sources of social comparison were peers with disabilities and family members. This may have been due to selectivity in sources of social comparison in order to maintain high perceptions of competence, or it could be a reflection of the activity experiences of these children. Study 3 employed semi-structured interviews to explore children's feelings of inclusion in sports and games. Three themes: permission to play, legitimate participation, and friends captured children's perceptions of what it meant to feel included and the salient features of inclusive contexts. In Study 4 children's

interpretations of feeling included were used to further investigate feelings of inclusion in association with high and low perceptions of competence, competitive and noncompetitive activities, and integrated and specialized settings. Feeling included was most often associated with high perceptions of competence, noncompetitive activities and specialized settings. However, children also expressed that feeling included was attainable in all of the aforementioned contexts. In all contexts, friends appeared to make the most significant contribution to children's feelings of inclusion.

Dedication

For my mom, Susan Jane Elizabeth Spencer

Her brilliance still shines in the hearts of her children (CKLS).

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CHAPTER 1

Introduction

The general purpose of this dissertation was to investigate perceived physical competence and inclusion in physical activity from the perspective of children with disabilities. Perceived physical competence is a construct linked to motivational theories that predict engagement and moderate effort (Bandura, 1986) in physical activity. Perceived physical competence is an individual's self-evaluation of athletic ability. In recent qualitative studies of children with disabilities, perceived physical competence appears to be an important construct in children's perceptions of inclusion, acceptance and satisfaction in physical activity. Therefore, the assessment of perceived physical competence, influences on these perceptions, perceptions of inclusion and the impact of perceived competence on feelings of inclusion in physical activity were examined from the perspective of children with disabilities.

Review of Literature

The importance of taking part in physical activity for physical and emotional health has been well documented in the literature. While the literature is less dense in exploring these benefits for children and youth, evidence indicates that physical activity participation for children and adolescents leads to greater levels of physical health through the prevention of chronic disease and injury, and greater levels of psychological wellbeing as seen through improved self-esteem and body image (Sothern, Loftin, Suskind, Udall, & Blecker, 1999). Additionally, children may also benefit from the learning of physical skills and opportunities to make friends and socialize. Similar benefits are also postulated for adults and children with disabilities who take part in

physical activity (Caldwell & Gilbert, 1990; Kasser, Collier, & Solava, 1997; Rejeski, Brawley, & Shumaker, 1996), although fewer studies have investigated the benefits for these populations. DePauw (2000) also identifies opportunities to develop social skills and friendships and to decrease isolation as important benefits. Furthermore, she suggests that increased expectations, challenge, acceptance, and others' understanding and appreciation of disability are salient outcomes of physical activity for people with disabilities. The importance of physical activity for people with disabilities is heightened as it may also contribute to the management of the worsening effects of particular disabilities that may be accelerated through inactivity (De Knop, 1998).

The role of people with disabilities in society has changed from a time of exclusion and isolation fostered by misunderstanding and fear, to one of greater inclusion, where people with disabilities have access to political, cultural and educational services (Reid, Dunn, & McClements, 1993). Definitions of inclusion vary widely from those associated with a specific setting and type of administrative practice, to much broader understandings of inclusion as it relates to access, opportunity, choice and human rights. According to DePauw and Doll-Tepper (2000), "inclusion should be considered a philosophical approach to implementing social justice in our schools and our society so that all persons are valued as unique contributing members of society" (p.139). Inclusion has been described as an attitude and process rather than a placement or program (DePauw, 2000) involving the right to have and exercise choice in an accessible society (DePauw & Doll-Tepper, 2000). In the context of physical activity the philosophy of inclusion implies rights, opportunities and choices for people with disabilities to take part in activity and activity settings and to be accepted and valued in those settings.

Accompanying this movement toward the inclusion of people with disabilities in many arenas of society has been an increase in opportunity to take part in physical activity. These opportunities are apparent through inclusion in school physical education, through the creation of segregated and integrated sports and leisure programs designed to target individuals with specific and or varying disabilities and needs, as well as in elite disability sport. Involvement in physical activity for people with disabilities may range from participatory and recreational to highly competitive.

Despite these growing opportunities for participation in physical activity and increasing evidence of the potential benefits of taking part, children with disabilities continue to have less access to physical activity facilities (Obrusnikova, Valkova, & Block, 2003) and demonstrate lower levels of physical activity involvement than their peers without disabilities (Longmuir & Bar-Or, 2000; Rimmer, Braddock, & Pitetti, 1996). Additionally, children with movement difficulties are more likely to withdraw from physical activity and spend more time alone (Bouffard, Watkinson, Thompson, Causgrove Dunn, & Romanow, 1996; Sherrill, 2004) which may interfere with skill development, social interaction, fitness, health and overall quality of life (Sallis, Patterson, Buono, & Nader, 1988). Limited participation and social isolation in physical activity settings continue to be problematic for children with physical disabilities (Blinde & McCallister, 1998; Goodwin & Watkinson, 2000). In the midst of a movement toward the inclusion and empowerment of individuals with disabilities in all areas of society and the importance placed on physical activity for health and well being, in particular for individuals with disabilities, these patterns are especially disconcerting.

Today, physical education is one of the most common settings, albeit not the only setting, where children with disabilities have the opportunity to learn physical skills and to be active. The integration of children with disabilities in school physical education classes (meaning children with and without disabilities are educated together) has evolved primarily throughout the later half of the 20th century. In particular in the last 25 years there has been a steady increase in the number of children with disabilities educated in general education settings (Block, 2000; Block & Obrusnikova, 2007; Kavale & Forness, 2000). This integration movement began with mainstreaming, then moved to the concept of the least restrictive environment and finally to what is now referred to as inclusion.

While various definitions and interpretations of inclusion have been proposed, it has most typically been defined in association with educational settings. In these settings inclusion is described as a place where all students, with or without disabilities are educated, supported and accepted, and where individual needs are met (Block, 2000; Stainback & Stainback, 1990). Furthermore, inclusion in schools is:

> More than a placement of students with a disability in regular education or physical education. Rather, inclusion refers to the process of including all students within community schools and classes with age-peers while at the same time providing appropriate education with necessary supports. Moreover, it is an attitude that everyone belongs. Inclusion means that students are admitted to regular physical education when they begin their education, rather than having to meet some criteria for admission, as

occurs with mainstreaming and least restricted environment perspectives (Reid, 2000, p. 376).

Within an inclusion model the general classroom is seen as the starting point for integrating a child with a disability. There is an implicit assumption that all children should be in the general classroom, and that individual needs can and will be met within this setting. Differentiating inclusion further from other models of integration is an emphasis on concepts such as support, belonging and acceptance. This idea is highlighted in Nirije's (1985) understanding of integration as inclusion which is "based on recognition of a person's integrity, meaning to be yourself – to be able and allowed to be yourself – among others" (p. 92). Previous educational models of integration appear to disregard these psychosocial aspects of taking part.

While inclusion in the educational setting is viewed as a major step toward the acceptance of people with disabilities, it is not without controversy. Debates have arisen over the appropriateness of total inclusion, where removal from the classroom based on disability is not tolerated. More moderate approaches supporting the potential need for alternate settings have emerged (Block, 1996) but what is best for the child has often been overlooked (Block, 1999). An underlying assumption of inclusion is that it is the right thing to do. Therefore, the primary goal of inclusion has been to include the child with other children without disabilities in the same setting. As a result the needs of the individual are only considered within an integrated framework and other 'inclusive' possibilities may not be examined. Other problems associated with inclusion in physical education revolve around the implementation of inclusive strategies, lack of support and a clear understanding of what inclusion is and how it can be achieved (Block, 1999).

Despite definitions that appear to provide direction for including children with disabilities in physical education, interpretation, implementation and identifying outcomes of inclusion remain problematic.

While inclusion in physical activity for children with disabilities is most commonly associated with physical education, opportunities for children with disabilities to take part in physical activity are not limited to this setting. Although little research has been published in this area (Sherrill & Williams, 1996), opportunities for children with disabilities to be active can be found in integrated and segregated activity and sport programs in the community. Examples of integrated activities for children and youth with disabilities include interscholastic athletics and community sport/activity programs. Typically, these are established sport settings that seek to integrate children with disabilities into general programs such as community team sports, with other children without disabilities. Segregated or specialized settings for individuals with specific and or varying disabilities are offered through disability specific associations or sporting organizations with emphasis on disability. In general these organizations provide opportunities to take part in a variety of sports or activities that range from participatory to competitive. Despite a movement toward inclusion and away from segregation, specialized activity settings for children with disabilities are still prevalent.

Inclusion in Physical Education

Given that the inclusion of children with disabilities in physical activity has taken place primarily in the physical education domain it is not surprising that the majority of research on the integration of children with disability in physical activity is embedded within physical education. Inclusion, integration and mainstreaming in physical education

have been primarily examined from the perspective of children without disabilities and teachers. In particular attitudes of teachers and students toward the inclusion and integration of students with disabilities have often been explored in this context (Hutzler, 2003; Kowalski & Rizzo, 1996; Kozub & Lienert, 2003; Sideridis & Chandler, 1997; Slininger, Sherrill, & Jankowski, 2000; Tripp, French, & Sherrill, 1995; Tripp & Sherrill, 1991; Vogler, Koranda, & Romance, 2000). In general this research has drawn attention to the pivotal role of teacher and peer attitudes in achieving the goals of inclusion. Outcomes of inclusion in physical education have also been investigated in terms of motor skill performance (Rarick & Beuter, 1985; Zittel & McCubbin, 1996) and socialization (Block, 1998; LaMaster, Gall, Kinchin, & Siedentop, 1998).

Based on these types of investigations, recommendations of strategies to accommodate children with disabilities in team sports and physical education have emerged (Active Living Alliance for Canadians with a Disability, 1994; Arbogast & Lavay, 1986; Block, 2000; Block & Vogler, 1994; Kasser, 1995; Lieberman & Cowart 1996; Mizen & Linton, 1983; Morris & Stiehl, 1999; Sherrill, 2004). However, few if any of these strategies were generated using information from the perspective of the child with a disability. To gain insight into what factors contribute to a truly inclusive experience, one where the critical components of the inclusion model such as acceptance, value and belonging are considered, the perspective of the child with a disability must be at the heart of the investigation. Research has tended to emphasize what children do in physical education, while little is known about what they think and feel (Peoples Wessinger, 1994) and this is particularly true for children with disabilities.

Inclusion and disability understood from the perspective of the dominant culture (Biklen, 2000) prevents deeper understanding of how the world is experienced from the perspective of individuals with disabilities. It is critical to remember that adult and child perceptions of reality may not be one and the same (Sanders, 1996; Weinstein, 1983) and as long as we limit our evaluation of inclusion to the perspectives of teachers, parents and peers we limit our understanding of what inclusion is and the factors that may contribute to meaningful and inclusive opportunities to be physically active for children with disabilities.

While there are a limited number of studies that have accessed the child's perspective in understanding physical education (for examples see Graham, 1995) there are even fewer that include children with disabilities. A partial explanation could be that the same barriers that have historically kept people with disabilities from full participation in society (Thiboutot, Smith, & Labanowich, 1992) continue to pervade various arenas, including research. Despite evolving rather quickly, research within the field of adapted physical activity, has been overwhelmingly quantitative and outcome based. Although integration and factors associated with inclusion have been a major focus in the area of adapted physical activity, in particular in the physical education domain, research on inclusion as a sense of acceptance, belonging and value from the perspective of the child with a disability, is a relatively new phenomenon.

A small collection of studies have investigated inclusion and the factors associated with it from the perspective of children with disabilities (for examples see Blinde & McCallister, 1998; Goodwin, 2001; Goodwin & Watkinson, 2000; Hutzler, Fliess, Chacham, & Van Den Auweele, 2002; Place & Hodge, 2001; Suomi, Collier &

Brown, 2003). In these studies a range of qualitative techniques such as focus groups, semi-structured and open-ended interviews, and formal and informal observations, were used to gain insight into the physical education experiences of children with disabilities. In general, meaningful and positive experiences were characterized by children as encompassing such things as a sense of belonging, perceiving oneself as competent and having appropriate supports to enhance participation. Negative experiences were comprised of social and physical isolation, restricted and limited participation, sadness and embarrassment. While a number of participants reflected similar experiences, individual differences also emerged.

Two aspects appear to be especially salient in the studies that have examined the perceptions of inclusion in physical education of children with disabilities. Firstly, physical education appears to be socially very difficult for children with disabilities (Blinde & McCallister, 1998; Suomi et al., 2003). Acceptance does not appear to be experienced in the eyes of children with disabilities, despite it being a goal of inclusion. Secondly, physical competence and perceiving oneself as a capable participant appear to be linked to feelings of inclusion in physical education for children with disabilities. Taking active roles in games and activities, getting to play with other children and having opportunities to demonstrate competence appear to lead to perceived feelings of inclusion, whereas observer roles and lesser roles that provide no challenge or opportunity to demonstrate competence lead to feelings of exclusion, frustration and sadness (Blinde & McCallister, 1998). It seems that teachers can have a major impact on the social experiences of children. However an appropriate curriculum and utilizing strategies for inclusion will not necessarily determine positive social experiences for all

children (Suomi et al., 2003) nor will it necessarily provide opportunities to demonstrate competence and to perceive oneself as a capable contributor.

Perceived physical competence and perceived social acceptance appear to be central to participation in physical activity and to perceptions of inclusion for children with physical disabilities. While social acceptance has begun to be recognized as a contributor to inclusive experiences for individuals with disabilities (Devine, 2004) and has been identified and examined as a major goal of inclusion in physical education (Block, 1998; Place & Hodge, 2001), perceived physical competence has received little attention in terms of its contribution to feelings of inclusion for children with disabilities.

Perceptions of Athletic Competence

Perceived athletic (also known as physical) competence, an individual's self-assessment of his or her ability to succeed in an athletic domain, is a construct that is central to several motivational theories. Harter's (1978, 1981) competence motivation theory is one of the most common approaches to the study of motivation in the area of physical activity and disability (Causgrove Dunn, 2003). According to this theoretical model individuals are motivated by a desire to demonstrate competence in various domains such as athletic, scholastic and social, among others. Harter's theory predicts engagement following successful attempts due to an increase in feelings of competence, and withdrawal or avoidance following unsuccessful attempts due to a decrease in feelings of competence. High perceived behavioural control and positive feedback from socializing agents also contribute to higher perceptions of competence, while low perceived behavioural control and negative feedback from socializing agents contribute to lower perceptions of competence (Harter, 1999).

If perceptions of competence are a major determinant of activity engagement, then individuals who lack competence in the athletic domain, as many individuals with disabilities do, may be at increased risk for inactivity and self-exclusion. For this reason it is important to understand the role of perceived competence in the engagement decisions and activity experiences of children with disabilities. Furthermore, given that children with disabilities are likely to have a unique set of activity experiences (e.g. in specialized and integrated programs), investigating the factors that influence perceived competence may assist in explaining their decisions to take part in or withdraw from activity. In a study that investigated perceived physical competence and physical awkwardness in children in grades 3 through 6, Causgrove Dunn & Watkinson (1994) found that children with physical awkwardness used various sources of competence information to make self-judgments. Of significant interest to this program of research were results that revealed some children with physical awkwardness, who had high perceptions of competence, used selective sources of social comparison and self-evaluation criteria. The authors suggested that this selectivity may be a strategy employed by these children to provide high perceptions of competence. While these children may have based their self-perceptions of competence on selective sources of social comparison and self-evaluation criteria to provide high perceptions of competence, it may also be that their unique activity opportunities and experiences influenced the selection of these criteria. Who children compare themselves to, and the criteria used for self-evaluation, may be associated with the kinds of experiences these children have in settings that are specialized and or integrated and subsequently linked to feelings of inclusion or exclusion.

Perceived competence is central to predicting engagement in Harter's (1978, 1981) theory, however it does not address why, according to the inclusion literature from the perspective of children with disabilities, this is likely to be important to engagement in inclusive settings. While success, failure, perceived behavioural control and feedback from socializing agents are linked to higher and lower levels of perceived competence and predict engagement, how these relationships affect decisions to engage in inclusive settings is not addressed. Of critical importance to the present program of research was accessing the child's perspective to gain insight into the factors that affect children's perceptions of inclusion. Research has identified perceived physical competence as a potential mediator of inclusion. Therefore, issues around the assessment and development of self-perceptions of physical competence and the role of perceived physical/athletic competence not only in decisions to engage, but also in feelings of inclusion in physical activity for children with disability, were investigated. In keeping with Reid's (1989) recommendations for generalizing theory, examining how children with disabilities assess their own perceptions of competence may provide important extensions to Harter's (1978, 1981) theory in addition to contributing to a deeper understanding of the inclusive physical activity experiences of children with disabilities.

The assessment of perceived competence and the cognitive processes of children with disabilities in question response were investigated in Chapter 2 using Harter's (1985) Self-Perception Profile for Children (SPPC) Athletic Competence Domain Subscale (ACDS). This questionnaire is commonly used in adapted physical activity research to make inferences about children's perceptions of athletic competence, yet children's cognitive processing when responding to these test items had yet to be

investigated. Cognitive interviewing was used to elicit information about children's thought processes, specifically, comprehension, recall, judgment and response when responding to questions about athletic competence. The results of this study suggested concerns in the areas of comprehension and response. Specifically, variations in the understanding of questions, and issues around the disclosure of sensitive information and limited response options were revealed. The results of Chapter 2 supported the use of interviews in conjunction with the SPPC-ACDS in Chapter 3, to gain an understanding of the influences on individual perceptions of athletic competence for children with disabilities. Understanding how children with disabilities come to know and understand whether or not they are good or bad at physical activity and the kinds of experiences that contribute to this understanding may provide critical insight into how perceived athletic competence might impact perceptions of inclusion. In this study children revealed several sources of social comparison, such as family and peers with disability outside of school as influencing perceptions of personal competence. The bases for self-judgment and determinants of competence were linked most often to performance and feedback and to effort and the impact of significant others, respectively. In Chapter 4 the voices of children with disabilities revealed the critical features of inclusion in physical activity. Children theorized about the meaning of inclusion and how feeling included could be realized in physical activity. Results of this study revealed similarities around factors influencing feelings of inclusion, such being invited to play, perceiving oneself as a legitimate participant and having friends. The roles of perceived athletic competence, type of activity (competitive or noncompetitive) and context (integrated or segregated) in feelings of inclusion in sport from the perspective of children with disabilities were

investigated in Chapter 5. Children theorized about competence, engagement and feelings of inclusion in different sport environments. Given that there may be fewer opportunities to be active beyond physical education for children with disabilities, insight into inclusive engagement in sport for children with disabilities is pivotal not only for health and well being, but also in furthering the goals of inclusion. Results of this study highlighted similarities and differences in children's perceptions of perceived competence, activity type and context in feelings of inclusion.

Research on inclusion in physical activity for children with disabilities has been focused on school physical education and has been studied from perspectives other than those of the child with a disability. Perceived physical competence, while having received substantial attention in studies of motivation and engagement in physical activity has yet to be understood from the perspective of children with disability and examined in the context of inclusion. Finally, opportunities for children with disabilities to be active beyond physical education are extremely limited. Insight into the extensions and limitations of inclusion in physical activity from the perspective of children with disabilities is a critical starting point to the provision of opportunities for children with disabilities to have choice, and to feel accepted, valued and competent in integrated physical activity domains beyond physical education.

Philosophical Perspective

Research is guided by different worldviews that are made up of a set of beliefs and assumptions about the world. These beliefs and assumptions influence, often unknowingly, how researchers formulate questions, select methods and explain phenomenon (Slife & Williams, 1995). Questioning personal research assumptions can

be a particularly arduous process that may necessitate a willingness to make oneself vulnerable to the criticisms and scrutiny of others (Bouffard, Strean, & Davis, 1998). On the other hand, the consciousness created by such a process and the diligence with which it is carried-out may have major implications for improving the quality and potential contributions of research toward understanding human behaviour. The forthrightness with which researchers outwardly acknowledge the philosophical perspectives guiding their research creates a platform for discussion and the opportunity to understand the world differently.

In addressing one's philosophical perspective, both ontological and epistemological perspectives must be revealed. While closely connected, these perspectives are also distinct. Ontology refers to what exists or what is in the world, and epistemology concerns how and if what exists can be known (Williams, 2000). The current program of research was guided by a soft version of ontological realism, and epistemological questions around the nature of knowledge were addressed from a critical realist perspective.

Ontological realism assumes the existence of a world that is independent of our knowledge of it (Sayer, 1992) consisting of the material or physical. A softer version of ontological realism includes in this objective world, the material, the social, as well as thoughts and ideas. These are independent of the researcher who seeks knowledge about them. This view asserts that social phenomena exist in the external world and not only in the mind (Miles & Huberman, 1994).

Epistemological perspectives about how and whether the world can be known are represented by a wide spectrum of approaches. At one extreme is a naive realist approach

that posits that direct access to the world as it exists can be attained through observation either directly, or inferred through some form of observable manifestation (Slife & Williams, 1995). In such a version of realism, reality or what exists, has a major influence on how it is represented, and the impact of human agency on these representations is limited (Sismondo, 1996). In other words, what exists external to the researcher and what can be known are closely connected. At the other extreme is a radical social constructivist approach. In this perspective emphasis is on the researcher and his or her work and its connection to representations, and the impact of the material world is negligible (Sismondo, 1996). The world and knowledge of it is based on human interaction and is constructed through relationships, groups of people and agreement.

A critical realist perspective acknowledges that there are limitations to the possibility of a direct representation of the social world, but asserts that it is possible to know something about this world. Accordingly, reality exists beyond the researcher, but "knowledge of it is conceptually mediated: facts are theory-dependent but they are not theory-determined" (Danermark, Ekström, Jakobsen, & Karlsson, 2002, p.15). While imperfect the researcher is able to produce representations that correspond to those of others and to control for his or her own interpretation through methodology that recognizes objectivity as an important feature of research. As a consequence, the methods guiding this program of research were selected based on the acknowledgement that the world exists independently of the researcher, that there is need to rigorously control for interpretation and the understanding that what is produced will be an inevitably flawed understanding of what is.

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CHAPTER 2

Investigating the Cognitive Processes of Children with Disability in Question Response

The development of self-report instruments to learn about how people think and behave is common practice in the social-psychological (Duda, 1998; Schwarz, 1999) and behavioural sciences. In the past few decades there has been a rapid resurgence of interest in the area of the self within various branches of psychology (Harter, 1999). This growth is evidenced by the development of instruments designed to measure constructs such as self-esteem, self-worth and self-efficacy, among others. Of these instruments designed to measure individual self-processes, several have also been developed for use with children. The use of self-report instruments to gain information about children's perceptions, thoughts and feelings is becoming increasingly more common, as accessing the child's perspective is viewed as a central part of child assessment and understanding (Flanery, 1990). Of particular interest to this study was the Athletic Competence Domain Subscale of the Self-Perception Profile for Children (Harter, 1985), a self-report instrument designed to measure children's perceptions of competence in various domains.

Development of Self-Report Instruments

The main emphasis in instrument development has been around issues of reliability and validity. Reliability is the consistency, dependability, precision and stability of test scores (Smith & Glass, 1987). It is often estimated using various methods and statistical techniques such as test-retest using the Pearson product-moment correlation coefficient, split-half using the Spearman-Brown prediction formula and

internal consistency using Cronbach's alpha. Concepts of validity have changed substantially over the years (Bouffard, 1993; Moss 1992) and multiple forms of validity evidence have been introduced. As stated by Borsboom, Mellenberg, and van Heerden (2004):

> The question of validity has evolved from the question of whether one measures what one intends to measure (Cattell, 1946, Kelley, 1927), to the question of whether the empirical relations between test scores match theoretical relations in a nomological network (Cronbach & Meehl, 1955), and finally, to the question of whether interpretations based on test scores are justified – not only in the light of scientific evidence but with respect to social and ethical consequences of test use (Messick, 1989). (p. 1061).

According to Messick (1989) construct validity is defined as the degree to which good inferences can be made based on indicators of the construct. It comprises most sources of validity evidence. Validity in this respect is about inferences, and is the degree to which interpretations derived from test scores are adequate, appropriate, relevant and useful (Messick, 1989). Currently, construct validity construed as interpretation and inference is often evaluated using rationalism and empiricism. The internal structure of tests is often assessed using statistical analyses to examine the relationships between responses to different test items as well as relationships with other measures. Statistical techniques such as exploratory factor analysis are used to infer the dimensionality of test items. Numerous techniques based on the analysis of correlations (or covariances) are relied upon for providing validity evidence and are often assumed to support the interpretation of test scores.

