THE IMPACT OF SOCIAL SKILLS TRAINING ON THE FRIENDSHIPS OF

CHILDREN WITH SPECIAL NEEDS: A MODEL TO BETTER INCLUSION

by

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ABSTRACT

THE IMPACT OF SOCIAL SKILLS TRAINING ON THE FRIENDSHIPS OF

CHILDREN WITH SPECIAL NEEDS: A MODEL TO BETTER INCLUSION

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In a study measuring the impact of a social skills training program on children's

level of friendship and social skills, fourth grade students participated in the

Skillstreaming (McGinnis & Goldstein, 1997) program. The two primary research goals

were: to determine the appropriateness of this type of intervention, and more importantly,

to establish how it may affect children with special needs' ability to demonstrate age

appropriate social skills. Pre-test measures included a friendship evaluation (a peer

nomination procedure) to determine the number of friends for each participant and a

social skill evaluation (The Social Skills Rating System; SSRS-TF) completed by

teachers. The experimental group ($n = 6$) participated in the *Skillstreaming* training while

another group of children acted as a wait-list control group ($n = 6$). Three children in each

group had an identified special need. The remaining six children without special needs,

were selected through a matching process that considered age and gender. The pre-test

measures were repeated in the post-test. A series of univariate mixed-design ANOVAs

were used to investigate the hypothesis. Significant changes in social skills were observed

following the treatment. This research will contribute to a model for classroom inclusion.

TABLE OF CONTENTS

The UES was used as a structural representation of the goals and potential outcomes of inclusive education. As outlined in Figure 1, student outcomes are influenced by educator characteristics and enabling conditions that allow special education and regular education be integrated smoothly. Since this project produced a positive change in student outcomes, we can concluded that the success of the inclusive model can be influenced by adapting enabling conditions to reflect the desired student outcomes; at least in the case of social competence. In this case, friendship was the target outcome; therefore a friendship-oriented social skills program was added to the enabling conditions. This type of outcome targeting might allow for the inclusive education system to become more effective and able to reach the goals that it has set for itself. The graphical representation of the UES makes the connection between school ethos and intended outcomes more obvious. Using the UES model might allow for effective targeting of as-yet-unreached

LIST OF FIGURES

LIST OF TABLES

ACKNOLEWDGEMENTS

CHAPTER ONE: INTRODUCTION

"Special Education" has come a long way over the past several centuries. From the institutionalization movement of the 19th century to the more philosophically oriented inclusion model of today, acceptance and appreciation of persons with special needs has continued to increase. The evolution of the inclusion movement has spanned centuries and has gone through several stages of metamorphosis before arriving at its current stance. The question that must now be asked is, "Is special education where it should be?" Is the inclusion model achieving its goals, or are children with special needs still in need of something more? Today there are approximately 600,000 students with special needs in Canadian schools (Hutchinson, 2002). The present study focuses on how best to help these children gain social benefits from the current model of education. Evaluated in this study was the efficacy of friendship and social skills training within the context of the inclusive classroom. The following research question helped to guide the scope of the research: "Will social skills training allow children with special needs to increase their peer relations in the inclusive classroom?" After outlining the progression of the inclusion movement from a historical perspective, this chapter will identify the more pertinent areas in need of improvement within the current system. The rationale for this research is presented below in the context of the primary research question.

Historical Perspective

The social and cultural values and attitudes regarding special populations are reflected in the ways in which these persons are treated within the social systems. The development of Special Education serves as an example of how mores shape social programs. Prior to the 1800's, individuals with special needs often fell victim to prejudice and neglect. Not until the 1800's did social values allow for persons with exceptional

physical and mental needs (at both the high and low end of the spectrum of special needs) to have the right to an educating environment (Dyson, Langley, & Kwok, 2001). It is within this timeframe that the institutionalization movement came into effect. At the beginning of the 20th century it was widely believed that these children would most benefit from living and learning with other exceptional children (Dyson et al). Residential Schools were so created to educate children in an environment where their peers also had special needs.

It was not until the 1960's that the civil rights movement petitioned for the rights of *all* individuals to be educated in the same institutions (Winzer, 1993). As the social climate changed again to allow for greater acceptance of minority groups, including persons with disabilities, special classes were created to integrate children with special needs into the regular school system. Children were taught by specially trained teachers and grouped according to similar disabilities (not academic potential) (Weber, 1994). There are inherent problems within this type of division of students, and thus teachers, students, and parents called for reform (Weber). Concerns were raised about the quality of segregated education as well as the social and psychological ramifications of excluding children from the mainstream classroom based on disability (Dyson et al., 2001). The concept of special education was introduced to deal with these challenges. Special Education is the term used to describe "programs and/or services designed to accommodate pupils whose educational needs cannot adequately be met through the use of regular curriculum and services only" (Hutchinson, 2002, p.4).

A crucial turning point for equity of Canadians with special needs occurred in 1982. At that time, Canada repatriated its constitution from Britain and adopted the *Canadian Charter of Rights and Freedoms* (hereafter referred to as *The Charter*; 1982).

The *Charter* (1982) guarantees the rights of minority groups in Canada and makes specific reference to persons with special needs or disabilities: "Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability" (¶ 15). Also included in the *Charter* is an emphasis on the responsibility for all levels of government and institutions to assure that these rights are respected and maintained.

In the last two decades of the 20th century, the inclusion model has been added to the original formulation of special education. Andrews and Lupart (2000) explain that the most recent trend in special education has been the widespread belief that the scholastic environment should address children's development in its entirety. This demands the inclusion of both social and educational goals within a school's mandate. The inclusion model fits with the current philosophical, legal, and ethical model of education (as will be discussed in later sections of this report).

The Inclusion Model

The full inclusion model in widely entrenched in the North American educational system therefore, it is more appropriate to suggest revisions to the current model than to argue for its abolition. The model has many assets that are important to take note of. The inclusion model is in accordance with The Charter (1982). As such, it is the right of every individual in Canada to receive an education without discriminatory restrictions on levels of participation or educational quality. More specifically, Canadian educators desire to create a holistic learning environment that caters to all the students' psychological, developmental, and physical needs in addition to their educational needs. In British

Columbia, the Ministry of Education (BCMoE; 2002) has made the following statement with regard to inclusion: "The practice of inclusion transcends the idea of physical location and incorporates basic values that promote participation, friendship, and interaction" (Glossary section ¶ 7).

The most important tenet of the inclusion model is the idea of community. "Community refers to a group of people who have shared interests and who mutually pursue the common good. Usually community members share an acceptance of group standards and a sense of identification with the group" (Hutchinson, 2002, p.19). In the scholastic context, the common goal of all participants is education and multifaceted learning. The focus is not necessarily on those who have special needs but is on equality for each and every member of the community, including those with exceptionalities (Stainback, Stainback, & Ayers, 1996). Nancy Hutchinson, a Canadian author who focuses on the study of inclusion, strongly suggests that inclusive classrooms be communities wherein all children are equal participants. A significant goal of this model is to enable students to connect to the social environment and feel as though they are valued within the scholastic community. Research has suggested that children with special needs are not feeling as though they are a part of this community, and has indicated that they feel less accepted and allied with the school culture than do their non-special needs peers (Pavri & Luftig, 2000; Pudlas, 2003).

The Unified Education System

In accordance with the model proposed by Andrews and Lupart (2000), the author of this study has used a Unified Education System (UES) model as the structural impetus for this project as well as a guide for the interpretation of results. Figure 1 is a graphical representation of the UES (adapted from Andrews & Lupart)

The major goals of the UES are to foster lifelong learning, provide educational quality and equity, facilitate independent learning and thinking, promote a school/home partnership, encourage living and learning in community, and develop the academic and *social* competence[italics added] of all students (Andrews & Lupart 2000; p.3).

Andrews and Lupart (2000) believe that the creation of a UES is dependant on teachers' positive attitudes, beliefs, and values as well as those of the school community. These function in tandem with enabling conditions such as professional training and development, pooling of resources, administrative leadership, and support. For purposes here, the whole of these conditions are referred to as the school ethos (as indicated by the dotted line in Figure 1). When this environment is positive, student outcomes/educational the UES goals become attainable.

Although the terminology is slightly different, the goals of the UES are in agreement with the previously outlined goals for inclusive education set out by the BCMoE, making this model applicable to schools in British Columbia, The goals of the UES have been dubbed student outcomes/educational goals, by the author of this study and are identified in Figure 1 by the dashed line. This thesis proposes that including curricular changes in the enabling conditions will impact the outcomes of the UES. Since the focus of this research is on the social competence of children, with and without

special needs, we have added social skills training in the classroom context and have measured its impact on the children's peer relationships.

This style of model has been considered effective in influencing the success of inclusive education when teachers' beliefs and practices have been measured (Jordan & Stanovich, 2004). Jordan and Stanovich measured the impact of teaching practices, teacher beliefs, teachers' feelings of self-efficacy, and what they call the school norm in relation to successful inclusion practices. They found that each of these factors contributed to a positive inclusive environment. Therefore, they propose that positively influencing any of these factors might increase the success of inclusion in the classroom. While Jordan and Stanovich's model focuses on "instructional characteristics that contribute to the success or failure of students with special needs" (p.3), the UES adds to this model by also including the enabling conditions discussed above. This thesis, therefore, attempted to explore the validity of the facets the UES model by making changes to the school ethos in order to influence the student outcomes and educational goals.

Friendship and interaction are recognized as important in the normal development of children. The literature indicates that without the positive influence of support programs, children with disabilities are often left out and lonely in inclusive classrooms (Pavri & Monda-Amaya, 2000). Therefore, in order to address this issue, this study assessed the influence of social competence training in the inclusive classroom using a UES model. It was intended to increase the friendship-related social skills of children with special needs so that they could gain the benefits of friendship. The research was based on the hypothesis that social skills training for children with special needs will increase the demonstrated amount of social skills and produce a greater ability to form

and maintain friendships in the classroom. The independent variable was the intervention whereas the dependant variables were friendship and social skills. As a process evaluation study, it was possible to test the feasibility of introducing a social skills program to the classroom, while making conclusions about the potential usefulness of the UES model.

