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## **Special buddies: Reverse mainstreaming in preschool special education**

Nancy Cibulk Mulligan

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SPECIAL BUDDIES: REVERSE MAINSTREAMING IN  
PRESCHOOL SPECIAL EDUCATION

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A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
in  
Education: Special Education

---

by  
Nancy Cibulk Mulligan  
June 1998

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PRESCHOOL SPECIAL EDUCATION

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by

Nancy Cibulk Mulligan

June 1998

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## ABSTRACT

This project analyzed a program of reverse mainstreaming of typical first grade children into a class of preschoolers (ages three, four and five) with severe and profound disabilities. The specific focus of the project was the effects of this program on the typical children's behavior, self-esteem, social skills, and their attitudes toward persons with disabilities. By showing the benefits for typical children, it was hoped that the program would lead to more options for integration of children with severe disabilities.

There had not been a systematic method for integration of children from a county-operated self-contained class for students with severe and profound disabilities with their nondisabled peers. The teacher of this class initiated a "Special Buddies" Program in which six typical first graders participated in group and partner art, cooking, music, drama and motor activities with seven preschoolers in the special education classroom. The first graders were chosen by their teachers because of deficits in self-esteem, social skills, or behavior. The sessions lasted for one/half hour, twice a week for ten weeks.

Data were collected concerning the first graders' behavior, self-esteem, social skills, status in class, and attitude toward disabilities. A student behavior rating scale, an attitude survey, and interviews of students, teachers, parents and special education staff were used to evaluate the students before and after the program.

At the conclusion of the program, various first graders demonstrated increased responsibility and leadership skills, their status in class improved, they had more patience with siblings and fellow students, and their self-esteem improved. Some of the changes did not transfer to the home, but that may have been due to the short duration of the program and the first grade teachers and some of the parents not following up on post-session discussions. All of the students showed a positive change in their attitudes toward people with disabilities. All of the participants and parents reported that the children enjoyed the program and recommended that it continue.

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## Introduction

### General Statement of the Problem

Historically, the general population has not had many opportunities for contact with persons with severe and profound disabilities. Prior to the passage of the Education for All Handicapped Children Act (1975) children with the severest disabilities did not ordinarily attend neighborhood public schools. After 1975, self-contained classes for these children were established at the local school sites. In Hawaii, in 1978, a structured friendship program (Special Friends) introduced the special education students and the general education students to each other in anticipation of future full-time integration (Voeltz, et al., 1983).

Nearly twenty years later, in a county-administered special education program in California, there were still self-contained classrooms of children with severe disabilities on elementary school sites, with little opportunity for integration. In some cases the classrooms were geographically isolated--portable classrooms at the back of the school or off to the side where typical children did not usually go. Not only was there little opportunity for spontaneous integration but there was not even a



structured program of student-to-student contact between the typical children and the children with severe disabilities. Even though the special education classes attended assemblies and recess, the typical students tended not to approach or speak to the students with disabilities and usually would just stare at them.

To counteract this isolation and expose the typical students to a variety of people, a teacher of an SPH (Severely and Profoundly Handicapped) class began a reverse mainstreaming program (typical students integrated into a special education class for part of a day). The benefits of integration to children with disabilities have been well documented (Buysse & Bailey, 1993; Esposito, 1987; Esposito & Peach, 1983; Salisbury, 1990). The present study was needed to justify the time spent in terms of benefits to the typical students, in order to defend such a program (mainstreaming or reverse mainstreaming) more completely to general education teachers. There have been teachers who were either reluctant or not knowledgeable about how to mainstream even moderately disabled students. If this program could show the benefits to the regular education students, these teachers might be more willing to receive students with disabilities into their classrooms.

## Significance of the Project

The philosophy in American education has been moving toward inclusion of students with disabilities in general education classrooms (Eichinger & Woltman, 1993; Salisbury, 1990). However, students with the most severe disabilities have not typically had the opportunity to be included. The Special Friends Program was intended as a "transitional, training program" to prepare the children--with and without disabilities--for social interactions with each other (Voeltz, et al., 1983, p. 9). However, in the county in which this study took place, students with the most severe disabilities had not yet had mainstreaming or inclusion presented as equal options to segregated classes. The present program (labeled the Special Buddies Program) was initiated to provide an opportunity for social interaction for the young SPH students, in the hope that it would lead to more options for integration.

The rationale for beginning integration with young children was summarized by Buysse and Bailey (1993, p. 435). First, children have not yet formed opinions or biases about groups of people, thus minimizing the possibility of overt rejection or teasing. Second, early exposure to people with disabilities increases the likelihood of acceptance in later

life. Third, placement in normalized settings increases the expectation of integration in later life and prepares the child with disabilities for greater success in typical environments.

This study is applied research in the field of special education. It provides a format and rationale for reverse mainstreaming of children with severe disabilities in order to ease the path toward mainstreaming and inclusion of children with disabilities into general education. It also can show the benefits of reverse mainstreaming for typical children, in terms of their status in class, self-esteem and social skills.

Reverse mainstreaming might also pave the way for mutual acceptance and friendship among children and adults in an integrated society. The original Special Friends Program had as its goals:

(1) to develop positive, mutually rewarding personal relationships between severely handicapped and nonhandicapped children which will generalize to nonschool environments and maintain over time; and (2) to support the development of social competence by both severely handicapped and nonhandicapped children, such that they acquire the social performance skills to successfully function in integrated community environments. (Hemphill, 1983, p. 33)

The Special Buddies Program is a way of educating

typical students about human differences and enhancing personal development. If, as Helmstetter, Peck and Giangreco (1994, p.275) argued, an important objective of schooling is "the transmission of cultural values related to the development of an ethic of caring and commitment to others," then integration of students with significant disabilities presents a powerful means for achieving that end. If typical children begin at an early age to have a positive attitude toward persons with disabilities and to eliminate their fear and discomfort, this acceptance may continue into adulthood. As their parents and teachers encounter persons with severe disabilities out in the community, they may have a more interactive attitude as a result of their participation in the program.

#### Assumptions

The following assumptions apply for this project:

1. Children with disabilities have the right to a free, appropriate and public education (P.L. 94-142).
2. Parents want their children to have experiences with different types of people.
3. The typical children were in the Special Buddies Program on a voluntary basis.
4. Interactive play is an appropriate activity for early

education classrooms.

5. Typical children do not need to be taught or trained to play with age-appropriate toys.

### Research Questions

The following questions were addressed by this study:

1. What are the benefits and disadvantages of reverse mainstreaming, according to the participants, parents, and teachers?
2. Does participation in a reverse mainstreaming program improve typical children's behavior, self-esteem, and social skills?
3. How does contact with children with disabilities impact the attitudes of general education teachers and students toward persons with disabilities?
4. What are the parents' perspectives on the effects of the Special Buddies Program?

### Definitions of Terms

For this project, the following definitions apply:

1. Special education is instruction designed to meet the educational needs of students with disabilities.
2. General education is instruction for normally-developing children, kindergarten through twelfth grade.

3. Typical children are those who are developing normally and are enrolled in general education.
4. Students with special needs are those who have disabilities or health care issues, and who require instructional adaptations in order to learn successfully.
5. A learning disability is a developmental disorder that manifests itself in a discrepancy between ability and academic achievement.
6. School districts provide education for typical children and children with learning disabilities.
7. The County special education division provides education for children with moderate to severe disabilities, and low-incidence disabilities.
8. Low-incidence disabilities include deaf, hard-of-hearing, blind, deaf-blind and orthopedic disabilities.
9. Severe and profound mental retardation involves intelligence test scores below 35 and deficits in adaptive behavior.
10. SPH class is a County-operated classroom for children with severe and profound mental retardation and other low incidence disabilities--blindness, orthopedic needs, etc.

11. A special day class is one in which students with special needs are grouped together in a self-contained class. They sometimes spend a part of the day in general education activities.
12. Integration is any systematic interaction between special and general education students.
13. Mainstreaming is the participation of special education students in the general education process for any part of the school day.
14. Reverse mainstreaming is the participation of typical students in a self-contained special education classroom for part of the school day.
15. Inclusion is the enrollment of a special education student in a general education classroom on a full-time basis with support services (also known as full inclusion).

#### Review of Related Literature

Historical basis for integration. Prior to 1975, children with severe and profound disabilities were taught primarily in special schools and residential facilities, or not educated at all. In response to Public Law 94-142 (Education for All Handicapped Children Act, 1975), segregated schools and institutions were divided up and the

classes for children with severe disabilities dispersed to classrooms on elementary school sites near the children's homes. The Act guaranteed (Lewis and Doorlag, 1991, p. 10):

1. A free and appropriate education for all children with handicaps
2. Non-discriminatory procedures for identification and testing of children
3. An Individualized Educational Program for each child enrolled in special education
4. Education in the least restrictive environment, with non-handicapped children to the greatest extent possible
5. Assurance of due process procedures and confidentiality for the child and his or her parents

The provision for education of children with disabilities in the least restrictive environment was the basis for efforts toward integration of students with disabilities and their typical peers. In response to this legal mandate, researchers studied the effects of integration on both populations. The benefits of the various types of integration (mainstreaming, reverse mainstreaming, and inclusion) to children with disabilities have been well-documented (Buysse & Bailey, 1993; Esposito,



1987; Esposito & Peach, 1983; Salisbury, 1990). Less has been written about the benefits for the general education students. Very few previous studies were found in which integration was utilized for its therapeutic value for typical students.

Benefits of integration for children with disabilities.

In the 1970s, many studies reported benefits for children with disabilities as a result of contact with nondisabled peers. The benefits were described as increased exposure to: more appropriate developmental and behavioral models, more complex communication, more sophisticated play and object use, more realistic and adaptive reinforcement contingencies, and greater variation and richness of environment and experiences (Esposito, 1987, p. 31).

Buyse and Bailey (1993) documented a scientific basis for integration of young children with disabilities. They reviewed 22 studies comparing outcomes for young children with disabilities in integrated and segregated settings. Seven of the 22 studies reported developmental outcomes for the children in integrated settings compared with segregated settings. The mean level of performance of children with disabilities on standardized measures did not vary as a function of integrated versus segregated placement (Buyse &

Bailey, 1993, p. 449). Two of the studies found lower scores in expressive language and gross motor development in integrated settings. However, the authors of those studies wrote that program-related factors (teacher-training, staff ratios) may have affected the results.