Recently, standard construct validity thinking (e.g. Cronback & Meehl, 1955) has been questioned by Borsboom et al. (2004) who expressed concerns about the applicability of the nomological network concept, and the associated analysis of correlational patterns, to problems of measurement in psychology. To Borsboom et al. (2004) no "table of correlations, no matter how big, can be a substitute for knowledge of the processes that lead to item responses. The knowledge of such processes must be given by substantive psychological theory" (p. 1068).

Borsboom et al. (2004) proposed a conceptualization of test validity reminiscent of the one put forward by Kelley (1927). They stated that "a test is valid for measuring an attribute if and only if (a) the attribute exists and (b) variations in the attribute causally produce variations in the outcomes of the measurement procedure" (p.1061). Stated differently, Borsboom at al. (2004) argued that validation efforts should start with an ontology (a theory of what exists) as opposed to an epistemology as espoused by Cronbach and Meehl (1955) and more recently Messick (1989). In this respect, the key concern in validity is that "the causal effect of an attribute on the test scores implies that the locus of evidence for validity lies in the processes that convey this effect" (Borsboom, 2005, p.151). Accordingly, validity evidence in instrument development should derive from the causal relationship between the construct of interest and the test score. To determine whether or not this is the case, the processes underlying test response need to be investigated. In brief, Borsboom (2005) and his colleagues (Borsboom et al., 2004) argue that theories about underlying psychological processes must be used to validate the interpretation of test scores. Theory about response processes have been available for a long time but are rarely used in sport and exercise psychology.

Cognitive Processes in Test Response

The questionnaire as a method of data collection is typically administered with a standardized set of questions, in a fixed order with fixed response options (Groves et al., 2004). Underlying the traditional standardization of testing instruments are assumptions that all respondents understand the questions and understand them in the same way, consistent with the intentions of the researcher (Collins, 2003). According to Tourangeau's (1984) question-and-answer model developed in cognitive psychology, respondents complete four actions, comprehension, retrieval, judgment and response, in order to answer a question (see Figure 2-1). Comprehension involves attending to and understanding the question. It may be compromised of such things as grammar and word meanings that are complex or vague, and by past experiences. Retrieval relies heavily on the respondent's memory and ability to access the relevant information to answer the question. Judgment involves formulating an answer and depends on the ability of the respondent to integrate the retrieved information and to draw inferences based on this retrieval (Tourangeau 1984). Finally, response requires mapping of the judgment by formatting and editing the answer onto a response category (Tourangeau, Rips, & Rasinski, 2000). The question-and-answer process has rarely been the focus of test developers however it is within this domain that some explanations to the problem of measurement error in questionnaire research may rest. Despite efforts to standardize tests and procedures used to collect information, errors in measurement continue to occur (Collins, 2003). Understanding what occurs between the moment a question is asked and the time is it answered is essential for construct validity and may provide insight into some of the challenges in test measurement.

Leighton (2004) identifies and describes three cognitive models for designing tests and understanding test performance. The first two, domain mastery and test specification, are used to establish the knowledge and skills believed to represent expertise in an area and the guidelines used to select a representative set of test items respectively. Essentially this involves identifying the critical components of an area of interest and the development and selection of items that provide an accurate representation of the area. A third model of task performance is designed to verify that test respondents are using the anticipated knowledge and skills to respond to test items, in short, how they respond to and process questions. Successful task performance reflects the question-and-answer process. In test development, close attention has been paid to the first two models. However, in order to validate these two models and to solidify inferences made from test responses, it is necessary to further investigate successful task performance (Leighton, 2004).

It is critical that respondents' interpretations of test items are investigated to ensure the perception of test items are congruent with researchers' intentions in order to increase the certainty that the inferences drawn from them are accurate representations. Stated differently, in order to determine whether or not a test is measuring what it intends to measure, investigating the question-and-answer processes of respondents, to reveal information about the causal relationship between construct and test score, is essential.

Verbal Reports

In an attempt to address and overcome some of these challenges, verbal report methods and protocol analysis have been successfully used to elicit information from children and adults to gain access to cognitive processes (Ericsson & Simon, 1993).

Cognitive interviewing, applied to questionnaire development is a verbal report method founded in cognitive psychology and has been used to obtain information about peoples' cognitive processes in response to test items. It is increasingly used as a pretest for survey instruments to examine the processes employed by respondents as reported by them, when answering questions. The results of cognitive interviews may expose errors in item interpretation and response, as well as providing direction for future item development and revision (Miller, 2003; Nàpoles-Springer, Santoyo-Olsson, O'Brien, & Stewart, 2006).

In general, cognitive interviewing may involve eliciting verbal responses to questions about past events, information retrieval, and question response using different methods. These methods typically consist of a think-aloud procedure where-in respondents are asked to verbalize their thoughts as they respond to questions and or verbal probing which involves asking questions designed to elicit information about the cognitive processes involved in responding. In essence, these verbal reports have the potential to provide, at least in part, the type of validity evidence necessitated by the conceptualization of validity put forward by Borsboom (2005) and Borsboom et al. (2004).

Despite the acceptance of studying cognitive processes, the trustworthiness and usefulness of verbal reports has and continues to be called into question (Ericsson & Simon, 1993) and this is particularly true for verbal reports given by children (Cooney & Ladd, 1992; McKenna, Foster, & Page, 2004; Schwab-Stone, Fallon, Briggs, & Crowther, 1994; Welk, Corbin, & Dale, 2000). For example, an individual's ability to articulate thoughts and a lack of awareness of cognitive processes may constrain the

information a respondent is able to provide (Collins, 2003) and this is certainly a concern for children. Thinking aloud also has the potential to impact the thought processes of respondents and may lead to assumptions that there are problems with questionnaire items where in fact there are none (Ericsson & Simon, 1993). Drennan (2003) further identifies the artificiality created by the interview process and analysis as overtly subjective, as problematic. In a review of the literature, Ericsson and Simon (1993) address these issues of trustworthiness by suggesting that verbal reports can be critical and reliable sources of information if collected under the proper conditions and interpreted appropriately. If the use of verbal protocols to access cognitive processes has the potential to increase the certainty of inferences made from test scores and to further the acquisition of knowledge, it is of great consequence to research in the behavioural and social-psychological sciences. Standardized tests typically do not elicit verbalization from participants, however it is this verbalization that is more likely to provide insight into adult's and children's thinking (Ginsburg, 1997) and bring greater clarity to the question-and-answer issue in test development. Despite current limitations, verbal reports and in particular cognitive interviews, may allow for an understanding of the question response process (Drennan, 2003) and provide validity evidence not revealed through the use of other methods.

While there is a limited amount of research using cognitive interviews with children for purpose of questionnaire development beyond question understanding (it is frequently used in crime psychology with child witnesses), it has been used with children by survey developers in health research and in educational measurement and assessment. In the development of a survey to examine children's reports of their own health Rebok

et al., (2001) used cognitive interviews to explore ways of asking children questions, item presentation, response formats, children's response abilities and content knowledge. Results of this study revealed age-related differences in item and response format comprehension. The authors found that children as young as eight were able to self-report using up to five response options, but younger children had difficulty with question understanding, in part due to lack of content knowledge and the response format. These differences were attributed primarily to cognitive developmental differences. In educational measurement and assessment, cognitive interviews are most commonly used to examine the cognitive processes underlying students' performances on ability and achievement tests (Leighton, 2004). Norris, Leighton and Phillips (2004) demonstrated the use of verbal reports in revealing the underlying causes of students' performances on achievement tests. Examples from critical thinking, mathematics and reading were provided to illustrate how verbal report methods can be used to access information about cognitive processes in test response. The results highlighted differences in students' thinking, patterns of attention, dependence and reliance on information, strategy use and knowledge structures to explain test performance, providing information about why students answer in the ways that they do. This information could not have been gained through item response alone.

Self-Perception Profile for Children – Athletic Competence Domain Subscale

In psychology, numerous instruments have been developed to gain a better understanding of self-concept (for examples see Harter, 1990). Self-concept is an individual's assessment of him or herself within a particular domain and is simply described as how an individual sees him or herself. Specifically, Harter's (1985) Self-

Perception Profile for Children (SPPC) was created in keeping with a multidimensional approach to self-concept. It was developed to tap perceptions of self in various domains such as scholastic competence, social acceptance, athletic competence, behavioural conduct and physical appearance for children between the ages of 8 and 12 years old. The development of this instrument emerged out of Harter's (1978, 1981) cognitive developmental theory of competence motivation, one of the most prominent theories used to understand children's motivation in various domains. This theory has also been used to understand motivation for children with disabilities (for examples see Causgrove Dunn & Dunn, 2006; Renick & Harter, 1989; Shapiro, Moffett, Lieberman, & Dummer, 2005; Sherrill, Hinson, Gench, Kennedy & Low, 1990; Yun & Ulrich, 1997).

According to this theory (Harter, 1999), children's perceptions of competence are influenced by 3 primary factors and the affective responses generated by them. Experiences of success, perceived control over outcomes and positive feedback from socialization agents such as parents, teachers and peers are postulated to increase perceptions of competence and lead to motivation. The opposite is predicted when a child experiences failure, low perceived control over outcomes and when feedback is negative. The different sources of competence information children attend to change as they develop. These same cognitive-developmental changes also lead to self-representations that become more situation specific, meaning they become more differentiated across domains. At around the age of eight children begin to integrate both positive and negative representations about the self, meaning they can perceive themselves to be both nice and mean or smart and dumb, whereas in early childhood these opposites do not coexist. (Harter, 1999).

As reported by Harter (1982) the preliminary structure of the development of the SPPC previously known as The Perceived Competence Scale for Children, involved examining existing scales to identify principal domains of competence relevant to children. Interviews were then performed with children to determine the activities that were most salient in the three domains, cognitive competence in school, physical competence in sports and social acceptance by peers that were identified from the existing scales. A fourth domain of global self-worth was added in keeping with Harter's (1981) model of competence motivation. After initial item construction, feedback from children about the meaningfulness of the items was used to make revisions. Validity evidence for the scales was then sought through the analysis of factor patterns and correlations. The revised version of Harter's (1985) instrument also includes subscales of behavioural conduct and physical appearance and the analysis of factor patterns and correlations were again used to provide validity evidence. A structured alternative question format for this instrument was designed to limit socially desirable answers. For example in the Athletic Competence Domain Subscale (ACDS), children are asked to identify if they are more like 'some kids who wish they could be a lot better at sports' or 'other kids who feel they are good enough at sports' and then decide whether the statement is 'really true' or 'sort of true' for them. Items are then scored on a scale of 1 to 4, where 1 indicates low perceived competence and 4 indicates high perceived competence (see Appendix for complete subscale).

Beyond providing evidence for the psychometric properties of the instrument, Harter (1985) also discusses a number of additional considerations around whom the scale should be used with based on cognitive-developmental differences and past

experiences (including special populations), the processes involved in social comparison, bases for self-judgments and determinants of competence. Although in the reported description of scale construction, interviews with children were completed to identify relevant and meaningful domains of perceived competence (Harter, 1982) no evidence is reported regarding children's understanding of the items on the questionnaire and the processes involved in responding to these items. Children's comprehension, information retrieval, judgment making and response to items on the questionnaire require investigation in order to ensure the usefulness and appropriateness of the inferences drawn from test scores and to determine whether or not the items are measuring the constructs they are intended to.

Purpose

The purpose of this exploratory, idiographic study was to examine the cognitive processes of children with disabilities when responding to the items of the SPPC-ACDS (Harter, 1985). Specifically the goal was to investigate comprehension, retrieval, judgment and response in item response of this subscale to gain a better understanding of what children are thinking when responding to items and in particular items designed to elicit information about personal perceptions of athletic competence. It was hoped that the results of this study would provide information and future direction regarding the usefulness of this scale in subsequent idiographic studies with children with physical disabilities who are involved in specialized sport.

Method

Participants

A purposeful sampling strategy was used to identify children who would be information-rich cases about the concerns of key importance to the purpose of this study (Patton, 2002). Children were therefore recruited from two specialized sport and physical activity organizations for children with disabilities. While recruited from specialized disability sports programs all children had experience in integrated settings through school physical education and or community sport. The children in this study presented with a range of disabilities including: diplegic or quadriplegic cerebral palsy, obstetrical brachial plexus injury resulting in limited shoulder and arm mobility, developmental coordination disorder and severe asthma. All children were able to ambulate independently with the exception of one child who required a walker for short distances and otherwise used a wheelchair. In accordance with Willis' (2005) recommendations for cognitive interviewing, eight children, 7 boys and 1 girl between the ages of 8 and 13 years old, took part in this study. While the SPPC was developed for children between the ages of 8 and 12 years of age, one child had turned 13 just five days prior to the interview. Given that a five day age difference was unlikely to factor in cognitively or developmentally, the child remained a part of the study. Approval for this study was provided by a University Research Ethics Board and from the organizations from which the children were recruited. A parent of each child provided informed consent and children were asked to indicate if they were willing to participate in the study. Only children for whom informed consent was received and who indicated a willingness to take part did so.

Data Collection

Two sources of data collection, the questionnaire and interviews were triangulated with reflective notes taken by the researcher.

Measure. The SPPC-ACDS (Harter, 1985) was used to guide cognitive interviews with children with disabilities. This subscale consists of 6 items with statements corresponding to high and low competence. The child completes each item by first selecting a description of children who he or she perceives to be like him or her and then indicates whether the chosen statement is 'sort of true' or 'really true' for him or her. Items are scored on a 4-point scale with 1 indicating low perceived athletic competence and 4 indicating high perceived athletic competence. Reported internal consistency reliability for the SPPC-ACDS ranges from .80 to .86 and factorial validity was demonstrated with the average loading of items ranging from .41 to .81 (Harter, 1985).

Interviews. Each interview began with the interviewer explaining to the child that he or she did not have to answer any questions he or she felt uncomfortable answering and that he or she could stop the interview at any time. The child was then instructed how to answer the items of the SPPC-ACDS according to Harter's (1985) recommendations and completed a practice question. An interview guide consisting of a standard set of verbal probes was developed in keeping with the question-and-answer model developed in cognitive psychology. Probes to elicit information about comprehension, retrieval, judgment and response were developed (see Table 2-1 for sample probes) and paired with items from the SPPC-ACDS to guide semi-structured interviews using cognitive interviewing techniques. The order of the statements on the original questionnaire was maintained to reflect the structure of the questionnaire and were read aloud to support the

interview format. Two cognitive interviewing strategies using concurrent probing (Willis, 2005) were used as children completed the questionnaire statements. The think-aloud technique involved asking participants to verbalize their thoughts as they answered questions. Children were asked at the beginning, and reminded during the interview, to tell the interviewer what they were thinking as they responded to the questionnaire statements. Verbal probing, as recommended for use with children (Willis, 2005), was also used to gather information. Verbal probing involved using direct questioning to gain a better understanding of how children made decisions about and answered the questionnaire statements. A questionnaire item was initially read aloud by the interviewer, the child responded to the statement, and then to the interviewer probes (see Table 2-2 for a sample of the interview). Interview strategies and questions were confirmed with another researcher familiar with cognitive interviewing. Two pilot studies took place, one with a child with a disability (spina bifida) and one with a child without a disability, both of whom were 10 years old, to ensure the questions were clear and that the interviewing techniques were implemented properly. Based on the information gained from the pilot studies the number of verbal probes was reduced to a maximum of two per statement due to issues of attention. Therefore comprehension, retrieval, judgment and response probes were not used for each item but varied across the items. Interviews took between twenty and forty-five minutes and were audio taped.

Reflective Notes. Following each interview, the researcher recorded notes on what had taken place. Impressions of the children, their responses to the cognitive probes and initial thoughts on the question-answer model categories were documented.

Analysis

Interviews were transcribed verbatim. Informal and formal analyses of the interviews for the purpose of examining the cognitive processes of children when responding to questions took place using interpretive notes and coding schemes respectively. Given that both think-aloud and verbal probing protocols were implemented concurrently in this study, methods for analysis reflected both techniques.

According to Willis (2005) informal analysis of the think-aloud and verbal probing protocols requires a review of each segment of the interview on a question-by-question basis. This type of analysis involved recording interpretive notes based on the transcripts, which were then examined to determine consistent themes and provide direction for how questions might be improved. A formal analysis of these protocols involved assigning coding categories on the basis of obvious triggers to different segments of the interview. These coding categories were developed in advance based on the question-and-answer model. Categories therefore included comprehension, retrieval, judgment and response to reflect the cognitive processes used when answering questions. Participants' responses to the questionnaire items were coded according to these categories. While the less formal approach of analysis, the use of interpretive notes, is more common in the cognitive testing process, the more formal approach of applying coding categories was carried out in order to illustrate any difficulties experienced in the cognitive processing of questions and answers.

Trustworthiness of research findings is of key importance in qualitative research (Patton, 2002). To increase the credibility of the findings two pilot studies took place prior to the main study. In keeping with the results of the pilot studies, the number of

probes and wording of questions were modified. The pilot studies also provided an opportunity for the researcher to practice her interviewing skills, to make adjustments and to reflect on the interview process. Multiple sources of data were used to confirm and enhance the credibility of the research findings. This included the numerical responses to the questionnaire items, the interview data and reflective notes. Dependability was sought through the use of a second coder familiar with cognitive interviewing in instrument development who performed an independent analysis of the data.

Results

The informal analysis of the results took place initially, however the use of coding categories was found to be most useful in the analysis of the transcript data. The children in this study rarely employed the think-aloud method, despite reminders to do so. Verbal probing was relied upon heavily for this study and was reflected in the use of the formal analysis categories in deductive coding as the primary method of analysis. The interpretive notes taken during the informal analysis supported the formal analysis. Four primary categories: comprehension, retrieval, judgment and response were used to organize the data. Additional sub-categories emerged under the primary categories. The results are presented in the children's own words.

Comprehension

The primary issue for comprehension was whether the children understood the statements on the questionnaire in the same way as intended by the researcher. Children were asked to repeat the statements in their own words, to describe what they were being asked and to define different terms to ascertain if there was a match between respondent

comprehension and researcher intention. Two subcategories emerged from the main category of comprehension: understanding and other interpretations.

Understanding. While all children were not asked comprehension related questions for each statement, in general children demonstrated an understanding of the questionnaire statements that was fairly congruent with the researcher's intention. While children at times interpreted statements in slightly different ways, for the most part these interpretations were similar to those of the researcher in that children's responses confirmed that the meaning of the statements was understood. This was evidenced in the following dialogue with Ryan:

Interviewer: Some kids wish they could be a lot better at sports, but other kids feel they are good enough at sports. So what is the difference between those 2 kids?

Ryan: Umm, one kid's like bad at sports and another kid feels he's really good.

While not a direct interpretation, Ryan's paraphrasing demonstrates his understanding of the difference between the children in the statement. In the first case he reported the child's actual competence which he likely assumes is predictive of perceived competence. In the second part of his response he indicated his understanding that it is not actual competence but perceived competence that the statement refers to. Michael displayed his understanding of the statement 'some kids think they could do well at just about any new sports activity they haven't tried before, but other kids are afraid they might not do well at sports they haven't tried before' when he stated that "...these kids, the first one I read, they're the kids that like are really good at stuff and these kids think they're not as good as the kids I read before." Likewise, Ethan responded to a comprehension probe about the statement 'some kids feel that they are better than others

their age at sports, but other kids don't feel that they can play as well' by pointing to the second half of the statement and saying " these kinds of kids don't feel that they can do good."

Children were also asked to explain what the word 'sports' meant. Children often provided examples of different kinds of sports and or skills that involved sports performance. When asked what sports were, Megan said "sports involve kicking, running, maybe doing very high jumps" and cited soccer as an example. Tristan provided examples of sports that included: skiing, baseball, soccer and snowboarding, while Josh included examples of hockey and curling. In the following dialogue Ethan shared his broad understanding of what he thought sports were:

> Interviewer: What do you think sports are?
>
> Ethan: Sport are umm, fun activities for umm all kinds of people to do and just to get out and exercise for playing around, recreation, or umm, or if they are being competitive and want to race their friend in a sprint race or in a jump rope race to see how many can get the most jumps."

While the children provided different sports examples and different interpretations of sports, these were consistent with the physical activity domain.

Other interpretations. Despite examples and paraphrasing of statements that appeared to match with the intention of the researcher for the domain of athletic competence, differences in the children's interpretations were also apparent, which may or may not have implications for comprehension. Continuing the dialogue with Ethan:

> Interviewer: Okay, so you said like a sprint race or jumping thing, can you give me some more examples of other kinds of sports?

Ethan: Umm, friendly sports where you are just playing for fun with your friend, you are just playing for fun and you go easy on each other and you're not too competitive you can still be competitive a little bit, but not too competitive, like 'err, you're going down, you're gonna eat my dirt.'

In his examples, Ethan also incorporated the ideas of goal structures and motivational climates that have social and emotional implications. While his descriptions fell within the athletic domain, his interpretations differed from those of other children, possibly influencing retrieval, judgment and response differently. If this was the case then it would violate an assumption of the question response process, that respondents understand questions in the same way (Collins, 2003). This same concern is illustrated in the following quotes from children when they were asked to paraphrase statements:

Interviewer: Now can you tell me in your own words what I was asking you about in that question [about some kids do very well at all kinds of sports, but other kids don't feel that they are very good when it comes to sports]?

Billy: Am I comfortable doing sports.

Interviewer: In games and sports some kids usually watch instead of play, but other kids usually play rather than watch. [What is that question asking you?]

Megan: This question was asking me if I like to take part in sports, and I do.

Interviewer: Some kids wish they could be a lot better at sports and other kids feel they are good enough at sports...can you tell me the difference between the kinds of kids I just described?

Nicholas: Well some kids are really good to start off, most kids are.

In the following question Nicholas provided more insight into his understanding of the children in the statement 'some kids think they could do well at just about any new sports activity they haven't tried before.' "Umm basically, this group has to uh, try to have more fun then, because umm, if you don't try you won't succeed at any goal you set for yourself." While appearing to reflect the athletic domain, children's comprehension of questions differed from one another, were laden with values (perhaps their own or ones they think adults hold and may want to hear) and tied to emotions. Differences also emerged in definitions of sports. Megan when asked if dancing was a sport responded that it wasn't "because dancing is more of a fun-time activity." She included in her definition of sports the idea that "lots of people have to try their best and this is what sports are all about." Billy said that sports meant "excited" and Josh reported amid his examples of what sports were that dancing and yoga were not sports.

What is most salient in the information provided by children around comprehension is that while seemingly consistent within the domain of athletic competence, children had interpretations that differed from each other. Furthermore, these differences may have implications for the interpretation of test scores assumed to tap the same domain in the same way for all participants.

Retrieval

In asking questions to elicit information about retrieval processes, the participant typically has to access information, factual or attitudinal to provide a response (Collins, 2003). After an item was read aloud and the child had selected an answer, the interviewer used verbal probes to investigate what the child was thinking about in response and the

kinds of information recalled in providing an answer. Two subcategories emerged from the main category of retrieval: skills and performance, and past events and engagement.

Skills and Performance. In recalling information about how they answered questions, children frequently referred to their own sports skills and performance. For example, Tristan indicated that he felt good enough at sports because "[in skiing] I do sharp edges and I go fast." Megan selected really true, that she was more like other kids who don't feel that they are very good when it comes to sports. In her retrieval response she said, "because I'm not very good at soccer, I can't kick very hard or stop it." In the next question she indicated that she wished she could be better at sports by answering with "I say that because I really want to improve my kicking and my throwing." Use of skill performance knowledge for decision making about athletic competence is further exemplified in the following quotes:

> Ethan: Because, umm, swimming, I can actually swim and really well actually...and umm, and I can do all sorts of stuff and soccer I kick really well. My secret kick is where I run back and then run up really fast and boot the ball.
>
> Josh: Like when I miss or aren't doing very well at the first few minutes or days then I want to get better cause I want to work and I want to do the sport they give me.
>
> Nicholas: Because umm, usually you can tell right off the bat who's good and who's not.
>
> Interviewer: Okay, and how do you know?
>
> Nicholas: Because umm, you can obviously see.

Past events and Engagement. Children used examples of past experiences and taking part when answering questions about what they were thinking when filling out specific questionnaire items. "Like when I play sports, like when I get hit with the baseball when I play baseball, I chickened out" responded Josh to a retrieval probe about his selection of being more like other kids who don't feel they are very good when it comes to sports. Billy indicated that he was more like kids who think they could do well at just about any new sports activity they haven't tried before because he had tried new things before and felt he did pretty well at them. Michael decided he was more like the kids who do very well at all kinds of sports. The following dialogue illustrated how a past experience of being selected to play in a group informed his decision.