  Friendship is imperative for healthy social and emotional development in children. It seems that the importance of friendship has been recognized by school authorities, as social competence is an explicit goal of the British Columbia Ministry of Education. Researchers have acknowledged that children with poor social ability are often found friendless and suffer negative effects. The goal of this particular study is to improve children's ability to demonstrate social skills by implementing an explicit social skills training program. The intention is to increase children's social skills and indirectly improve their ability to make friends. The following chapter discusses the issues of friendship and social skills in more detail, while chapter three will outline the project with greater specificity.

CHAPTER TWO: LITERATURE REVIEW

Having friends is a fundamental concern in the lives of children. Research (see for example Parker & Asher, 1993; Hartup and Sancilio, 1986) indicates that mutual, constructive peer relationships are closely associated with positive developmental outcomes and can have beneficial effects on adult life. This chapter first overviews the literature regarding children's friendships, then provides a discussion of children with special needs and their peer relationships. It concludes with a brief investigation of gaps in the current body of research as well as motivation for this study.

Friendship

Research has shown that a child's ability to form relationships with peers will have significant positive effects on that child's social and psychological development. For example, children with friends show different reasoning patterns about social events and behave differently than children who are friendless (Parker & Asher, 1993). From a social development perspective, friendship is an important facilitator of emotional responsiveness in children and may increase demonstrated prosocial behaviours (Costin & Carleson Jones, 1992). Also, childhood friendships can act as a "buffer" against psychiatric disorders that might arise later in life (Goodyer, Herbert, Tamplin, Secher, & Pearson, 1997).

Friendship provides a unique learning context wherein children are able to develop and to practice socially competent behaviours (Ladd, Kochenderfer & Coleman, 1996). Children who have friends also have more opportunities to practice social competence, and to build healthy relationships with peers (Vaughn, Azaria, Krzysik, Caya, Bost, Newell, & Kazura, 2000). Friendship also provides children with intimacy

and support (Howes, 1990), which have their own distinctive contributions to childhood development. Hartup and Sancilio (1986) outline three positive effects that are offered uniquely by the context of friendship. First, having friends allows children to learn necessary social skills and to continually develop their social behaviour repertoire. Also, friendship provides unique cognitive resources to the parties involved. Finally, emotional needs can be met through the bonds of childhood friendship.

Not only has the positive psychological impact of friendship been documented in research, but theorists have also acknowledged the essential nature of friendship. Sullivan's (1953) interpersonal theory of development states that friendship provides children with a unique opportunity to satisfy their needs for intimacy and reciprocity. According to this theoretical perspective, friendship is a necessary condition for healthy development and the acquisition of social skills. It teaches children to identify with other's thoughts and feelings and to act altruistically (McGuire & Weisz, 1982). In this sense, peer relationships create a psychological context that encourages cooperation and facilitates conflict resolution (Amitia, 1996). Through the formation and maintenance of friendships a very specific set of friend-related social skills evolve (Berndt, 1996). Peer bonds also act as models for later relationships. Therefore, friendship affords several unique opportunities for children; consequently, not being exposed to this context would have obvious negative, long lasting effects on social development (Burk, 1996).

Having Friends at School

Friendship also has significant benefits for the academic environment. A study of kindergarten children asserted that children who reported higher levels of peer support and lower levels of loneliness were more likely to enjoy school over a longer period of

time (Ladd & Coleman, 1997). Not only do children who get along with peers show significant gains in "school liking" and "attitude towards school" over time (Ladd & Coleman, 1997), but healthy relationships also inspire feelings of autonomy, initiative and industry (Gold & Yanof, 1985). Intense social activity, frequent conflict resolution, and more effective task performance characterize the behaviours of children with friends (Bagwell & Newcomb, 1995). Each of these skills is important as they can encourage appropriate and constructive behaviour in the classroom and beneficial social competence throughout life.

Coolahan, Fantuzzo, Mendez, and McDermott (2000) reported three trends pertaining to friendship in the classroom. First, they observed that children who were able to maintain positive interactions with their peers also actively participated in classroom learning activities. They noted that these children demonstrated significantly more positive attitudes towards learning than children who did not engage in peer play. Second, teachers rated children who were disconnected from peer play as inattentive and passive. Teachers felt that these children exhibited low levels of motivation. Finally, teachers rated children who engaged in disruptive peer play as displaying conduct problems and hyperactivity across classroom settings (Coolahan et al.). Such research strongly suggests that peer interactions colour the learning environment. Children with friends seem to be more engaged in classroom activities and enthusiastic about learning.

Conversely, being friendless has a myriad of negative effects on children and on the scholastic environment. Rejected children are more likely to experience victimization and negative peer treatment at school. Also, these children are likely to report loneliness and a desire to avoid school. A decrease in classroom participation is also associated with a rejected peer status. Overall, children who are rejected perform less well in the

academic environment (Buhs & Ladd, 2001). From these findings it may be inferred that a program that increases children's ability to form peer relationships would also have a positive impact on the social context at school.

Friendship and Children with Special Needs

It appears that children with special needs tend to exhibit certain patterns of friendship attainment and maintenance which are comparatively different from those seen in children without special needs. In particular, children with learning disabilities (LD), as an example of one subgroup of students with special needs, and those without have a similar number of friends, but the demographics of their chosen friends differ significantly (Weiner, 1995). For example, children with LD tend to nominate other children who also have LD, as well as younger children, and children with whom they have exposure to only outside of school. When the children with LD nominated friends who attended their school, they were usually children who also attended their special education classes and not those children in their regular classroom (Weiner). Therefore, unique patterns of friendship selection can be identified in children with special needs. These patterns limit their exposure to children without exceptionalities and limit the possibility of learning different patterns of social interaction that are used by children who do not have special needs.

Another study found that children with disabilities participated in less child-to-child social behaviour and were more likely to interact with adults on an individual basis than with their classmates (Brown, 1999). Children without special needs were more often observed in small group arrangements than children with disabilities (Brown). In addition, children with disabilities were more likely to be involved in solitary activities

without an immanent peer group (Brown). The observed differences in social patterns of

children with special needs seem to predispose them to isolation and limited peer

interaction at school. If this is the case, these children are less likely to be less able to

form friendships and to connect with their peer group (which is one of the desired

outcomes of the inclusion model and the BCMoE).

In addition to quantity and types of friends, friendship quality also differed in

children with special needs. Children with LD rated their friendships as having lower

levels of intimate disclosure and of conflict resolution when compared with children

without LD (Weiner, 1995). When analyzing children's perceptions of friendship quality,

Vaughn and Elbaum (1999) found no difference in perceptions of companionship

between children with LD and children without, although differences were apparent in

levels of intimacy and support for self-esteem. Children with special needs seem to have

comparable levels of camaraderie with friends, although there seems to be obvious

discrepancies in overall friendship quality between children with special needs and those

without. A program that allows children to cultivate high quality relationships may help

to bridge this gap and provide children with more diverse peer bonds.

Social Skills and Children with Special Needs

The ability to make friends may be associated with the demonstration of certain

desirable traits. Social skills seem to be one of the most important factors for forming

childhood friendships (Mendelson, Aboud, & Lanthier, 1994). While popular children

demonstrate high levels of sociability and learning abilities, as well as low levels of

aggression and withdrawal, children who are rejected show an opposite pattern. Also,

neglected children are low on both sociability and aggression (Fredrickson, & Furnham,

1998). Another study has noted that the ability to demonstrate social competence was the best predictor of same-gender liking in kindergarten children. This same study observed that an individual's level of social cognition, destructiveness, attention seeking, and dominance best predicted how other children would perceive friendliness in that child (Mendelson et al). Therefore, it seems as though a demonstration of pro-social skills is like a signal that indicates to other children which of their peers is likely to become a good friend. On the other hand, expression of undesirable traits results in the perception that a child is not friendly and concomitantly may lead to exclusion from the community.

Other studies have observed that children with special needs often present a wide array of undesirable behaviours. For example, teachers have perceived children with LD to be lacking in self-control and cooperation (Haagar & Vaughn, 1995), and as being more aggressive than their non-special needs peers (Stone & Le Greca, 1990).

Considering the large body of research that points to the increased likelihood that children with special needs will experience problems in socialization and communication, revisions have been made to the definitions of learning disabilities and mental retardation. In 1987 the Interagency Committee on Learning Disabilities proposed that social skills deficits be included in the primary characteristics of LD (Pavri & Luftig, 2000). Also, the American Association on Mental Retardation (AMR; 1992) has included social deficits in its definition of mental retardation. These changes indicate an increasing awareness of the particular social challenges faced by children with special needs that are appreciably different than their peers who do not have special needs.

The revisions to the definition of mental retardation certainly do not seem inappropriate considering the vast body of research that indicates a trend in poor social skills apparent in children with special needs. In her meta-analytical review of 23 recent

research papers, Nowicki (2001) confirms that children with special needs have significant deficits in social skills. She notes a classic study that made the connection between social skills and social status. This particular study found that competence in social skills is positively correlated with peer acceptance, whereas a lack of social skills results in rejection or peer neglect (Coie, Dodge, & Cappotelli, 1982). Not only does empirical data support this but Nowicki also notes that according to more subjective tests, both teachers and peers perceive that students with special needs are lacking in social skills. As such, these students have limited opportunity to form friendships.

With regards to both teacher and peer ratings of social competence, the meta-analysis also revealed several notable highlights. In *all* of the studies reviewed by Nowicki (2001), teachers rated children with special needs lower than their peers in social skills. Also, at least two-thirds of students with LD were rated lower in social status than their classmates, suggesting a deficit in social functioning. A study by Pudlas (2003) has shown that the self-concept of children differs depending on whether or not they have a disability and that, in turn, may influence their behaviours. In his research, Pudlas reveals that not only do teachers and peers of children with special needs hold them in lower esteem, but the children with special needs also rate *themselves* as having a low overall self-concept and a low peer self-concept. These results imply that children with special needs hold themselves in low esteem and act accordingly. Hence, it seems probable that increasing the prosocial skill set of children with special needs would give them an advantage for forming friendships and overcoming social isolation. As noted above, such skill sets would have significant benefits for these children, both in the academic environment and throughout life.