Sixteen of the studies reviewed by Buysse and Bailey (1993) assessed social-behavioral outcomes. Eleven reported positive results for children with disabilities in integrated settings, two reported no differences, and three had mixed results (Buysse & Bailey, 1993, p. 451). The improved skills which the children with disabilities displayed included: more time looking at and being near peers, higher rates of peer-related behavior, more positive interactions with peers which increased over time, higher levels of social participation, and more verbalizations to peers. However, two studies showed the potential for isolated play where there was no planned intervention. Other positive behavioral outcomes were fewer object-directed behaviors, but when playing with toys, the children played more appropriately and at increased levels of sophistication (Buysse & Bailey, 1993, p. 452). It appeared that, while an integrated setting did not affect developmental progress, it did improve social and behavioral

skills in the children with disabilities.

Most of the studies concerned children ages three to five (the ages of the children in the special education classroom in the present study). However, few of the studies reported by Buysse and Bailey included children with severe disabilities (the majority were mild to moderate). They theorized that "the underrepresentation of children with severe disabilities in the current review may indicate that these children still receive services primarily in segregated programs" (Buysse & Bailey, 1993, p. 455). The authors stated that opportunities for children with severe disabilities to interact with typical peers may occur through creative teaching strategies and the use of computers and assistive technology.

Buysse and Bailey concluded that integration may be socially beneficial for some preschoolers with disabilities, and was not a detriment to the developmental outcomes in children with disabilities. However, the results are not necessarily generalizable to students with severe disabilities. The social benefits may occur naturally with children with mild disabilities, but children with moderate to severe disabilities require active programming. Other variables were not equivalent across the studies, so could

not be compared. One study found that when children with disabilities were in the majority, they were more likely to be rated as likable playmates. This would give a rationale for reverse mainstreaming where there would be a higher ratio of children with disabilities to children without disabilities.

In a study more relevant to the present one, Esposito and Peach (1983) evaluated the social gains of children with severe disabilities (as well as changes in attitudes of the typical peers towards children with disabilities). Nine kindergarten level children without disabilities and four children with severe disabilities were integrated for one hour a week for social interactions--snack, outdoor play, and a structured group activity. These experimental children with disabilities achieved significant positive growth in social behaviors over their paired controls on the *Behavioral Characteristics Progression* (Esposito & Peach, 1983, p. 362). As a result of integration, the children with disabilities may grow up with greater repertoires of socially acceptable interactive behaviors and fewer stereotypical behaviors which have often led to decreased acceptance by society.

Salisbury (1990) cited an article by P.S. Strain (in

press in 1990) which stated that integrated settings produced better social outcomes in children with disabilities than segregated settings. This social progress is important because post-school adjustment of young adults, especially in the workplace, is most often linked to social skills. These social skills "have been shown to maintain and generalize best to new situations when taught in an integrated environment." (Salisbury, 1990, p. 9)

Benefits of integration for young children without disabilities. Esposito (1987) undertook a review of nine research studies which documented changes in development of young nondisabled children who were in integrated classrooms. Eight of the nine studies reported that integration did not interfere with the development of nondisabled children, and could even enhance it. The ninth study suggested that segregated settings might better serve the social development of nondisabled children. However, Esposito cautioned that the research designs of all the studies (one-group pre-test/post-test and nonequivalent control groups) had threats to validity because of non-randomized assignment of subjects. Other researchers questioned the possibility of obtaining random subjects because of the limited nature of the preschool populations.

Esposito suggested broadening the concept of outcome measures to include impact on family members or indicators of social competence in order to be able to utilize qualitative research strategies. Interpersonal interactions, communicative competence, physical and emotional well-being, and parental stress and satisfaction could all be analyzed to evaluate the success of a program promoting integration (Esposito, 1987, p. 44). The present study used qualitative methods to extend this research.

Sasso and Rude (1988) broadened the scope of the studies by analyzing the degree of social status change in high and low status nondisabled children after a Special Friends-type program was initiated. Using a peer nomination sociometric tool, they found that the low status students showed significantly greater sociometric gains over high status students, and both gained more than a control group. Sasso and Rude suggested that "peer initiation programs can be used as an intervention for both severely handicapped and nonhandicapped students" (1988, p. 21).

As an example of an intervention benefiting both populations, teenage boys from a youth probation camp in a neighboring county were bused to a school for children with severe disabilities twice a week for a year. They assisted

in mobility training and socialization. Changes in the teenagers' behavior, patience, tolerance, and self-esteem were seen, according to teachers at the school.

Peck, Carlson, and Helmstetter (1992) agreed with previous authors that little research had been done concerning the benefits of integration to children without disabilities. Most of the previous research employed standardized developmental measures, and found that the children's cognitive and academic levels were not harmed. Some studies addressed parents' perspective, but were not specific in their focus, other than reporting that parents found it beneficial to their children. Peck, et al, (1992, p. 54) felt that the most important outcomes--social-cognitive, affective, and moral developmental, as reported in informal teacher and parent interviews, were the ones which should be studied.

Peck, Donaldson, and Pezzoli (1990) interviewed high school students who had extensive experience with peers with disabilities and found that they described several types of benefits: improved self-concept, increased understanding and tolerance of other people, reduced fear of human differences, increased commitment to principles of moral action, and increased acceptance of family and friends. The

high school students also described two difficulties: discomfort with the lack of social skills in moderately disabled students, and discomfort with the physical or behavioral characteristics of severely disabled students (appearance, drooling, coughing). However the discomfort with the characteristics of severely disabled students decreased over time (Peck, et al., 1990, p. 244-246). One qualification the authors made was that these findings cannot be generalized to all typical students. The two programs which were studied made extensive efforts to clarify their values and goals, and had strong support from both the special education teacher and the general education faculty. The quality of the program made a difference in the outcomes experienced by the students with and without disabilities.

Helmstetter, et al. (1994) developed a survey protocol for high school students based on their previous research and that of others. Responses by 166 high school students with at least weekly interactions with students with disabilities yielded seven categories of perceived positive outcomes: increased responsiveness to the needs of other people, valuing relationships with people with disabilities, personal development, increased tolerance of other people,



development of personal values, increased appreciation of human diversity and positive changes in personal status with peers (p. 273). The least agreed upon benefit was the acceptance of one's own limitations. This study extended the research from previous studies to a large enough sample to generalize across settings and individuals.

Kishi and Meyer (1994) summarized the findings of studies conducted in the 1980s: positive outcomes such as improved attitudes toward persons with disabilities; more sophisticated and improved interpersonal skills in social interactions with a more diverse range of people; increases in intrapersonal skills such as maturity, self-confidence, and enhanced self-esteem; and valued friendships and social relationships with peers who have disabilities (p. 278). Most of these studies dealt with older children and youth. Very few of them examined changes in children with observed deficits in their inter- and intrapersonal skills. More research is needed in this area.

Staub and Peck (1994/95) summarized recent years' research on the effects of inclusion (full-time placement of children with disabilities in a general education classroom) on students without disabilities. They found: (a) Inclusion did not reduce the academic progress of nondisabled

children, (b) students did not lose teacher time and attention, and (c) they also did not learn undesirable behavior from students with disabilities. Potential benefits of inclusion included: (a) reduced fear of human differences accompanied by increased comfort and awareness, (b) growth in social cognition, (c) improvements in self-concept, (d) development of personal principles, and (e) the promotion of warm and caring friendships.

Form of the integration program. If integration has been shown to be beneficial to children with and without disabilities, then what form should it take? Salisbury (1990) identified three levels of integration: *physical* integration, where the students with disabilities attend programs with typical students but are not necessarily given the opportunity to interact, *social* integration, where such interaction is encouraged and facilitated, and *academic* integration (also known as *full inclusion*), where the student with disabilities is served in a typical preschool or general education setting and the responsibility for instruction is shared by general and special education staff. In social integration, the teacher can create situations in which conversation and cooperative play are necessitated. Salisbury (1990, p. 13-15) listed (from

optimum to restrictive) four placement options for integration for preschoolers, taken from a position paper written in 1988 by McLean and Odom for the Division for Early Childhood of the Council for Exceptional Children:

1. Mainstreamed educational programs (current term--full inclusion): Children with disabilities are included in a regular preschool program with support of special education staff.
2. Mainstreamed-noneducational programs: Children with disabilities attend day care- or play group-type programs, which provide meaningful interaction with typical peers, for part of a day.
3. Integrated special education: Typical children are enrolled in special education classes as peer models.
4. Non-integrated special education programs located in elementary schools: Children with disabilities are placed in a segregated class with social integration (mainstreaming) with preschool or kindergarten classes at various times of the day.

Salisbury (1990) did not agree that the fourth choice should really be an option. She stated that since integrated placements have been shown to be at least as beneficial, if not superior to segregated placements,

movement toward less restrictive (more integrated) placements should be the goal for every child. Salisbury noted that classes serving mainly "handicapped students may 'integrate' normally developing peers for purposes of socialization at times throughout the day" (1990, p. 8). This was the basis for the Special Buddies Program.

Esposito (1987) delineated possible configurations of integrated settings varying along two dimensions: the temporal degree and the relative proportion of disabled to nondisabled children. In full integration (full inclusion), both populations participate in all activities. In partial integration (mainstreaming), interactions take place during specified activities or times, which can be instructional or noninstructional. In integrated settings, the proportion of nondisabled peers is more than 50%, and the classroom itself is a general education classroom. In reverse integration, the proportion of children with disabilities is more than 50% and the classroom is a special education classroom (Esposito, 1987, p. 34). By this definition, the focus of the present study was partial reverse integration (called reverse mainstreaming in this study).

Format of the reverse mainstreaming program. If a reverse mainstreaming model were adopted, then what should

be its format? The study by Buysse and Bailey (1993) supported the use of a social integration program such as Special Friends rather than a peer tutoring program which would focus on developmental skills, since social skills but not necessarily development were enhanced by integration.