> Michael: Because like when like if you're playing hockey or soccer you know how you get to split up into group 1 and group 2?
>
> Interviewer: Ya.
>
> Michael: When you do that you, when you get split up, if you're in group 1 you are really good and if you are in group 2 you're not as good as the others.
>
> Interviewer: Ah, so that is one way that you would know that you are good, cause you get put in group 1.

Skills and performance, and past events and engagement were often referred to in tandem. In a subsequent response Josh said "like when I go try something like baseball, it's like, it's like, I don't do well, like at first I keep hitting and hitting and missing and missing." Ryan responded to a retrieval probe about thinking he would be good at something he had not tried before with, "umm, because like I try different things, like last year I did long distance running, this year I did short and our team came in third

so that kind of gives me a boost of confidence." When asked how he made his decision that he was more like the kids who do very well at all kinds of sports he said, "cause I play a lot of sports, like I do running club, hockey, like I play hockey outside with my friends...yah and like I play different sports, last year my soccer team won silver." These quotes also illustrated how he employed team performance as part of his decision making for his personal perceptions of competence.

At times children described their decision making based on personal characteristics such as exerting effort, persistence and having fun. One child, Billy, had difficulty when asked how he decided to answer and what he was thinking when selecting an item response. For example, he responded to two different questionnaire item retrieval probes with "I just know" and when probed further insisted that he just knew. This highlights what could be a limitation of the interview methods, the interviewer and or the verbal abilities of the child. It could also be that the child's emotional response to competence questions was a constraint or that 'just knowing' was the intangible basis for decision making.

The memories recalled to make decisions about the questionnaire items appeared consistent with the athletic domain, although children used different sources of retrieval information to make their item selection.

Judgment

Judgment involves the process of formulating an answer to a questionnaire item. In order to do this comprehension, retrieval and response information may be used by the participant. In this study children were asked about the certainty of their responses. Only one subcategory emerged within judgment, that of certainty.

Certainty. When asked how certain they were about the answers they provided, all eight children indicated that they were either 'sure' or 'really sure' about their answers. Regardless of differences in interpretations, retrieval strategies or response, children indicated a high and unwavering degree of certainty about their answers.

Response

In responding to a questionnaire item participants format and edit their responses. In formatting, the participants in this study had to select 1 of 4 boxes to indicate their perception of athletic competence for each item. Prior to indicating a response, participants may also decide to edit their answers because of such things as social desirability and self-presentation (Schwarz & Oyserman, 2001). Three subcategories emerged within the main category of response: easy, vulnerability and limited options

Easy. When probed about the difficulty of answering questions, children most often responded that the questions were "easy" to answer because they knew the answer right away. When questions were not described as easy to answer reasons provided had to do with the emotional response evoked when acknowledging low perceptions of competence or perceived limited response options as evidenced in the following two subcategories respectively.

Vulnerability. Some children found it difficult to make questionnaire selections and respond to verbal probes when addressing feelings of low perceived competence. This may in part be due to issues of social desirability and self-presentation that left children feeling vulnerable. When asked if a question was difficult to answer Josh nodded and responded "like do I want to tell her the truth or should I just make it up or stuff like that." In answer to a subsequent response probe Josh said "if you don't feel you're good

at it, it's hard" highlighting his feelings of discomfort. While Nicholas said he found the questions pretty easy to answer, when asked how he felt about answering the questions he said, "umm, they are good for me cause then I get to uh, use examples and I really express how I feel." More often than not Nicholas made item selections that indicated low perceived competence. Though he expressed feeling vulnerable, he also perceived the interview as an opportunity to share these feelings.

Limited options. For the most part children indicated that the questions were easy to answer because they knew their answer right away, however when children did express that a question was hard to answer it was often because his or her answer did not fit into any of the four boxes provided. On at least one item, 6 of the 8 children indicated that they felt they were either in the middle or could be both of the statements. For example, when read the statement 'some kids feel they are better than other kids their age at sports but other kids don't feel they can play as well' Josh and Ryan responded that they could be both. Tristan hesitated in answering this same question and then said "actually, I do the same." On the next item Tristan indicated that he played and watched when it came to games and sports. Similarly limited response options were brought to light in the following dialogue with Ethan:

> Interviewer: So do you think you are more like the kids who don't do well at new outdoor games or are you more like the ones who are good at new outdoor games right away?
>
> Ethan: I think a little bit of both because it might take me some time to get used to the game, but like the first class I might be really, really good because other people have first classes too so they might be as good as me or I might be better

than them. But when it takes some time I can be way better and they can be way better I can be really, really good, so I think it is like both.

In response to this same item Megan said:

Megan: Sort-of good.

Interviewer: Sort-of good at new games right away?

Megan: Ya, but this one is also true as well [pointing to the other half of the question].

Interviewer: ...Now can you tell me why you answered both?

Megan: Well, I just think I don't do well at some outdoor games and I think I am good at other outdoor games right way.

It appears that while trying to limit socially desirable answers through the alternative question format, this response format also limited children in responding according to their actual thinking. When this occurred, children were told they could mark both boxes or put a circle in the middle. Finally, on a few occasions children had difficulty knowing on which side of the questionnaire to enter their answers resulting in item scores that did not match what the child had expressed verbally. For example, Megan initially selected that she was more like the kids who do well at all kinds of sports, but when probed about her answer realized that she has selected the wrong box. Mistakes such as this one were realized because of the interview format.

Discussion

Cognitive interviews using the question-and-answer model to probe children with disabilities' thinking in responding to the SPPC-ACDS revealed several concerns, highlighting the need for further investigation. The results of this exploratory study

suggested that children interpreted questions in similar and different ways, retrieved various sources of information to make decisions about answers, indicated a high degree of certainty in judgment and while questions were found to be easy to answer, topic sensitivity and response options that were incongruent with children's thinking, constrained responses.

Comprehension

When information is to be elicited from children about their own perspectives, whether through qualitative (e.g. interviewing) or quantitative (e.g. questionnaire response) methods, it is critical that children understand the questions being asked of them and that researchers understand the responses given by them (Mahon, Glendinning, Clarke, & Craig, 1996). Given the nature of the interview process there is room for the interviewer to navigate through the use of verbal probes, in order to increase confidence in children's comprehension of questions and in his or her own understanding and interpretation of responses. The methods used in this study elicited information about children's question interpretations that were not necessarily inconsistent with the domain of athletic competence, but were different from each others' interpretations. If in questionnaire research an assumption about test scores is that they represent responses to questions interpreted in the same way, these different interpretations are problematic. This is particularly worrisome when test inferences are used to make knowledge claims that are nomothetic or universal in nature. Nomothetic knowledge is often claimed based on the result of aggregate values and is typically associated with methods based on more than one individual (Bouffard, 1997). According to Bouffard (1997) the search for nomothetic knowledge must begin at the idiographic level. While Bouffard is referring to

problems of aggregation that do not represent individuals, differences in question comprehension raise similar concerns. The averaging of scores may not represent any one individual however the responses may not be comparable to begin with if question comprehension differs among respondents. When self-report questionnaires are administered there is an assumption that responses are based on questions perceived synonymously with other respondents and with the intention of the researcher (Collins, 2003). If this is not the case, then inferences drawn from them may be misrepresentative, even at the individual level.

What is tenuous about the comprehension results of this study is that for the most part children's paraphrasing and understanding of questions were in keeping with the athletic domain. At times however, despite general consistency within the domain children's interpretations were different. According to Messick (1989) validity is a matter of degree. Comprehension as revealed in this study may also be a matter of degree. It is deciding to what degree these differences are acceptable that is particularly challenging and dubious.

Retrieval

In response to retrieval probes, the children in this study provided examples of sports skills and performance, and past events and engagement that informed their decision making about how to answer questions. Similar to the results of the comprehension probes, children provided examples that were different from each other. However, this is not considered to be problematic for retrieval given that they were within the athletic domain. It was expected that different sources of information would be used for retrieval, given that individuals have different experiences and unique

perspectives to draw on in making decisions. Furthermore, it is these experiences and perspectives that inform children's perception of competence. The purpose of the retrieval probes was to confirm whether or not children's responses were based on thinking within the domain of interest, not that they were similar in nature to each others'.

Cause for concern did emerge in one child's decision making of personal competence that was based on team performance. It may be that this child based his self-perception of athletic competence on team performance, however in retrospect further probing to determine if there were differences between his perception of his own competence and his perception of his team's competence may have revealed something different. If this had been the case, it could be that the format of comparing oneself to other children may lend itself to group comparisons (e.g. perceived team competence) rather than individual level comparisons, for some children. Another child had difficulty retrieving information about his decision making. Perhaps he was unable to express how he decided to answer questions or he could not recall the information used. Knowing how we know is a complex and effortful cognitive endeavor. Children may expend less effort in the question and answer process because of the energy required to execute the comprehension, retrieval, judgment and response tasks (Krosnick, 1999) or because the task is cognitively too demanding. This may be a limitation of cognitive interviewing with children.

Judgment

In reporting the certainty of their judgments, children unanimously responded that they were sure or really sure about their answers. This could mean that children were

easily able to formulate their answers because they understood the questions, the questions were applicable and the information required to answer them was accessible (Collins, 2003). The nature of the SPPC-ACDS may also pose different judgment challenges for respondents than other types of surveys or questionnaires. Schaeffer and Presser (2003) differentiated between two types of survey inquiries. The first type was based on questions about behaviours or events while the second involved questions about evaluations or attitudes. In survey research that seeks information about participant behaviours, respondents may use a variety of inference strategies to arrive at a plausible judgment (Sudman, Bradburn, & Schwarz, 1996). These strategies may be different from those adopted in evaluating questionnaires designed to investigate for example, self-perceptions of competence. Error in behaviour or event judgment can be "thought of as the difference between the report of a respondent and that of an omniscient observer" (Schaeffer & Presser, 2003, p.75). For example, in reporting about behaviour, respondents may be asked how often they performed a particular behaviour over a specified time period. Judgment is based on the ability to accurately recall events in their entirety and to formulate a compatible judgment. In questions about subjective phenomena such as an individual's self-evaluation of competence, the difference between the respondent's report and some all knowing observer does not exist (Schaeffer & Presser, 2003). Judgment in this case is at the mercy of the subjective nature of the phenomena and the respondent's perceived certainty in question response.

Response

According to children's answers to the verbal response probes, questionnaire items were for the most part easy to answer. Instances where this was not the case

occurred when expressions of low perceived competence led to vulnerability, and when the questionnaire format was incongruent with children's self-perceptions. The structured alternative format of the SPPC-ACDS was designed to limit socially desirable answers by having respondents identify with other children who are like them. This format may have reduced the number of answers influenced by social desirability (although this is not known based on the results of this study), but the format itself did not alleviate the anxiety of discussing low perceptions of competence for at least two children. One child's statement that he was considering editing his answer because he did not want the interviewer to know he didn't think he was very good at sports, illustrated the sensitive nature of the questions and answers. This draws attention to what might be a limitation of the questionnaire, the interview method or interviewer. Recognizing the child as an important source of information brings ethical and methodological considerations about how best to elicit information from children. Some of these considerations include, but are not limited to: issues of confidentiality, vulnerability, consent, and power inequalities between researcher and child, as well as children's competence, their reliability as informants and how best to elicit information (Mahon et al., 1996; Mauthner, 1997; Oberg & Ellis, 2006).

Accessing information about children's responses to questions revealed what appeared to be a mismatch between children's thinking and the response format of the SPPC-ACDS. In this study 6 of the 8 children indicated on at least one question, that the options provided on the questionnaire did not represent their self-perceptions. In these cases children said they either felt their self-perceptions fit both statements or that they were in the middle. This underscores what has long been a criticism of closed-answer

questions, that closed questions, or set response formats may shape the answers respondents provide (Schwarz, 1999). Stated differently, participants may answer in ways they otherwise would not if provided different or unlimited choices. These results also highlight what appeared to be an inconsistency between the theory of competence motivation and the SPPC-ACDS (Harter, 1985). The format of the SPPC-ACDS was developed to reduce children's tendencies to provide socially desirable answers. This was accomplished by employing a structured alternative format that asks children between the ages of 8 to 12 to identify with one of two types of children. For example, children who think they are good at sports or children who wish they were better at sports. According to Harter's (1999) theory however, it is around the age of 8 years old that children begin to integrate positive and negative views of the self, meaning they can integrate seemingly opposing self-evaluations. In the athletic domain this suggests that a child could perceive him or herself to be good at sports, but at the same time wish he or she was better at sports. The alternative response format also does not account for children who legitimately perceive themselves to be between or similar to both types of children described in the statements. Were it not for the interview format, children may have selected a response option that did not represent their thinking, selected two items or made no selection at all. The first possibility could result in inappropriate inferences about a child's self-evaluation. The second and third possibilities are likely to be recorded as response errors or missed cases, when in fact the thinking behind the responses reveals something significant about children's self-perceptions.

The present study provided insights into the question-and-answer response processes of children with disability in completing the SPPC-ACDS, but is not without

limitations. The use of the cognitive interview for the purpose of investigating a subjective phenomenon with children may be a limitation. First, cognitive interviewing, a verbal report method developed in cognitive psychology, is more commonly used with adults in survey research, although these methods have been used with children in survey research and educational measurement and assessment. However, the use of cognitive interviews with the SPPC-ACDS, a questionnaire of a different nature, is a departure. The suitability of these methods to investigate the question-and-answer processes of children for this type of instrument requires further investigation as the SPPC-ACDS was not intended to be used idiographically. Second, it is often recommended that cognitive interviews be performed and analyzed on a question by question basis (Willis, 2005). Following two pilot studies it was determined that asking four question-and-answer probes per item was too many for the children in this study. This was in part due to children's inability to pay attention but was not surprising given the six items of the ACDS were intended to tap the same domain. The result was a more generalized categorical analysis rather than a question by question analysis. Third, verbal probes were relied on heavily to elicit information from children as they did not engage in thinking aloud. A concern in interviewing is that questions are asked differently of different people, adding uncertainty about whether differences in answers are real differences, or the results of different questions (Krosnick, 1999). While this is a concern for this study, research has also demonstrated that these differences may improve the quality of data (Schoeber & Conrad, 1997). Finally, attempting to tap cognitive processes is limited by our own lack of awareness regarding our cognitive processes. The attempt to tap something that is 'unconscious' is in and of itself a formidable challenge.

In questionnaire response, question misunderstanding, variations in understanding and response options that are incongruent with respondent answers may not be exposed because of the nature of the specific data collection method. Yet, the usefulness of verbal reports (Ericsson & Simon, 1993) and children's ability to self-report are not without controversy. Gaining access to children's thought processes is critical to ensuring a higher degree of congruence not only between researcher intention and participant understanding, but also between the researcher's interpretation of the information provided by the child, but may pose specific methodological challenges (Branch, 2006).

The results of this study support Messick's (1989) concept of validity as a matter of degree. The extent to which varying understanding of questions, retrieval of information and response limitations impact test scores and their appropriate interpretations is a matter of degree with a threshold that has yet to be determined. Based on responses to the verbal probes in this study, the SPPC-ACDS appeared to tap children's self-evaluation in the athletic domain. However, the differences revealed through the cognitive interviews suggest that a semi-structured interview format guided by the SPPC-ACDS may be most appropriate at this time for accessing information about children with disabilities' perceptions of athletic competence.

The results of this study also suggest that validity may be more contextual than typically assumed. Individual differences in comprehension, retrieval and response of questionnaire items are problematic for interpretation and inference making. "That a test's construct interpretation might need to vary from one type of person to another (or from one setting to another) is a major current conundrum in educational and psychological measurement" (Messick, 1989, p.55). Demonstrating construct validity

evidence is essential to measurement based research that seeks to understand how people think and behave. Statistical techniques commonly used to infer construct validity for the interpretation of test scores do not address the issue of ontology. It is the causal relationship between construct and test scores as demonstrated through the processes that bring about this effect that provides validity evidence for test interpretation (Borsboom, 2005).

> If one attempts to sidestep the most important part of test behaviour, which is what happens between item administration and item response, then one will find no clarity in tables of correlation coefficients. No amount of empirical data can fill a theoretical gap (Borsboom, 2005, p.167).

Investigating the question-and-answer process may bring clarity to the issue of whether a test measures what it purports to measure, providing validity evidence and lending confidence to the interpretations of test scores.

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Table 2-1

Cognitive Interviewing Probes

Question Type	Sample Probe
Comprehension	Can you tell me the question in your own words?
	Can you tell me what the word _____ means?
Retrieval	How did you decide to answer that question?
	What were you thinking when you were answering that question?
Judgment	How sure are you?
Response	How did you feel about answering that question?
	Was that a hard question to answer? Can you tell me why/why not?

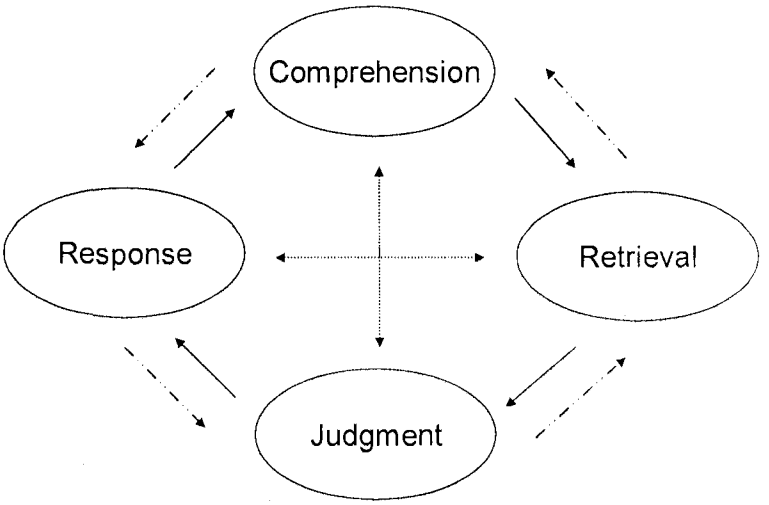
Table 2-2

Sample of the Cognitive Interview

Speaker	Question/Response
Interviewer:	"Some kids do very well at all kinds of sports, but other kids don't feel they are very good when it comes to sports. Which on do you think is more like you?"
Child:	Indicates which side of the questionnaire is more like him or her.
Interviewer:	"Is that sort-of true for you, or really true for you?"
Child:	Checks the appropriate box.
Interviewer:	"Can you tell me what that question was asking you?" (comprehension probe)
Child:	Response

Figure Caption

Figure 2-1. Question-and-answer model.



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CHAPTER 3

Self-Perceptions of Children with Disabilities and Sources of Athletic Competence Information

Motivating children with disabilities to take part in physical activity and to adopt physically active lifestyles has long been a concern of researchers in adapted physical activity. A prominent feature of research in the area of motivation has been the influence of perceived athletic competence in children's decisions to engage in and sustain physical activity involvement. Positive perceptions of competence are linked to children's motivation to take part, whereas low perceptions of competence have been linked to withdrawal from physical activity (Harter, 1978, 1981, 1999). Given that perceptions of competence become more closely tied to actual competence as children mature (Harter, 1999), children with disabilities, who often lack movement competence, may be at increased risk of nonparticipation and withdrawal, which has implications for children's social, physical and emotional well being (Sallis, Patterson, Bruno, & Nader, 1988). Therefore, understanding how children with disabilities formulate their own competence judgments is important. Determining the sources of competence information used by these children in evaluating personal competence may provide guidance for the kinds of sport and recreation opportunities more likely to enhance positive self-perceptions and encourage lifelong participation.

Much of the research in the area of children and motivation has been grounded in Harter's (1978, 1981) theory of competence motivation, which is rooted within a multidimensional approach to self-concept. Self-concept is broadly understood to be an individual's perception of him or herself and "can include a multitude of descriptors or

beliefs about the self" (Fox, 1997. p.114). Perceived athletic competence is one of several domains of self-evaluation, where an individual sees him or herself to be more or less capable within an athletic domain. According to Harter's (1978, 1981) theory, perceived competence is postulated to influence the initiation and persistence of achievement behaviours and contribute to overall self-concept. Persistence and continued effort in the face of failure are associated with high perceived competence, whereas low perceived competence is associated with lack of persistence, disinterest in activities and withdrawal.

Three primary factors are hypothesized to influence perceptions of competence and subsequent motivation (Harter, 1981, 1978, 1999). Past experiences in athletic contexts have been identified as having an important influence on self-perceptions. Experiences that are perceived to be successful will enhance perceptions of self, whereas failure in this domain is tied to negative self-evaluations. Second, perceived behavioural control, the degree to which an individual feels he or she can shape the outcome, will also influence competence judgments. If an individual feels he or she has a high or low degree of control over the outcome of a situation this will positively or negatively affect perceived competence respectively. Feedback from others, also known as socializing agents, such as parents, peers and coaches is the third factor influencing children's self-evaluations. Socializing agents may provide feedback that is positive and enhances self-perceptions or negative and undermines competence judgments. Furthermore, these three factors are linked to the affect they produce in the individual. Affect may intensify the impact of these factors on self-judgments (Harter, 1981, 1978, 1999).

Past experiences, perceived behavioural control, feedback from socializing agents and affect can be further understood in terms of internal versus external evaluations.

Internal sources of information are inherent to the individual. Internal evaluation may involve such things as effort and self-improvement valuations. Affect, whether it is positive or negative is another source of internal information (Causgrove Dunn, 2003) but may stem from internal or external factors. Assessments that are externally based rely on information from outside of the individual. External assessments may be based on feedback (e.g. winning or losing), reinforcement from others (positive or negative) and peer comparisons (Weiss, Ebbeck, & Horn, 1997). Children's actual competence is also identified as important to motivation however, perceived competence is proposed to exert greater influence in decisions to persist in or disengage from physical activity (Harter, 1978, 1999).

According to Harter (1999) as children undergo cognitive developmental changes, the structure and organization of self-concept also changes. As children mature they self-assess in an increasing number of domains. For example compared to early childhood, in middle childhood children can differentiate their competence in several different domains such as cognitive, social, athletic, physical appearance and behaviour. At this stage children are also able to integrate self-assessments that were previously regarded as opposites within a domain. In this case a child could perceive him/herself to be good and bad within the same domain, as opposed to all-or-none, 'good or bad' thinking. These cognitive developmental changes also lead to children's perceptions of self that more accurately coincide with actual ability (Harter, 1999; Horn & Weiss, 1991; McKiddie & Maynard, 1997).

The salience of different sources of competence information also changes as children mature. Young children are heavily dependent on adult feedback as a source of

competence information and as long as this reinforcement has been sufficiently positive, reliance on it declines with development (Harter, 1978). This is supported by findings that children between the ages of 8 and 9 years old rely more on adult evaluation than children 10 to 13 years of age who prefer social comparison and peer evaluation for making competence judgments (Horn & Hasbrook, 1987; Weiss et al., 1997). In early adolescence there is a shift in preferences from external feedback sources to standards that are internal (Harter, 1978, 1999) which is connected to maintaining high perceptions of competence, performance control and positive affect (Weiss et al., 1997).

Research has placed emphasis on measuring perceived competence. However the processes by which these perceptions are arrived at are equally important (Fox, 1997). How children arrive at their personal judgments of competence may be based on feedback from external sources as well as internal self-generated feedback that is considered important by the child (Harter, 1978) and is in part determined by stage of development (Harter, 1978, 1990; Weiss et al., 1997).

Several studies have examined the sources of information used to make competence judgments by children with different psychological characteristics using a developmental approach. Horn and Hasbrook (1987) investigated the relationships among children's perceptions of competence, perceived performance control, and sources of competence information. Results indicated that for children in the 8 and 9 year old group preferences for specific sources of competence information were not consistently tied to perceptions of competence or control. This was in contrast to what was revealed for children in the 10 to 14 year old group. In this group, children who indicated higher perceptions of competence and perceived internal control, meaning they felt a high

degree of control over performance outcomes, demonstrated a preference for internal standards of comparison (e.g. effort). Children who held external perceptions of control, believing they did not have control over performance outcomes, relied more on external sources (e.g. feedback from parents). In a study that investigated sources of self-evaluation and children's perceptions of physical competence, Horn and Weiss (1991) found that younger children of 8 and 9 years old placed greater emphasis on competence information from parents, whereas older children preferred to use peer comparison in self-evaluation. Findings also indicated that children who used self-evaluative criteria tended to overestimate their competence. Children who were accurate or underestimated their competence relied more heavily on peer comparison.