Social Skills Training and Interventions

A common theme in recommendations from research is formal social skills training for children with special needs (Lawhon, 1997; McCay & Keyes, 2001; Pavri & Luftig, 2000; Soresi & Nota, 2000). The research suggests that social skills training has successfully improved children's ability to make and to keep friends. Some researchers have even suggested that social skills training be included in the classroom curriculum (Stainback, Stainback, & Wilkinson, 1992). Several suggestions have been made for friendship enhancing programs such as: teaching the meaning of friendships, instructions on how to communicate, and creating a friendly classroom environment (Salend, 1999). All of these recommendations were considered when the intervention program was chosen for this research.

Social skills training programs for children have been implemented, with encouraging results. For example, Shechtman, Vurembrand, and Hertz-Lazarowitz (1994) examined the effectiveness of group psychotherapy on children's close friendships. They discovered that children who were exposed to therapy reported gains in intimacy with their best and second best friend. This treatment program was effective especially for boys. Shechtman and her colleagues concluded that "school interventions based on small, mixed-gender therapy/counselling groups enhance intimacy among preadolescent boys who demonstrate social inefficiency" (p.446). The positive results reported by Shechtman and associates are encouraging because they indicate that children respond well to friendship-enhancement training. In contrast to the previously mentioned research, this study focuses on a training program implemented with a larger number of students in a regular classroom setting. This study illustrates the possibility of teaching children to

enhance the quality of their friendships without segregating them from the general body of their peers.

Several different types of training programs have proven to be effective for behaviour changes in children with special needs. Several of these programs document improvements in social skills. One treatment that is particularly effective for children with special needs is self-management. Koegel, Harrower, and Koegel (1999) reported that after being exposed to a self-management program, positive behaviours demonstrated by children with severe disabilities increased markedly. Brown and Odom (1995) reported that naturalistic peer intervention has also been effective in changing children's behaviours. They demonstrated that peer-interventions could improve children's social interactions (Brown & Odom).

Another particularly relevant study by Shechtman (1998) implemented a teacher-led program that was intended to increase the social relationships of students in elementary and secondary schools. The two primary dependant variables were classroom climate and social acceptance. She documented changes for both children with special needs and children without special needs. At the elementary level, Shechtman studied 596 students from 20 different classrooms in 10 Israeli schools. The special needs subpopulation consisted of 112 students who had been identified by psychological services and school personnel as having adjustment problems and special socio-emotional needs. The intervention chosen by Shechtman focused on intrapersonal and interpersonal variables. The activities were intended to empower students and to increase their self-esteem. Following the intervention teachers of the elementary school children noted behavioural changes such as a significant reduction in acting out and in withdrawal. Unfortunately the results were not as far reaching as Shechtman had hoped. No

significant results were found in classroom climate or social acceptability (although there were improvements in adjustment behaviour for special needs children).

Vaughn (2001) provides a critique of social skills training interventions for children. Contrary to many of the previously mentioned studies, Vaughn reports that, overall, social skills interventions have not been largely effective in changing students' behaviours. She offers three major criticisms of social skills interventions. First, Vaughn believes that the majority of interventions are too short. She reports that the average length of treatment is three hours weekly for only three months in duration. She believes that this is insufficient to introduce children to new behaviours and attitudes. Vaughn's second criticism is the lack of empirical validation for many programs that are currently being used. Finally, she believes that students are not taught how to generalize the new behaviours outside of the classroom and thus do not consistently show improvements in social skills. Vaughn's latter two concerns were considered during the current research; however, the school climate did not allow for an extended period of study, so Vaughn's first criticism was unfortunately not satisfied.

Nowicki's research (2001) emphasizes that children with special needs have significantly less ability to demonstrate social skills, implying that there is a deficiency in the ability to acquire these skills and to demonstrate them with consistency or effectiveness. The program selected for this project is intended to improve the acquisition of social skills as well as enhance the already existing skills. In addition, research seems to indicate that the combination of modeling and practicing of skills allows for greater acquisition and understanding of these skills (Wurtele, Marrs, & Miller-Perrin, 1987). This program applies the principles of modeling and practice to teach children specific friendship-related social skills in a simple easy to follow format.

Although the children may or may not already possess such skills, the program allows

them to witness an adult model as well as a peer model demonstrate the skills and then to

practice them personally in a safe environment. It was predicted that through the skill

acquisition process outlined in this program, the children would be more likely to

reproduce these skills in their daily lives and therefore improve their interactions with

their peers. If such were the case, we assumed that teachers would notice an increase in

social skills demonstrated in the classroom and the peers would be more likely to choose

the child as a friend.

CHAPTER THREE: METHOD

The goal of this study was to increase the children's repertoire of social skills so that they could glean the best outcomes from classroom interactions. Examples of the foreseen benefits of this program include greater class participation, increased ability for making friends, and more socially acceptable behaviours both in and outside the classroom. The three main hypotheses were the following:

1. There would be a mean difference between children who participated in the intervention program and those children who did not participate in the program, as demonstrated in total social skills ratings.

2. A mean difference would also be observed in children's friendships when the treatment and control groups were compared. In other words, this project intended to test whether children who were exposed to the social skills training program would not only be able to consistently demonstrate a greater range of social skills but would also have an increased ability to form relationships with peers. In order to quantify these changes, the number of peer nominations, number of friends, and demonstrated social skills were identified as dependent variables. Prior to data collection, it was predicted that the number of mutual friends would increase for the students exposed to the program. Also, that the students would demonstrate more socially acceptable behaviours in the classroom as rated by the teachers.

3. Finally, a difference between subgroups of children with Identified Special Needs (ISN) and No Identified Special Needs (NISN) was expected to be observed in each of the previously mentioned dependant variables.

Design

Overview. As was mentioned in the previous section the goal of this research was two-fold: the *primary goal* was that of increasing friendships and social skills demonstrated by children with special needs, while the *secondary goal* was to determine whether or not the chosen model for teaching social skills is appropriate for children with special needs. This research was in part a feasibility study to test the efficacy of social skills training programs and the Unified Education System's (UES) conceptualization of the inclusion model. The following chapters will discuss how these two goals were achieved, and the conclusions that have been indicated by the data. The available sample size was too small to conduct a program evaluation: therefore, a process evaluation was the most appropriate approach. Although the process evaluation is less statistically stringent than program evaluation, it does have the greatest potential for community impact, which will be addressed in Chapter Five.

A pre- and post- design was used to measure the impact of social skills training on the friendships and social skills of children in the full inclusion setting. A quasi-experimental design was best suited for this research because of limitations inherent in sample: for example, the limited time and the small number of available children. The aim of the quasi-experimental study design is to compare pre-existing groups of children who have specific characteristics; therefore, a non-equivalent groups design was most appropriate in this case. In accordance with the stipulations of this design, subjects were non-randomly assigned to groups according to the pre-determined criteria (whether or not the teacher had identified the child as having a special need). Each group completed an identical pre-test and a post-test while only one group received the treatment. A quasi-experimental design stays true to the strengths of the experimental design, although there

is not random assignment of subjects. Without random assignment the results cannot be fully generalized as in experimental designs. However, it is still possible to extract meaningful results through rigorous quantitative analyses as discussed below. Finally, when interpreting the findings it is important to consider threats to internal validity, which cannot be controlled through this method.

Ethics. As it was very important to follow proper ethical protocols, the Ethics Committee at Trinity Western University was responsible to oversee and approve of all procedures before as well as throughout the course of the study. The Canadian Psychological Association has set stringent standards which were closely followed throughout the course of this research.

Intervention: Skillstreaming

Skillstreaming is a psychoeducational intervention designed to increase prosocial skills particularly in children who are lacking social competence. It implements four direct instruction principles: modeling, role playing, feedback, and transfer (McGinnis & Goldstein, 1997). "The *Skillstreaming* model makes the assumption that the learner is weak in or lacks behavioural skill or skills within his or her repertoire. The goal, then, becomes teaching desirable skills" (McGinnis & Goldstein, p.2). Although it was not specifically designed to teach children with special needs, the *Skillstreaming* authors (McGinnis & Goldstien) believe that the program is an appropriate teaching tool for this population group.

Since *Skillstreaming* has been well researched in the past (see for example: Cobb 1973; Davis 1974; Goldstein 1992), this project will provide a unique contribution to the literature in the way in which it has been administered. Instead of following the small

groups protocol, the prosocial skills were taught to children in the classroom during regular school hours. Twenty minutes of class time twice a week was used to introduce an entire classroom of children to the skills. This change in program format was intended to increase generalizablity of the results by not only influencing children who have social difficulty, but also changing the classroom's social atmosphere. As evidenced by the results, integrating the *Skillstreaming* skills into the regular curriculum has provided the greatest amount of student exposure and could provide many future benefits for teachers and students alike. The Appendix outlines the process that was used to administer the *Skillstreaming* program in the classroom setting.

Participants

The focus of the study was the comparison of a group of students with identified special needs (ISN) and another group of students with no identified special needs (NISN) both of which participated in the treatment program. For the purpose of a control comparison, two more groups were considered: another ISN group and NISN group who did not participate in the program until after the data had been collected.

The sample consisted of 12 participants, half of whom were considered ISN ($n = 6$), while the rest were NISN ($n = 6$). The children were divided into control and treatment groups based on their classroom teacher ($n = 6$ for each group). The children ranged in age from 3341 days to 3930 days old (at the first data collection point). While there were four boys and two girls in the experiment group, the control group consisted of four girls and two boys. Due to the limited sample size the following analyses did not consider age or gender, as the cell size would have become too small for quantitative analyses. The number of subjects was limited by the school ethos and availability of participants, but was deemed sufficient due to the nature of this research as a process

evaluation study. Figure 2 graphically represents the age and gender distribution of the participants.

As mentioned previously, the nature of this study and the sample made an intact groups design the most appropriate choice. In support of this decision, Sax (1997) explains it is acceptable to be selective when sampling a population if the cost to test the entire population is too high. In this case, the time required to test the entire population would have been prohibitive, thus a matched sample technique was chosen to address this problem and to maintain the power of the sampling technique. For the purpose of this project the classroom teacher identified three children with special needs in their classroom and the researcher matched those children with a same gender, approximately same aged peer. Therefore the complete sample consisted of six fourth grade children divided between two classrooms, three ISN children and three NISN children per class.