Haring, Breen, Pitts-Conway, Lee, and Gaylord-Ross (1987) and Cole, Vandercook, and Rynders (1988) directly studied the differences in social skill outcomes for children with disabilities between peer tutoring programs and Special Friends programs. In peer tutoring programs, the typical child was designated as the teacher, and the special education child, the learner. In the Special Friends program, the roles were purely social, ideally promoting lasting friendships. In Cole's (1988) study, typical fourth, fifth, and sixth graders were matched with special education students with predominately severe and profound disabilities (4% had autism). The training sessions for each group in the Cole study differed. The Special Friends group concentrated on "understanding handicapping conditions, learning new communication and play skills, and discussing friendship and integration" (Cole, et al., 1988, p. 420). The peer tutor training consisted of an introduction to basic learning principles (prompting,

contingent reinforcement, etc.), communication skills, and problem-solving.

In the Special Friends sessions, research assistants used terminology such as "play," "friend," "share," "fun," and "take turns." In the peer tutoring sessions, words such as "teach," "work with," "help," "show how," "partner," and "tutor," were used. The Special Friends played with self-selected toys, and the peer tutors instructed the special needs children in how to play with one particular toy using a hierarchy of prompts. Five to eight dyads at a time interacted in the special education classroom with toys such as electronic pinball, bowling, electronic keyboard, etc. Behavioral observations of such things as appropriate and cooperative play; requesting, offering and rejecting toys; assisting/teaching peers; and expressing positive and negative emotions, were made during the 15 minute sessions, as well as subsequent free play sessions.

The results showed an unbalanced or hierarchical relationship (like parent-child or teacher-child) in the peer tutor program, with the typical children watching, teaching, and giving physical assistance to the special needs children. The special needs children accepted the assistance and engaged in high rates of appropriate and

cooperative play. The Special Friends program was more in the middle of relationship types, "with some egalitarian features (e.g. balance or equity) and some hierarchical ones (e.g. imbalance or complementarity)--possibly resembling cross-age peer or sibling relationships" (Cole, et al., 1988, p. 431-2).

Peer tutors in the free play situation demonstrated less positive affect than did their partners. The Special Friends had nearly equal rates. Cole surmised that the "Special Friends' enjoyment was mutual, whereas peer tutors' was not" (Cole, et al., 1988, p. 432). The Special Friends came back and visited their special education partners, even after the program ended, and rated their relationship as more fun than did the peer tutors. Rynders, et al. (1993) reflected on this same study and noted that the nondisabled children who were peer tutors reported that they had less fun and were less interested in the integrated interactions than were the nondisabled peer friends. However, Rynders, et al., explained:

it is important to note that in this study a peer tutorial structure was introduced in a situation where playfulness was the likely expectation. Thus, it is conceivable that the tutorial structure did not fit the expectations of the nondisabled peers, who probably did not anticipate making

play into "work." Moreover, because peers in this study were of the same age, a tutorial structure was conceptually incongruent with the vertical (tutorial) model, in which the tutor is usually considerably older than the one being tutored. (1993, p. 397)

The mean difference in ages in the Special Friends program was 1.9, with the non-disabled peer older. In the peer tutoring portion of Cole's study, the mean age of the nondisabled peers was 1.1 years older than the mean age of the children with special needs. Cole, Vandercook and Rynders (1987), analyzed the effects of age discrepancy on the interaction in this study and reported the results in a separate article. There were more reciprocal interactions and higher rates of play in dyads where the nondisabled peer was 0 to 3 years older than the partner. When the nondisabled children were somewhat younger or much older than their partners, they themselves reported less fun and engagement than did those who were only one to four years older than their partners (p. 199).

The teachers described high discrepancy relations as more hierarchical and less symmetrical than same-age relations. When the child with disabilities was much older, nondisabled younger partners inhibited some playful behaviors. Teachers reported that younger nondisabled peers seemed intimidated by the physical size of their older



partners with disabilities (or confused by the disparity between size and ability.) It is possible that they were attempting to pattern their interaction after that between older and younger siblings. This did not turn out to be a useful model for them. The authors hypothesized that reciprocity (interaction equity) would be the greatest in relationships between same-age peers. However, this was not the case.

In fact, interaction equity occurred in relationships in which nondisabled children were a few months to 2 years older than their partners. Indeed, self-reported perception of fun was greatest in this range. Thus, it appears that the emotional, intellectual, and physical challenges of interaction with a child with severe disabilities are best negotiated by a nondisabled child who has a moderate age advantage (Rynders, et al., 1993, p. 394).

#### Role of the teacher in the Special Friends Program.

Cole et al. (1988) reported several studies which showed that social skills training by nondisabled peers was not effective without training and/or teacher prompting. However, they also reported that a study of a Special Friends program (Cole, Meyer, Vandercook, and McQuarter, 1986) showed adverse effects of extended intervention by teachers. A social instruction intervention with

reinforcement for taking turns, giving verbal praise, and sharing information about communication modes had initial success versus the control group which gave only friendly comments. Turn-taking, cooperative play, and positive affect between partners initially increased, but decreased as teachers continued their prompting. Cole et al. (1986, p. 167) theorized that persistent intervention may lead to habituation. Also, the use of the same script for the intervention may have become aversive. The control group was able to talk about the weather and holidays, topics which would change on a day to day basis.

It is also possible that the non-disabled peers initially wanted to please the teachers and learned to depend on each other if the teacher's comments were not tied to their behavior. If the teachers stopped their intervention, as was done in another study, the negative consequences were eliminated (Cole et al., 1988). Perhaps "...friendship is an intimate act, and adults who fail to allow children the necessary intimacy will prevent the very outcomes they are intending to foster" (Rynders, et al., 1993, p. 399).

Training for typical peers in the Special Friends Program. The original Special Friends Program (Voeltz, et

al., 1983) had ongoing training and discussion sessions. The philosophy was that simply giving information about disabilities would not facilitate friendship but that the children's questions would arise naturally from their interactions. They were given a minimum of disability information, but extended training in social skills. Specific activities included communication with children with disabilities, how to be a friend, and simulation activities.

Disability simulations have been used extensively for children to experience what it is like to have a disability. The HATS (Handicapped Awareness Through Simulation) program (Trent, 1993) used a video--*Kids on the Block*, a puppet show, and simulation activities to improve relationships between general and special education classes. The simulation activities involved orthopedic impairments (doing tasks in a wheelchair and/or arm and leg braces), sensory impairments (doing an obstacle course blindfolded, following muffled directions), and learning disabilities (writing their names with a marker taped to the end of a yardstick, copying a phone number by looking in a mirror, etc.). Changes in attitude were documented by a survey administered to participants and to a control group.

A social interaction program (SPAN) between gifted students and students with developmental disabilities (Plumb & Brown, 1990), offered extensive training for the gifted students prior to their entry into the program. A medical doctor spoke to the group about handicapping conditions, and a person with physical challenges demonstrated the equipment he used. The various therapists (art, physical, music, dance, and adapted P.E.) all presented activities in which the students could participate.

Typical peers were taught to facilitate communication between themselves and children with disabilities (Goldstein, 1993). Strategies included: establishing eye contact (e.g. touching a child on the shoulder and saying his or her name); describing one's own or other children's play; initiating joint play (e.g. "You drive the car and I'll be the gas station worker."); and repeating, expanding, or requesting clarification (p. 37-38).

The Early Childhood Social Skills Program (Kohler & Strain, 1993) was developed to train young children with and without disabilities simultaneously in five social skills. They included: making offers and requests to share, giving play suggestions, offering assistance, showing affection, and giving compliments. Children used each skill to

initiate play interactions, respond positively to peer overtures, and be persistent in the use of these strategies (p. 41).

Structure for the Special Friends Program. How then, should these interactions be structured? The original Special Friends Program (Voeltz et al., 1983) was set up between self-contained classrooms for elementary children with severe disabilities and general education classes on the same campus. There was a two-to-three year age range (lower elementary, upper elementary, junior high, high school), the same as there would be in a natural friendship grouping. The present study extended the program to preschool-age children. Options for ratios in the Special Friends Program were one special education student to one general education student, two general education students to one special education student, or one group from a general education class with the special education class (the configuration in the present study). The programs lasted at least eight to ten weeks. A session length of fifteen minutes was adequate, but 30 minutes was optimal. Three orientation sessions were held for general education students, then the interaction sessions took place during lunch and/or recess three to four times a week. The

training manual (Voeltz et al., 1983) included many ideas for interaction, such as blowing bubbles, water play, using remote-control vehicles and pinball games, ball-playing, music, etc.

The program was implemented as follows:

1. A slide show was shown to general education students (chronological age peers) by the Hawaii Integration Project Program Trainer ("Won't You Come and Be My Friend?"). It included pictures of children with and without disabilities who were actually pupils at the school.
2. The Program Trainer scheduled a room by room sign-up to enlist volunteers to participate as general education Special Friends.
3. Two volunteers were selected to play/interact with each special education student (at separate times, not simultaneously).
4. The Program Trainer conducted an orientation for the volunteers. Following this was a week of individual meetings of the two sets of Special Friends. (Both sets of students were labeled "Special Friends" to avoid the "helping" or "information" models.)
5. The Special Friends meetings lasted for a minimum of

eight weeks. They met at recess or lunch for play/social activities.

6. Group discussions were scheduled weekly for the general education Special Friends (Hemphill, 1983, p. 29).

Pairings could be assigned by teachers, be free choice by the children, or a combination. In a more recent preschool buddy-skills training program, English et al. (1997) found that using multiple peers on a rotating schedule was effective in increasing rates of interaction, but did not support relationship development over time.

In the Hawaii project, self-concept scales and acceptance surveys were given to measure self-esteem and attitude toward persons with disabilities. In schools where the program was implemented, the children's attitudes toward people with disabilities significantly improved, as did the attitudes of the school staff.

Curriculum for the Special Friends Program. The Systematic Integrated Preschool Education Model used inclusion and reverse mainstreaming to facilitate peer relationships. Aveno (1994) suggested that theme-based curricula provided a developmentally appropriate instructional context from which individualized education objectives could be taught. These objectives were based on

family priorities, functionally oriented, and developmentally sequenced. They were taught using a routine-based instructional process, not one-to-one instruction, as in typical segregated special education classrooms.