Weiss et al., (1997), found that age and psychological characteristics including competitive trait anxiety (a predisposition to perceive competitive situations as threatening to self-esteem), self-esteem and perceived physical competence, were highly correlated with the evaluation criteria employed by children to judge their physical competence. Four different profiles of children were revealed in a cluster analysis. Pregame anxiety was the preferred source of competence information for the younger children in the first cluster who scored higher in competitive trait anxiety and lower in perceptions of competence. Less importance was placed on pregame anxiety and parental evaluation for children in cluster two who scored lower in perceived competence and self-esteem. Parental evaluation and self-evaluation criteria were preferred by children in the third cluster who scored higher in perceptions of competence, self-esteem and moderately lower in competitive trait anxiety. Finally, social comparison was the preferred criteria for self-evaluations for children in the fourth cluster who were older,

scored higher in competitive trait anxiety, and lower in perceived competence and self-esteem.

In another study, Xiang, Lee, and Williamson (2001) used rating scores and semi-structured interviews with participants in grades 4, 8 and 11, to examine the criteria used to assess self-perceptions of physical competence in physical education. Children were first asked to rate their own ability in physical education using up to five stars. One star represented the children who were the worst at physical education and five stars represented the students who were at the top of the class. Students were then interviewed using two different scenarios to investigate their understanding of ability and beliefs about the efficacy of effort. Results of this study revealed three higher order themes: ability (e.g. task mastery, natural ability), effort (e.g. class behaviour, willingness to try) and social comparison (e.g. intraindividual, social) that were used by all participants in determining their own ability. However, the salience of these criteria differed by grade. Younger children tended to be most reliant on ability sought through task mastery, and effort as demonstrated by class behaviour. For 8th grade students, ability in terms of task mastery was most often used. Natural ability and effort as demonstrated by a willingness to try were the principal criteria used to self-evaluate for the older children in this study.

In general researchers studying self-perceptions of athletic competence have found a developmental shift in the sources of competence information used by children. Little has been done however to investigate the criteria used by children with disabilities in judging their own physical competence. In a study that investigated the relationship between physical awkwardness and children's perception of physical competence, Causgrove Dunn & Watkinson (1994) asked children with movement difficulties about

the sources of information used to make competence judgments. Results of these interviews revealed that children used various sources of information, such as peers, friends and relatives to make competence judgments. Of particular interest were children with high perceptions of competence who indicated that relatives, friends (outside of school) and other self-evaluation criteria were used to make competence judgments. The authors speculated that selective comparison and self-evaluation may be strategies employed by some of these children in order to maintain positive perceptions of physical competence. Understanding how children with disabilities come to know they are good or bad at physical activity and what factors contribute to its development from the perspective of the child are critical questions in adapted physical activity research. These are questions that have thus far been left unanswered by traditional paper pencil tests of perceived physical competence with children with disabilities.

Physical competence has been the key player in measurement in the physical domain of the self (Fox, 1997). Most commonly examined from a quantitative perspective, instruments based on this multidimensional approach are designed to assess various domains of self-concept such as scholastic competence, athletic competence, and peer social acceptance, among others. Several instruments have been developed to investigate self-concept from a multidimensional perspective including Marsh's (1988) Self-Description Questionnaire and Harter's (1985) Self-Perception Profile for Children. Harter's instrument is of particular interest here given its consistent use with children and its apparent flexibility in modification for use with different age groups (Harter & Pike, 1984) and special populations. The Self-Perception Profile for Children and its variants have been used with several special populations to examine perceived physical

competence, including children with physical awkwardness, (Causgrove Dunn & Watkinson, 1994) intellectual disabilities (Maiano, Ninot, Bruant, & Bilard, 2002), learning disabilities (Renick & Harter, 1988) and physical disabilities (Sherrill, Hinson, Gench, Kennedy, & Low, 1990). Harter (1990) cautions the use of instruments designed to assess self-concept with special populations, arguing that the structure of self-concept may be different within these populations either due to cognitive-developmental levels and/or unique environmental experiences. For example, cognitive-developmental levels in children with intellectual disabilities featured prominently in the structure of self-concept according to a study by Silon and Harter (1985). These authors found that while social competence was a distinct factor, athletic and scholastic competence formed one factor. For children with learning disabilities Renick and Harter (1988) developed several subscales for the academic domain which included: general intellectual ability, reading, writing, spelling and math to reflect the differentiation they found in children with learning disabilities self-assessments of the academic domain. The authors suggested that educational and home experiences, where teachers and parents emphasized that these children did not lack intelligence but had specific skill difficulties, were critical to self-concept differentiation within the academic domain for children with learning disabilities (Harter, 1990).

Harter (1985) recommended that researchers administering the Self Perception Profile for Children obtain information about the social comparison processes employed by children to answer questions, the basis on which children make their self-judgments and the determinants of the child's competence. If in fact these recommendations are

carried out, the results have rarely been discussed or systematically analyzed in the literature.

Despite the importance placed on personal perceptions of competence in achievement contexts, its relationship to other factors, and the consistency with which it is investigated in the physical activity literature, little is known about how children with disabilities actually formulate their own perceptions of physical competence. Of particular interest is how children with disabilities, a group often marginalized in physical activity settings, determine their own perceptions of athletic competence. The processes by which children with disabilities formulate personal competence judgments may have consequences for the kinds of activities and settings that may be more likely to promote positive perceptions of competence. For example, if positive or negative self-evaluation is relative to children with or without disabilities, segregated or integrated settings may be more likely or less likely to foster positive self-assessments and encourage greater participation for this population. Children with fewer opportunities to demonstrate competence may rely on different sources of information when assessing personal physical ability, while children who have multiple ongoing opportunities to take part may rely on different information in constructing this view of self. These differences may have implications for the inclusion of children with disabilities in integrated settings. For these reasons understanding how children with physical disabilities formulate their own perceptions of physical competence is pertinent to the provision of opportunities that would support and encourage continued participation.

Purpose

The purpose of this study was to investigate the criteria that contribute to children with disabilities' formation of individual perceptions of athletic competence. Specifically, the study was designed to examine the social comparison processes, the bases for self-judgments and the determinants of competence used by children with disabilities in formulating their self-perceptions of athletic competence.

Method

Participants

A purposeful sampling strategy was used to identify children who would provide rich information about the issues of particular interest to this study (Patton, 2002). Eight children (3 girls and 5 boys) between the ages of 8 and 12 years old with a range of disabilities including cerebral palsy, spina bifida, muscular dystrophy, fine and gross motor delays or nemaline myopathy took part in this study. Seven of the children were independently ambulatory, although two of these children used a wheelchair on occasion. One child was a regular wheelchair user. In general these children differed significantly in movement competence when compared to other children without disabilities. Children were recruited from two specialized sport and physical activity programs for children with disabilities. Participants had previous experience in specialized (segregated) and integrated activity programs such as community sports and or physical education in elementary school. This group of children was selected based on age (the Self Perception Profile for Children was developed for children from 8 to 12 years of age), having a disability that impacted actual movement competence, and experiences in different kinds of activity settings (specialized and integrated). It was hypothesized that the information

gained from children with unique movement and activity experiences may provide insight into the kinds of settings most likely to enhance positive self-perceptions. Ethics approval for this study was provided by a University research ethics board. Consent was also provided by the director of each specialized sport and activity organization and the parents. Children were also given the opportunity to indicate their willingness to take part. Only children who indicated willingness and for whom informed consent was received participated.

Design and Data Collection

Multiple sources of data were collected to enhance the trustworthiness of the findings of this study. Three sources of data in the form of questionnaire responses, interviews and reflective notes were collected.

Measure. Harter's Self-Perception Profile for Children - Athletic Competence Domain Subscale (SPPC-ACDS) (1985) was completed by children and used to guide the semi-structured interviews for this study. This subscale contains 6 items in an alternative response format designed to reduce socially desirable answers. Children were asked to indicate whether they were, for example, more like 'kids who do very well at all kinds of sports or other kids who don't feel that they are very good when it comes to sports.' After selecting which children they were more like, participants indicated on a 4-point scale, where 1 represents low perceived competence and 4 reflects high perceived competence, if the comparison was 'sort-of true' or 'really true' for them. Reported internal consistency reliability for this subscale ranges from .80 to .86 and factorial validity is reported with average loading of items on the subscale ranging from .41 to .81 on samples that did not include children with disabilities.

Interviews. The results of a previous study (see Chapter 2) supported the use of the SPPC-ACDS using an interview format with children with disabilities. Semi-structured interviews were guided by the SPPC-ACDS and questionnaire statements were read aloud. In keeping with Harter's (1985) recommendations, three types of questions were employed to determine the bases of social comparison, judgments and determinants of perceived competence (see Table 3-1 for sample probes). As children completed the questionnaire the interviewer asked these probing questions about their responses to the individual test items. The probes for social comparisons, judgments and determinants of perceived competence were varied across statements. For example, after completing a questionnaire item, the child was then probed on the sources of comparison he or she used to determine his or her questionnaire response. Although Harter (1985) recommends that all probes be asked using the same one questionnaire statement, each probe type (bases of social comparison, judgments and determinants of perceived competence) was utilized a minimum of two times for different statement responses. This was done to allow existing differences in sources of information employed by children to surface. It also allowed the interviewer more opportunities to probe based on children's responses, thereby increasing the richness of the data. Two pilot studies were conducted, one with a 10 year old girl without a disability, the other with a 9 year old boy with a disability, to ensure the clarity of the questions and to highlight any difficulties. Based on the pilot interviews one question was reworded. Interviews were recorded using a digital audiotape and lasted approximately 20 to 30 minutes.

Reflective notes. Reflective notes were taken by the interviewer immediately following each interview. These notes consisted of the researcher's impressions of the

child, his/her behaviour and the responses provided. The reflective notes also served as a rudimentary preliminary analysis of the data.

Analysis

The interviews were transcribed verbatim. Each transcript was first coded individually using a deductive content analysis for the purpose of understanding the sources of information used by children with disabilities to formulate perceptions of competence. Content analysis typically involves at first reading the complete interview and identifying the main topics (Morse & Field, 1995). The main topics for this study were based on Harter's recommendations to explore social comparison processes, bases for self-judgments and determinants of competence. These were identified as the primary categories. After all the data were categorized, these primary categories were reviewed and subcategories were developed to more accurately reflect the content of the interviews. This process continued until saturation and there were no new subcategories emerging from the data. Data were examined at first by question, then line by line and as a whole to develop, examine and interpret the relationships within and between categories (Morse & Field, 1995). Children's selections on the questionnaire and the reflective notes also supported the transcript analyses. After each interview was coded individual comparisons across the children's interviews took place. This allowed for similarities and differences among and between children's responses to be identified.

Trustworthiness is of key importance in qualitative research. Trustworthiness can be understood as the degree to which the reader can accept the interpretations the writer presents from the data analysis. Thus, using a number of data sources can help to establish the quality of a study and its findings in various ways (Guba, 1981).

Triangulation can be used to verify the findings of a study through corroborating evidence (Lincoln & Guba, 1985). The triangulation of multiple sources of data which included: questionnaire responses, interviews and reflective notes, collected in different ways helped to establish the credibility of the findings. Dependability and confirmability were established using a second reader to code the data. The findings of the second reader supported the analysis performed by the first author. An audit trail was also documented to keep track of the decisions made by the researcher during the study.

Results

Based on the responses to questionnaire items, 6 of the 8 children had high perceptions of competence. The remaining two children's responses suggested they held moderate and low perceptions of competence respectively. However, as was revealed in a previous study (see Chapter two), the children in this study found that their item responses were constrained by the 4-point scale provided on the questionnaire. In fact half of the children indicated that on at least one item the response options did not match their perceptions. When probed about the mismatch between their thinking and the response options, children suggested they were either in the middle or could positively identify with more than one statement. Also similar to the findings of this other study, two children had difficulty providing answers because of topic sensitivity. The reasons were different for each child however. One child, Rebeccah, had a rapidly progressing disability that made it difficult for her to respond because her actual competence was also changing rapidly and negatively, affecting her perceptions of competence. This was illustrated in the dialogue following her answer to a statement that she was more like 'some kids who usually watch instead of play.'

Rebeccah: Sometimes, I mean I can get up and do a bit, but I can't run around and play tag and stuff.

Interviewer: ...so you're not playing right now cause you get tired, and is that the only reason that you don't play, cause of the physical things? (referring to her disability)

Rebeccah: Ya, I can't play.

Interviewer: Okay, but you'd like to?

Rebeccah: Ya.

The other child, Zac, expressed sentiments revealing his awareness of social norms that made it difficult for him to respond. For example, in response to the statement 'some kids feel they are better than others their age at sports but other kids don't feel they can play as well' he said that he couldn't answer the question "cause nobody is better than anybody because if they were then they would be bragging." Determining whether a child held high, moderate or low perceptions of competence was based on scale responses. Responses that did not fit within the questionnaire format, for instance when a child indicated he or she felt he/she was in the middle or identified with two statements, were interpreted as reflecting moderate perceptions of competence. For example, if a child said that he was 'the same at sports as other kids his age' this was interpreted as a moderate response.

The 3 categories of questions based on Harter's (1985) recommendations were useful in organizing the results of the analysis and were identified as the main categories. All children provided competence information that reflected the question categories of social comparison, the bases of self-judgments and determinants of competence,

consistent with the questions asked. Children most often nested their responses in past events and experiences. There was significant overlap of ideas and examples shared by children, however individual differences were also apparent.

Social comparison processes

When asked about the reference group children employed in their responses to the questionnaire statements, one common subcategory emerged, *others outside of school.*

Others outside of school. Children most frequently identified others outside of school as the social group for competence comparisons and in almost all cases also indicated high perceptions of competence. Four of the children indicated high perceptions of competence when making comparisons with other children with disabilities. Several children spoke about their experiences in disability sport and specialized programs when addressing questions about social comparison. Owen said, "well, some people are actually not very balanced with their strength and my strength advantage is way better than theirs" as he talked about his experience in wheelchair basketball and comparing himself to other children with disabilities. A similar scenario was shared by Tim in his example of sledge hockey, a disability sport.

> Tim: "Cause I watch the other players and I go out on the ice and I do the best I can do.
>
> Interviewer: Okay, so are you talking about when you play sledge hockey?
>
> Tim: Ya.
>
> Interviewer: So you compare yourself to the other sledge hockey players and you can tell you are doing better?
>
> Tim: Ya

Zac who played traditional hockey and sledge hockey indicated that he was comparing himself to all kids, with and without disabilities. Emily talked about being in two different swimming groups, one that was integrated and then a specialized program for children with disabilities that she was currently enrolled in. She revealed that her comparison group was other children with disabilities for high perceptions of competence. She said, "the group swim I was in was with kids and it was too hard," referring to the integrated program. Now that she is in a program with other children with disabilities she can see that she is doing better compared to the kids in that program.

Comparisons with friends outside of school and family members, in particular siblings and cousins, were referred to by several children who indicated they had high perceptions of competence. Alex said he knew he was good at all kinds of sports because he was like his buddy from the neighborhood who was "really awesome" at different sports. Similarly, Emily indicated that she thought she was good at sports because she was like her cousins and sister who were good at sports. This comparison was evident through-out the interview as she shared stories of playing sport activities with her family. Gracie also referred to her cousins as a source of comparison.

Children were asked about the social comparison group they used at least twice, on separate questionnaire items. Interestingly some children reported using different reference groups on the two occasions. Gracie and Emily both reported comparing themselves to their cousins in answer to the questionnaire statement 'some kids do very well at all kinds of sports but other kids don't feel that they are very good when it comes to sports.' However, in response to the statement 'some kids feel that they are better than others their age at sports but other kids don't feel that they can play as well' they both

responded that they were comparing themselves to friends at school. This was also the only item where both girls indicated low perceptions of competence. In fact both girls circled that the statement 'other kids don't feel that they can play as well' was really true for them. When using their cousins as sources of comparison the girls reported higher perceptions of competence than when they used friends at school. On all other questionnaire items the girls indicated sort-of true or really true that they identified with children who were good at games and sports.

Rebeccah had difficulty answering the social comparison questions. In one response she said she compared herself to an adult. On another question she said she was not making comparisons to others, but that she was just thinking about how she felt about herself. Owen had similar difficulty specifying a comparison group for one question. He agreed that he was "one of the kids that did well" but could or did not identify who the other kids that did well were. Evan was the only child who indicated a school friend (who may or may not have had a disability) was his only source of competence comparison, while Zac suggested a broad range of sources of comparison that included: children with and without disabilities, school friends and friends from outside of school.

Bases of self-judgments

Three subcategories emerged under the primary category of bases for self-judgments: *performance*, *feedback* and *self-evaluative criteria*. Questions in this category asked children "How do you know that you are good/not good at sports and games" and "What makes you think you are good/not good at sports and games?"

Performance. Children unanimously provided reasons based on past sport performance and skills to justify their competence judgments, regardless of whether the

judgments were positive or negative. Instances where children indicated high perceptions of competence were supported with evaluative statements about their own performces that substantiated these perceptions. "Cause when we play hockey, like we play hockey and my cousin's the goalie and I deke him out and then I shoot," said Emily. "I am really good at dribbling and shooting" responded Owen to a question about how he knew he was good at wheelchair basketball. When asked how he knew he had done well at volleyball, a new game for Zac, he said it was because he "got some people out [and] hit to the open spot." Rebeccah referred to achieving the best time in rock climbing as a way of knowing she was good enough at sports and Alex said that he knew he was good at football because he could "catch the ball and run so fast."

Tim, and Gracie provided performance examples for an item where they had indicated low perceptions of competence. Tim indicated that he wasn't good at new games right away because when he first started playing sledge hockey he "kept falling down and missing the puck when [he] would shoot." A further example is illustrated in the dialogue with Gracie:

> Interviewer: ...that you are better than the kids your age or that you don't play quite as well as the kids your age. Which do you think for you?
>
> Gracie: I don't play quite as well.
>
> Interviewer: Okay and is that sort-of or really true?
>
> Gracie: Really, really.
>
> Interviewer: ...and what makes you think that you don't play quite as well?
>
> Gracie: Because I can't run really well.
>
> Interviewer: Oh, so you don't run really well?

Gracie: And I fall."

Evan responded that he was in the middle for the statement comparing his competence to that of other children his age. Part of his explanation for being in the middle was because when he wall climbs, he "can't get high [and] can't do it that good" and in soccer when he doesn't do as well his "team usually like gets less goals." He countered these reasons with positive self-evaluative criteria that included "playing by the rules and not cheating" justifying his middle response.

Feedback. Feedback from others was a salient source of competence information for four children who indicated high perceptions of competence. Tim, Evan, Zac and Owen all shared that feedback from adults contributed to their high perceptions of competence. Among them, positive feedback from teachers, coaches, parents and grandparents were identified as sources of competence information. When asked about feedback from others Tim said "my grandma, and grandpa and dad [tell me that I am doing well]." Tim, Evan and Zac also identified peers (teammates, friends and others) as sources of information on which to base competence judgments as evidenced in the following dialogue:

Interviewer: And how do you know that you are good right away?

Evan: Well people usually say that.

Interviewer: People usually say that? And who are those people that usually say that?

Evan: Well my friends and other people like from, people that aren't my friends also say that sometimes."

Feedback from others was not identified by any child in their explanations of competence judgments that were low.

Self-evaluative criteria. Six children used various sources of self-evaluative criteria to judge their own competence. Typically these criteria had to do with behaviours such as trying hard and practicing or with personal feelings such as feeling good or having fun. "Cause I umm, concentrate and I practice," responded Tim to a judgment probe. Gracie responded to a similar probe that she knew she did well at sports "because I try my best...and I think that I [am] really good." Evan said playing by the rules was part of knowing he was good. Zac said "cause I practice sports and it always turns out good" in response to a question about how he knew he was good at all kinds of sports. Rebeccah indicated that feeling like you were good at sports could be because you were having fun. Finally, Owen said he felt good at sports because he felt good about himself. All self-evaluative criteria shared by the children were in reference to high perceptions of competence.

Determinants of competence

Two subcategories emerged when children were asked questions about how they became, for example, like kids who do well at sports or other kids who don't feel they are very good at sports. Self-evaluation criteria featured prominently in children's assessment of the determinants of their competence, similar to the self-evaluative criteria employed by children in the bases of self-judgment. Children also identified the actions of others as a determinant of their competence.

Self-evaluative criteria. Practicing was the most common determinant of athletic competence identified by the children. Six children indicated that they became good at

sports because they practiced. Unlike the other children, Gracie used self-evaluative criteria of trying hard and being a good listener. Although Tim had used practicing and concentrating as bases for self-judgments, when asked about the determinants of his competence he did not refer to any self-evaluative criteria.

Actions of others. Finally three children indicated that being taught by others played a role in determining their competence. As evidenced in the following quote, being taught by his uncle to throw helped Alex to become good at football. "The first time I played football I throw it low and then my uncle says put it high and spin back and I like I go really high and then higher and higher and higher and now when I throw the football it is high." Emily identified that being taught by her cousins was a determinant of how she got to be good enough at sports.

> Emily: "Because I learned mostly. When there is a football game on we play football, when there is a hockey game we play hockey and they like teach me stuff and they like umm, they like tell me when we are playing football we huddle up and my cousins are mostly on [the field] and my sister and they tell us what to do or Danny tells us what to do so we don't mess-up."

Finally, Tim indicated that he became good at sports because his dad taught him. All three children talked about the actions of others who were close relatives. The actions of others were only discussed as determinants of high competence.

Discussion

The purpose of the present study was to investigate the criteria used by children with disabilities in judging their athletic competence. Similar to the findings of Xiang and colleagues (2001) results of this study revealed that various criteria and sources of

competence information were used by children to self-evaluate in the athletic domain. Specifically, comparisons with others outside of school, performance information, feedback, the actions of others, and self-evaluative criteria were employed to make judgments of high perceived competence. Only comparisons with school peers and performance information were employed in children's perceptions of low competence. For the most part the children in this study had high perceptions of athletic competence based on the results of the SPPC-ACDS and supported by children's verbal responses to interview questions.

Children were asked to talk about the social comparisons they employed in answering competence related questions. Specifically, they were asked to identify and or describe the children they were comparing themselves to in order to answer questionnaire items. Children used various sources of social comparison, the majority of which reflected comparisons with others outside of the school setting. Since these children were in integrated schools and classrooms where there were few other children with disabilities, comparing themselves to others outside of school would allow them to include children with disabilities in their comparison group. In fact, most common were comparisons made with other children with disabilities or with family members. It may be that some integrated school settings do not provide social comparison opportunities for children with disabilities that are perceived by them to be 'fitting.' Stated differently, children with disabilities may choose to compare themselves to others outside of the school settings because within school there may be few if any children 'like them' on which to base comparisons. This evokes concerns about the potential of integrated school settings to provide opportunities for children with disabilities to perceive themselves as

competent in cases where social comparison is an important contributor to children's self-perceptions. Causgrove Dunn and Watkinson (1994) hypothesized that some children with physical awkwardness may use selective peer comparison as a strategy to provide high perceptions of competence. Similarly, it could be that the children in this study are discerning in their social comparisons in order to perceive themselves as competent. Although actual ability was not investigated here, informal observations of the children in this study suggest they are at high risk of motor incompetence. Comparing themselves to like others may be a means of providing competence information that promotes positive perceptions of competence.

A second explanation for these results could be that children's social comparisons reflect the physical activity contexts in which they engage most frequently or most successfully. All children in this study had integrated activity experiences, however they were recruited from specialized sports programs. In these programs, all participants had disabilities, activities were adapted to meet individual needs and the ratio of instructor to child was close to one to one. It would be interesting to know if children with disabilities who are not in specialized sports programs use different sources of social comparison. Children with disabilities may also be more likely to spend more time in play and physical activity with family members because of limited opportunities to engage in community activities that accommodate individual differences. Children's perceptions of high competence and social comparisons may correspond to the social-environmental activity experiences that are a product of these differences and comprise a significant portion of their physical activity engagement.