All of the children were recruited from a single Christian School in British Columbia. Previous research has shown that parochial schools have not been more successful at making children with special needs feel included (Pudlas, 2004). Recent research by Pudlas identified no difference between students with special needs being taught in Christian schools versus public schools regarding their perceptions of being included. Therefore, it was considered that the choice of a Christian educational institution would not be a significant factor influencing results in either direction.

Because the program was implemented during the regular classroom routine, the availability of subjects was limited by the number of children in a classroom. A benefit of this strategy was that the children were exposed to the program within their natural environment, thus the results will more closely reflect real life than if the subjects had been recruited from a larger pool and the intervention conducted outside of the classroom.

Selection bias was avoided by giving all children an equal opportunity to be selected for the research, making a modest sample size satisfactory.

The criterion for ISN and NISN were established by the school as evidenced by the child's cumulative folder and in accordance to the district definition and standards. The category of special needs is a broad one; therefore, in order to be included in the ISN group the children were required meet the criteria of either one of the following definitions:

Definition One. Gifted

The gifted child possesses demonstrated or potential abilities that give evidence of exceptionally high capability with respect to intellect, creativity, or the skills associated with specific disciplines... They may demonstrate extraordinary intensity of focus in their particular areas of talent or interest. However, they may also have accompanying disabilities and should not be expected to have strengths in all areas of intellectual functioning (British Columbia Ministry of Education, BCMoE, 2002, Students Who are Gifted section 1).

Definition two: LD. The National Joint Committee on Learning Disabilities (1997) defines LD in the following way:

Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the lifespan. Problems in self-regulatory behaviours, social perception, and social interaction may exist with learning disabilities but do not, by themselves, constitute a learning disability (¶ 3).

Definition three: Attention deficit/ hyperactivity disorder (AD/HD). "Children and adolescents with AD/HD display chronic and serious inattentiveness, hyperactivity, and/or impulsivity" (Hutchinson, 2002, p.78)

Definition four: Communication exceptionalities: Communication exceptionalities include disorder of either speech or language (Hutchinson, 2002). This refers to "an impairment in comprehension and/or use of verbal communication or the written or other symbol system of communication" (Hutchinson, p.83).

Definition five: Behavioural or emotional exceptionalities (EDBD). Children who display EDBD are described in the following way:

> Students who require behaviour supports are those whose behaviours reflect dysfunctional interactions between the student and one or more elements of the environment, including the classroom, school, family, peers and community. This is commonly referred to as behaviour disorders. Behaviour disorders vary in their severity and effect on learning, interpersonal relations and personal adjustment (BCMoE, 2002, Students Requiring Behaviour Support or Students with Mental Illness, including Students Requiring Intensive Behaviour Interventions or Students with Serious Mental Illness section, ¶2).

The BCMoE (2002) also notes the prevalence of behavioural and social problems that often are apparent in children with learning disabilities, but makes a clear statement that these do not inherently constitute LD, therefore, have been considered as a separate category of high incidence special need.

Definition six: Intellectual disabilities.

> A student is considered to have an intellectual disability if intellectual functioning is more than two standard deviations below the norm on an individually

administered Level C assessment instrument of intellectual functioning, and there

is delayed adaptive behaviour and functioning of similar degree (BCMoE, 2002,

Students with Intellectual Disabilities, including Students with Moderate to

Profound Intellectual Disabilities section, ¶1).

The purpose of using these definitions was to differentiate what types of children

most benefited from the treatment program. Because the ISN category contains such a

large range of individuals with unique needs, it could be advantageous to understand

more specifically what types of children were most affected by the intervention.

High Incidence Exceptionalities

The specific special needs were chosen for this research because they fall into the

category of "high incidence exceptionalities". This term is used to refer to the most

prevalent special needs in elementary school setting. High incidence exceptionalities

include the previously mentioned six types of special need. Together the preceding six

groups of children make up 75% of the exceptional student population in Canadian

schools (Hutchinson, 2002).

Distribution of children with High Incidence Exceptionalities in Canada. It is

estimated that two to four percent of the school aged population in Canada has LD

(Hutchinson, 2002). Learning disabilities (LD) is believed to be the highest incidence

special need; researchers estimate that approximately half of exceptional Canadian

students fall into this category (Friend, Bursuck, Hutchinson, 1998).

Nancy Hutchinson (2002) reports that in British Columbia two percent of

students may have a moderate behaviour disorder, while three to five percent of children

are diagnosed AD/HD. It appears that two percent of children suffer from intellectual

disabilities and somewhere between three and five percent have communication exceptionalities (Hutchinson, 2002). Each of these exceptionalities has implication for social development, and thus by acknowledging each group, we hoped to be able to understand which children will be most impacted by the intervention.

Whereas the students in the ISN group must have met the previously mentioned stipulations, the NISN subjects were selected from the pool of available classmates. The NISN children were selected not necessarily for their academic performance, but were paired with the ISN students based on age and gender characteristics. This was intended to account for maturation effects as well as gender related differences. In addition to the previously mentioned criteria, students could only be eligible to participate if they had received parental consent. Proper ethical protocols were followed throughout the sample selection process.

Measures

Friendship. To measure the friendship variable, the authors of the current study used a peer nomination procedure similar to the one used by Schneider (1999). In this process, children were asked by the researcher to nominate an unlimited number of "close friends" from a roster of their peers and classmates. They were then asked to identify a "best friend" by circling one name on the list. All of the children were informed that the results will remain confidential and were given an unlimited time to complete the assignment. Although some researchers (Vaughn, et al., 2000) have noted the limitations of such a method, these limitations are mainly technical in nature. The author of this study does not consider them to be a major threat to the validity or the reliability of the measure.

Social Skills. The social skills construct was measured by the Teachers' Form of the Social Skills Rating System (SSRS-TF). The SSRS–TF is a 57-item questionnaire created by Gresham and Elliot (1990). It investigates three domains related to the acquisition and demonstration of social skills: social skills, problem behaviours, and academic competence. The Social Skills Scale is divided into three subscales spread over 30 test items. It includes items pertaining to cooperation, assertion and self-control. The Social Skills Scale rates each of the items based on the frequency of prosocial behaviours and the importance of those behaviours to the classroom environment. For each item in the Social Skills Scale the teacher is asked to rank the frequency of the behaviour on a scale of zero to three (wherein the response "0" means that the behaviour is "never" noticed by the classroom teacher; "1" means that the student "sometimes" demonstrates this behaviour at school; and a score of "2" indicates that the behaviour is observed "very often" by the teacher). In addition to ranking frequency the teacher must also rate the importance of that same behaviour on a similar scale (a rank of "0" would indicate that the skill is "not important"; "1" indicates that the skill is "important"; and a rank of "2" means that the skills is "very important" for classroom success). The Problem Behaviours Scale consists of 18 items that are rated for frequency. Three subscales of the Problem Behaviours Scale measure internalizing problems, externalizing problems, and hyperactivity. Finally, the children's scholastic performance is rated in comparison to their peers on the Academic Competence Scale

Because development was based on sound research and empirical knowledge collected from child development, clinical psychology, education psychology, and special education literature (Gresham & Elliott, 1990) the SSRS-TF seems to be the most appropriate scale for this research. Developed as an enhancement to the Teacher Rating of

Social Skills (TROSS), the SSRS has since been extensively researched and normed in communities throughout the United States (Gresham & Elliott). Reliability has been calculated for each scale of the SSRS-TF; reliability for the Social Skills scale is 0.94, Problem Behaviours is 0.82 , and for the Academic Competence Scale reliability is 0.95 (Gresham & Elliot). Heppner, Kivlighan, and Wampold (1999) suggest that reliability estimates be over 0.80 in order to be sufficiently reliable. Since the reliability calculations for the SSRS-TF are higher than this cut-off, the authors of this study have concluded that the reliability of this scale is not only satisfactory but that the SSRS-TF is a strongly reliable tool.

In order to asses the validity of the SSRS-TF Gresham and Elliot (1990) compared their scale to three other well-validated scales: the Social Behaviours Assessment (Stephens, 1978), the Child Behaviour Checklist- Teacher Report (Achenbach & Edelbrock, 1983), and the Harter Teacher Rating Scale (Harter, 1985). Significant correlations were established between the SSRS-TF and each of these previously validated measurements. Therefore the SSRS-TF has been sufficiently validated and found reliable.

Procedure

The first step in this project was to obtain parental or guardian permission for the children to participate in the research. All of the children in each of the two classes were required to have parental permission. Only those children whose parents returned the signed permission slip were eligible to participate. The children who did not have parental or guardian permission were not included in the sampling procedure and were assigned to another classroom during the intervention. After being selected for the study

according to the procedure discussed above, the children were evaluated for friendship

and social skills using the previously mentioned measures. A pre-treatment measurement

and a post-treatment measurement were collected for each child. Over the span of six

weeks the children were introduced to the 12 skills that are contained in the Friendship-

Making Skills potion of the *Skillstreaming* program. The researcher led the students in the

treatment class in a twenty minute teaching and role playing session (as per the program

specifications). For more information about the *Skillstreaming* program see the

Appendix. Feedback was collected from teachers and participants following the treatment

phase, these comments are also discussed in the Appendix.

CHAPTER FOUR: RESULTS

The purpose of this study was to assess the impact of a social skills training program (*Skillstreaming*) on children with special needs in elementary school. The primary research question was whether or not the application of the a social skills training program could increase the ability of children to demonstrate prosocial skills in the school environment. A bi-product of this increase in social skills would also be a positive change in self-reported friendships and in peer nominations. As a process-evaluation, the main objective was to investigate the feasibility of using a classroom based social skills training program for a large group of students that included both children with Identified Special Needs (ISN) and No Identified Special Need (NISN).

Descriptive Statistics

The means and standard deviations for each of the dependant variables are presented in Table 1. When considering the means at both Time One and Time Two, as predicated in the hypotheses, it is apparent that Social Skills, Friendship, and Peer Nomination have all increased (with social skills showing the greatest change).