Suggestions of how to address IEP objectives within group activities were given in a report concerning the Children's Center in West Virginia (Graham, 1991). In a paper and glue art activity the teacher talked about colors of the paper to the typical children and talked about the properties of the glue as a sensory experience to a child with developmental delays. Therapists had typical children do exercises along with children with special needs. To foster interaction, a child who was immobile, or one who was less likely to initiate an interaction was placed at a popular activity and at a level comparable to the other children. Activities were modified by changing the rules, modifying materials, and using personal assistance strategies, but teachers still provided the least intrusive and most natural prompts (Drinkwater & Demchak, 1995). Teachers also encouraged peers to initiate interactions and provided the preschoolers with disabilities opportunities to demonstrate competence (line leader or helper for the day).



A cooperative goal structure, in which the end product of the interaction depended on the total score or collective result of the individual members' actions, as opposed to an individual or competitive goal, produced a higher rate of positive social interactions (Rynders, et al., 1993, p. 401). Eichinger and Woltman (1993) suggested having pairs of students (one with and one without a disability) engage in art, cooking and game activities. There would be one set of materials for art and cooking to encourage turn-taking and the scores for a game could be added together. Since the present study utilized group activities, in addition to dyadic interactions, there were many opportunities for cooperative learning. Cormany (1994) suggested circle time as a key element in integration, with music as a common denominator.

A California elementary school developed a "buddy" program using afternoon kindergartners to come to a morning class for ten preschoolers and kindergartners with severe disabilities (Brunswig, interview, 1996). At the beginning of the program, eight typical children came five days a week for two and a half hours. As the program progressed, the teachers felt that the unique needs of the children with disabilities were not being met and that there were too many

children to supervise. After adjusting the program, the teachers felt that the optimum number and duration was four general education students coming three days a week. A center approach was used with the typical children not paired up with any particular child with disabilities. Activities at the centers included: playdough, shaving cream, bikes, scooter boards, cooking, paper and pencil, sand box, balls, grocery store, listening center, body bowling, finger painting, switches for battery-operated toys.

Another local school district started a program (Polivka, 1996) using neighborhood preschoolers in a 1:1 ratio. They came to a special education classroom two or three days a week for four hours. As in the previous school, they were not assigned to partners, but were included in the class. Activities such as circle, manipulatives, theme unit, physical education, and computer time were done by all of the children.

#### Parents' and teachers' perspectives on integration.

McDonnell (1987) compared attitudes of parents of children with severe disabilities whose children were in special schools and whose children were in integrated programs (self-contained classrooms on elementary school

sites, as in the present study). The parents of children in the special schools felt that placement in an integrated setting would lead to mistreatment by non-disabled peers, isolation, and loss of service. The parents whose children attended integrated settings reported relatively few incidents of mistreatment, isolation and loss of service. They were, in fact, very happy with the program. McDonnell postulated that the few incidents of mistreatment and isolation reported may reflect "a lack of systematic attempts by special education staff to foster positive interactions between handicapped and non-handicapped students, as well as lack of support by general educators for the development of integrated programs" (McDonnell, 1987, p. 109).

Green and Stoneman (1989) reported mothers' and fathers' attitudes toward integration separately. They found that for mothers of typical children, the perceived positiveness of their experience with persons with disabilities significantly predicted favorable attitudes toward integration. The amount of contact had no correlation. There was no significant difference in attitudes toward mainstreaming between mothers and fathers from the same family. The authors explained this by saying

that mothers set the tone for family attitudes toward mainstreaming, while fathers were less involved in the day to day aspects of child care, and received information and adopted the attitudes from the mothers.

In the SPAN project (Plumb & Brown, 1990), parents of the gifted students reported a new-found social consciousness--reminding drivers not to park in handicapped spaces, assisting the elderly as well as persons with disabilities. They also reported that the students shared their knowledge about disabilities and, in some cases, modified attitudes of those at home.

Peck, Carlson, and Helmstetter (1992) interviewed parents and teachers of children in integrated preschool and kindergarten programs and developed a survey based on their responses. The perceived benefits to typically developing children centered on changes related to social cognition (more aware of others' needs), prosocial personal characteristics (more responsive to the needs of others) and acceptance of human diversity (less likely to feel discomfort around persons with disabilities, less likely to be prejudiced) (p. 60). Parents and teachers said that the children did not acquire undesirable behaviors as a result of their contact with children with disabilities nor did

they suffer a loss of teacher attention (p. 60).

Helmstetter and Peck (with Giangreco, 1994) continued to study the effects of integration on nondisabled students. They summarized research on the impact of integration for young children without disabilities, as identified by parents and teachers: increased sensitivity and acceptance of disabilities, improvement in self-concept, increased awareness of other children's needs, less discomfort with people with disabilities, less prejudice toward people who act or behave differently, and increased responsiveness to other children. Negative outcomes, such as children without disabilities receiving less attention, acquiring inappropriate behaviors and receiving a lower quality of instruction, were infrequent (p. 264).

Cormany (1994) set up a reverse mainstreaming program where seven toddlers with special needs were included with three typical toddlers. Prior to the inception of the program, she interviewed teachers and other staff in the special education class. They expressed concern about the process for designing a curriculum which would be stimulating for the typically developing peers, but which would also meet the needs of the children with disabilities. Parents also had concerns about negative effects, such as

regression. Cormany suggested that advance planning and approval in writing from parents of children with and without disabilities would help. When she sought initial approval for her program, mothers were initially more eager to participate than fathers. Data on developmental gains, on improved relationships and self concepts, on parent satisfaction, and personal success stories would be part of a promotional campaign to parents and the community.

At the conclusion of the program, Cormany gave a Family Satisfaction Survey to parents of the participants. All responses were positive. Parents felt that the typical children gained a greater appreciation of individual differences and increased their comfort level around children with disabilities. Their children did not "pick up" undesirable habits from the children with disabilities. The parents of children with disabilities felt that their children received better instruction (Cormany, 1994, p. 41).

Changing attitudes toward persons with disabilities.

Voeltz (1982), in her short-term follow-up to three semesters of the Special Friends Program in Hawaii, reported significantly higher acceptance of individual differences in schools which had implemented the Special Friends Program. Schools where children with disabilities were enrolled also

had a higher acceptance score than those with no students with severe disabilities enrolled, using the Acceptance Scale developed by Voeltz.

Kishi and Meyer (nee Voeltz) (1994), did a longitudinal follow-up with nondisabled participants in the original Special Friends Program. To their knowledge, it was the only long term follow-up on integration up until that time. Three groups of high school students were identified--those who had participated in the Special Friends program in the 4th, 5th, or 6th grades (contact); those who attended the same elementary school, but did not participate in the program (exposure only); and those who did not have any students with severe disabilities at their elementary schools, junior high, or high schools (control). Three types of data were reported: attitudes toward persons with disabilities and toward individual differences; self-concept; and personal interviews concerning students' perceptions of persons with disabilities and/or memories of participation in the Special Friends Program. The contact group had significantly more positive attitudes, higher levels of current social contact and more support for full community participation, although all children were relatively positive. Contact was associated with higher

levels of self-acceptance, self-assertion, and self-security, especially in boys. Girls were more accepting than boys, and more willing to initiate social exchanges.

In the discussion, Kishi and Meyer theorized that being a Special Friend built on the boy's abilities to be nurturing and provided girls with opportunities to feel valued and noticed. However, the authors included a caveat:

Nonreciprocal, helping social interactions between children with and without severe disabilities appear to run the risk of attracting primarily girls, some of whom may be motivated primarily by adult attention. At the same time, such programs may discourage participation from all but the most self-secure male students. (p. 286)

However, in the interview data, students, particularly boys, appreciated the noncompetitive atmosphere and the feeling of being unconditionally accepted and valued by someone else.

None of the high school students had maintained friendship with their Special Friends, due to an administrative decision to place the students with severe disabilities at different high schools from their neighborhood feeder schools. A substantial percentage of the contact group remembered participating in caregiving and instructional activities even though that was explicitly not



part of the Special Friends Program. The authors called for more study directed at "the structuring of interactions and relationships that are egalitarian, mutually beneficial, and socially normalized--resembling friendships and not caregiving." (p. 288) Also,

...it is imperative that future research do a far better job of asking the children themselves for their opinions and perspectives. ...this may be one area of research that will be far more revealing and helpful than the kinds of short-term survey and behavioral data that have received the majority of our attention to date. (p. 288)

Salend (1994) reviewed a variety of methods of assessing changes in attitudes toward persons with disabilities, focusing on scales appropriate for use in schools. The Primary Student Survey of Handicapped Persons (Esposito & Reed, 1986) was deemed especially appropriate for young children. Six interview questions dealing with the children's understanding of disabilities and their relationship with persons with disabilities were read orally and the responses tape recorded. Because this scale lent itself to a qualitative approach, it was used in the present study. The questions were modified to reflect inclusive (people-first) language.

While the present study was taking place, a version of

the Acceptance Scale by Voeltz (Acceptance Scale for Kindergartners-ASK) was published in the *Journal of Early Intervention* (Favazza & Odom, 1996). Validity and reliability were assessed using a group of kindergartners with a mean age of 72 months. Since the children in the present study had a mean age of 79.6 months this instrument might have been more appropriate. However, it was a quantitative measure and not qualitative. Extensive field testing of the ASK revealed that the term "handicapped" was used and understood by kindergartners more than "dummy" and "special education kid" which were included in the original Acceptance Scale. The authors asked the kindergarten teachers participating in the study if alternative or people-first language (developmental delay, persons with disabilities) could be used. The teachers all said that the kindergarten-age students would not understand the terminology and suggested shorter, more concise questions. If proponents of inclusive language were to replace the word "handicap" with the word "disability", Favazza and Odom recommended explaining the term "disability" before the administration of the survey.

Favazza and Odom's (1996, p. 243) administration of the Acceptance Scale for Kindergartners found that girls held

more accepting attitudes than boys, and the children who had some school-based contact had more accepting attitudes than those who had no school-based contact with individuals with disabilities.