Several other interpretations of the social comparison information were brought to light in two of the children's responses to a social comparison question that was guided by the questionnaire statement 'some kids feel they are better than others their age at sports, but other kids don't feel that they can play as well.' In response to this item both participants indicated low perceptions of competence in contrast with the other five questionnaire items where they had indicated high perceived competence. When asked who they were comparing themselves to, both children indicated on this item that it was children from school, also different from the social comparison group employed previously. First, these findings support the notion that context may be pivotal in perceptions of competence. The description of 'children their age' implied for both participants a different comparison group (peers at school) associated with a different setting (school) then they had previously used (cousins, outside of school). Second, these findings provide support for Harter's (1999) hypothesis that children develop a differentiated view of self, meaning they can have high and low perceptions of competence within the same domain. Finally, it draws attention to the nature and wording of the questionnaire. The alternative format and statement design implies that children use social comparison to make self competence judgments. A format that requires children to compare themselves to other children imposes social comparison with other children and assumes this comparison is a preferred source of competence information. This may or may not be harmonious with the sources of comparison and more generally competence information that is salient for children.

In describing the bases for self-competence judgments, children provided examples of performance, feedback and self-evaluative criteria. Along with social

comparison, these subcategories were consistent with the higher order competence criteria categories of ability, effort and comparison identified by Xiang et al. (2001). Children used performance examples to substantiate their perceptions of high and low competence. In sharing these performance examples, several children also revealed information about the participation settings in which these performances were nested. Performances eliciting high perceptions of competence were more often, although not exclusively, associated with disability sport settings or in activities with family members. In comparison, little mention was made of performances based in school settings. The unique activity experiences of children with disabilities in specialized sports programs and considerable time spent in activity with family members may be a significant source of positive competence information. It may also be that within the school setting, integrated opportunities to be active, such as recess and physical education, do not provide these children substantial opportunities to demonstrate proficiency. Children may therefore have preferences for specific performance related information that provides high perceptions of competence and context may be a determinant of those preferences.

An alternative explanation for these findings may again rest within the nature and wording of the SPPC-ACDS. Questionnaire statements ask children about perceptions of competence in sports and games, with no mention of setting. Children may be less prone to think of school based activities and more likely to refer to community based or other settings in the performance criteria that informs their perceptions because they interpret 'sports' and 'games' as activities that occur only or primarily in these settings. To elicit reports that are based on school-related activity words such as 'recess' and 'gym class' may be effective. As previously discussed, this notion was supported by two children's

responses to the comparison probes about children who were the same age where school friends were identified as a comparison group, unlike other statements that elicited comparisons with others outside of school from the same children.

Adults and peers were identified as sources of feedback in providing competence related information for approximately half of the children, with greater emphasis placed on feedback from adults. Children were not asked directly about feedback from others as a way of knowing about one's competence. It may be that the other children would concur that feedback from others informs their judgments if they were asked. It could also be that not identifying other sources of feedback reflects a preference for certain sources of assessment information. Children were not asked about preferred sources of information, therefore it is not possible to speculate on the proposed developmental shift in preferences for adult feedback at 8 and 9 years of age to peer comparisons for children 10 to 13 years old.

Self-evaluative criteria were discussed by children in response to questions about the bases for self-judgments and determinants of competence. Research has found that self-evaluative criteria is an important source of competence information (Harter, 1978; Weiss et al., 1997; Xiang et al., 2001) All self-evaluative criteria were given in response to questions about high perceptions of competence. Causgrove Dunn and Watkinson (1994) and Horn and Weiss (1991) speculated that children who demonstrate motor incompetence or tend to overestimate their competence respectively, may use self-evaluative criteria as a strategy to maintain or provide positive self-assessments. The children in this study, who are at greater risk for motor incompetence, may rely on self-evaluative criteria to provide high perceptions of competence. Although not investigated

here, the use of self-evaluative criteria may also represent a conception of ability that is based on effort. According to Nicholls (1989), children's conceptions of ability and effort become more differentiated with age. Support for this hypothesis has been provided in the literature (Fry & Duda, 1997; Lee, Carter, & Xiang, 1995; Xiang & Lee, 1998). However, Lee and colleagues (1995) also found that some older children retained a less differentiated view of ability and effort. It could be that the use of self-evaluative criteria by children in this study is in part a reflection of their conceptualizations of ability that support high perceptions of competence. In basing ability on effort children may also have had an increased sense of behavioural control leading to higher perceptions of competence as predicted by Harter's (1978, 1981, 1999) theory. This is similar to what is posited by Weiner (1996) in his attribution model. According to this model when ability is attributed to effort the internal locus for control increases.

A few children identified the actions of others as a determinant of their competence. Specifically being taught by close relatives was seen as contributing to becoming proficient in sports and games. Interestingly, there was no mention of school teachers or coaches as determinants by any child. This may be a reflection of the environments in which these children typically engaged and were successful. It was also interesting that children did not refer to the teachers or coaches in their specialized sport contexts as determinants, where they reported high perceptions of competence.

The results of this study must be considered within the context of the questionnaire guiding the interviews. While children were asked open ended questions, these were affected by the questionnaire statements. Children were provided with a social comparison group of 'other children' which essentially imposed children as the

comparison group. While children could determine who these 'other children' were this was also impacted by the wording of the questionnaire statements. For example, specifying children 'their age' seemed to encourage some respondents to think about their school peers. Additional concerns about the phrasing of questions emerged in the use of the descriptors, sports and games to define the athletic domain. It seemed that the children referred primarily to their competence outside of the school setting. While this may be a reflection of their salient activity experiences, the wording of the questionnaire may have compelled participants to retrieve different sources of information. Also, in replication of what was found in Chapter 2, half of the children in this study had difficulty responding to at least one questionnaire item due to the forced-choice alternative format that was incongruent with their thinking. These children revealed that none of the response options represented their perceptions that they could be 'good and not good at sports' at the same time. This is consistent with the developmental view that children begin to integrate opposing views of self and underscores what appears to be an inconsistency between theory and questionnaire format. The 'either or' response options constrained children's responses, yet their open-ended responses were consistent with Harter's cognitive developmental approach.

The children in this study employed various sources of information to formulate competence judgments. Social comparison, performance, feedback and self-evaluative criteria were identified by children in response to questions about the self-assessment of athletic competence. In keeping with the developmental perspective put forward by Harter (1999) children appeared to integrate divergent competence assessments. This was demonstrated in two distinct ways. First, two participants held contrasting self-

evaluations within the same domain as revealed by questions of social comparison. Second, children who had difficulty answering questions because they felt both sides of the questionnaire were true for them highlighted another way in which opposing competence judgments were held simultaneously. Because children were not asked about their preferred sources of competence information, it was not possible to speculate if the developmental differences in preferences for specific evaluation information hypothesized by Harter (1978, 1999) also held true for these children. These children did however demonstrate preferences for specific sources of social comparison that were tied to high perceptions of competence. In particular, children's selection of other children with disabilities as a source of positive competence information may be an indication of the kinds of activities and settings that are more likely to foster positive perceptions of self for children with disabilities. It may be that specialized settings provide opportunities and social comparisons that support the development of positive perceptions of competence for these children. This may have critical implications for inclusion research in adapted physical activity. Given that perceptions of competence are associated with motivation to engage in physical activity, it is imperative that children with disabilities are provided with legitimate activity opportunities to develop and sustain positive perceptions of self. Specialized sport settings may be more successful in achieving this goal and ultimately the promotion of lifelong physical activity participation for children with disabilities. This notion questions long held assumptions in adapted physical activity about the appropriateness and relevance of integrated/inclusive settings. Alternatively, it may also be that children's conceptions of ability lend themselves to a reliance on different sources of competence information. For example if children conceive of ability

as closely tied to effort then self-evaluative criteria may be more salient. Finally, the SPPC-ACDS and Harter's recommendations were useful in accessing information about children with disabilities' perceptions of competence and sources of competence information. However, the results of this study must be considered within the confines of this instrument and questions asked. As researchers we are often unaware of how the questions we ask shape the answers participants provide (Schwarz, 1999).

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Table 3-1

Sample of Interview Questions

Question Category	Sample Questions
Social comparison processes	Who were you comparing yourself to?
	What group of kids were you thinking about?
Bases of self-judgments	How do you know that you_____?
	What makes you think_____?
Determinants of competence	How did you get to be_____?
	What happened to make you_____?
	What's the main reason why you are_____?

Note. From "Manual for the Self-Perception Profile for Children," by S. Harter, 1985.

CHAPTER 4

Children with Disabilities on

Feeling Included in Physical Activity

Inclusion, how it is understood, implemented and justified, has been at the core of adapted physical activity debate since the late 1980's (DePauw & Doll-Tepper, 2000). In the literature, broad understandings of inclusion have tended to emphasize such things as accessibility, human rights and equal opportunity. In recent years, inclusion in physical activity has been put forward as a philosophy, a process and an attitude (DePauw, 2000; DePauw & Doll-Tepper, 2000; Sherrill, 2004). It has been characterized as a movement toward progressive inclusion where people with disabilities have choice and are part of society (DePauw & Doll-Tepper, 2000). Within the educational setting, including physical education, inclusion has been defined as including children with disabilities in regular education classes commensurate with their needs and abilities with proper supports to ensure success (Stainback & Stainback, 1990).

In addition to the focus on needs and supports, Stainback and Stainback (1990) also acknowledged the importance of a sense of belonging, acceptance and value as critical components of inclusion. In his definition of integration, Nirije (1985), stated that "integration is based on recognition of a person's integrity, meaning to be yourself – to be able and allowed to be yourself among others" (p.92). A sense of belonging, acceptance and value places emphasis on the perspective of the individual with a disability, a viewpoint that is also apparent in Nirije's (1985) concept of integration. The perspective of the individual brings to light a distinction between what inclusion is and what it is about. That is, inclusion is a perception of the individual in the setting. Physical activity

inclusion research has tended to emphasize what inclusion is about, by for example examining such elements as program characteristics that communicate a respect for rights, choice and accessibility and by providing support based on individual needs. The rights-based, supports-based, philosophical and process approaches to inclusion attempt to answer the question 'what is inclusion about?' An individual perspective approach asks the question 'what is inclusion?' and seeks to understand what it is about through the individual's perspective. Stated differently, a genuine understanding of what inclusion is, why, how and if it is or is not occurring, must be informed by the perceptions of those who may or may not experience it.

The majority of physical activity inclusion research with children with disabilities has taken place in the general physical education setting guided by the philosophy of supporting individual needs (Block, 2000). Recently, Block and Obrusnikova (2007) reviewed and analyzed ten years (1995-2005) of physical education inclusion research. Of the studies included in their review, six focus areas were identified which included: (a) support, (b) affects on peers without disabilities, (c) attitudes and intentions of children without disabilities, (d) social interactions, (e) academic learning time in physical education of students with disabilities, and (f) training and attitudes of general physical education teachers. While the number of studies investigating the inclusion of children with disabilities in physical education has increased (Poretta & Sherrill, 2005), a limited number of studies have emphasized the perspective of the child with a disability. Inclusion in physical education has tended to be investigated from the perspective of its impact on others (e.g. teachers and peers without disabilities). The viewpoints and

experiences of children with disabilities have received little attention (Blinde & McCallister, 1998; Goodwin & Watkinson, 2000).

Inclusion in Physical Education from the Perspective of Children with Disabilities

While not abundant, research in physical education has begun to examine perceived inclusion by asking the child with a disability about his or her experiences. Blinde and McCallister (1998) used open-ended interviews with students with physical disabilities to gain insight into their perceptions of physical education. While there was variability in experiences, some positive and some negative, two outcomes emerged as representative of the most common responses. Limited participation in activities emerged as a frequent outcome for most children. While one child described enjoyment and high levels of involvement, most children described few opportunities to take part ranging from taking on outside roles such as a line judge or observer, to complete exclusion. Secondly, negative emotional responses such as sadness and anger emerged as a result of being excluded and feeling like an outsider. Some students reported wanting to be included in activities, while others said they felt embarrassed because they were unable to complete skills and would prefer not to attend physical education at all. Lack of teacher implemented activity modifications and negative behaviour of classmates directed toward students with disabilities were seen as primary contributors to the negative experiences reported. Despite these negative physical education experiences, most children expressed a desire to be involved in games and sport and did so outside of physical education.

Guided by Gibson's (1979) concept of environmental affordances, Goodwin and Watkinson (2000) also examined inclusive physical education from the perspective of elementary children with physical disabilities. Focus group interviews, field notes and

participant drawings were used to identify, from the perspective of the child with a disability, what affords a positive experience (good day) and a negative experience (bad day) in physical education. Themes that emerged under the idea of a 'good day' in physical education included a sense of belonging, skillful participation and sharing in the benefits. Themes emerging under the idea of a 'bad day' included social isolation, questioned competence and restricted participation. Relationships to and with others appeared to play significant and consistent roles in the perceptions of both 'good' and 'bad day' experiences in physical education for children with disabilities. Similar to the findings of Blinde and McCallister (1998), feeling included or not included in physical education was largely dependent on the children's interactions with others.

The salience of relationships to others was also revealed in a study by Goodwin (2001) who explored the meaning of help in physical education from the perspective of children with disabilities. Results of the thematic analysis revealed perceptions of peer support in physical education to be either positive and self-supporting or negative and self-threatening. Themes of positive and self-supporting peer support included receiving help that was instrumental, caring and consensual. Themes that were self-threatening included help that resulted in a loss of independence and threat to self-esteem, and was perceived to be incompetent or interfering. The results of this study lend support for the consequential role that others appear to play in children's physical education experiences.

Hutzler, Fliess, Chacham & Van Den Auweele (2002) also found that elements of social interaction and relationships to others were consistent features of children's perceptions of inclusion and empowerment as revealed through semi-structured interviews. Among the themes identified in this study, which included assistive devices,

peers, physical activity, adults and the self, a dichotomy of both supporting and limiting mechanisms to inclusion that were tied to social interactions with others were presented. For example, the use of an assistive device was associated with ridicule (limiting mechanism), as well as providing positive opportunities to interact with others (supporting mechanism). Also stressed in this study was the importance of recognizing individual differences and perceptions when examining factors that contribute to an inclusive or exclusive physical activity experience.

In a case study of 3 eighth graders, Place and Hodge (2001) examined the social inclusion of students in a general physical education program. In addition to video and non-participant observation, semi-structured interviews were used to gain an understanding of the students' perspectives of whether or not they were socially included within physical education class. Types of interactions between students with disabilities and students with and without disabilities and how students spent class time were analyzed. Results of the interviews revealed two themes. The first was segregated inclusion, where students with disabilities were physically separated from students without disabilities by distance. The second theme was social isolation and involved feelings of exclusion, neglect, being seen as objects of curiosity and awkwardness with peers. Very little social interaction occurred during physical education for the children with disabilities. When it did occur it was typically among students with disabilities and rarely with their other classmates. While some negative experiences were reported with students without disabilities, most interactions were helpful in nature but lacked friendly chat. Students with disabilities for the most part were active and on task, although they also spent considerably more time waiting and less time in knowledge content than did

students without disabilities. Highlighted in this study was the lack of interaction between students with and without disabilities. While part of this may be due to self-selection, through the choosing of partners who also had disabilities (Place and Hodge, 2001), the authors suggested that opportunities to interact with all students need to be present and students need to be encouraged to do so.

Common across these studies is the salience of 'others' in children's accounts of their positive and negative experiences in inclusive physical education. These studies reveal much about children's experiences and in particular the importance of meaningful interactions and relationships with others to positive experiences. These results provide generalized support for an understanding of inclusion that begins with the perception of the child and allude to Stainback and Stainback's (1990) description of inclusion as a sense of belonging, acceptance and value. Although children have been asked about their experiences in 'inclusive' physical education they have yet to be asked about their perceptions of what inclusion means to them and what are the salient features of feeling included in physical activity. Understanding inclusion as a perception of the child, informed by the child, may provide guidance for the kinds of activities and settings that best support and fulfill the needs of children with disabilities.

Purpose

The purpose of the current study was to investigate what it means to feel included in physical activity, sports and games from the perspective of children with disabilities. Understanding what it means to feel included from the perspective of children with disabilities is a critical first step in asking subsequent questions about the important mediating factors affecting a child's sense of inclusion. Specifically then, the purpose of

this study was to find out from children what it means to feel included and how it is realized in physical activity.

Method

Participants

A purposeful sampling approach using a maximum variation strategy was used to recruit children who would provide rich information about the issues of interest to this study. This strategy aims to capture individual differences and to identify shared patterns of experience or phenomena that cut across significant diversity (Patton, 2002). Eleven participants (2 girls and 9 boys) between 8 and 12 years of age took part in this study. Children had a range of disabilities varying in severity that included cerebral palsy, muscular dystrophy, fine and gross motor delays, developmental coordination disorder, limited shoulder mobility due to an obstetrical brachial plexus injury, nemaline myopathy and severe asthma. All children were independently ambulatory with the exception of one child who was a regular wheelchair user and two children who used wheelchairs on occasion. The children in this study were recruited from two specialized sport and activity programs and had taken part in one of two previous studies. In addition to their specialized sporting experiences all children had experiences in integrated physical activities such as school physical education and/or community based activities. All participants had or were currently attending regular schools. At the time of this study two children were being home schooled due to the nature of their disabilities and the inability of the school boards to meet their needs. Having children with a range of disabilities and variety of activity experiences was expected to enhance the richness of the findings. Approval for this study was granted by a University research ethics board and the

organizations from which the children were recruited. Only children for whom informed consent was provided and who were willing participated in the study.

Design and Data Collection

Two sources of data, semi-structured interviews and reflective notes were used to increase the trustworthiness of the findings of this study.

Interviews. An interview guide was developed for use in this study. The interview guide provided a framework to develop and organize questions, while allowing flexibility to pursue participant responses in greater depth (Patton, 2002). The guide was generated following a procedure designed by Watkinson, Dwyer, and Nielsen (2005). In their study children around the age of 8 years old were asked to theorize about engagement decisions in recess activities. In this study children with disabilities were asked to theorize about feelings of inclusion in sports and games. The original procedure involved three levels of questioning. In this study only the first level of questioning was employed. In the first level of questioning children were asked to theorize about feeling included in physical activity from the perspective of a fictional child who was 'like them.' As recommended by Stone and Lemanek (1990) and in keeping with the procedure used by Watkinson et al. (2005), fictional children and imaginary descriptions of physical activity scenarios were used so that participants would not have to disclose their own feelings early on in the interview. For example, the children were asked to provide examples of when a 'kid like them' might feel included or not included in sports and games. This open-ended approach was also designed to allow children to generate their own ideas and responses, and encourage the verbalization of thoughts and personal points of view (Ginsburg, 1997). Finally, in order not to constrain children's responses to one particular setting (e.g.

physical education), the terms 'sports' and 'games' were used by the interviewer to refer collectively to physical activities and activity settings.

Two pilot studies took place, with two 10 year old girls, one with a disability and one without a disability. Based on the results of the pilot studies additional questions were added at the beginning of each interview. The questions involved asking children about the meaning of the word included, what it meant to feel included and to provide an example. Following the children's explanations, the interviewer posed additional questions as needed to ensure understanding. This first inquiry was to determine the children's understanding of the domain of interest. The interview then continued with the first level of theorizing.

Reflective notes. Following each interview, the interviewer recorded reflective notes. These notes reflected initial impression of the child, his or her behaviour and the interview process.

Analysis

All interviews were transcribed verbatim. Content analysis served as the basis for the data analysis. This approach was selected as it is particularly useful for identifying core consistencies and meanings from a large quantity of qualitative data (Patton, 2002). To first gain a sense of the overall data, each interview was read with the researcher taking reflective notes as a preliminary sorting-out process (Creswell, 1998). Following Morse and Field's (1995) recommendations for content analysis, a line by line analysis was carried out in which words, sentences and paragraphs were examined and grouped by topic. These topics formed an overarching primary theme. Once all the data had been

grouped, themes were developed within the primary theme until saturation was reached and no new data were emerging.

Standards of quality and verification are key issues in qualitative research (Creswell, 1998). The trustworthiness of this study was sought in various ways. In addition to conducting two pilot studies, two sources of data (interviews and reflective notes) were collected to establish credibility. Dependability and confirmability of the findings were established using a second reader who independently coded the data. Differences in the coding were discussed, and changes were made until consensus was reached. Finally, an audit trail was also used to document these and other decisions made through out the study.

Results

At the beginning of the interview each child was asked to explain what the word included meant, what it felt like to be included and to provide an example. Although similar to the purpose of this study, this initial questioning was carried out to ensure children's understanding of the word 'included.' Explanations and examples provided by the children were varied, yet alike. Some children suggested that being included meant being part of something, part of a group, where people know and like you. Having friends, wanting to play, being asked to play and not being left-out were reiterated by the children as part of being and feeling included. Several children also shared that feeling included meant feeling happy and good. All children also agreed or expressed that feeling like you belong, that it is okay to be yourself and that you matter were all part of what it meant to be and feel included. While children provided different examples, these initial responses appeared consistent with the researcher's interpretation of the domain of

interest as a sense of belonging, acceptance and value. This first inquiry allowed the interviewer to use the word 'included' in the theorizing portion of the interview confident that there was a mutual understanding of the term.

The findings of this study are reported in the children's own words. Children utilized first, second and third person, employing inconsistent use of pronouns in their responses. In making reference to a child who was 'like them' in their responses, children often appeared to be referring to themselves. When discussing feelings of exclusion, children unanimously used the terms 'not included' or 'not feeling included.' Consistent with the children's expressions, these terms were employed in discussing the findings. Finally, for the purposes of maintaining confidentiality children's individual pseudonyms were not tied to their disabilities.

Feeling included: Features and Degrees

The data from this study were organized under a primary theme identified as 'feeling included: features and degrees.' The term 'feeling included' was representative of the way in which children expressed their understanding of inclusion. The content analysis of the interview data resulted in the emergence of three different themes (features) within this primary theme. Together these three themes illustrated children's perceptions of what inclusion was, what it means to feel included and the salient features within a physical activity context that lead to these feelings. The themes of 'permission to play', 'legitimate participation' and 'friends' emerged when children were asked to theorize and generate their own ideas about feeling included in physical activity, sport and games from the perspective of a child who was 'like them.' Children discussed feeling included in terms of features that appeared to be significant conditions for feeling

included. These themes also crossed over with children's responses to the initial comprehension question of the meaning of the word included. Also evident in their responses and theorizing was the idea that feeling included was a matter of degree that depended heavily on the three themes. Children indicated that they could feel more or less included depending on different features as they theorized and shared their personal perspectives.

Permission to play. A critical aspect of feeling included for the children in this study was associated with the idea of having permission to play or take part in activities. Of the 11 children interviewed, 10 made reference to aspects of feeling included that were characterized by others' acceptance or rejection in the initiation of playing with others. Being asked or invited to play were linked to feeling included. Not being asked to play or having others say no to a request to take part were associated with not feeling included.

In theorizing about feeling included Nathan said, "Like if you've ever played a basketball game before and you've nothing to do at recess you go ask the people that are playing basketball if you can join them and they say yes," suggesting that acceptance by other children would make him feel included. In contrast he explained that not feeling included would occur "when there's a group of kids that don't like you and nobody likes him because they don't like people and you want to play with them and they say no." Not being allowed to play also contributed to feeling not included as demonstrated in the following dialogue with Jamie.

Jamie: Well, if someone said that you can't play, then you're not included in the game.

Interviewer: And how would that make a person feel?

Jamie: It would make them feel really sad and not important and like they don't belong or don't anything. It makes them feel like they're treated like an insect or something.

Jamie then recounted a past experience at recess when he did not feel included:

Jamie: Well, I asked if I could play tag with them, and they said, 'no you can't play with us.' I went to the teacher, the teacher told the kids to let them play and then I asked after the teacher even said that, and they still said 'no, you can't play.' So I came to the teacher again and I kept going on and on and on until I just walked away.

Interviewer: So you never got to play in the end?

Jamie: No.

Interviewer: And how did that make you feel?

Jamie: Really mad.

Interviewer: Really mad? So you were angry that you didn't get to play?

Jamie: Yeah, because it was like freeze tag and I like freeze tag.

Sam similarly theorized that not being allowed to join in a game would make others not feel included. "Like when they want to play a game and one of the sports, like hockey and they don't let you, [they] just ignore them" but that they would feel included "if they let them play hockey."

In discussing a move to a new school, Brandon explained feeling included when children let him play, and having mixed emotions when they did not let him join in. "And they would let me join in games and that made me feel really, really good and I was all

happy and everything. Like sometimes they wouldn't let me join, but sometimes I wasn't okay with it and sometimes I was" said Brandon. In Hallie's own words she said she felt included when "some of my friends at school ask me sometimes if I want to play, but they don't normally ask me." She also shared that it was important to want to play to feel included, because you had to want to include yourself. Jessica agreed that part of feeling included was related to wanting to be included. She also shared that being "invited to come and play" would make her feel included because in her words "it makes you feel like they want you to play with them."