Correlation coefficients were conducted among the three dependant variables at each data collection point. The results of the correlational analyses presented in Table 2 show the level of social skills and peer nominations are significantly correlated at both data collection points and across the two data collection points, implying that the children who are most socially competent are better liked by their peers (confirming the results of previously mentioned research). Friendship on the other hand is negatively correlated with the Peer Nomination and Social Skills variables, implying that the children's perceptions of their number of friends is not necessarily accurate when compared to the number of their peers who nominate them as friends.

Analysis

For a feasibility study with a small sample size, the analysis strategy chosen was a series of univariate mixed designs ANOVAs. The dependant variables were social skills, friendship, and peer nominations respectively. The between-subjects independent variables, Special Need and Group, each included two levels: ISN or NISN and Treatment or Control, respectively. The within-subjects independent variable was Time (pre and post). The means and the standard deviations of the dependent variables for each cell are presented Table 1. Given that it is a feasibility study and the sample size was small, it was important to maintain adequate power levels. Therefore no adjustments were made for familywise error.

Hypothesis one: Increased social skills in treatment group. The ANOVA results produced significant program effects over time (see Group by Time interaction in Table 3 for Social Skills). This indicates that overall the training program improved teacher's perceptions of the participants' social skills more than any changes in the control

classroom (see Figure 3). The strength of the Time by Group effect, as assessed by η^2, was strong. The Group main effect accounted for 44% of the variance of social skill.

Hypothesis Two: Increased Friendships and Peer Nominations in Treatment Group. The repeated measures ANOVA for Friendship indicated an overall difference in number of friends over time, but did not distinguish between treatment and control groups (see Table 3 for repeated-measures ANOVA results for Friendships). Similarly, the repeated measures ANOVA for Peer Nominations showed a significant Time effect, demonstrating that the groups showed changes across the two data collection points (see table 3 for repeated measure ANOVA results for Peer Nominations). For both the Friendship variable and the Peer Nominations variable the observed power was stringent ($\eta^2 = .34$ in both cases), implying that the significant results had identified a true mean differences across time.

Hypothesis Three: Difference between ISN and NISN. None of the repeated measure ANOVAs produced significant main effect for Special Needs status. It seems as though in this sample the effect of the treatment was the same for children with ISN and NISN. However, if the effect size were to remain stable in a larger sample, these interactions would become significant.

Summary

In summary, the first hypothesis was confirmed by the data, while the second two hypotheses require further research to clarify. Whereas clear program effects were observed for Social Skills over time, no significant differences were found for Friendships and Peer Nominations. The mean differences between ISN and NISN were not apparent. A larger sample would be necessary for future research in order to address

the final two hypotheses. Overall, the children in the treatment group did show a

significant increase in social skills as reported by their classroom teacher when compared

with the waitlist control group.

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CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

Choice of Statistical Procedure

An ANOVA can be defined as "a significance test for the difference of means of two or more groups" (Ness Evans, 1998, p.270). As this study satisfied this definition of ANOVA, it was deemed the most appropriate statistical analysis for the data collected given the research questions. The research questions specifically intended to assert whether or not a difference between means on a series of dependant variables could be established between the groups. Green, Salkind, and Akey (2000) explain that one-way ANOVA is a suitable way to address these questions despite the small sample size.

Non-parametric statistics could also have been used in this case; however, while non-parametric statistics may have been more appropriate given the smaller sample size, a non-parametric approach would not have satisfied the research questions. Because this is a feasibility study the use of ANOVA is justifiable, but further research would require a significantly larger sample size.

Observations in the Data

When considering the data, it is apparent that the teachers did not ascribe the same level of social skills to their students at the outset of the study; the teacher of the treatment group reported a much lower level of social skills than did the teacher of the control group (refer to Table 1 for mean differences between dependant variables). Three possible explanations are offered here. First it is possible that the control group teacher was experiencing a halo effect as she first assessed the social skills of the students in her class, accounting for the difference in social skills scores at Time One. Another explanation for this discrepancy could relate to the subjectivity of the SRSS-TF measure.

It is possible that each teacher interpreted the frequency items differently, which could also explain why the two groups received such different social skills scores at Time One. Finally, it is also possible that control group was indeed more socially competent than the treatment group; even still this does not negate the improvement demonstrated by the treatment group that was not apparent in the control group.

Another interesting phenomenon in these data is the *reduction* in mean Total Social Skills Scores for children with NISN in the No Treatment group at Time Two (refer to Table 1). There are several reasons why this type of change may have occurred. One possible explanation is the potential change in the teacher's perceptions of the difference between children with ISN and NISN. Research has shown that teacher perceptions can have a high impact on teaching practices and student outcomes (Jordan & Stanovich, 2004). Perhaps this teacher's outlook became more realistic as she was able to acknowledge both the positive and negative behaviours of the children in both groups. Changes in teacher attitude can foster changes in student behaviour: "differences in beliefs are associated with differences in practice, not only in the quantity and extent of student engagement of teacher interventions with students with disabilities, but with overall teaching effectiveness with all their students" (Jordan & Stanovich, p.27). In this case, adopting a more realistic attitude about children with ISN may have influenced SRSS-TF scores by highlighting the positive behaviours and efforts exhibited by children with ISN, and acknowledgement of some of the challenges apparent in NISN children.

Another viable explanation for the negative change in Total Social Skills Scores is a fluctuation in school ethos. Over the course of the school year many environmental factors change, for example, teacher's attitudes, students' attitudes and behaviours, school atmosphere, and classroom atmosphere, among other things. These changes are inherent

in a natural environment and have a wide -reaching impact (Stanovich & Jordan, 1998). As these fluctuations in school ethos are considered, the data are given greater strength because both groups would have experienced similar effects to the atmospheric changes in the school. If observed changes were due solely to natural shifts in the environment we would expect that both the Treatment and the Control groups would have experienced the same type of fluctuation in skills. In actuality, the data showed that the children in the treatment group increased their level of social competence, while children in the control group either decreased or did not show significant change, therefore we can credit the intervention for the positive change.

While differences were found in social skills, the analysis was not able to identify any program effects on Friendship and Peer Nomination. This is likely due to small cell size, as it is possible that with a larger sample statistical analysis would be able to identify changes, if they were there. It is also possible that the participants' Friendship and Peer Nominations scores were subject to a test-retest bias. A more optimistic view would explain this phenomenon as the program having had spillover effects which were able to increase the friendships of all of the children across classes. Further research would be necessary to substantiate this claim. A more stringent measure of children's friendships, such as the Self-Description Questionnaire (SDQ; Marsh, 1988), may be useful in future research to identify the true effects of social skills training on the friendships of children.

Potential Impact

By implementing a social skills training program, the author of this study was able to demonstrate an increase in the social skills of elementary school. Based on the results of the intervention, we were able to determine that this type of instructional skill-building

program is effective for improving social interactions of elementary school children with special needs.

The design of this research involved the amalgamation of several previously distinct concepts and methods that have been supported by the literature. The results of this study have shown that this method has been successful at forming a working model for children with special needs. This model combines the principles of community and an inclusive environment with the support (social skills training) that is required to make the current application of the inclusion model successful. Since one of the goals of this research study was to evaluate the appropriateness of the program, both positive and negative outcomes could have been valuable to the professional community. Future research on the topic would be especially relevant to those authors interested in researching social skills training models and practitioners who wish to increase children's social ability. Since the program successfully demonstrated the ability to improve the quality of social interactions among elementary school children, it has shown to have benefit on a personal level as well as an academic one.

As previously discussed the goals of the inclusion model endorse connectedness to the school community and the creation of a hospitable environment that fosters intellectual, scholastic, and social skills. As the literature indicates, not all of these goals have been obtained. Sadly, children with special needs have not felt included in the school community, which indicates that the inclusion model may need to be revised in order to attain the goals that are inherent to this model. Authors have credited friendlessness to lack of social skills, particularly in children with special needs. Since this program has proven to be successful at increasing the children's social skills and by extension their ability to make friends, it could be beneficial to include a program such as

this in functional formulations of the inclusion model. To date, intentionally teaching social skills in the classroom setting has not been widely practiced. The use of specific social skills training programs is still uncommon in many schools. It has been observed that not all teachers feel that it is their responsibility to encourage children to develop friendships (Bergen, 1993), despite the fact that friendship and social competence are part of the BCMoE goals. Bergen reports that teachers seldom incorporate friendship-oriented activities in their classrooms. It is possible that social skills programs that can be added to the classroom curriculum could both satisfy the goals of the BCMoE and provide an easy way for teachers to include friendship development exercises in their classrooms.

Limitations

The main limitations of such a study are related to the size and nature of the sample which limits the generalizability of the results. Since the sample was a modest-sized sample of convenience, the results will pertain directly to the population that was involved in the study. Although the results may be carefully related to the wider inclusion model, they must be considered within the context within which they were gathered. Future research would have to demand a larger sample group and a greater demographic range in order for the implications of the study to be further-reaching and widely applicable.

This design does not address the first criticism offered by Vaughn (2001) – time limitations. This program was implemented over a comparatively short period of time to the length that has been suggested by Vaughn. Certain restraints are inherent in the classroom environment, such as a fixed number of children in each classroom, pre-existing school schedules, as well as curricular requirements. This study offered an

addition to the curriculum that met the goals set out by the BCMoE (2002). All three of

the concerns regarding the success of social skills training offered by Vaughn (2001) had

been considered prior to beginning the research, and the authors of this research believe

that by addressing the two latter concerns we have given strength to the research design of

this project. *Skillstreaming* has been empirically validated, as has the SSRS, therefore the

results obtained by this research are considered to be both valid and reliable. Also,

generalizability skills have been incorporated into the program, thus it is likely that the

children will be able to carry these learned skills over into their daily lives. Regardless of

the short amount of time, a significant change in social skills was noted over the course of

the program.

Future research should investigate the impact of age and gender on the acquisition

of social skills, as this has not often been investigated in friendship or social skills

research that relates to special needs in particular. As this sample was limited by various

factors, this was not possible in this study. Interesting and important differences might be

found if the results were considered, for example, in light of both age and gender.