Esposito and Reed (1986, p. 228) found that contact with people with disabilities by children ages 4-8 was related to more favorable attitudes, regardless of type of contact (structured or unstructured) or timing. It also maintained over time (two years). Since this contrasted with previous studies using older children, the authors explained that young children perceive a person with a disability as someone who has an obvious physical limitation. They are not as aware of mental and emotional disabilities. "What initially appears to be negative attitudes of young children toward persons with physical disabilities may actually be better described as fear or lack of understanding" (p. 228-9). With more information as a result of personal contact, they come to realize that the person with disabilities is more like them than different. As a consequence, their attitudes as reported on the scale may improve. Information sessions were held in the present study. These specifically addressed fear and lack of understanding.

Older children are more aware of peers who are having academic or behavior problems, and rather than fear them or not understand them, they may not accept them or value them (for whatever reason) as much as they do their typical peers. The results in a study of older children might not be as positive (Esposito & Reed, 1986, p. 229).

It is important in setting up an integration program that the general education teacher have a positive attitude toward persons with disabilities. He or she has a great influence on the typical students who would be interacting with the students with disabilities. Eichinger, Rizzo and Sirotnik (1991) studied the effects of various types of college-level academic preparation on teachers' attitudes, making the assumption that positive attitudes lead to effective learning environments. They found that a multiple intervention strategy (information--readings, lectures, discussions; contact--site visits, guest speakers with disabilities; and persuasive messages--media, readings, lecture) improved the teachers' attitudes toward students with disabilities. In addition, they found that contact was the source contributing the most to attitude change, when all three were compared.

This literature review showed that the focus of

integration in the 1980s was the new movement of special education classes to elementary school campuses. Studies examined whether or not integration was beneficial and the best way to facilitate integration. The majority of the studies concluded that: (a) integration benefited the disabled children's social skills and (b) typical children's attitudes toward disabilities improved. The conclusions of some of the newer studies which used inclusive preschools as sites for their data collection could not necessarily be generalized to the situation in the present study. Social integration using mainstreaming or reverse mainstreaming would not have the same impact on either population that full-time inclusion would.

Very few of the studies reviewed utilized integration for its therapeutic value for typical children. This project extended the previous research by studying the effects of integration on children with observed deficits in self-esteem, social skills, or behavior.

#### Foreshadowed Problems

There were several problems associated with this study. One of the foremost was in data collection. Extensive field notes could not be taken during the integration sessions because of the role of researcher as participant. Another

was the length of time allowed for the study. Because of the time needed to develop protocols and conduct initial interviews of all participants, parents and teachers, the actual program did not begin until April and continued until June (the end of the school year). Other problems had to do with scheduling the participants since they were coming from two different classes. These and other foreshadowed problems are offered in the following questions:

1. How can the role of researcher as participant allow for timely observation field notes?
2. How can the researcher make observations of six children at once?
3. Would it be better to schedule only three children at a time?
4. Will all the parents be available for interviewing twice?
5. Are young children reliable informants?
6. Will there be enough time for the Special Buddies Program to be implemented such that changes can take place in the children's behavior before the end of the school year?
7. How will the absences of the first graders be handled?
8. How will the curiosity and interest of the rest of the

first grade class be handled?

9. How do the teachers schedule the Special Buddies sessions so as not to impact the students' academic progress negatively?
10. Will it be more difficult and time consuming to schedule introductions and interviews with two classes and teachers instead of one?

## Design and Methodology

### Site Selection

The site chosen for the present study was a public elementary school in a unified district of approximately 11,500 pupils in southern California. The elementary school had an enrollment of approximately 500 students, in kindergarten through sixth grade general education, and preschool through sixth grade special education. There were 18 general education classrooms. Class size reduction was being implemented, rendering a 1:20 ratio in grades one through three in general education. Because of building limitations, there was an additional first grade teacher who did not have a classroom, but worked with small groups to lower the ratio. There was also a resource teacher and a categorical programs teacher.

Also on the campus were six special education classes: two District classes for students with learning disabilities, three County-operated classes for students with moderate disabilities, and one County preschool and kindergarten class for students with severe and profound disabilities. The researcher was the teacher for this SPH class. The SPH class was moved to this school for the 1995-96 school year, in order for the teacher and the children to



have the support of and interaction with other County special education classes, and to be in closer proximity to the County nursing staff. (In previous years, it was the only special education classroom on its site, twenty minutes away from the County nurse's office.)

The school was located in a middle class neighborhood in a generally upper middle class city in the suburbs. It was ethnically mixed with approximately two-thirds Caucasian and the rest Hispanic, with a small percentage of African-American and Asian students. There was a district operated day care program on site. The following programs existed at the school: School Improvement (SI), Limited English Proficiency Program (LEP), Resource Specialist Program (RSP) in addition to the special day classes, Gifted and Talented Education (GATE), Here's Looking at You 2000, and Drug Abuse Resistance Education (DARE).

In previous years, there was a Primary Intervention Program (PIP), which provided positive one-on-one attention from an adult in a playroom setting to children identified as needing self-confidence, friendship skills, or help in dealing with life changes. (The pre- and post-test for the PIP program was the basis for the student evaluation form being used in the present study.) This counseling-type

program was billed as a "Special Friends" program.

Therefore, the Special Friends Program which was implemented for this study was called "Special Buddies" in communications to parents, to avoid confusion. However, this nomenclature caused confusion among the children because the school also had a "Reading Buddies" Program in which upper elementary classrooms were paired with primary classrooms for reading activities. The difference was explained to the children at their initial interview. The first graders participating in the study were pleased that they, in turn, could also be buddies to the younger children.

The Special Friends program evaluation (Hemphill, 1983) stated that for the program to be effective, the classrooms for children with severe disabilities should be centrally located and near classrooms of age-appropriate peers and that both sets of children should have the same schedule. At the particular school where this study took place, the class for children with severe and profound disabilities was housed in a portable classroom at the end of the parking lot, where the general education students did not ordinarily go. Therefore, there was little opportunity for spontaneous integration and for the children to get to know one another

on an individual basis. There was physical integration as defined by Salisbury (1990), but no social integration.

Mainstreaming the special education students into general education classes was not always feasible for children with severe disabilities, because of their physical needs (periodic changes in positioning, feeding and toileting assistance) and logistical difficulties.

Mainstreaming also presented challenges in transporting a whole class of non-ambulatory children on a frequent basis and would have been an artificial situation in the receiving general education class (7-10 special education students in one class). If the children with special needs were mainstreamed in groups of two or three, there would not be enough personnel to accompany all of the groups if they went at the same time. If they went on a rotating basis, the education of the remaining students would be impacted because of lack of personnel remaining in the room.

For the 1996-97 school year, the teacher of the class for children with severe and profound disabilities decided to implement a program of reverse mainstreaming (typical students integrated into a special education class). With reverse mainstreaming, she would be able to facilitate interaction between the typical and special education

students and at the same time, provide activities which would meet the educational needs of the SPH students. It was patterned after the original Special Friends Program, but extended the program to preschool-age children.

In June of 1996, this teacher consulted with the principal of the elementary school and planned to use typical kindergarten children who attended a day care program at the school in the morning and went to class in the afternoon for reverse mainstreaming. By coming to the preschool special education class in the morning, the children would not be missing any instructional time. However, for the 1996-97 school year, the kindergarten day care program was changed to afternoon, because the principal wanted to split the day care children into two groups (there were two morning kindergarten classes and only one afternoon class) to improve student behavior. The preschool special education class only met in the morning. Consequently, the special education teacher and the principal decided to use first grade children, since their instructional day was longer and they would be better able to make up missed work independently. The age difference was still within the recommended age range for the Special Friends Program and other programs in the literature. (Rynders, 1993)

In August, 1996, the 1995-96 principal was transferred to another school, so permission was also obtained from the newly assigned principal (see letter of permission in Appendix). One first grade teacher who had some experience with children with severe disabilities was chosen to participate in a pilot program in the fall of 1996. Her experience was used to advise the other two first grade teachers who participated in the study.

#### Summary of pilot program

A first grade class was chosen for an 11-week pilot of the Special Buddies program. The first grade teacher had some familiarity with children with severe disabilities and was receptive to children being exposed to persons with disabilities at a young age. She said, "I think it's a wonderful thing if we can establish friendships early on, especially in the school setting, because they have adults right there to ask questions to..."

Two introductory sessions were arranged before the children were chosen. The preschool special education class went to the first grade classroom with some children in their wheelchairs and with one child in a Rifton supine stander. Each special needs child was introduced and an explanation of his or her equipment given. Prior permission

had been received from their parents to explain the children's daily living needs and adaptations. Questions were answered and an invitation extended to visit the special education classroom. When the first grade class came to visit, more equipment (gait trainers, oxygen tank, mobile standers) was described and demonstrated. The first graders were especially interested in a colorful barrel used for vestibular stimulation. They were told they would take turns rolling inside the barrel at a later date.

Subjects for pilot study. The first grade teacher chose four students to come to the preschool class (composed of seven students with severe and multiple disabilities), following guidelines set up by the researcher (children having problems with self-esteem, or children who needed to feel "needed"). Child #1 was an only child, had low self-esteem, and poor friendship skills. Child #2, who had been retained in first grade the previous year, was shy and had low self-esteem. Child #3 was the youngest in the family, and tended to be self-centered and immature. Child #4 was very bright, and a leader, but tended not to help others or empathize with those children less capable than she.

Activities for pilot study. The four children came to the special education classroom for one/half hour twice a

week. The first activity was a nature walk, in which the first graders collected leaves, etc., for themselves and their partners. The next time they came, an art project was done in which they cut out frames and asked their partners which leaves they wanted on the waxed paper. On other days, they sang Halloween songs, listened to stories, played with playdough, and played with a parachute. The group had a Teddy Bear Picnic, for which all of the students brought their favorite stuffed animals and ate "Teddy Grahams" outside on a blanket. The four first graders and the seven special needs students put on the play, "The Three Bears." The parts were double cast, with the special education students using augmentative communication devices for their speaking parts. It was performed for the rest of the first grade class, parents of the performers, and another special education class.