Adults in addition to peers were identified as influencing opportunities to participate and to feel included. Isaac recounted a personal story of not feeling included. He said, "I was kind of hoping that my parents would let me play basketball with the other kids. They said no and I was really disappointed." Likewise Tom shared how the decision of an adult could make a child feel included or not. "When the coach lets them join the team [a kid would feel included]...but sometimes they wouldn't, before the coach didn't let me try out."

Legitimate participation. Feeling included or not included in sports and activities was also characterized by a sense or lack of legitimacy as a participant. Children associated making contributions and taking on important roles with feeling included, whereas adult intervention and few opportunities to take part were associated with feeling not included. Children's feelings of legitimacy and inclusion appeared to stem from a sense of importance, perceived competence and value in the activity setting, but was compromised when activity was adult initiated or children perceived themselves to have fewer opportunities to make meaningful contributions.

Brandon shared a past experience of playing goalie in a soccer game at recess. He explained that making a contribution to his team and having a valued role made him feel included:

> But, I went like this and I felt the ball hit my hands and I opened my eyes and it bounces back and I'm like 'oh, yeah, I saved it!' And then Jim does it again and he hits the crossbar and then it was the end of recess. And then I was on the other side the next recess and Danny's a really good player and he can score on me but this time he was like one foot away from me, no actually about two of your feet [pointing to the interviewer's feet] away from me, and he kicked the ball and he was hoping to go over my head but I caught it, like this, and he's really, really, really good at soccer so I was pretty proud.

Aidan talked about how making a contribution to his team made him feel included. He said that getting goals and winning were important to feeling included, but that not getting any goals made him feel like he was not very included. Likewise, Tom shared that being "in a big game," in a position to contribute was part of feeling included.

Nathan expressed the importance of contribution and being taken seriously by others in a game, in that others tried hard against him "instead of soft" in feeling included. To explain his feelings he described the following past events:

> Nathan: There's this one guy, like talking about a different guy, he had like his arm amputated, so everybody was really good, but everybody was just taking soft on him because he was on the other team and we were afraid – so they wouldn't really steal the ball, and one guy actually did steal the ball and he tripped him and

the kid hit really hard because he didn't have anything to stop him. So yeah, every kid was yelling at the kid that tripped him.

Interviewer: But do you think that the kid who got tripped, do you think that that maybe made him feel more included that the kid went hard after him?

Nathan: Yeah, like when I was at a game and people know I have a disability, they'll go easy on me, they'll go slow, they won't hurt me, they'll try to be nice, right. But once I steal the ball, once I slide, once I throw the ball – it was like on a slant on this hill and I threw the ball and it would always hit off their player and go out. We got like a corner kick from doing that. I made it from half corner to a corner.

Interviewer: So all of a sudden they're like, wait a second, this guy is pretty good?

Nathan: Yeah.

Interviewer: Now how did it feel like before they realized you were pretty smart and pretty good at it? How did it feel when they were taking it easy on you?

Nathan: It didn't feel really good because it felt like they didn't really need to do anything.

Interviewer: So it's just not feeling included by your team, you need to feel included by the other team?

Nathan: Yeah.

Nathan, Isaac and Luke explained how you could be involved in a game or on a team but still not feel very included. Nathan explained how a child could be playing a game but not feel included because it was initiated by a teacher or parent.

Interviewer: So you could still be playing the game but not feel included in the group?

Nathan: Yeah, like the teacher makes you forced to play the game.

Interviewer: Ah, the teacher makes you, or could the teacher also make other kids let you play?

Nathan: Yeah.

Interviewer: And those kids still wouldn't feel very included? Can you think of any other reasons why?

Nathan: If you're made to – if you never played basketball before and you don't want to, but your mom makes you. You wouldn't feel really good. You don't really come to the games and feel good at practices.

Isaac said that being on a team was not enough to feel included, if a child did not get to go on the field in soccer. "I think they would feel left out," he said referring to the lack of playing time. Brandon also talked about playing time and legitimate participation in the following dialogue:

Brandon: In any sport, if the coach benches you and then when you're down by one point, say in soccer, then he puts you on, you feel not right. Like if he puts you on for at least half the game or a quarter, maybe.

Interviewer: You mean that you get put on because you're losing anyway? Is that what you mean?

Brandon: Yeah, because they're losing and he's the only player left. Say in basketball, all the others got injured and he's the only player left and they're

losing and the coach finally says, you know what, you know like in baseball if the coach says don't swing, don't swing, just take the walk.

Interviewer: He's not asking you to try hard?

Brandon: Yeah.

Interviewer: So you don't have an important part on the team?

Brandon: Right. It's not like being included. I know it's being 'included' but you just don't feel like you're included.

Also highlighted in this dialogue is Brandon's recognition of the difference between being included in a game and feeling included in a game, demonstrating the difference between traditional definitions of 'inclusion' and inclusion understood as a perception of the individual. Finally, Luke said that "when you get picked on a team and you're not always picked last" was important to feeling included because it meant you belonged somewhere. He continued "when you're always picked last, you're sort of like the leftover player no one wants," referring to the lack of legitimacy surrounding his selection by default.

Friends. The final theme that emerged from the first level of questioning was 'friends.' Having friends was seen by the children in this study as significant, not only to feeling included, but also in opportunities to take part. Friends were more likely to invite friends to play and to encourage them. In contrast, not having friends was associated with feeling not included, being teased and limited engagement.

Isaac shared that having friends in sports could make him feel included because as he said "it's nice to have friends and not to feel left out and someone you can actually trust...because friends make you feel comfortable with yourself like because there's

always someone there for you." Brandon shared how his school friends helped him to feel included by recognizing his disability and encouraging him:

> They were all cheering for me, 'yeah Brandon!' and in kickball they know I have a disability and they're very cheerful, they're like more cheerful for me, they cheer me on more, with me, than with other players. I mean, they still cheer them on, but like for me they know I have a disability and I can't do that much and everything.

Sam highlighted the importance of friends in facilitating the opportunity to play and feel included. He said, "cause sometimes if you're not friends with any of the people you're playing with sometimes they don't even let you play." Jamie, Aidan, Tom and Luke all agreed that having friends could make you feel included in sports and games. Hallie also agreed that having friends was "a big part" of feeling included because "friends make you feel included," she said. She then shared how friends could limit participation and contribute to not feeling included when they made fun. In response to a question about why a child might not feel included she said:

> Because you were playing and you blew-it and all your friends could laugh at you and I don't really like how that feels when people laugh at you…and make fun of it…if you do something wrong your friends at school will definitely hear about it.

In Jacob's response to a question about what might make another child not feel very included he sighted the lack of friends and also provided an example of a child being teased.

> Interviewer: Now can you think of an example of when a kid might not feel very included in sports?

Jacob: If someone would call him chicken or something.

Interviewer: So if someone called him chicken – is that like teasing or something?

Jacob: Well, like calling names and things. Like being, acting like a bully to him.

Permission to play was often evident in children's discussions of friends. Jacob demonstrated how friendships could facilitate play and play could facilitate friendships in the following quote:

> And usually, well, usually, they just walk up to me and they ask 'can I play with someone' and that's how I make new friends. I play with them. Well, there's two reasons why. Sometimes I'll go up to them and ask them 'if I can be your friend,' once I get to know them, I ask them that. And then, another reason to make friends with them, is to play with them when they ask 'if they want to play.' And whenever they do that I always say to them, 'sure, you can play.'

Jessica provided an example of a child not feeling included and in doing so also captured the importance of friendship in facilitating opportunities to play. She said, "When they're left out a lot, [they] don't get to do as much. They don't have any friends, they don't have anybody to play with, or invited – like don't invite them to play with them and you feel left out." Later in the interview she added, "you know when nobody wants to be your friend or anything you don't feel included. You feel left out and lonely."

Discussion

The purpose of this study was to understand feeling included in physical activity from the perspective of children with disabilities. The interview procedure was useful for asking children about topics of a sensitive nature. Although at times some children had difficulty theorizing about other children 'like them,' other children in the study had

difficulty sharing thoughts and experiences of a more personal nature. The questioning strategy encouraged children to share their thoughts in a way that was most comfortable for them (e.g. in reference to another child or to themselves). Children unanimously provided explanations and examples that corresponded to an understanding of inclusion as acceptance, belonging and value as actualized through the three themes identified within the primary theme of 'feeling included: features and degrees.' These themes were generally consistent with what has been found in physical education inclusion studies from the perspectives of students with disabilities. Synonymous with the findings of Goodwin and Watkinson (2000), people played an important role in the positive and negative experiences of the children in this study. In particular, peer support as highlighted by Goodwin (2001), social isolation as described in the work of Goodwin and Watkinson (2000) and Place and Hodge (2001), and negative emotional responses described by Blinde and McCallister (1998) harmonized with aspects of each of the three themes revealed in this study. Children theorized about and referred to positive and negative experiences associated with social interactions and lack of interactions. Feeling included was closely tied to invitations to play, being treated as a legitimate participant and having friends, all of which were linked to the behaviours and presence of others. The opposite was revealed in children's responses of feeling not included. Due to the nature of physical activity, sports and games, it was expected that peers and others would feature prominently in children's sense of belonging, acceptance and value. The significance of others appears to be an over arching theme of inclusion research from the perspective of children with disabilities.

Permission to play

Echoed in the theme of permission to play were aspects of restricted or limited participation and the importance of a sense of belonging as revealed in the work of Goodwin and Watkinson (2000) and Blinde and McCallister (1998). Children in this study responded that not being asked to play by other children and being told that they were not welcome to take part led to feeling not included. A sense of belonging and importance was perceived by children when others did ask them to take part. Similar to research that identified the significance of an invitation to take part through the act of being picked for a team or to partner with someone in physical education (Suomi, Collier, & Brown, 2003), being asked to play was very salient for children in free play settings. Unlike physical education however, in free play settings other children could often dictate who participated and who did not through the extension or withholding of an invitation to play. This highlights was appears to be a significant challenge in the promotion of inclusive free play settings. In the adapted physical education literature, the teacher bears significant responsibility for facilitating inclusion, whereas in free play, opportunities to feel included appear to be child directed and determined.

Legitimate participation

The theme of legitimate participation also revealed similarities to the work of others (Blinde & McCallister, 1998; Goodwin & Watkinson, 2000, Wolfensberger, 2000). Being a legitimate participant according to the children in this study meant having important, appropriate and valued roles that led to contribution and were associated with feeling included. This idea of holding valued roles is reminiscent of the concept of social role valorization. According to Wolfensberger (2000) social role valorization is the idea

that an individual's welfare depends to a significant degree on the social roles they hold. Furthermore, if these roles are valued by others then the people who hold them will be well treated. Conversely, if these roles are devalued then those who hold them will be poorly treated. In this study, legitimate participation in sports and games was associated with the perception of holding a valued role. Analogous to what Wolfensberger predicted, that individuals who hold valued roles are well treated, children suggested that having an important role and being in a position to make a valued contribution were associated with a sense of acceptance, belonging and value in the activity settings in which they participated. Likewise, when children were not given important roles or when others underestimated the types of roles they were capable of holding they were treated differently and subsequently did not feel included. Making contributions also appeared to be linked to children's own perceptions of competence in these physical activity domains. While perceived competence is typically associated with theories of motivation (e.g. Harter, 1978, 1981) it also appeared to play a role in these children's perceptions of themselves as legitimate participants and subsequently in their feelings of inclusion. Legitimate participation was therefore dependent on the behaviours of others that could enhance or challenge a child's sense of belonging and value as a participant, as well as the child's own perception of his/her contributions. Acceptance by others in games and sports through such things as exerting effort and recognizing the strengths of the child with a disability, appeared to enhance feelings of inclusion. These feelings of inclusion were challenged when for example a child was not fully engaged in activities as illustrated by such things as not being passed to in soccer, lack of playing time or others failing to exert full effort.

Friends

The importance of friendships in feelings of inclusion has been recognized in the physical education inclusion research from the perspective of children with disabilities (Hutzler et al., 2002; Place & Hodge, 2001). The theme of friends permeated much of children's theorizing around feeling included and not included in physical activity and sports. The potency of friendships could compensate for lack of perceived and actual competence, as well as the contexts within which children played. Encouragement, support and having fun were associated with friends and feeling included. By comparison, being teased, bullied and made fun of by others were especially salient in feeling not included for children. Friends appeared to be a significant, if not the most significant feature of feeling a sense of acceptance, belonging and value for children with disabilities in sports and games.

The importance of 'others' in children's feelings of inclusion highlights the social nature of sports and games. In reflection of their findings on the importance of social inclusion in physical education, Place and Hodge (1998) asked the question: "What can be done to increase the occurrence of social interactions between students with and without disabilities, and in turn promote social inclusion?" (p.402). Recommendations for inclusion in physical education such as peer tutoring, changing the nature of activities (e.g. not using competition), and modifying equipment, among others, reflect an effort to enhance children with disabilities opportunities to take part successfully and to feel socially included by their peers (Sherrill, 2004). In addition to facilitating these modifications, it is the teacher who bears primary responsibility for creating an environment of social acceptance (Block, 2000). However, the children in this study

suggested that adult intervention does not lead to 'true' inclusion and may at times even undermine it. While there is a significant amount of literature in the area of adapted physical activity on the role of the teacher as facilitator in making inclusion a reality in physical education, the children in this study say forced participation on their own part, or the part of others is not the same as feeling included. Unlike the review of studies presented at the beginning of this chapter, the findings of the current study are situated within a broader context of physical activity, beyond physical education. There were no instances where children referred directly to physical education in their theorizing about feeling included, although references to recess did occur. It may be that despite efforts to create inclusive environments in physical education, by referring to out of school experiences children may be indirectly saying that they do not consider 'inclusive physical education' as true inclusion because it is constructed by adults.

In the present study the words 'sports,' 'games' and 'feeling included' elicited the sharing of experiences and theorizing in the context of free play and organized activity outside of the school environment. The inclusion of children with disabilities in play and sports has not only been a concern to physical education professionals but has also been of central importance to professionals in community and therapeutic recreation and leisure. Much of the research in this area has been intervention based with a focus on developing activity/leisure, decision making and social skills, using play and sports as mediums (Dattilo, 2000). While inclusion has been an emphasis of research in this area, similar to the physical education literature, there are few studies that speak to children with physical disabilities' perceptions of their own 'inclusive' experiences. In one such study that examined physical activity in various settings for children with physical

disabilities, opportunities to socialize and feel accepted were pivotal in personal accounts of normalizing experiences (Taub & Greer, 2000). Like physical education, social interaction and acceptance have been acknowledged as central to positive recreation and leisure experiences for children with disabilities (Loy & Dattilo, 2000; Taub & Greer, 2000; Tsai & Fung, 2005). In the current study interactions and relationships with others featured prominently in children's descriptions of what it meant to feel included or not included in sports and games. The social nature of play, sports and games appears to underlie feelings of inclusion in various types of activity settings.

Although children referred to the role of adults (e.g. coaches and parents) in feelings of inclusion, it was peers who appeared to play the most significant role in feeling included or not included in sports and games. The uncontrived acceptance by other children was the most significant contributor to children's feelings of acceptance, belonging and value. According to children, friends were not only more likely to provide permission to play through invitation or acceptance of a request to join in an activity, but they were also more likely to enhance the legitimacy of children with disabilities' participation. Unlike physical education or structured recreation settings, in free play children tend to dictate who gets to play, what game is played and how it is played. Organized community sport may also differ in significant ways from physical education. Typically these activities are competitive in nature and are less likely to support the individual needs of children with disabilities. Given that individuals who lack movement competence or who are different are at greater risk of rejection by peers and social isolation (Asher & Dodge, 1986; Castenada & Sherrill, 1999; Schoemaker & Kalverboer,

1994) free play and organized sport may pose significant challenges for children with disabilities.

The question of "what can be done to increase the occurrence of social interactions between students with and without disabilities, and in turn promote social inclusion [in physical education]?" (Place and Hodge, 1998, p.402) is also relevant in other activities settings. Physical activity may provide important opportunities for the development of social bonds for children with disabilities (Taub & Greer, 2000) however understanding the best ways to facilitate these in settings outside of school physical education and structured recreation and leisure has received little attention. There is a significant need to investigate children with disabilities' free play activity experiences in order to promote lifelong physical activity in ways that are commensurate with what children perceive to be the critical features of feeling included.

While obtaining information from children can have substantial challenges, it is essential to research that seeks to understand children, their thoughts, feelings, development and behaviour. The child's perspective is a valued and important contribution toward understanding children and their experiences (La Greca, 1990). Asking children with disabilities about their perspectives is the critical first step toward understanding what inclusion is and the factors that make significant contributions to its realization in physical activity.

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CHAPTER 5

Children with Disabilities' Perceptions of Inclusion and Competence in Different Sport and Game Contexts

A central focus of research in adapted physical activity has been to investigate factors affecting the integration (meaning children with and without disabilities learn and play together) of children with disabilities in physical activity contexts (Poretta & Sherrill, 2005). Definitions of integration have changed over the years. Presently the term inclusion has replaced integration and is used to refer to the idea that inclusion is more than just a placement (Reid, 2003) and acknowledges the importance of a sense of belonging, acceptance and value (Stainback & Stainback, 1990) from the perspective of the individual. However, most of the inclusion-related research in adapted physical activity has and continues to address the perspectives of others (see Block & Obrusnikova, 2007 for a review) and very little is known about inclusion from the perspective of the child with a disability. Inclusion conceptualized as a feeling of belonging, acceptance and value from the perspective of the individual changes the way in which we go about asking and answering inclusion-related questions. To better understand the factors that impact successful inclusion, the perspective of the child must be the starting point for inquiry.

In a recent study (see Chapter 4) the meaning of inclusion was investigated from the perspective of children with disabilities. Children were asked about what it meant to feel included in sports and games from their own perspective and to theorize about the perspectives of children who were 'like them.' In harmony with aspects of Stainback and Stainback's (1990) definition of inclusion, children concurred that feeling included was a

sense of belonging, acceptance and value as expressed through the themes of permission to play, legitimate participation and friends. Children shared that feeling included involved being asked to take part or allowed to join in a game, having important roles and making contributions in activity, and most importantly having friends. An overarching theme of this study and others that have examined inclusion in physical education from the perspective of children with disabilities (Blinde & McCallister, 1998; Goodwin, 2001; Goodwin & Watkinson, 2000; Hutzler, Fliess, Chacham, & Van den Auweele, 2002; Place and Hodge, 2001), was the salience of others, and peers in particular, in children's positive activity experiences.

While the results of these studies place an emphasis on the importance of feeling socially included in activity contexts, perceiving oneself as competent also appears to influence the quality of children's experiences and may be an important contributor to feeling included. In the first study described here (see Chapter 4) perceiving oneself as competent also appeared to influence children's perception of inclusion as described within the three themes. For example, in recounting past experiences children referred to the idea of being accepted in association with being or feeling like they were good at something. In particular, feeling like a legitimate participant was very clearly tied to feeling competent. In other studies that have examined inclusion from the perspective of children with disabilities, making skillful contributions (Goodwin & Watkinson, 2000), feeling embarrassed when unable to complete skills (Blinde & McCallister, 1998) and perceived consensual and appropriate assistance (Goodwin, 2001) also appeared to be associated with children's self-perceptions of physical competence. While research has acknowledged the importance of the social context in feeling included, if and how

perceptions of competence might influence a child's sense of belonging, acceptance and value has yet to be investigated.

Perceptions of Athletic Competence

In the area of adapted physical activity, Harter's (1978, 1981) competence motivation theory has been one of the most popular theories used to investigate children with disabilities' perceptions of competence (Causgrove Dunn, 2003). Perceptions of athletic competence have been investigated for children with learning disabilities (Renick & Harter, 1989), intellectual disabilities (Ulrich & Collier, 1990; Yun & Ulrich, 1997), movement difficulties (Causgrove Dunn, 2000; Causgrove Dunn & Dunn, 2006), sensory impairments (Hopper, 1988; Shapiro, 2003; Shapiro, Moffett, Lieberman & Dummer, 2005) and physical disabilities (Sherrill, Hinson, Gench, Kennedy & Low, 1990).

Harter's (1978, 1981) theory employs a multidimensional approach to understanding self-concept. Self-concept is an individual's assessment of him/herself in various domains. The multidimensional approach suggests that individuals can hold different self-evaluations in several domains. For example, for children between the ages of 8 and 12 these domains are postulated to include self-evaluations of scholastic, behavioural conduct, peer acceptance, physical appearance and athletic, also know as physical, competence. According to this theory, children are motivated by a desire to demonstrate competence (Harter, 1978, 1981 & 1999). Therefore, within a physical activity context, children will be motivated by a desire to demonstrate athletic competence. Perceptions of athletic competence are postulated to influence motivation to exert effort and to persist in activity (Nicholls, 1989).

According to Harter (1999), perceptions of athletic competence are influenced by three primary factors. First, children's past experiences in domain relevant settings are proposed to influence perceptions of self. Therefore, success or failure in these settings can contribute to positive or negative self-evaluations, respectively. Second, perceived behavioural control, which is the degree to which a child feels he or she can determine an outcome, may also make positive or negative contributions. If a child feels he/she has control over the result, high perceptions of competence are more likely to emerge than if a child feels that he/she has little control over his/her own performance. The third factor affecting children's self-evaluations of athletic competence is feedback from socializing agents. Parents, peers, teachers, coaches among others, may serve as socializing agents who can enhance or lessen the child's perceptions of self through feedback that is more or less supportive. According to Harter's theory then, these three factors: past experiences, perceived behavioural control and socializing agents along with the affective reactions of children to them, together influence perceptions of competence. High perceptions of competence are tied to motivation to take part, to persist and to exert effort. In contrast, low perceptions of competence are linked to decreased motivation as evidenced through withdrawal and avoidance (Harter, 1999).

Cognitive developmental changes also feature in children's perceptions of competence through differing conceptions of ability (Fry & Duda, 1997; Nicholls, 1989), and preferred sources of competence information (Horn & Weiss, 1991; Weiss, Ebbeck & Horn, 1997; Xiang, Lee & Williamson, 2001) that change as children mature.
In the case of younger children, effort is closely tied to perceptions of ability, but as children develop, perceived and actual ability become more closely related and normative

comparison features more prominently (Harter, 1999). Children's preferred sources of competence information also change with development. Reliance on adult feedback decreases as children develop, with peer comparisons and eventually self-evaluative feedback becoming more salient (Harter, 1999).

Understanding the self is a difficult proposition. A complex interweaving of personal experiences (Fox, 1997) affect how the individual understands him or herself (Harter, 1990). The context of these experiences may be especially salient for children with disabilities. Although perceived competence is seen to be a relatively stable characteristic, for children and adolescents this stability will be affected by contextual and developmental transitions and become more stable over time (Cole et al., 2001). Children with disabilities may or may not mirror these typical transitions (Harter, 1990) and are likely to have a history of experiences different from those of children without disabilities. For example, physical activity experiences that highlight differences in skill level (e.g. competitive activities) in integrated or specialized (with other children with disabilities) settings may play a significant role in the formation of perceptions of competence and decisions to engage for children with disability.

Craft and Hogan (1985) make the point that if self-concept is partially construed through comparison with others in the environment then placement with others of similar abilities would be more likely to promote favorable comparisons leading to positive perceptions of self. In a previous study (see Chapter 3) that investigated the preferred sources of athletic competence information of children with disabilities between the ages of 8 and 12, most children indicated high perceptions of competence despite being at increased risk for movement incompetence. When asked who they were comparing

themselves to, children often identified their peers who also had disabilities as primary sources of comparison. It may have been that the selection of other children with disabilities as a primary source of comparison reflected children's salient activity experiences in specialized sport. Another hypothesis could be that these children were being selective in their preferred sources of social comparison in order to maintain higher perceptions of competence. These findings were similar to those of Causgrove Dunn & Watkinson (1994) who found that some children with physical awkwardness had high perceptions of competence that were incongruent with actual competence. Following interviews with the children, the authors speculated that the children may have been selective in their sources of social comparison and used self-evaluative criteria in order to maintain high self-evaluations.