Sechtman et al. (1994) demonstrated that boys in particular were able to improve

friendship skills following participation in a social competence group. Both age and

gender differences in friendship acquisition were also shown in an American study of the

Head Start Program (an after-school group for children at risk; Vaughn, et al., 2000). In a

classic study, Berndt and Hoyle (1985) found that the pattern of making and keeping

friends was directly related to the age and gender of the children; where first and fourth

graders made more friends than they lost, and girls in all stages had the largest number of

friends. These studies seem to imply that it is possible for children to acquire friend-

related social skills in gender specific ways. It would be extremely relevant to understand

how children with special needs' friendships are influenced by age and gender and

whether or not these differences would affect a social skills treatment program.

The Unified Education System (UES) Revisited

The UES was used as a structural representation of the goals and potential outcomes of inclusive education. As outlined in Figure 1, student outcomes are influenced by educator characteristics and enabling conditions that allow special education and regular education be integrated smoothly. Since this project produced a positive change in student outcomes, we can concluded that the success of the inclusive model can be influenced by adapting enabling conditions to reflect the desired student outcomes; at least in the case of social competence. In this case, friendship was the target outcome; therefore a friendship-oriented social skills program was added to the enabling conditions. This type of outcome targeting might allow for the inclusive education system to become more effective and able to reach the goals that it has set for itself. The graphical representation of the UES makes the connection between school ethos and intended outcomes more obvious. Using the UES model might allow for effective targeting of as-yet-unreached educational goals. The UES allows us to consider both the outcomes and the school ethos at the same time. Therefore, this model illustrates the possibility of making changes to the school ethos in order to make the outcomes more successful. Future research could thus, test this theory further by targeting other outcomes that have not been successfully reached by the current model and changing the school ethos conditions accordingly. Testing this model further could allow for a viable alternative to the current model of inclusion. As success has been recorded by this project, there is a hope that the holistic goals of inclusive education could be met successfully by adapting the school ethos to reflect the desired outcomes.

Conclusion

Overall, the program can be considered a success because it effectively accomplished its two goals. First, the *Skillstreaming* intervention effectively increased the social skills demonstrated by children in the classroom. Second, the project was able to demonstrate the usefulness of the UES model. By combining these two "lessons-learned" we can envision changes that could better the inclusive education system. Including social skills training in the classroom has proven an effective way to address the friendship-oriented goals of inclusive education, thus making the current model more successful.

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APPENDIX: THE *SKILLSTREAMING* PROGRAM

The Skillstreaming Program

      Skillstreaming (McGinnis & Goldstein, 1997) is an exciting program that has been designed to increase children's social competence, to give encouragement to children with skill deficits, to increase self-esteem, and to improve positive interactions between students in schools. McGinnis and Goldstein (1997) designed the *Skillstreaming* program to address the need for teachers to instruct social skills in the scholastic environment. As many children are showing deficits in these areas, McGinnis and Goldstein (1997) encourage schools to take a proactive stance with regards to teaching children social skills. They have noted that there are many reasons why children do not pick up social competence in school and therefore have suggested that children need planned, systematic instruction in order to gain new skills. "Whatever the reason for [social] skill lack or weakness, schools must establish and implement procedures to teach these skills, just as they would in the case of academic deficits." (McGinnis & Goldstein, 1997; p.3).

      McGinnis and Goldstein (1997) have compiled a series of "rules" that they believe are essential for teaching children positive social behaviours, which have been incorporated into the *Skillstreaming* model. They have dubbed these the "rules for the use of rules" (McGinnis & Goldstein, 1997; p.30-31):

1. Define and communicate rules for student behaviour in clear, specific, and, especially, behavioural terms…

2. It is more effective to tell students what to do, rather than what not to do…

3. Rules should be communicated in a manner that will help students memorize them…

Implementation of the Program

Because the focus of the study was primarily on friendship, and because time restraints only allowed a small amount of in class time, only the "Friendship-Making Skills" section of the *Skillstreaming* program was included. This is comprised of the following 12 skills, which can be divided into steps as represented below (from McGinnis & Goldstein, 1997; p.104-115):

1) Introduce yourself:

   a. Decide if you want to meet the person.

   b. Decide if it's a good time.

   c. Walk up to the person.

   d. Introduce yourself.

   e. Wait for the person to tell you his/her name. (If he/she doesn't tell you, ask)

2) Beginning a conversation:

   a. Choose the person with whom you want to talk.

   b. Decide what you want to say.

   c. Choose a good time and place.

   d. Start talking in a friendly way.

3) Ending a conversation:

   a. Decide if you need to end the conversation.

   b. Decide what to say.

   c. Wait until the other person stops talking.

   d. Say it in a friendly way.

4) Joining in:

    a.   Decide if you want to join in.

    b.   Decide what to say.

    c.   Choose a good time.

    d.   Say it in a friendly way.

5) Playing a game:

    a.   Be sure you know the rules.

    b.   Decide who starts the game.

    c.   Remember to wait your turn.

    d.   When the game is over, say something nice to the other person.

6) Asking a favour:

    a.   Decide if you want or need to ask a favour.

    b.   Plan what you want to say.

    c.   Ask the favour in a friendly way.

    d.   Remember to thank the person.

7) Offering help to a classmate:

    a.   Decide if the person needs or wants help.

    b.   Think of how you can help.

    c.   Decide what to say.

    d.   Choose a good time.

    e.   Ask in a friendly way.

8) Giving a complement:

    a.   Decide what you want to tell the other person.

    b.   Decide what to say.

    c.   Choose a good time and place.

       d. Give the compliment in a friendly way.

9) Accepting a compliment:

       a. Decide if someone has given you a compliment.

       b. Say thank you.

       c. Say something else if you want to.

10) Suggesting an activity:

       a. Decide on an activity you want to suggest.

       b. Decide what to say.

       c. Choose a good time.

       d. Say it in a friendly way.

11) Sharing:

       a. Decide if you want to share something.

       b. Decide on the person with whom you want to share.

       c. Choose a good time and place.

       d. Offer to share in a friendly way.

12) Apologizing:

       a. Decide if you need to apologize.

       b. Think about your choices:

            i. Say it out loud to the person.

           ii. Write the person a note.

       c. Choose a good time and place.

       d. Carry out your best choice in a sincere way.

The decision to limit the number of skills taught in the treatment program described here

would he supported by McGinnis and Goldstein (1997) who explain that "the goal is to

teach those skills in which students are weak or deficient [therefore the skills included in the program] are those that will be most helpful in their daily lives" (p. 52).

In addition to the specific skills, the program focuses on important aspects of communication, such as body language, manners, and respect. It also emphasizes the choices that children make, and encourages them to decide what course to take when approaching their peers.

It took twenty minutes of class time, twice a week for six weeks to cover all of the Friendship-Making skills. Although McGinnis and Goldstein (1997) endorse using creativity and spontaneity, for the purpose of this project, the sessions were conducted precisely as outlined in the manual. This was done to maintain the validity of the results and increase the possibility of repeating the study with a larger sample while still finding the same results. As directed by the manual (McGinnis & Goldstein, 1997), each session involved discussion of previous skills, introduction to the steps in the new skill, discussion (as directed by the manual), a modeling time (where the instructor demonstrated the skill in front of the class), a role-play (where children were given the opportunity to act out and practice the new skill in front of their peers), and finally the assignment of homework. Since this project involved a significantly larger group than has been used in the past, the role-play was modified to accommodate the entire classroom. In this case the role-play involved two groups of children who demonstrated the skill for their peers. In this sense the children served as an additional model of the skill as well as gaining the opportunity to practice. When time was available the entire class was split into groups and several role-plays were preformed. Homework was assigned and collected each week to increase the children's generalization of the skill. Assigning the homework sheets that were provided in the *Skillstreaming* manual (McGinnis &

SCHOOL ETHOS

Educators' Characteristics
- Attitudes
- Beliefs
- Values
- Abilities

Enabling Conditions
- Professional Training and Development
- Pooling of Resources
- Administrative
- Leadership and support
* Curricular Change

Merger of Regular and Special Education

STUDENT OUTCOMES / EDUCATIONAL GOALS

Unified Educational System

- Academic and Social Competence
- Educational Equality and Equity
- Independent Learning and Thinking
- School-Home Partnership
- Lifelong Learning
- Living and Learning in Community