Results of pilot study. There were beneficial effects for both classrooms. The special needs students were more vocal. One child laughed for the first time at school. For several weeks, another child spoke only when the first graders were present. Several special needs students were also more aware of their surroundings, making eye contact and reaching out to touch their friends. The first grade

teacher reported that her whole classroom became more comfortable with the children and their equipment. At first, they thought it was scary to see the children in standers, but the teacher said, "[The special education teacher] explained it in such a positive way that all that fear was gone." Instead of talking about the straps and equipment after seeing the special education class again, they said, "Oh, well, she had on a new sweater," focusing on the child and her similarity to them. The four children were very comfortable and excited about coming to the special education classroom and sometimes did not want to leave. The rest of the class "begged" for their turn. The whole first grade class showed more tolerance for differences in learning rate and style among the other members of their own class.

The first grade teacher reported positive changes in all four children. Child #1's behavior improved; he was more responsible for his actions and knew he needed to behave properly in order to go to the special education classroom. His self-esteem improved, in that he did not "put himself down" as much as before, and began to compliment others. Child #2 had good behavior before, so there was no change. However, her self-esteem



"skyrocketed." The first grade teacher credited the Special Buddies Program: "I didn't see it happening until she became involved in this program. I saw more confidence on the days that she came here." Child #2 took on a leadership role and began to initiate play activities with the other children in her class. Child #3 became less critical of others and more mature, feeling a responsibility to follow the rules himself and watch for others to do the same (walk, push in chairs, throw away trash). Child #4 took on "a more nurturing role," helping other children who were less capable than she, instead of ignoring them. The first grade teacher said that Child #4 began accepting a wider variety of children into her "friendship circle."

The parents of the first graders were told by the first grade teacher why their children were chosen for the program. They were very supportive. Child #1's mother thought it was "a fabulous experience for her son," and felt "he was less judgmental." She also had no problem with his being taken out of class. Child #2's mother saw the same changes in her daughter's social skills and self-confidence that were seen at school. Child #3's mother saw an improvement in his maturity level. Child #4's mother worked in the classroom and saw the changes in her daughter and in

the other children. All of the children talked at home about their experiences in the program.

The first grade teacher felt that the program was very beneficial, increasing her knowledge of disabilities and affecting her whole class in a positive way. Since the rest of the class was so eager to participate, they came to visit the special education classroom in small groups once a month for the rest of the school year, even though the program had ended for their class.

#### Subjects for Present Study

There were three first grade classrooms and one combination kindergarten and first grade classroom at the elementary school at the time of the study. The population of first graders was seventy students. One class took part in the pilot program, and therefore could not be chosen for the actual study. In December, 1996, the remaining two non-combination first grade teachers were asked if they would be willing to participate in a study on reverse mainstreaming and its effects on first graders. Two classes were needed in order to have a sample size of six children; the teachers felt that there would not be more than three or four children with self-esteem problems in one classroom. With six typical children in the program, the ratio of staff to

all children during the Special Buddies sessions would be 4:13. Cormany (1994) recommended a 1:3 or 1:4 ratio.

The two teachers agreed to participate, realizing that they would need to submit to several interviews and that children would be leaving their rooms during class time. The teachers both had many years of teaching experience. Mrs. White was married, with a preschool-age daughter. She had taught hearing-impaired students in special education for eight years, and then taught kindergarten and first grade general education. Each summer she worked at a camp for children with various disabilities. Mrs. Patrick previously taught first and second grade at another elementary school in the same district. This was her first year at the present site. She was married and had a teenage daughter. In the pre-program interview, she said that she had little experience with persons with disabilities. However, during the course of the study, she realized that even though her mother had had polio as a child, Mrs. Patrick had never considered her as disabled.

After reviewing related literature and obtaining the necessary permission and approvals from both the site principal and the County principal, the researcher held a training and information session with the teacher of the

pilot program and the two teachers participating in the study. The researcher explained that the program was organized to promote friendship and joint participation in an activity; the first graders were not coming as tutors or helpers. This format was based on research by Haring et al. (1987), Cole et al. (1988) and Rynders et al. (1993), as well as the original Special Friends Program. The teachers were given the guidelines for choosing the participating children. This purposeful sampling strategy--reputational case sampling--involved the recommendations of knowledgeable experts (the teachers) for the best examples (Schumacher & McMillan, 1993, p. 380). The teachers were asked to choose students according to intense-case sampling (intense but not extreme illustrations of a phenomenon) as explained in Schumacher & McMillan (1993, p. 380). The researcher told the teachers to choose children who needed improvement in their self-esteem or who needed help with their social skills, e.g. how to be a friend, empathy, helping others, patience with others less capable than themselves, becoming more out-going, needing to feel needed. They were also asked to choose ones who might, according to their birth order (youngest or only child), benefit from being the older child in a relationship. The original Special Friends

Program measured self-concept and attitude toward disabilities. The present study extended that research by choosing general education students with deficits in these areas and analyzing the changes noted after participation in the program.

The teacher of the pilot program said that she chose children who needed help in their self-esteem, but were well-behaved and independent enough to follow directions. She was cautioned not to talk about the results of the pilot program to the teachers participating in the study in order to prevent bias.

The teachers discussed potential candidates for the study. They said they did not want to choose children who were already leaving the room for another reason (speech, English as a Second Language, etc.). This eliminated some children who might otherwise have qualified because they needed improvement in self-esteem, behavior, etc. The teachers settled on six children, three boys and three girls, divided equally over the two classes. Five out of the six were Caucasian and one was Hispanic. The mean age was 79.6 months.

The teachers were instructed to telephone the parents to explain the program, tell why their child was chosen and

send home permission forms furnished by the researcher. Mrs. White was unable to contact one of the children's parents, so chose another child. When the forms were returned, the researcher telephoned the parents and introduced herself, and made an appointment to interview the parents and children. The parent of Mrs. White's second choice said that her family was moving in the next month; therefore, her son would not be able to complete the Special Buddies Program. Mrs. White then was able to contact the first child's parents and obtained their permission. All names have been changed to protect the confidentiality of the participants.

Mrs. White chose three students, two boys and a girl. Bobby was six years, seven months of age at the beginning of his participation in the Special Buddies Program. He was an only child, with parents very interested and concerned about his education. Both parents came to parent conferences. His mother volunteered in the first grade classroom. He had had no school experience prior to kindergarten. He was seen by both his mother and his teacher as immature. He sometimes acted "silly." His mother said that he was delicate and not very coordinated. His teacher saw him as average physically. She said that his family was

overprotective and did not give him responsibility. She felt that the Special Buddies Program would be a good experience for him in that he would be the older one and have some responsibility. It would also help to build his self-esteem.

Bobby's family had experience with someone with a severe disability. Bobby's father's cousin, age 32, was physically and mentally challenged. Bobby was initially afraid of him and questioned the discrepancy between age and mental ability, but played with him at their last visit. Bobby's mother also grew up with someone whose brother had Down syndrome.

Dan, six years, nine months of age, was "a bit on the small side, red hair, real cute, ...very athletic," according to his teacher. His mother said that he was very ill when he was little. He had an older brother, in the fifth grade, who pushed him to do sports. His family had moved often, with this being his third school in two years. His mother and father worked full time, with his father coming home late in the evening. Dan usually played with his brother and his brother's friends after school. Mrs. White chose him because he was the younger one in the family and would benefit from being the older one in a relationship. His

father said that the Special Buddies Program would give him a different position instead of being the little guy who was always "picked on" by his brother and his brother's friends. Dan's family also had had experience with someone who was physically challenged. His mother had a cousin who had spina bifida and wore braces on her legs. Dan had occasional contact with her.

Sherry, six years and eight months, was the older of two children. According to the teacher, she was larger and taller than most of the other first graders. Her parents both worked, but had flexible hours, so they could participate in school activities. According to the teacher, she had a supportive, stable family life. This was her first year at the present school, after having attended a private day care center since she was six months old. Her teacher chose her because she felt Sherry did not yet feel a part of the group, and was not totally accepted by the rest of the class. Mrs. White thought the program might increase her status in class, and make her feel special.

Sherry's family also had experience with people with disabilities. Her father's grandparents used wheelchairs. Sherry and her brother would sit in the wheelchairs and wheel around their house. Sherry's mother was a nurse and



had experience with people from a nearby Developmental Center who were receiving dental work and feeding tubes at the hospital. Sherry's father was a part-time instructor for adult students with disabilities at a community college.

Bobby and Sherry lived in the same planned community in an upper middle class socio-economic area. Dan lived in a lower middle class neighborhood in an apartment complex where his mother was the manager.

Mrs. Patrick chose two girls and a boy. Wendy lived in the same apartment complex as Dan, with her two older brothers, mother, and mother's friend. Wendy was described as younger and smaller than most of the class by her mother and her teacher. She was the youngest of the participants, six years, four months. She had had trouble sitting still in kindergarten, according to her mother, and was shy. Mrs. Patrick chose her because she was shy and needed more self-confidence in front of a group. Wendy had no experience with people with disabilities, according to her mother and her mother's friend. The friend helped mentally challenged students when he was in high school.

Jill was also the youngest of three children. She was, however, the oldest in the present study, seven years, one month. She lived with her mother and father and siblings in

a house away from the school, in a lower middle class neighborhood. According to her father, she liked to play with other children but would tend to want to dominate the interaction. Her mother called her selfish and said she used to kick other children at school. Her teacher said that she would sometimes say mean or hurtful things about the other children. Her teacher hoped that the Special Buddies Program would improve her behavior and social skills. Jill's family had extensive experience with persons with disabilities. Jill had a cousin with Down syndrome, whom she played with frequently. Jill's father was unclear about the exact nature of the disability of that cousin; he called it a "speaking problem only." Jill's mother used to work in a group home for persons with developmental disabilities. She also had a cousin with an unspecified disability who was deceased.

Nathan was the middle child of three and lived with his siblings, mother, and father in a single-family home near the school. He was young (six years, five months) and immature, according to his teacher. She said that he was not doing very well academically, and the Special Buddies Program could help his self-esteem, in that he would go somewhere special and improve his status in class. She had

talked to the parents about retaining him in first grade. His father said he understood that Nathan was lagging behind at school and that they fought about doing homework. Mrs. Patrick felt that the father had more patience with Nathan than the mother did. According to both mother and father, Nathan had no experience with persons with disabilities. The father had a second cousin who was mentally challenged, and had experience with blind students in high school.

It is interesting to note that four out of the six students had personal experience with people with disabilities. However, the teachers were not aware of this when they were choosing the children, except in Bobby's case, so this was not a factor in their choice.