Several studies have examined integration in sport and physical activity beyond physical education for children and adolescents with disabilities (for examples see Bernabe & Block, 1994; Green & Decoux, 1994; Hedrick, 1985, 1986; Ninot, Bilard, Delignières & Sokolowski, 2000; Ninot & Maïano, 2007; Nixon, 1989). Common to these studies was the importance of skill level, type of sport, degree of competition and the focus on perceived competence. The results of these studies suggested that children with disabilities may be less likely to perceive themselves as competent in integrated settings that are competitive and in activities that highlight differences in skill. Disparity in skill level increases as children age and becomes problematic for integration (Hedrick, 1985, 1986; Nixon, 1989). Such disparity may lead to a lack of opportunity to perceive the success that is the basis of strong perceptions of physical competence that, in turn,

predict continued participation (Harter, 1978, 1981). As a result, integration in traditional competitive mainstream sport appears especially challenging.

Recommendations for inclusion in integrated settings often propose excluding activities that are competitive in order to encourage inclusion (Loy & Dattilo, 2000). The use of noncompetitive games for the purpose of including children with disabilities in physical education has been recommended for many years. Competitive games have been criticized on the basis that children with less ability have few opportunities to demonstrate competence and to be successful. Furthermore in team sport settings, competitive activities are criticized for highlighting skill differences and creating a pressure-filled environment that may lead to withdrawal or activity avoidance on the part of children with disabilities (Block, 2000). Similar criticisms of competition in physical education and organized activity are also found in the literature for children without disabilities (Orlick & Zitzelsberger, 1996).

However, the problem of competition is not as straight forward as employing the use of noncompetitive games in replacement. Not all the literature pertaining to competitive activities is negative. Simon (1991) suggested that competitive activity is acceptable when it is engaged in voluntarily and involves a shared pursuit of excellence through challenge. Furthermore, children's own preferences for certain types of games are an important consideration. Children appear to value opportunities to demonstrate skill superiority and proficiency. In a study that examined the meaning of scoring in physical education, children associated feeling good with the competitive outcomes of scoring and helping one's team to win (Peoples Wessinger, 1994). In examining children's liking of activity units in physical education, McKenzie, Alcaraz and Sallis

(1994) found that children preferred skill-related activities. The authors speculated that the competition found in these activities may explain children's preferences for them. Even when activities are of their own choosing, such as during free play at recess, children often engage in competitive activities. Watkinson et al. (2001) found that tag (a competitive game) was a popular activity on the playground at recess. If perceiving oneself as competent is critical to motivation to take part in activity then skill disparity may pose a major challenge to inclusion in sports and activities that are often competitive in nature.

Studies from the perspective of children with disabilities in physical education suggest that feeling socially accepted and making skillful, competent contributions are important to having positive experiences (Blinde & McCallister, 1998: Goodwin & Watkinson, 2000; Place and Hodge, 2001). Perceived athletic competence is of particular interest in integrated activities given the likelihood of significant disparity in the skill levels of children with and without disabilities that may be further highlighted in competitively structured activities. Nixon (1989) suggested that inappropriate integration in sport, where a participant is extremely deficient in the skills needed to compete competently may contribute to poor perceptions of self for children with disabilities. If social comparison is key to the formulation of perceived competence for children with disabilities then integrated settings with participants of equitable abilities or settings that are specialized for children with disabilities may be critical to the promotion of positive perceptions of physical competence for children with disabilities. In other words, specialized and or integrated settings may be more or less supportive of children with disabilities depending how they evaluate their own athletic competence. It may be that

specialized physical activity settings provide opportunities for positive social comparisons, leading to higher perceived competence and motivation to take part. As well, settings that are competitive or noncompetitive may be more or less likely to contribute to the development of high perceptions of competence, because of their tendencies to support different sources of competence information.

A plethora of factors may contribute to whether or not a child feels included in sports and games. Although social acceptance has been identified as an important factor in inclusion research, perceptions of competence and its link to feelings of inclusion in physical activity have yet to be explored extensively. It may be that perceived athletic competence not only plays a major role in determining engagement, it may also be a factor influencing perceptions of inclusion for children with disabilities in sports and games. Perceptions of athletic competence, the nature of activities and type of setting may directly or indirectly influence children with disabilities' perceptions of inclusion and have significant implications for lifelong physical activity involvement.

Purpose

The purpose of this study was to understand the role of perceived competence in feelings of inclusion from the perspective of children with disabilities in sports and games in different activity contexts and settings. The relationship of perceived physical competence and feelings of inclusion were examined in the contexts of competitive and noncompetitive activity structures and in integrated and specialized settings. For the purpose of this study integrated physical activity settings are those in which children with disabilities take part in recreational and sport activities among peers with and without disabilities. Specialized settings are defined here as those in which children with

disabilities take part in recreational and sport activities among peers with disabilities. Because inclusion is understood in this study as a sense or feeling of acceptance, belonging, and value from the perspective of the child with a disability, it is possible that both integrated and segregated settings may be perceived and described by the individual with a disability as inclusive or not inclusive.

Three main research questions were investigated in this study from the perspective of children with disabilities in sports and games: (1) Are perceptions of athletic competence associated with feeling included? (2) Are perceptions of athletic competence in different activity contexts (competitive and noncompetitive) associated with feeling included? (3) Are perceptions of athletic competence in different activity settings (integrated and specialized) associated with feeling included?

Method

Participants

In order to capture individual differences and similarities across a diverse group of individuals, a maximum variation strategy was used to recruit participants (Patton, 2002). This purposeful sampling approach was employed to identify children with disabilities who would provide rich information toward the purpose of this study. Eleven children (9 boys and 2 girls) took part in this study. The children were between the ages of 8 and 12 years and had a range of disabilities, and sport and activity experiences. These disabilities, varying in severity included cerebral palsy, muscular dystrophy, fine and gross motor delays, developmental coordination disorder, limited shoulder mobility due to an obstetrical brachial plexus injury, nemaline myopathy and severe asthma. One child used a wheelchair on a regular basis and two children used a wheelchair on

occasion. The remaining children were independently ambulatory. The children had specialized sporting experiences (they were recruited from two specialized sport and activity programs) as well as integrated experiences in school and/or community programs. This study was granted approval by a University research ethics board and the specialized sport and activity associations from which the children were recruited. Informed consent was obtained for all of the children who took part in this study.

Design and Data Collection

This was a descriptive exploratory study designed to access children's perspectives. Given that little is known about children with disabilities perceptions of the contexts in which they are physically active and the relationship of perceived competence to feelings of inclusion in these contexts, a descriptive exploratory study was deemed most appropriate. Semi-structured interviews and reflective notes were used to collect the data for this study.

Interviews. An interview guide was developed based on a questioning strategy created by Watkinson, Dwyer, and Nielsen (2005). This approach was originally employed to investigate children's recess activity engagement using a strategy that asks children to theorize about other children 'like them' prior to disclosing their own feelings This theorizing strategy is proposed to reduce anxiety around disclosing personal feelings and to facilitate children's sharing of thoughts and experiences (Stone & Lemanek, 1990). Although the original strategy involved three levels of questioning, due to the nature of the research questions only the second and third levels were employed here. The second level of questioning involved providing children with descriptions of fictional children who were 'like them' in physical activity scenarios where perceived competence

(a child perceived him/herself to be high or low in physical competence), the nature of the activity (competitive or noncompetitive) and the type of setting (specialized or integrated) were varied. Children were then asked questions about the fictional children's feelings of inclusion in these scenarios and the importance of competence to feeling included in the various settings. In the third level of questioning children were asked if the theorized experiences of children who were 'like them' could also be true for them and why or why not. In this level of questioning children were asked directly about their own feelings of inclusion, its relationship to perceived competence and how activity structures and or settings may be associated with these feelings and perceptions.

The interview guide was developed in collaboration with another researcher who was very familiar with the theorizing procedure. Based on the results of another study (see Chapter 3) where the words 'sports' and 'games' elicited information from children about activity settings outside of physical education, these words were used to frame the physical activity context for the current study. Descriptions of competitive and noncompetitive activities were produced with guidance from Ames and Ames (1984) descriptions of competitive, and cooperative and individualistic (for the noncompetitive scenarios) goal structures. Two pilot studies provided the opportunity to gauge children's comprehension of the various scenarios and to make changes where needed. Based on the results of the pilot studies with two 10 year old girls, one with and one without a disability, a few questions were added to explore children's understanding of competitive and noncompetitive activities when the goal structures were first introduced.

'Specialized' and 'integrated' setting scenarios were initially breached in the study interviews using descriptions of children who were alike or different because of

potential sensitivity around the term disability. Direction from the children determined whether the term disability was used as part of the setting description. If the participant used the term disability, then the interviewer also used this word. If not, then the interviewer used the term 'different from the other kids' and similar variations to infer disability.

Scenarios were loosely developed in advance of the interviews and in keeping with the procedure outlined by Watkinson et al., 2005. The researcher was then able to propose scenario questions using information provided by the children to increase ecological validity through personal relevance. A nonstandardized approach to the use of the interview guide was employed in order to gain deeper insights into children's thinking (Ginsburg, 1997). Interviews began with a common set of questions but then allowed the researcher to react to the children's responses by asking follow-up questions and adjusting the interview to suit the individual characteristics and needs of each child. Finally, a strategy that required children to theorize about hypothetical situations in reference to other children 'like them' was an alternative method for obtaining information about children's perceptions of inclusion and competence in different activities and settings given the shortage of legitimate opportunities to take part in integrated community sports programs.

Reflective notes. Reflective notes were taken by the interviewer immediately following each interview. These notes consisted of the researcher's impressions of the children and the interviews, and later served to support the findings of the interview analysis.

Analysis

The interviews were transcribed verbatim. Following an initial sorting-out of the data by taking reflective notes (Creswell, 1998) a line by line content analysis (Morse & Field, 1995) was employed. According to Patton (2002), deductive content analysis is driven by an existing framework or theory. The concept of inclusion and perceived competence (based on Harter's theory of competence motivation) were the guiding framework around which the three research questions were developed and guided the grouping of words, sentences and paragraphs. This grouping of data allowed for pattern recognition (Patton, 2002) within and between children's responses. Comparison between and across participant's responses to similar scenarios took place to identify patterns and variations in the data (Strauss & Corbin, 1998). Interviews were also examined as a whole to investigate patterns that may be occurring within the individual.

The trustworthiness of this study was established in several ways. Credibility was sought by conducting two pilot studies and collecting two types of data in different ways. The reflective notes were used to corroborate the interview data within the analysis. The patterns identified by the first coder through the deductive content analysis were confirmed by the independent analysis of a second coder, adding to the dependability and confirmability of the findings. Lastly, decisions made through out the study were documented using an audit trail and served as a reference in analyzing and explaining the findings.

Results

Children were initially provided a scenario about a child who was 'like them.' Children were asked to theorize about the child's feelings of inclusion in sports and game

if he/she had high or low perceptions of competence. Following this initial theorizing about perceived competence and inclusion, (a) competitive and noncompetitive activity goal structures, and (b) specialized and integrated settings were added to the scenarios. Interestingly all children began using references to themselves early on in the interview as evidenced in their inconsistent use of pronouns (e.g. switching between me, you, them). This continued throughout this part of the questioning and often eliminated the need to ask follow-up questions about whether or not the theorized experiences of children could also be true for them. Despite being asked to theorize about other children, the children in this study frequently referred to themselves, their own experiences and feelings in response to the different questions. Children's own interpretations and understanding also featured in their responses to questions about perceived competence. Most children interpreted perceived and actual competence to be one in the same and this was reflected in their responses.

While there were evident patterns of responses across children's theorizing, individual differences were also apparent. Children theorized and personalized a wide range of responses and viewpoints about the scenarios and feeling included, highlighting the importance of personal and contextual factors.

Research Question 1: Are perceptions of athletic competence associated with feeling included?

Children theorized about feeling included and not included in association with high and low perceptions of competence. Children's responses suggested that feeling included and not included was a matter of degree. This was exemplified in the following

quote from Brandon as he theorized about perceptions of competence and feeling included:

> Brandon: If you're not good at a sport, you might still feel included but not as much. If you're good at that sport and you know how to do the sport, you feel more confident which makes you feel more included in the sport and you know it's like the back of your hand.

In general children expressed that it was more difficult to feel included if you did not think you were good at sports and games and discussed a variety of reasons. Jamie indicated that he would not feel included in something if he felt he wasn't good at it "because it just doesn't feel good to play a game that you're not good at....it kind of makes me feel awkward," he said. Jessica also expressed how low perceptions of competence could lead to feeling not included and other negative emotions. She said, "some people don't think they're good at anything, you know, they're always sad or lonely or just don't want to do sport anymore." Low perceptions of competence were often associated with withdrawal from activities. Nathan suggested that a child would not feel included if he thought he wasn't good at something and theorized, "I'll bet his parents force him to do it" because otherwise the child would choose not to play. He continued "because if you think you're bad – really, really bad at something, you probably won't want to play it and you'll probably just sit there and mope." Likewise, Sam and Luke said that if a child did not think he was good at something he would be less likely to feel included and may not even join in or try to play.

On the other hand, a number of children indicated that it was still possible to feel included despite low perceptions of competence. Isaac said a child could still feel

included and want to take part although uncertain about his/her ability to perform well. He said, "so, it's kind of like you're afraid but you're kind of not afraid. You know? You know, when you're kind of afraid to do something but you're kind of confident?" He went on to explain that even if you did not feel good at something but tried hard you could still feel included. Aidan agreed that trying hard was important for feeling included, in particular if a child did not think he was very good. Brandon explained how encouragement from peers helped him to feel included despite low perceptions of competence. He said:

> Like in baseball I can't hit the ball and then when they cheer me on I just feel better and I feel confident because usually if nobody's cheering me on I just get nervous and start sweating and then I just lose control.

Tom also said that he would feel included even if he did not think he was good at something because his friends would still let him play. Jacob felt that having friends would be more important to feeling included than thinking you were good at something. While high perceptions of competence might help in feeling included, for several children, having friends could outweigh the negative feelings associated with low perceptions of competence.

High perceptions of competence were also associated with feeling included. Jamie and Nathan both said that if you felt like you were good at something then you would want to play it and you would feel included. Isaac said that he thought that feeling good in sports was part of feeling included because in his words "it's nice to have a talent that you're actually good at. It's kind of like you're actually good at something for the first time so it's like you're finally included in something." In responding to a probe about

why she thought feeling like you were good at sports and games would help in feeling included Hallie said, "if you're playing that game and you know you're good at it then when they ask you to play you can just say yes instead of being scared that you might totally blow-it." Sam thought a child would be more likely to join in an activity and feel included if he thought he was good at it. Actual competence was alluded to by Luke in the following dialogue when he explained why thinking he's good might make him feel more included:

> Luke: Because if you think you're good, then the including factor goes way up.
>
> Interviewer: Goes way up? In what way?
>
> Luke: Well, like if you feel you're good and other people see that and they want to have you on their team more.

Jacob said that feeling good at sports could help a child to feel included, but that he did not "need to be that good at everything" to still feel included. Finally, Jessica expressed that feeling good at sports was important to feeling included. She said, "it brings out your spirit, like you know that you can do this and you feel happier and confident in yourself....if you think you can do it, it also helps you do it better."

Only one child made an association with high perceptions of competence and feeling not included. Nathan shared that being better than the others could make a child not want to take part because he would get bored. For him, being put in a group where he perceived himself to be significantly better than the other children could leave him feeling not included. In general however, high perceptions of competence were most often associated with feeling included and decisions to engage in activity. Feeling

included and not included were both associated with low perceptions of competence and appeared to be influenced in part by the behaviour of others.

Research Question 2: Are perceptions of athletic competence in different activity structures (competitive and noncompetitive) associated with feeling included?

Children were then provided scenarios that included variations in perceived competence and activity goal structures and asked to theorize about inclusion. Before asking children about competitive and noncompetitive activities, the researcher probed their understanding of the words and asked them to provide examples to ensure a match between the researcher and the child in the conception of the terms. Descriptors used by the children to capture competitive activities included: trying to win, a contest, keeping score and trying to do better than the other kids. Noncompetitive activities were described as: just for fun and not keeping track of points. All children demonstrated an understanding of competitive and noncompetitive activities.

High perceptions of competence were associated with feeling included in both competitive and noncompetitive contexts, but were only associated with feeling not included in competitive contexts. Low perceptions of competence were associated with feeling included and not included in both competitive and noncompetitive contexts.

Referring to past events, Hallie described how having high perceptions of competence made her feel included in a competitive game of baseball. Actual performance was a significant indicator of perceived competence as she cited that since her team won and she scored a home run she felt included and part of the group. Jamie said that a child would feel included in a competitive game if he was good at it, because the other children would want him to play and because he felt good about himself.

Nathan and Tom agreed that thinking you were good at something would make you feel included in a competitive game. Tom also mentioned that he felt important on his team because he was good and that the other children thought so too, which contributed to his feelings of inclusion. Aidan quickly responded that if a child thought he was good at something he would feel included in a competitive game, because thinking you are good at something was part of feeling included. Finally, Jessica agreed that if a child had high perceptions of competence that she would likely feel included in a competitive game, but that it would also depend if she liked playing competitive games. According to Jessica, "she may feel better in the competitive game but maybe she just likes to have fun instead of always being competitive and thinking she has to win all the time."

Nathan was the only child who suggested that high perceptions of competence in a competitive game could be associated with feeling not included. He explained that if a child thought he was good, in fact much better than the other kids on his team, that he would not really feel included.

Aidan thought that a child with low perceived competence could feel included in competitive games if he had a role that was not too demanding, but that it was harder to feel included in games that were competitive if you did not think you were very good. In the same way, Nathan theorized that a child could feel included despite low perception of competence if the role he had in the competitive game matched his ability, and provided an example of playing a different position in soccer. He went on to theorize that even if the role was beyond what the child could do, that friends could still make him feel included. He said, "you would still feel included because maybe you have friends on the team. Your friends cheer you on, and your friends give you hints and help you."

However, he also acknowledged it would be more difficult to feel included because, "if you're like not doing really good, you might feel bad and you might feel that nobody will pass to you and you'll just be standing there or sitting there," but that it was still important to try. Friends were also identified by Jacob as facilitating feelings of inclusion and Luke and Jacob agreed that trying was part of feeling included in a competitive game for a child who might not think he was very good. Feeling included as a matter of degree was underscored as Jessica explained that a child could feel included in any kind of game despite low perceptions of competence, but that it might be more difficult in competitive games because of other children who might tease or get frustrated.

Feeling good about yourself as a person was identified by Isaac as more important than thinking you were good at something for feeling included in a competitive game. In theorizing about why another child with low perceived competence would feel included in a competitive game and want to take part Isaac said, "he would feel like he could see if he could kind of build up to it, he's reaching up to their level sort of." According to Isaac, competitive activities were an opportunity to improve for a child with low perceptions of competence. Similar to Isaac, Brandon recognized the potential to improve by taking part. He explained how the presence of others with low competence in a competitive activity could temper his own perceptions of low competence and feeling not included. In his example of playing soccer he said, "I feel if this guy doesn't play soccer and he can do it then I can do it. Then I feel more confident about myself, which makes me feel more included."

In general children said it would be more difficult to feel included in competitive activities if they had low perceptions of competence. Most of the children's responses in

this regard emphasized fears of how others would treat them. Jacob suggested that a child with low perceived competence might not feel included because he would be afraid to take part in a competitive activity. Similarly, Tom theorized that a child might not feel included in this type of game because he would be shy and the other children would laugh at him. Jamie theorized that if a game was competitive and a child did not feel he was good at it that he should not even join the activity "because the other kids might say 'you're not good at it' and hurt his feelings." In reference to himself he said that he might feel not included in a competitive game if he did not think he was good at it "because I might make the team lose the game [and] they would get mad at me." Luke said it would be more difficult to feel included if a child did not feel very good at something because competitive activities expose obvious skill differences.

When it came to perceived competence in noncompetitive activities, Jamie said that thinking you were good or bad at something wasn't important if the game was noncompetitive because "it's still fun." He theorized that it was possible to feel included despite low perceptions of competence in a noncompetitive game because none of the other players would say "get off the team, we might lose." It would not matter if a child did not think he was good at an activity if the outcome was inconsequential, because he would still feel accepted by the other children. Likewise, Nathan said a child was more likely to feel included despite low perceptions of competence in a noncompetitive game. "Because you've got no reason not to [feel included] because you're having fun. It doesn't matter if you're winning or if you're doing super good. It's just that you're having fun." Along these same lines Isaac said, "it doesn't matter if you win, or it doesn't

matter if you're not all that good at it, but you just keep trying." Similar thinking about low perceptions of competence is illustrated by Brandon in the following quote:

> Because to me, competitive is way harder than fun, because I know fun is all friendly. You might get physical sometimes, like pushed down, then you stop and help the guy up and say sorry for that and shake hands. But in a competitive sport you just pushed them down and keep on getting the ball. But in fun I think you would feel more included because it's a friendly game.

Friends were part of Luke's reasoning for feeling included. He theorized that a child with low perceived competence would feel included in a noncompetitive game "because his friends would like help him and cheer for him." Hallie also felt that playing noncompetitive games would make you feel included even if you did not think you were good at something because noncompetitive games provided opportunities to feel good about yourself. Tom, Aidan, Sam, Jessica and Jacob agreed that it was easier to feel included in the noncompetitive games if you did not think you were good because noncompetitive games are not as hard and are just for fun. Only one child said that being teased by other children was a reason to not feel included in noncompetitive activities if a child had low perceptions of competence.

At the end of the questioning about perceived competence and activity structure Nathan highlighted the importance of fun regardless of perceived or actual competence. He said:

> The grade 5's and 6 play soccer – every day. I've never even seen some of those kids kick a soccer ball before. They were all playing because it was so

> fun....yeah, they were all having so much fun. Like, there's this big huge crowd of kids all together going after the ball.

From his perspective, feeling included was about being in the game, not the performance demands or perceived or actual competence. Isaac also shared that perceived competence and activity structure weren't the most important aspects of feeling included, if you did not think you were good you could keep trying. He said that it was really about "what's inside you" and knowing that others want you there. For Isaac, a sense of self-worth and friendship with others were more salient than perceptions of competence and the activity structure. Sam indicated that overall perceptions of competence did not matter because playing sports, competitive or noncompetitive were all just for fun. Likewise, for Aidan and several of the other children, thinking you were good at something was inconsequential to feeling included in noncompetitive games because high performance was not the goal of the activity.

All combinations of high and low perceived competence, competitive and noncompetitive activities were associated with feeling included and not included in games and sports by at least one child in this study. The only exception occurred in regard to the scenario of a child with high perceptions of competence in a noncompetitive setting. Not one child agreed or indicated that this scenario was associated with feeling not included.

Research Question 3: Are perceptions of athletic competence in different activity settings (specialized and integrated) associated with feeling included?

In the third research question children were asked to theorize about feeling included based on scenarios of high and low perceptions of competence in integrated

(with other children without disabilities) and specialized (with other children with disabilities) settings. While most children freely used the word disability to talk about children who were 'like them' a few children did not. In these cases the interviewer took direction from the child and used terms such 'different from the other kids' and variations to describe integrated settings and 'the same as you' or 'similar to you' to describe the specialized settings.

In general, regardless of high or low perceptions of competence, children indicated and theorized that it was easier to feel included with other children who were like them or who had a disability. In integrated settings, high perceptions of competence were associated with feeling included and not included for the children in this study. In specialized settings high perceptions of competence were only associated with feeling included. None of the children theorized or indicated that if they had high perceptions of competence they would feel not included in a specialized setting. Likewise, low perceptions of competence were associated with feeling included and not included in integrated settings, but were only associated with feeling included in specialized settings. Furthermore, there seemed to be a general assumption on the part of the children that the theorized child with a disability had low perceived and actual competence as was evident in their theorizing

Jamie theorized that a child with a disability would feel more included if other children had disabilities too, "because there would be more people like him." He said that feeling included in settings with children without disabilities would depend on whether the other children were nice or not. He said "sometimes they're kind and understand sometimes they might laugh at him." Jacob said that it was easier to feel

included in sports if people were like him because it would make him feel more comfortable and that others would be more likely to like him. According to him, being different would put a child at risk for bullying. Nathan reiterated this point when he theorized that that being made fun of and laughed at were reasons why a child with a disability would not feel included if the others kids did not have disabilities. If the others did have disabilities he said, "nobody would really care, they'd all have fun with you." Isaac said he felt very included in his specialized program because he was encouraged by others to take part and he could physically do all the activities there.

Brandon shared that he took part in an integrated community soccer program and was the only child with a disability. He felt that being underestimated, not by his peers but by other adults made him feel not included. In his specialized programs however, he felt very included. Referring to two other children in the same programs he said:

> They're very understanding....they know what it feels like to be me. They don't have the same disability but they have a disability. If they're handicapped they know what it's like to be different and so they're understanding to me and they're really, really nice to me.