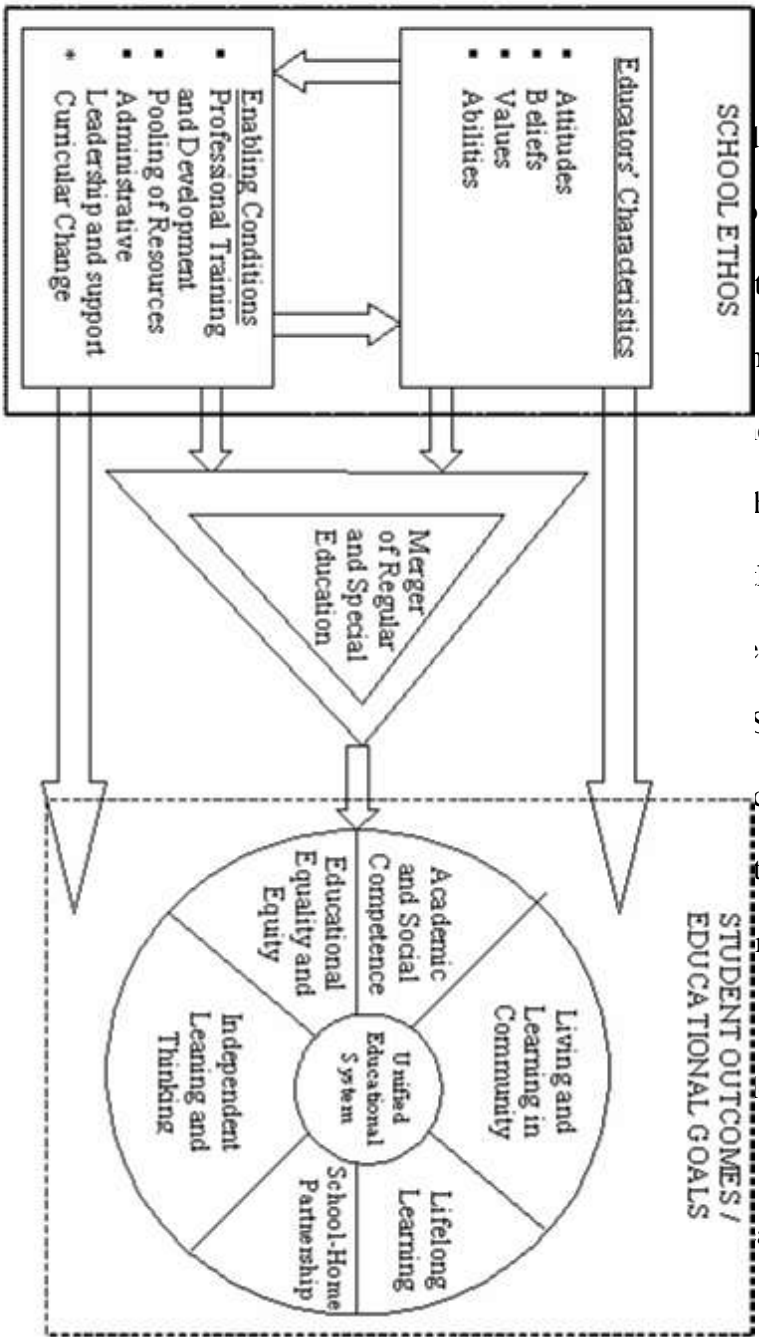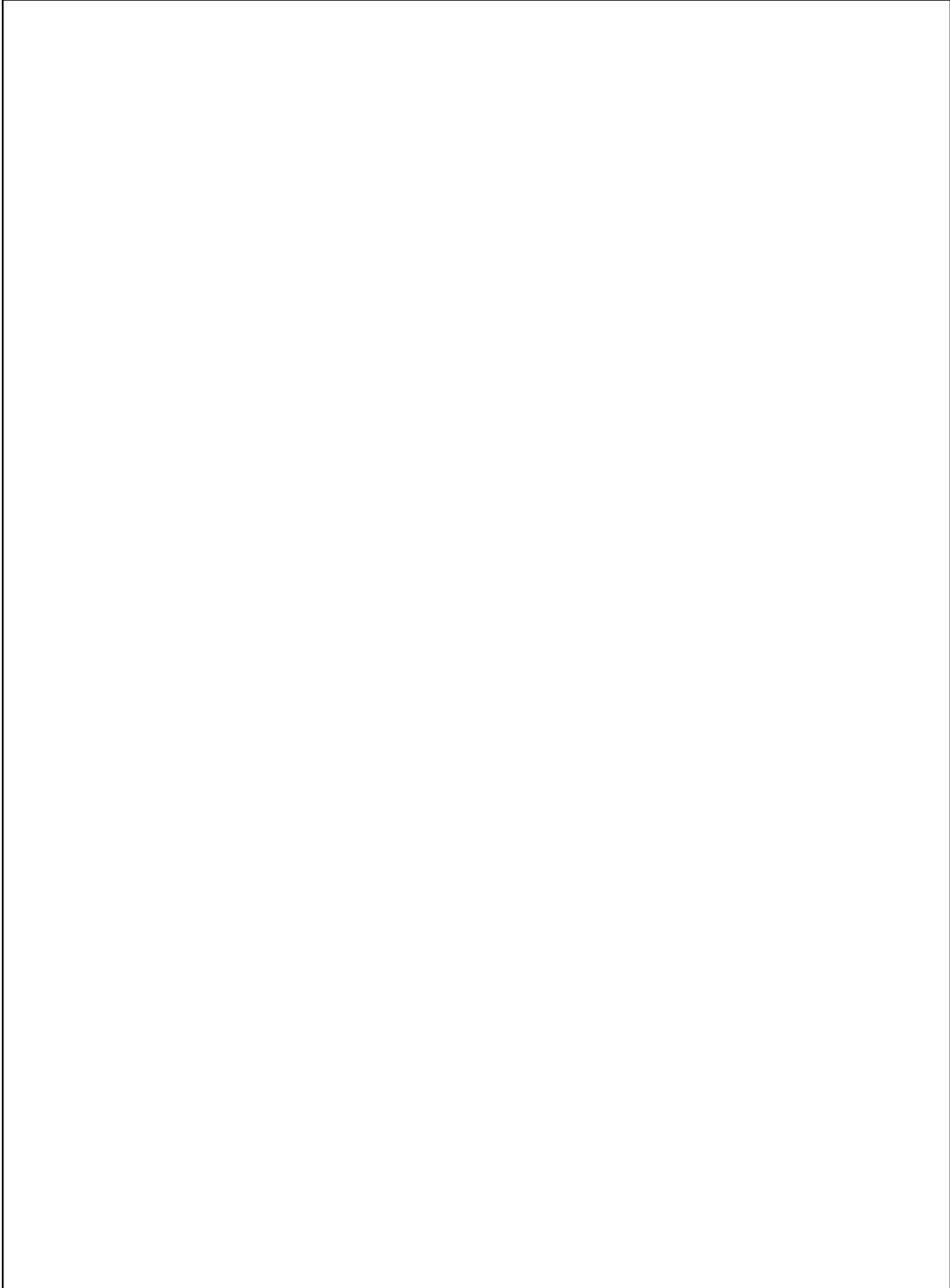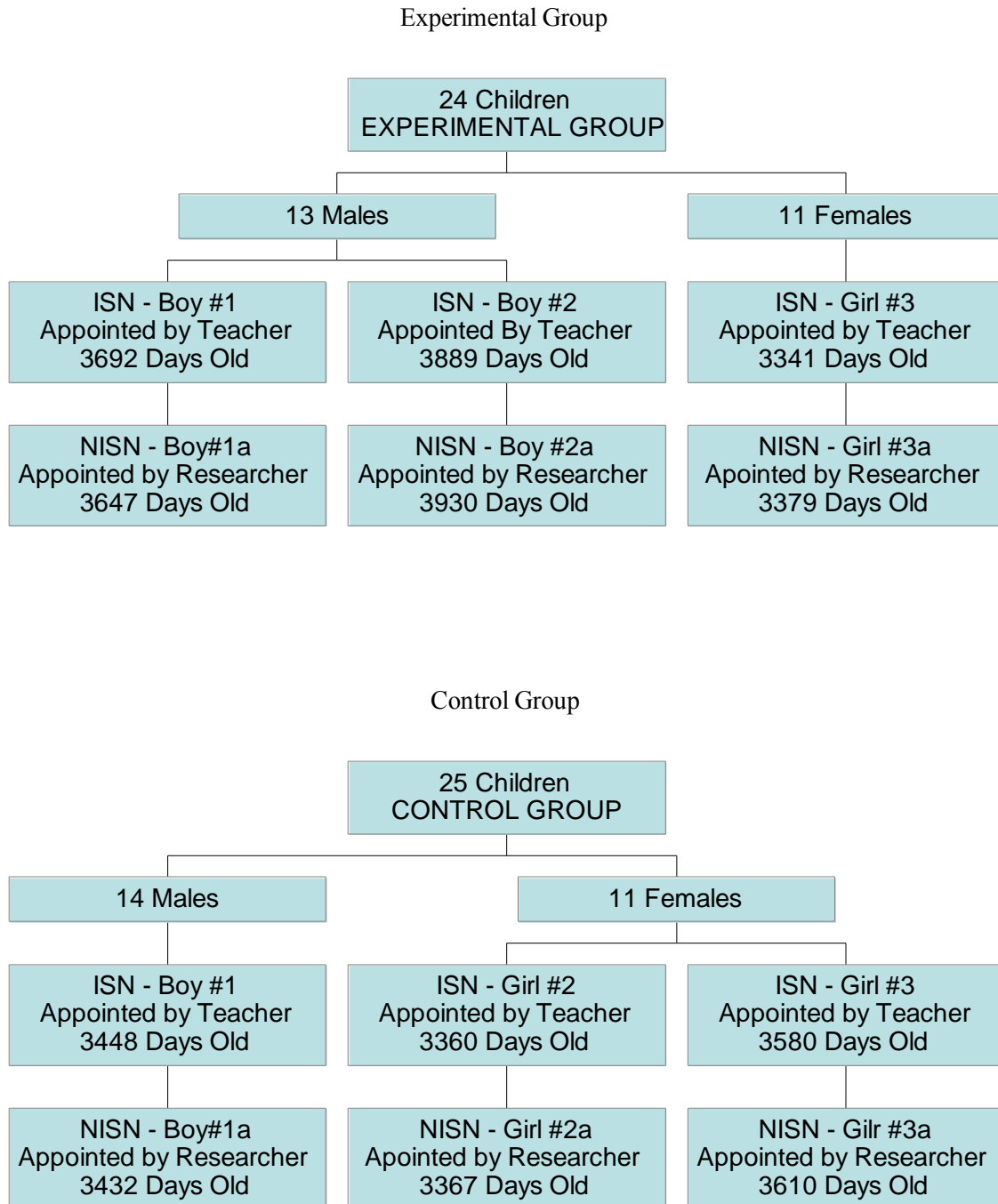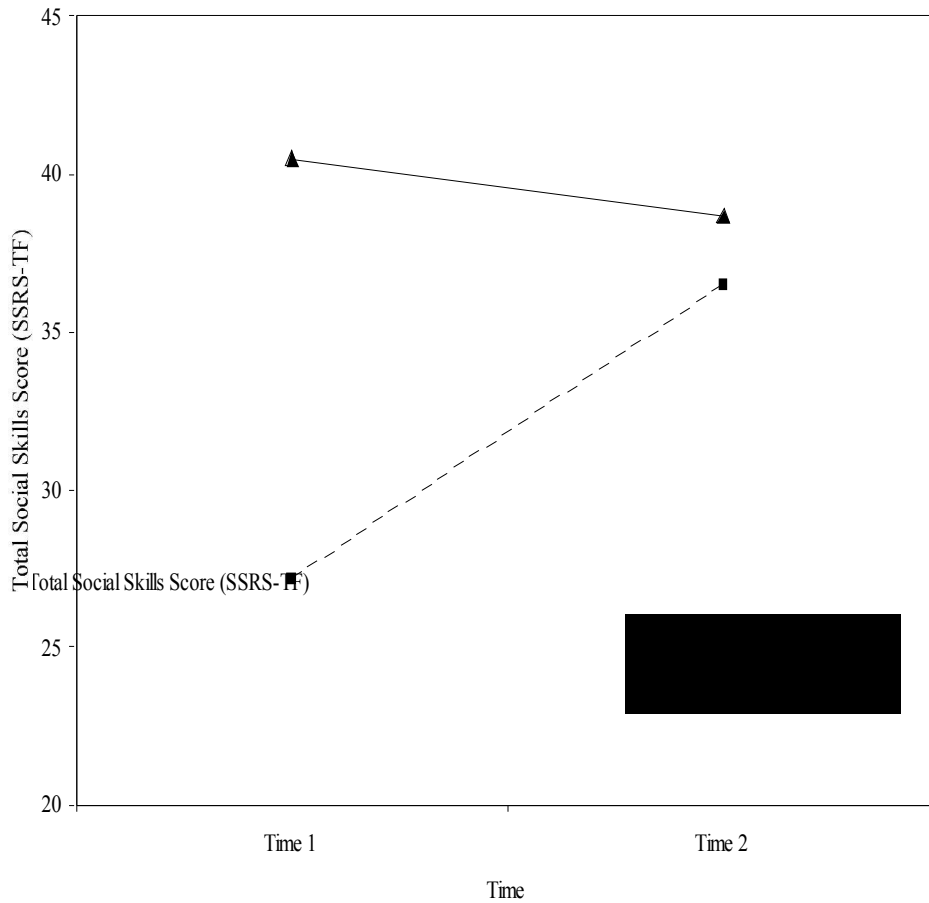Figure 1. Graphical Representation of the Unified Educational System. The item depicted illustrates how educator's characteristics and enabling conditions work together to affect the success of the inclusive environment and positive student outcomes.