#### Data Collection Instruments

Before the pilot program in the fall of 1996, permission was obtained from the parents of the special education students for their child to participate and for information about their child's communication and daily living skills to be shared with general education students and teachers. This letter formed the basis for the letters used in the actual study. The principal of the site was asked for feedback about the letter of permission for the first graders. He said that he wanted the days and times

included. Permission to photograph and interview the parents and children was also added.

The first grade teacher involved in the pilot program was interviewed using preliminary drafts of the teacher interview protocols (pre- and post-program). Topics included her experience with persons with disabilities and her comfort level concerning interaction and friendship between typical children and children with disabilities. She was asked to describe the typical children's behavior and self-esteem. The pre-program protocol was refined to expand on the social/emotional characteristics of the individual children and to address the items as individual questions, to aid in the coding process of data analysis. A mid-program protocol was added, incorporating items from the pre-and post-program protocols, to assess changes which might need to be made as the program progressed. One of the faculty advisors for the study also recommended adding a question requesting additional comments.

Parents of general education students were interviewed twice, before and after the Special Buddies Program. The protocols for the parent interviews were based on the survey and the accompanying pre-program interview questions for parents of typically-developing children from Cormany's

(1994) reverse mainstreaming project and on the teacher protocols for the present study. They contained questions about the parents' experiences with people with disabilities, their child's characteristics, their knowledge of mainstreaming, and questions about the potential positive and negative effects of the program. All protocols were reviewed by the first grade teachers and the faculty advisors. All interviews were audio tape recorded and then transcribed.

The protocol for measuring changes in the self-esteem, social skills, behavior and maturity of the general education students was more difficult to formulate. The initial plan was to have students respond directly either through the use of an interview protocol or a simple dichotomous questionnaire. A review of commercially available student-response measures did not yield adequate measures which were suitable for young children.

Advice from County psychologists was sought and several instruments reviewed. One in particular, the *Culture-Free SEI, Form A*, was suggested by several of the psychologists. It contained "yes, no" questions about the child's relationship with parents and ways of coping with anger ("My parents think I am a failure," "There are many times when I

would like to run away from home." ). After the researcher showed these and other questions to them, the County psychologists agreed that unless counseling were offered to remediate the problems uncovered by the questionnaire, the questions should not be asked. The first grade teachers also agreed that many of the questions on the *Culture-Free SEI* were too intrusive. In addition, feedback from the teachers corroborated the researcher's opinion that a self-report measure would not be reliable for young children. The children's responses would be contingent upon their perception of the events of that day and would not be consistent from day to day (thereby affecting the reliability of the study).

The first grade teachers suggested a protocol which they had previously used in the Primary Intervention Project. This was a teacher rating form, *AML Behavior Rating Scale-Revised* (1993), addressing behavior, peer relations, and emotional state. Since there were few items on the AML which related to self-esteem, a County psychologist was consulted for recommendations of other measures. The *Burks' Behavior Rating Scales* (1977) yielded several items relating to self-esteem, which were incorporated into the rating form.

The researcher developed a protocol using these scales. Negatively worded statements about the child were rated on a five point scale from "never observed" to "observed most or all of the time." A rough draft of the protocol was reviewed by the teacher of the pilot program and the faculty advisors. Total score and change in score on individual items (in a positive or negative direction) could be reported. A decrease in score from the pre-program to the post-program administration would indicate a positive change in behavior, etc.

Another protocol, the *Primary Student Survey of Handicapped Persons (PSSHP)* (Esposito and Reed, 1986) for measuring the change in attitude toward disabilities in young children was found using the review of attitude measures by Salend (1994). The test-retest reliability coefficient of the instrument was .70. The alpha coefficient was .45. A faculty advisor recommended changing the survey to reflect inclusive language (replacing the term "handicapped person" with "people with disabilities"). The other advisor recommended adding a question soliciting additional comments. The questions were scored with 0=Negative Response, 1=Neutral Response, and 2=Positive Response. An increase in score would indicate a positive

change in attitude toward persons with disabilities.

After the protocol was developed but before the interviews began the researcher received the *Journal of Early Intervention* containing the article, "Use of the Acceptance Scale to Measure Attitudes of Kindergarten-Age Children," (Favazza & Odom, 1996). This was an adaptation for young children of the *Acceptance Scale* by Voeltz (1982). In the development of the *ASK (Acceptance Scale for Kindergartners)* protocol, the researchers asked kindergarten teachers to specify language understood by kindergartners. The teachers said that the word "handicapped" was understood by kindergartners more than other terms (p. 235). Content analysis of postsurvey interview responses supported that view (p. 245). However, if inclusive language were needed, the authors recommended replacing the word "handicap" with "disability" and introducing the new term to the children prior to administering the survey. That practice was followed in the present study.

The *ASK* might have been more appropriate for use in the present study, since it was current, but it was not designed to be administered as an open-ended interview, eliciting participant response. Therefore, the researcher continued to use the *PSSHP*.



### Data Collection

The role of the researcher in this study was that of participant-observer. The researcher was the teacher of the special education preschool class for children with severe and multiple disabilities. She had a special education credential and had been teaching special education for six years and the SPH class for two years. She provided the guidelines for choosing the first grade children. She trained the first grade children in how to interact with the special education students and organized and implemented the activities which took place during the integration program. The researcher was also the observer, taking field notes on the behavior and changes in self-esteem and social skills in the first graders. She formally interviewed the first grade teachers, parents, students and assistants to obtain their perceptions. This triangulation of data (multiple sources of data about the same phenomenon) lent validity to the study.

Before the Special Buddies Program began, the six first grade students, the twelve parents, and the two first grade teachers were interviewed by the researcher. She tape recorded the interviews and took notes on the protocol form. Each parent was interviewed for approximately twenty

minutes. Eight of the parents (including a mother's friend who functioned as a father to one of the children) were interviewed in the special education classroom. Four of the parents were interviewed in their homes. The mean length of the interviews was 11.4 minutes.

The teachers were interviewed in their classrooms for twenty minutes each. They talked about their own backgrounds and experience with people with disabilities and described each of the children they had chosen.

The teachers told these students about the program, said that they would be interviewed, and introduced the researcher to the students. The students were interviewed outside their classrooms to avoid disrupting instruction and to avoid biasing them through seeing the special education classroom prior to participation in the program. There were some distractions during the interviews, but the children were able to answer the questions in a focused manner. Some of the students appeared nervous and not very talkative in the initial interview since the researcher was someone they had not personally met before. The student interviews lasted approximately five minutes. During one set of student interviews, the tape recorder's batteries were not functioning and a substitute tape recorder needed to be

found. Since it needed an electrical outlet, the interviews took place in an unused room in the school office.

During the Special Buddies Program, the first graders were observed as they interacted with the special education students and also with each other. Observation notes were taken by the researcher at the end of each session in the special education classroom. It was not possible to take simultaneous notes since the researcher was also the facilitator for the sessions. Therefore, more weight was given to interviews, since observation was difficult because of the researcher role. At the beginning of the study the notes were taken separately for each child, parallel with an activity log. About half way through the study, as the children began to interact more with the special education students and each other, the researcher decided to combine the individual observations and the activity log into one observation log. It had become difficult to write separate comments about each individual as the children began to function more as a group. The researcher also observed the children in their first grade classrooms and took observation notes of their behavior and social interaction with peers.

The researcher had two instructional assistants in the

special education classroom. They made written and oral comments about the children during the program. One assistant read the observations of the researcher and corroborated them. The other was interviewed separately at the end of the study.

Mid-way through the study, the teachers were interviewed again, to confirm that the logistics of the program were working. At the end of the study, all twelve parents were interviewed in their homes, the teachers were interviewed in their classrooms, and the students were interviewed at a picnic table outside the classrooms. These interviews focused on changes in the individual children, their attitudes toward people with disabilities, their behavior, social skills, self-esteem, and maturity. The lengths of the interviews were the same as the pre-program interviews, with the exception of the post-program interview with Mrs. Patrick, which was 38 minutes long. She had several questions about special education in general.

There were a total of 43 interviews, with 232 pages of transcripts. The observation log (activity log and initial observation notes) and the teacher training sessions were also transcribed. The observations in the first grade classrooms were typed into the computer. The teachers

filled out the Student Behavior Rating Scale on each child twice (pre- and post-program).

#### Description and Chronology of Special Buddies Program

After permission was obtained from the principal and teachers, a teacher training session was held. This was recorded and transcribed. The criteria for selection of the students was discussed as previously described. The researcher and the teacher of the pilot program talked about what to tell the parents and students who were chosen. The two teachers participating in the study were also told to ask the children for feedback after each session. The purpose of this was to help the children solidify in their minds what they did so that they would be able to report it to their parents. The researcher told the teachers that they and their classes would be coming to the special education classroom for an introduction and then the special education class would come to their rooms for a fun activity. This was in order for the whole class to understand where the students were going and consider it a positive experience.

The present study followed the philosophy of the original Special Friends program and let questions about disabilities arise naturally from the interactions.

However, the initial introduction was made to talk about some of the visible equipment the special education children used and their preferences, in order to overcome any fears or discomfort on the part of the first graders. The typical peers were also taught to talk naturally to the children with special needs and to recognize their communication attempts.

Mrs. Patrick's class came to the special education classroom first. Each child in the special education classroom was introduced separately. Their ways of eating--by mouth and by gastrostomy tube, their ways of communicating--tongue clicks, gestures, facial expression, their physical needs--ankle-foot orthoses for standing, standing frames for support, wheelchairs, were all discussed. The researcher/special education teacher pointed out the similarities in favorite foods and games. The two classes played ball (on the floor) together. Mrs. White's class came the next day for a similar introductory session. The child who had a tracheostomy and used an oxygen tank was present that day. The children in both classes asked many questions about all of the equipment and art projects around the room. All were answered honestly, straightforwardly, and at the children's level of understanding. The first

grade children were curious but respectful.

During the next session, the special education students went to the general education classrooms (on two separate days) for a group activity. This was to promote the program as a friendship activity, not a tutorial, by showing the first grade students that both classes could have fun doing the same thing. Each student was rolled in a large, colorful, soft vinyl barrel. First graders went first, with one pushing and one inside, and then two responsible first graders were chosen to push each special needs child. The teachers also took turns.