Being underestimated by peers without disabilities initially made Hallie not feel very included in a community baseball program, however when she performed well it made her feel part of the team. Tom said that other children with disabilities would feel included in settings with children with or without disabilities, but that it would be easier to feel included if the others also had a disability because their skill levels would be more similar. Aidan said that being different from other children made it more difficult to feel included, in part because the other children may not allow the child who was different to

play. Sam also agreed that it would be easier for a child with a disability to feel included with other children with disabilities because there would be people like him.

For Luke feeling included was not connected to whether or not other children also had a disability. In fact, while he acknowledged feeling included in the specialized program he attended, he said he felt most included with his friends from the neighborhood, none of whom had a disability. For Jessica, being different and feeling included in sports was dependent on the individual. She explained that some children were sensitive to their own differences, but if not they could just have fun.

In considering perceptions of competence, Jamie theorized that a child might feel included even if he did not think he was good at the game if there were other children who were like him, but that the child would feel embarrassed and not want to play if all the others were good at it. Similarly, Nathan said it would be easier to feel included when you did not feel good at something if the other children were similar. However, when he discussed his own low perceptions of competence and his experience in community sport with children who did not have a disability he said he felt included because as he said "at the end of the season they pass me the ball more and they know what I'm good at and they know what I'm not good at, so they sort of help me with that." At the beginning of the season however it was very difficult to feel included because according to Nathan "they don't know you and they think you're weird and they think you can't do this and you're probably not very good at it." Isaac said if you did not think you were good at something that being with children who were similar would make it easier to feel included. However, if you were invited to play by children who were different you could feel included regardless of low perceptions of competence.

Brandon expressed that not being the only one with low perceived competence could make him feel included. He said, "I would feel more confident because I'm not the only one who doesn't know how to play." He theorized that a child who had a disability and did not think he was very good at sports would feel more included around other children with disabilities. Hallie said that it would be easier to feel like part of the group in sports if others were similar to her, even though she didn't think she was good, but that "it probably wouldn't go so well" with children who were different from her.

Jamie shared that if one child was really good at something and the others weren't he might not feel included because there would be no one like him. Brandon told a story of playing with other children without disabilities in the neighborhood. He felt included not only because he perceived himself to be good at the game, but because the other children thought so too. Despite feelings of low competence in certain areas, having a disability in a context with other children without disabilities also allowed Brandon to recognize his own special competencies. "Sometimes," said Brandon,

> I think of myself as a superhero because I'm like different as everybody else and I can take my legs from the back of me and I can stretch them all the way around and I can straighten my leg and have this one bent. I can do some things most people can't do and I can do that. I can't really skateboard. I can't balance that well, but I have really cool things.

These "really cool things" were highlighted in settings with other children without disabilities and contributed to feelings of inclusion.

Finally, during the theorizing about perceived competence, activity structure and setting a few children were able to incorporate the different variables and were asked to

theorize and share their thoughts. Tom theorized that children with disabilities could feel included in competitive games, but it would be easier if the other children also had disabilities because their skill levels would be more similar. Jamie said that a child with a disability was more likely to feel included in a noncompetitive game because other children are more understanding in those kinds of games "because it would just be for fun, it wouldn't matter" that the child had a disability. Nathan agreed that it would be harder for a child with a disability to feel included in a competitive game "because if you have a disability, kids won't pass you the ball because you might not kick it properly, not kick it as hard." According to him, having a disability would not matter in noncompetitive games because people would be better at sharing. Feeling included when a child was different from others was perceived by Jacob to be more challenging in competitive games than noncompetitive games, unless the child thought he was good at sports. In general children expressed that it would be more difficult for a child to feel included in competitive, integrated games if he/she had low perceived and or actual competence.

When asked about playing competitive games with other children with or without disabilities, Brandon responded:

> I think I would feel more included in the disabled group because they're like me... Sometimes I would think that they don't know how to play and then I would play like them and I'd be good at it [compared to other children with disabilities]. But in this case, I'd feel more included in the disabled group because they're like me and they have a disability and in a normal group without the

> disabled people I would just think they're really good at it because they're not disabled."

Later in the interview he said:

> I know I've been saying for the past few questions that it's easier when you're handicapped with handicapped people, but it doesn't matter who you are playing with, it matters how you play.

For Brandon, actual competence was a significant determinant of participation and feelings of inclusion.

At the end of the interviews the children were asked if they found it easier to talk about the 'fictional child' or themselves. Jamie said it was easier to talk about how he would feel because he did not "have to imagine it." Aidan also agreed that it was easier to talk about himself because as he said "I know everything about me." Sam and Jacob agreed that since they knew themselves that it was easier to answer the direct questions. Hallie preferred to talk about the fictional child, because she was not comfortable answering all the questions about herself. This was most evident when answering questions of a sensitive nature about low perceptions of competence and feeling not included. Jessica had a similar experience and found theorizing about other children to be easier than answering direct questions about herself.

Discussion

The goal of this study was to investigate the role of perceived competence and its association with activity structures and settings in children's feelings of inclusion. The loose application of a theorizing strategy designed to meet individual needs and preferences was supported as some children found it easy to theorize about others while

other children preferred to talk about themselves. As revealed through the voices of children with disabilities, feeling included and not feeling included in sports and games is a multifaceted blend of personal and contextual factors. While patterns emerged across children, individual differences were also prevalent.

Perceptions of competence were explored at length in the current study. In addition to the information children shared in response to the research questions, two additional findings emerged from the interviews providing insight into their thinking about perceived competence and inclusion. First, most children appeared to interpret perceived competence and actual competence to be one in the same. Thinking you were good at sports, for the children in this study was equal to being good at sports. According to the literature, as children develop perceived and actual competence become more closely connected, therefore older children tend to be more accurate in their personal competence assessments (Harter, 1999; Horn & Weiss, 1991). Therefore it was assumed that participants' statements about competence beliefs were likely a reflection of their assumptions that beliefs reflect actuality. Although little is known about this development for children with disabilities, it is possible that actual competence and perceived competence were used interchangeably because they were perceived to be one in the same, although this remains undetermined. Second, children's responses to questions about perceived competence revealed that feeling included was a matter of degree. A child could feel included or not included, but could also feel this to varying degrees. Furthermore, feeling included and not included were not mutually exclusive, children expressed that at times a child could feel both. Personal and contextual factors appeared to be important mediators in the degree to which children did or did not feel included.

The importance of perceived and actual competence in feelings of inclusion in this study support much of what has been found in the physical education literature from the perspective of children with disabilities (Blinde & McCallister, 1998; Goodwin, 2001; Goodwin & Watkison 2000; Hutzler, Fliess, Chacham, & Van den Auweele, 2002) although in these studies children were not asked directly about the role of perceived competence in feelings of inclusion. Not surprisingly high perceptions of competence were associated most often with feeling included and low perceptions of competence were often associated with feeling not included. Interestingly however, low perceptions of competence were also associated with feeling included by several children. The importance of peers and friends who provided encouragement and the act of trying hard appeared to compensate for low perceptions of competence in children's feelings of inclusion. If they felt well supported by others and exerted effort they could feel included despite low self competence evaluations. While the relationship of perceived support from others to feeling included is fairly straightforward, how trying hard may compensate for low perceived competence is not as obvious. It could be that exerting effort was perceived by others in a positive way, therefore children were more likely to be and therefore feel accepted. It could also be that trying hard physically kept children in the game, making feeling included possible. Alternatively, the relationship between effort and feeling included despite low perceived competence may be explained by the children's individual goal perspectives. Goal perspectives are typically associated with achievement goal theory (Nicholls, 1989) and predict differences in motivation and behaviour. In a task goal perspective an individual is most likely to focus on effort and improvement to determine success or failure. In an ego goal perspective an individual

uses comparison with others to determine outcomes. It may be that the children in this study, who identified feeling included in activity despite low perceptions of competence because they tried hard, held a task goal perspective. This may suggest that a task goal perspective is an important mediator of feeling included in certain situations. In extension of this proposed relationship between goal perspectives and feelings of inclusion, it could also be that feeling included or not included may be a mediator of motivation to engage in activity. Support for this hypothesis can be found in children's theorizing that perceived competence and feelings of inclusion were tied to engagement decisions. Children reported that thinking you were good or bad at something could influence feelings of inclusion, and their own or the theorized child's decisions to take part in or withdraw from activity. This is similar to the findings of Blinde & McCallister (1998) who found that some children who were unable to perform skills preferred not to take part in physical education.

The use of noncompetitive activities has frequently been recommended in the literature to promote the inclusion of children with disabilities (Block, 2000). Minimizing competitive activities in physical education is assumed to reduce negative experiences and promote positive socialization for children with disabilities in integrated activity contexts (Suomi, Collier, & Brown, 2003). Given that children associated noncompetitive activities with having fun it was expected that they would also associate these activities with feeling included. Regardless of high or low perceptions of competence children overwhelmingly responded that they, or the child who was like them, would feel included in the noncompetitive contexts. It was also not surprising that children theorized it would be more difficult to feel included in competitive games especially if a child had low

perceptions of competence. Specifically, fear of teasing or impacting the game negatively were reasons provided by the children to explain not feeling included in competitive games in reference to scenarios that included low perceptions of competence. In children's theorizing it appeared that it was not the competitive structure that posed the primary challenge to feeling included for children with disabilities, but rather the behaviour of others that occurred within the competitive contexts. This further substantiates the critical role of 'others' in feeling included in sports and games as revealed in a previous study (see Chapter 4).

Children also associated competitive contexts as having the potential to facilitate feelings of inclusion. In particular the salience of having friends appeared to compensate considerably for low perceived competence in competitive activities. Children also expressed how taking part in competitive games provided opportunities to demonstrate competence, to improve, and to feel good about oneself. It could be that these children held strong mastery orientations and as a result viewed effort and improvement as more important than competence to feeling included in competitive contexts. While the inherent nature of a competitively structured activity is to outperform others (Ames & Ames, 1984) many of the reasons children provided for feeling not included in competitive games were tied to the behaviours of others (e.g. teasing and blaming) and not their own lack of competence or inability to outperform. These negative behaviours of others are not a necessary product of competitive activities, although they may be more or less likely to be fostered in sports and games depending on individual goal orientations and perceptions of the motivational climate. As was the case with goal orientation, two types of motivational climates have been proposed in the literature to

further understand motivation. A performance motivational climate involves ego goals that are tied to comparison and outcomes, whereas a mastery motivational climate is associated with task goals, learning and effort (Ames, 1992). While the relationship between competitive activities and ego orientations and performance climates is readily apparent, mastery orientations and climates, and competitive activities need not be mutually exclusive. Certainly effort and improvement can be emphasized over winning in competitive games and potentially provide more opportunities for children to feel included. Although children may hold varying goal orientations that may or may not conflict with the motivational climate, children are also less likely to have well established orientations and more likely to be influenced by the motivational climate (Treasure & Roberts, 1995). Children could be encouraged not only to place greater emphasis on effort and learning, but to also recognize and appreciate individual differences and skill levels.

While children identified that it would be easier to feel included in noncompetitive games, feeling included in competitive activities was also viewed as achievable. The elimination of competitive activities to promote the inclusion of children with disabilities is a widely held belief in the field of adapted physical activity inclusion research (Block, 2000). While extreme skill difference among participants may make feeling included in competitive games very challenging, these activities may also provide opportunities for children to demonstrate and develop proficiency and to feel accepted. The social climate and in particular having friends, appears to be critical to inclusive experiences in competitive activities for children with disabilities.

When asked questions about perceptions of competence in settings with or without other children with disabilities, integrated settings were associated with feeling included and not included. Specialized settings however were only associated with feeling included regardless of high or low perceptions of competence. According to the children, being different or having a disability made it more difficult to feel included in integrated settings, in particular when skill differences were considerable. In fact, skill disparity was identified as extremely problematic for feeling included in integrated settings. Research suggests that being different or lacking motor skills is associated with an increased risk of rejection by peers (Castenada & Sherrill, 1999; Schoemaker & Kalverboer, 1994). In general the children indicated that integrated settings were more difficult for children with disabilities. Having friends or the presence of others with similar skill levels were identified by a few children as contributing to feeling included in these settings. Although there appeared to be a general assumption on the part of the children that the theorized child with a disability had low competence, in specialized settings the presence of others with disabilities meant a child could feel included regardless of competence. Having others who were 'like you' made it easy for children to feel accepted. The presence of other children with disability appeared to moderate low perceptions of competence to the degree that they were inconsequential to feeling included in specialized settings.

A widely held assumption in the field of adapted physical activity is that inclusion assumes integration. Inclusion as a philosophy, a process and an attitude characterized by choice and access (DePauw & Doll-Tepper, 2000) takes for granted an integrated setting with people with and without disabilities. This philosophy of inclusion is nested within an

ethics-based paradigm. In contrast to a comparison paradigm that asks the question "does inclusion work?" an ethics-based paradigm asks the question "what needs to be done to make inclusion work?" (Paul & Ward, 1996, p.5, 6). Research in adapted physical activity reveals questions asked from both paradigms, however the questions have rarely been asked from the perspective of the child with a disability. In this study however, inclusion was understood as a sense of belonging, acceptance and value from the perspective of the child with a disability. Using this as a framework the results of the third research question suggested that children could feel included in integrated settings, but not always, and in fact were more likely to feel included in specialized settings with other children with disabilities. In essence the results suggested that segregated settings can also be inclusive settings.

Given the emphasis placed on integration for children with disabilities, specialized settings have been actively discouraged. By assuming that integration is part of inclusion, activities that involve only those who have a disability are subtly or not so subtly devalued. This devaluing of specialized settings in turn devalues disability. The results of this study suggest that specialized settings can be very inclusive and may be preferred by some children with disabilities over integrated contexts. Specialized settings may offer opportunities for children with disability to feel competent, form friendships and be motivated to engage in activity. Thus ethics-based and a rights-based paradigms should reiterate the value of each individual and of the activities of groups of individuals who are not in the 'mainstream.' It appears that ethics and rights-based approaches assume that the 'right' is to enter the mainstream, rather than the right to have choice. A right to have choice includes both integrated and specialized settings.

Because 'inclusion' has assumed integration, choice and access to legitimate activity opportunities for children with disabilities that promote feelings of inclusion may be constrained. Individual differences, needs and preferences may mean that integration is not the right thing for all children with disabilities, or at least not all the time and not in all cases and this is not limited to those individuals with severe disabilities. Specialized activity settings appear to offer children with disabilities opportunities to feel competent, to compete and to feel included. Legitimate and socially valued opportunities need to be available for children with disabilities to feel included in both integrated and specialized settings so that they can have the rights of choice and access as espoused in the philosophy of inclusion. Ensuring there is a match between what children need and what is offered is a critical component of inclusion-research in adapted physical activity. Toward this end, the voices of children with disabilities can make a significant contribution to our understanding of what it means to feel included and the types of settings and activities that afford positive experiences.

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CHAPTER 6

General Discussion and Conclusions

Four studies were presented in this dissertation. In general these studies were designed to investigate perceptions of competence and inclusion in sports and games for children with disabilities. More specifically, the first and second studies emphasized the assessment of perceptions of athletic competence and sources of competence judgments respectively. The third study focused on children's perceptions of inclusion in sports and games and the fourth study investigated perceptions of athletic competence, activity structure and setting in children's perceptions of feeling included. Semi-structured interviews were employed in each study to gain access to children's thoughts, feelings and perceptions.

In the study presented in Chapter 2 the cognitive processes of children with disabilities were examined in response to the Self-Perception Profile for Children – Athletic Competence Domain Subscale (SPPC-ACDS; Harter, 1985). The results of this study revealed concerns about the use of this instrument based on responses to the various cognitive interviewing probes. Although generally consistent with the athletic domain, children's interpretations of questions were different from each other. An important assumption in survey research is that respondents understand questions and understand them in the same way consistent with the researcher (Collins, 2003). Comprehension differences raise uncertainty about whether or not the construct of interest is the one about which participants are responding. Two concerns emerged in children's responses to questionnaire items. First, a number of the children found their responses constrained by a response format that was not in harmony with their thinking.

A closed-ended, forced choice format left these children unable to respond to items where response options did not permit an accurate expression of their thoughts. Second, several children also expressed discomfort around sharing their perceptions of low competence, which may hinder children from answering truthfully.

The results of the study presented in Chapter 2 supported the use of the SPPC-ACDS (Harter, 1985) in a study using an interview format in Chapter 3. In this study another group of children with disabilities completed the questionnaire and were probed about their sources of social comparison, the bases for their self-judgments and the determinants of their competence. Unexpectedly the children in this study, all of whom were at risk of motor incompetence, for the most part answered questionnaire items in ways indicative of high perceptions of competence. Given that perceived and actual competence become more closely tied with age (Harter, 1999) it was not expected that these children would necessarily have high perceptions of competence. However, when asked about their sources of social comparison, children revealed that their most common sources of social comparison were peers with disability or family members. It was hypothesized that children were either selective in their sources of social comparison in order to maintain high perceptions of competence, or that these comparison selections were based on children's most salient activity experiences.

The study presented in Chapter 4 was designed to investigate inclusion from the perspective of children with disabilities. Children were interviewed about what it meant to feel included in sports and games. Children's perceptions of feeling included were expressed within a larger theme of 'feeling included: features and degrees,' meaning that children identified feeling included with specific, perhaps necessary conditions (features),

and that feeling included was a matter of degree. Specifically, three themes emerged from the data and were associated with feeling included to varying degrees in sports and games: (a) being asked to play or others agreeing to let you play, (b) being a legitimate participant through perceived valued and skillful contribution, and (c) having friends. In particular having friends was identified by children as critical to feeling included in sports and games. In essence it was the actions and roles of others that were the prominent features identified by children for feeling included in sports and games. The themes identified in this study lend support for the findings of more recent physical education inclusion studies from the perspective of children with disabilities (see Blinde & McCallister, 1998; Goodwin & Watkinson, 2000; Hutzler, Fliess, Chacham, & Van den Auweele, 2002; Place & Hodge, 2001).

Finally, the study presented in Chapter 5 asked children to theorize about the associations among perceptions of competence, goals structures (competitive and noncompetitive) and settings (integrated and specialized). As expected children indicated that is was more difficult to feel included in situations that were competitive, integrated and where the child held low perceptions of competence. However, some children indicated that it was still possible to feel included in these activities and settings depending on other personal and contextual factors. Noncompetitive and specialized settings were especially appealing to children where low perceptions of competence were dominant. Children's preferences for specialized settings in particular raise important questions about inclusion-related issues in adapted physical activity.

While the results of each study may be examined individually for implications, as a whole what has emerged from the work presented here is an emphasis on the

importance of unearthing and questioning research assumptions. In the context of this dissertation these assumptions are tied to three domains which include: a) measurement and evaluation b) adapted physical activity and c) interviewing children.

Measurement and Evaluation

Measurement and evaluation has played an important role in sport and exercise science research as the development and use of instruments to learn about how people think and behave is common practice (Duda, 1998). In the area of measurement and evaluation providing construct validity evidence is critical to instrument development. While definitions of construct validity have changed over the years (Moss 1992), an often overlooked aspect of construct validity hinges on the notion of whether or not a test measures what it is intended to measure. Toward this end, demonstrating the existence of the construct, and that changes in the construct cause changes in the outcome of its measurement are vital (Borsboom, Mellenberg, & van Heerden, 2004). Validity evidence to support the existence of a construct and the relationship of questionnaire items to the construct is often lacking, as correlations are assumed to be sufficient for construct validity (Borsboom, 2005). While these correlations may demonstrate the relationship between items assumed to represent the construct, they do not speak to the relationship of the items to the construct. Understanding the question and answer processes of respondents has the potential to provide this type of construct validity evidence, in addition to revealing other issues surrounding instrument development and use. While verbal report methods and theory about response processes have been available for some time, they are rarely used in instrument development in sport and exercise psychology. Assumptions about the relationships between questionnaire items and constructs lead to

assumptions about people and how they think and behave. Furthermore and perhaps most importantly these assumptions have important implications for treatment, intervention and knowledge generation. In order to increase the certainty of inferences that are based on responses to questionnaire items and the actions that are based on these inferences, demonstrating the relationship between items and constructs is critical and begins with the acknowledgment and questioning of the 'taken for granted.'

Adapted Physical Activity

Similarly, in the domain of adapted physical activity the 'taken for granted' has had a substantial impact on research and practice in the area of inclusion. Inclusion in adapted physical activity has assumed integration, where children with and without disabilities participate together. However, children's indicated preferences for specialized settings with peers with disabilities and their use of them as primary sources of social comparison in positive perceptions of athletic competence is in contrast to widely held assumptions about inclusion and provides another dimension to the inclusion debate. Based on the findings of this dissertation, it could be that some specialized settings are more likely to meet the individual needs and interests of children with disabilities. Rights-based discourse is highly associated with the inclusion debate. If a key component of inclusion involves having the right to make choices (DePauw & Doll-Tepper, 2000) then specialized and integrated settings must be legitimate and socially valued options for children with disabilities. The emphasis placed on integration may in fact devalue the kinds of settings that provide children with disabilities the opportunity to take part fully and to develop positive self-perceptions. The perspective of the child as the basis from

which issues of inclusion are explored influences both research and practice in ways that challenge assumptions about participation in segregated and integrated settings.

Interviewing Children

Finally, this dissertation also speaks to assumptions around the use of children as active participants in research. Historically children's views have been excluded from the research process as the child was seen as passive and his or her views assumed to be inconsequential (Hogan, 1998). Today children are considered in many domains to be valued contributors to the purposes of research, capable of providing "rich verbal accounts of their own experiences and of their understanding of the world around them" (Garbarino, Stott, & Faculty of the Erikson Institute, 1992, p. 170). While the use of children as active research participants is accompanied by ethical and cognitive-developmental constraints, their active involvement can support and challenge assumptions that have emerged from research conducted about children, not with them. The perspectives of children were central to the general purpose of this dissertation. In addition to challenging and supporting assumptions about children's usefulness as research participants, the central role of children's perspectives revealed and challenged assumptions in the areas of measurement and evaluation, and adapted physical activity.

In reflection of the results presented in this dissertation, two very salient aspects of the research process are underscored. First is the value of idiographic research in identifying and understanding individual differences. Using semi-structured interviews allowed for individual differences to emerge while at the same time identifying patterns or trends that can contribute to the establishment of nomothetic knowledge. Second was the importance of questioning our philosophical and methodological research

assumptions. A general purpose of this dissertation was to learn about children's thoughts, feelings and perceptions. A worldview embedded within critical realism supported the use of interviews and interpretive analysis toward achieving this end, while at the same time acknowledging that these processes are fallible and that knowledge generated from them is not absolute. Different worldviews are reflected in the questions researchers ask and the ways they go about trying to answer them. Revealing the philosophical approaches that guide our research enables us to not only question underlying assumptions but to also recognize the limitations of what it is we think we know. This process of questioning our philosophical and methodological research assumptions must be ongoing and meticulous as it is critical to the advancement of meaningful and quality research (Bouffard, Strean, & Davis, 1998).

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Appendix

Self-Perception Profile for Children – Athletic Competence Domain Subscale

What I Am Like

Name _____ Age____ Birthday _____ Grade____ Boy or Girl

	Really True for me	Sort of True for me				Sort of True for me	Really True for me
1	☐	☐	Some kids do very well at all kinds of sports	BUT	Other kids don't feel that they are very good when it comes to sports.	☐	☐
2	☐	☐	Some kids wish they could be a lot better at sports	BUT	Other kids feel they are good enough at sports.	☐	☐
3	☐	☐	Some kids think they could do well at just about any new sports activity they haven't tried before	BUT	Other kids are afraid they might not do well at sports they haven't tried before.	☐	☐
4	☐	☐	Some kids feel that they are better than others their age at sports	BUT	Other kids don't feel that they can play as well.	☐	☐
5	☐	☐	In games and sports some kids usually watch instead of play	BUT	Other kids usually play rather than watch.	☐	☐
6	☐	☐	Some kids don't do well at new outdoor games	BUT	Other kids are good at new games right away.	☐	☐

Notes: _____

Appendix

Self-Perception Profile for Children – Athletic Competence Domain Subscale

What I Am Like

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4	☐	☐	Some kids feel that they are better than others their age at sports	BUT	Other kids don't feel that they can play as well.	☐	☐
5	☐	☐	In games and sports some kids usually watch instead of play	BUT	Other kids usually play rather than watch.	☐	☐
6	☐	☐	Some kids don't do well at new outdoor games	BUT	Other kids are good at new games right away.	☐	☐

Notes: _____