Adapted From "The Inclusive Classroom: Educating Exceptional Children" by J. Andrews and J. Lupart, p. 3. Copyright 2000 Nelson, a division of Thompson Learning.

Experimental Group

```
                    ┌─────────────────────────┐
                    │      24 Children         │
                    │  EXPERIMENTAL GROUP      │
                    └─────────────────────────┘
              ┌────────────────┴────────────────┐
    ┌──────────────────┐              ┌──────────────────┐
    │    13 Males       │              │    11 Females     │
    └──────────────────┘              └──────────────────┘
```

ISN - Boy #1	ISN - Boy #2	ISN - Girl #3
Appointed by Teacher	Appointed By Teacher	Appointed by Teacher
3692 Days Old	3889 Days Old	3341 Days Old

NISN - Boy#1a	NISN - Boy #2a	NISN - Girl #3a
Appointed by Researcher	Appointed by Researcher	Apointed by Researcher
3647 Days Old	3930 Days Old	3379 Days Old

Control Group

```
                    ┌─────────────────────────┐
                    │      25 Children         │
                    │    CONTROL GROUP         │
                    └─────────────────────────┘
              ┌────────────────┴────────────────┐
    ┌──────────────────┐              ┌──────────────────┐
    │    14 Males       │              │    11 Females     │
    └──────────────────┘              └──────────────────┘
```

ISN - Boy #1	ISN - Girl #2	ISN - Girl #3
Appointed by Teacher	Appointed by Teacher	Appointed by Teacher
3448 Days Old	3360 Days Old	3580 Days Old

NISN - Boy#1a	NISN - Girl #2a	NISN - Gilr #3a
Appointed by Researcher	Apointed by Researcher	Appointed by Researcher
3432 Days Old	3367 Days Old	3610 Days Old

Figure2. Comparison of participant gender and age distribution in experimental and control groups.

Figure 3. The difference between the teachers' perceptions of the subjects' social skills

across time (as rated by the Teachers Form of the Social Skills Rating System; SSRS-TF).

Points represent the two data collection points (Time One and Time Two); vertical lines

depict mean scores on the SSRS-TF for each group (Treatment and Control).

Table 2

Correlations Among the Three Dependant Variables Across Data Collection Points

	Time One			Time Two		
	Social Skills	Friendships	Peer Nominations	Social Skills	Friendships	Peer Nominations
Time One						
Socail Skills	-	.08	.63*	.55	-.06	.63*
Friendships		-	-.27	.03	.77**	-.13
Peer Nominations			-	.63*	-.14	.82**
Time Two						
Social Skills	.55	-.06	.63*	-	-.06	.70*
Friendships	.03	.77**	-.13		-	.00
Peer Nominations	.63*	-.14	.82**			-

Table 1

Means

endships

ime 2

1

0

6

Social s

Peer no

Friends

Note. *$p < .05$, **$p < .01$
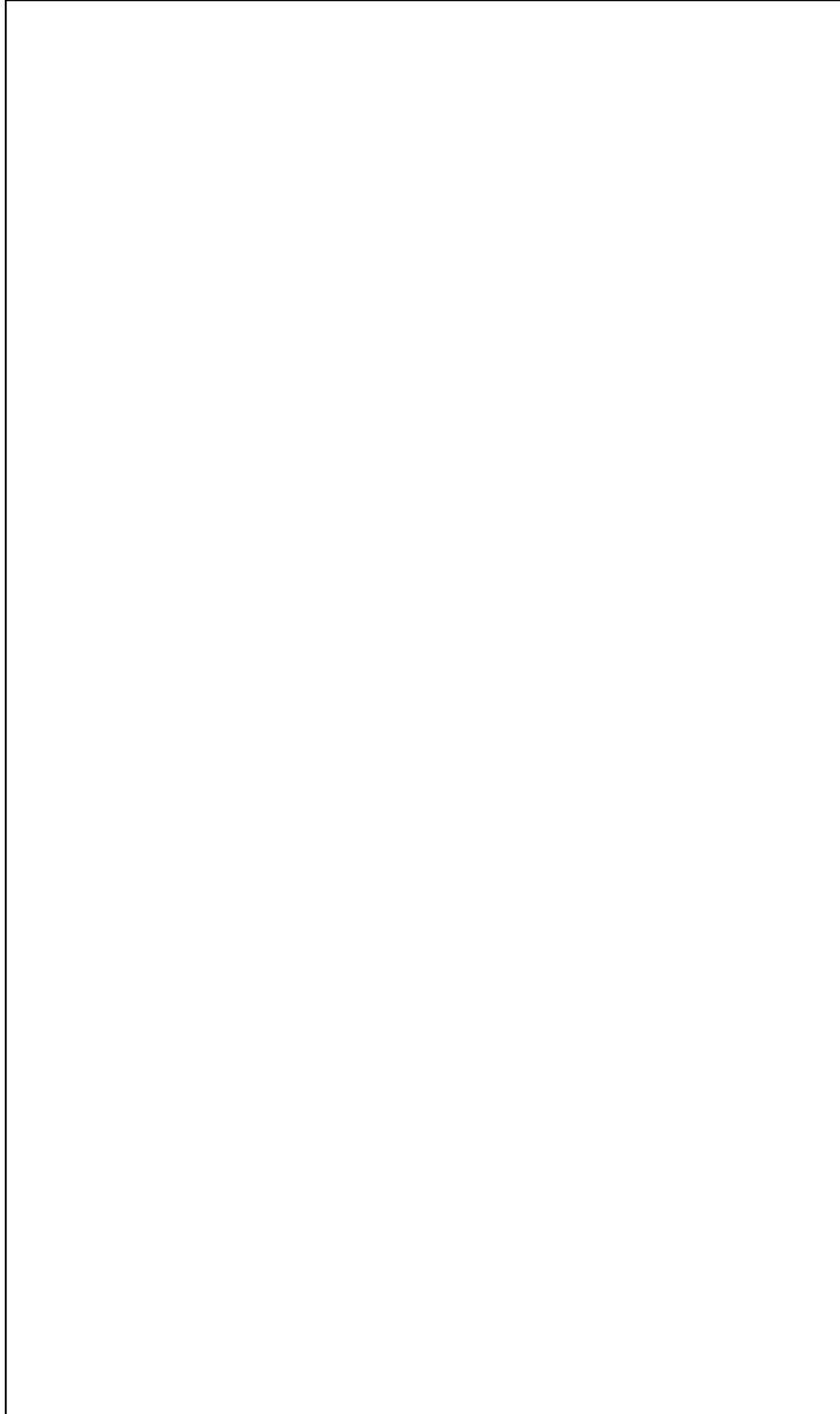
Table 3

Repeated-Measures Analysis of Variance

Source	df	F	η	p
		Social Skills		
		Between subjects		
Group (G)	1.0	10.2**	.56	.01
Special need (SN)	1.0	20.8**	0.72	.00
T X SN	1.0	5.0	0.38	.06
Error	8.0	(35.4)		
		Within subjects		
Time (T)	1.0	2.79	.26	.13
T X G	1.0	6.18*	.44	.04
T X SN	1.0	1.00	.11	.35
G X T X SN	1.0	1.00	.11	.35
Error (T)	8.0	(30.29)		
		Number of Friends		
		Between subjects		
G	1.00	1.56	.16	.25
SN	1.00	.39	.05	.55
SN X G	1.00	.15	.02	.71
Error	8.00	(27.38)		

Table 3 (continued)

Repeated-Measures Analysis of Variance

Source	df	F	η	p
Number of Friends				
Within subjects				
T	1.00	4.10	.34	.08
T X G	1.00	.81	.09	.39
T X SN	1.00	1.82	.19	.21
T X SN X G	1.00	.46	.05	.52
Error (T)	8.00	(3.29)		
Peer Nominations				
Between subjects				
T	1.00	.13	.02	.73
SN	1.00	10.41**	.57	.01
SN X G	1.00	4.13	.34	.08
Error (T)	8.00	(2.92)		
Within subjects				
T	1.00	4.05	.34	.08
T X SN	1.00	.45	.05	.52
T X G	1.00	.05	.01	.83
T X SN X G	1.00	.05	.01	.83
Error (T)	8.00	(.83)		

Note. Values enclosed in parentheses represent mean square errors.

p < .05, ***p* < .01