The program formally began after the spring vacation. The six first grade students came for one half hour twice a week. The session was just prior to recess, so that if the activity lasted beyond the half hour, there was some latitude to continue, and the students would not miss instructional time. The first session was an introduction for the six students in the special education classroom. Each child said their favorite food and favorite activity. The special education students used their "Child of the Week" posters to answer. All of the first graders seemed comfortable in the classroom.

The first group activity was a nature walk. This was

also used as a training session. They were assigned partners (one first grader with one special education student). The children were told to talk to the special education students as they would talk to anyone else: to describe what they were doing and what they saw. They were told to pick up one object for themselves and one for their partner, and then take the object to the partner, talk about it and have him or her feel it. The objects were saved for an art activity in the next session. After the walk, they all went to recess with the rest of the school.

The next session was an art activity using the natural objects (leaves, twigs, feathers, etc.). The children chose their own partners and glued the objects onto poster board, allowing the special education students to choose which objects to put on the paper. The following week was "Wheelchair Driver's License" Day. The children were taught to push a wheelchair safely and received certificates. The parents of the first graders reported this as a significant day for several of the children.

Other activities included play with a parachute, music time (singing and drama), partner play with toys, making playdough, playing with playdough, blowing bubbles, barrel rolling, cooking (banana pudding), and putting on a circus



for the parents and the rest of the first graders. The circus was the only time the parents of the first graders saw the special needs children in person. This was helpful for them to know who their children were talking about and to decrease the fear of the unknown. The circus took place during the last week of school. The student contact portion of the program lasted 10 weeks.

#### Data Treatment Procedures

The transcriptions of the interviews, the observation log, the observations in the first grade classroom, and the transcript of the teacher training session were all coded into topics which were then grouped to form categories. Preliminary topics were developed from the research questions and the protocols themselves. Other topics emerged from the data using a process called constant comparison (Schumacher & McMillan, 1993, p. 486-487). Peck, et al. (1990, p. 243) used this method in reporting the perceptions of high school students about their experiences as Special Friends. The process started with identifying the first data unit as a member of an initial (unnamed) category. The second data unit was compared to the first and either included in that same category or identified as the first unit in a second category. The process continued

until all units were categorized. The units were labeled directly on the typed page with an abbreviation of the topic and a code indicating the source, e.g. BD2.7= Bobby's Dad, second interview, p. 7. The data units were cut from the typed page and grouped together according to broad categories. They were stapled to sheets of paper with the category listed at the top. The papers were grouped into categories ("chunking" according to Schumacher & McMillan, 1993), resequenced, and an outline made to synthesize the categories.

The Primary Student Survey of Handicapped Persons was scored according to the directions (Esposito & Reed, 1986). A negative response toward persons with disabilities scored 0, a neutral response, 1 and a positive response, 2. The responses were also used as interviews and coded and chunked as above. The Student Behavior Rating Scale was scored with a total score for all items. In addition, individual items were analyzed to show change in the children's self esteem and behavior. The teachers completed these forms prior to each interview and referred to them in the interview, but did not have access to the pre-program rating scale when completing the post-program rating scale.

## Findings

### Changes in the Individual First Graders

Because each child was unique and referred to the Special Buddies Program for a different reason, each child will be discussed separately and then common themes delineated. As shown in the following table, all children's behavior and self-esteem generally improved during the program, with the girls showing more improvement than the boys. Since the items on the scale were worded negatively, a decrease in the total score shows a positive change in behavior. All of the boys were immature, according to their teachers and parents. This would not have changed significantly in three months.

Table 1. Raw scores of behavior rating scale

Name of Child	Student Behavior Rating Scale Score range: 18 (never) - 90 (often)	
	Pre-Program	Post-Program
Bobby	48	41
Dan	38	32
Jill	48	37
Nathan	60	57
Sherry	43	35
Wendy	40	27

Bobby. Bobby got along well with everyone and was popular, according to his teacher and parents. He was not shy, speaking in front of groups at his church. All agreed that his self-esteem was good and did not change from the

beginning to the end of the program.

Bobby was described by his teacher in the pre-program interview as acting silly, but academically above average. She said he was dependent upon others. "He... follows the leads of other people, ... not a self-motivator, not a self-starter; he kind of follows the crowd rather than taking a leadership role." Observation showed that Bobby had trouble sitting still in groups and following directions. His mother said that he developed more patience as a result of the Special Buddies Program.

Observation of Bobby's behavior at the beginning of the program showed that he was "in his own world" according to an assistant in the special education classroom, needing his attention re-directed to the activity or the children. During the course of the program, he changed to direct his attention to the children not the activity. He wanted to sit next to a certain child. He asked for instruction on how to talk to a non-verbal child. He was very conscientious about pushing a child safely in mobility equipment. He was concerned when one special needs child had a seizure and could not participate in the circus play. He sang loudly during the practice for the play to help the children who could not read learn the songs. He made sure

that everyone was in the proper place for the curtain call at the end of the play. His teacher observed this change in him as she watched the performance. "I really saw him being more responsible and... knowing what his job was and who he was to be helping. ...he's really paying attention; he's really cued in, ...he's really focusing, much better focus than I see him in class a lot of times."

His teacher saw a side of him which she had not seen before in the first grade classroom. He was more aware of others and took an active part in the execution of a group activity. That was the biggest change in Bobby: the ability to function in a group setting and be aware of others' actions. He had always had compassion and cared for others' feelings, but had not taken part in the overall organization of a group and remained focused on one activity. During the Special Buddies Program Bobby showed the beginning of the development of leadership skills. Hopefully, this may generalize to different settings in the future.

Dan. Dan was described by his father and mother as being shy and opening up gradually. Observation in the Special Buddies Program corroborated this. He got along with other children in his class quite well, except in work

situations (pairs) where he was not able to keep up academically and was "messing around and not doing his [share of the] work." Mrs. White changed the statement- "has to be coaxed to play or work with peers" on the Behavior Rating Scale from 3 (moderately often) to 1 (never) at the end of the Special Buddies Program. Dan also showed somewhat decreased incidents of fighting and shyness according to the same scale. Mrs. White felt that she did see a major change in his self-esteem. Initially, she felt that he had poor self-esteem because he was struggling academically. She said that, as he participated in the Special Buddies Program, his demeanor changed when it was time to go and he became more self-confident-looking. His status in class improved because he was a member of a select group.

Dan's teacher said that his behavior was "pretty good" in the initial interview. "He gets a little silly sometimes and he's a little talkative at times..., but not a major behavior problem." His mother and father said that he always liked to help around the house. This behavior was also evident in the Special Buddies Program. He was very polite and considerate; he would get chairs for people and move over to take a vacant space in the parachute game

without prompting. The teacher said that his behavior in class deteriorated toward the end of the year, but she attributed it to having a student teacher in the room. The researcher also noted that Dan's cousins came to live at the apartment complex toward the end of the year. In the second interview with the parents, the young girl (to whom the researcher was a stranger) had some behavior problems, stepping on the researcher's foot, taking her purse, climbing on the coffee table, etc. This may have had an influence on his behavior, although Dan tried to control her. No negative change in Dan's behavior was seen in the special education classroom.

His father said that Dan had a short attention span and would forget what he was told to do. However, in the final student interview, Dan repeated the instructions for driving a wheelchair and regularly demonstrated them in class. He showed some leadership abilities also during music time in the special education classroom. He began to do the manual signs for animals in the song "Old MacDonald." Other children followed him. He was observant in the classroom and reported achievements by the special needs children. His teacher observed improvement in his ability to work in small groups in the first grade classroom.

Both Dan and Bobby showed improvement in their ability to work in small groups and in their leadership skills. They were both considered immature by their teacher and were either the youngest or the only child.

Nathan. Nathan was also chosen because he was immature. He had a very short attention span and was easily distractible. He had a great deal of difficulty keeping up with first grade work, especially story-writing. (He was scheduled to repeat first grade the following year.) During an observation in the first grade classroom, Nathan spent most of the story-writing period in the bathroom or singing and talking at his desk. He tried hard to please the teacher but did not take responsibility for his own actions. He sometimes acted out to get attention.

According to the teacher, there was not any change in his behavior after participating in the Special Buddies Program. She did say that he no longer responded negatively to children who teased him. His parents said that he had more patience with his little sister and that he was following directions somewhat better. His mother reported that he was more able to focus on a story being read to him than before. The researcher noticed that at the post-program interview Nathan was able to follow the topic and to



stay seated at the table more than at the pre-program interview.

Nathan's mother and father, speaking independently of each other, both used the word "kind" in describing Nathan. In the special education classroom, he observed and interacted with the children with special needs. He blew bubbles for his partner to pop. During the first few activity sessions he tended to focus more on the activity or object that interested him than on interacting with the other first graders. He often wanted to be first or to have a certain toy or partner, and pouted when he did not get his way.

Nathan's teacher felt that there was a change in Nathan's self-esteem during his participation in the program. "I think it makes him feel proud, like he's the big man... So, I think it's helping him the most, out of the three [children]." She made this statement during the mid-program interview. At the end of the program, his behavior in class had become so difficult that she only focused on that in her interview. However, his mother said that Mrs. Patrick had told her that his self-esteem improved. Nathan's father said that coming to the special education classroom was one of the "highlights" of his

school experience. "It was very cool that way, that he was starting to enjoy one facet of school." Since he was not being successful in his classroom work, the Special Buddies Program was an opportunity for him to feel success, because the kinds of activities--playdough, cooking, etc., were ones in which he could be successful.

However, his ego was still very fragile, because in the play which the two groups performed at the end of the program, another first grade teacher (not his) told him to behave himself and he looked crestfallen and retreated to the back of the room. Mrs. Patrick, in the Student Rating Scale noticed improvement in "feels hurt when criticized" (from "5"--all of the time to "3"--moderately often) and "depreciates and distrusts own abilities" ("5" to "2"--seldom). Slight improvements were shown in moodiness, self-confidence, and frustration level.

Nathan had an opportunity to visit the special education classroom again the following school year. Nathan's class (first grade) had several interaction sessions with the special education classroom. Nathan was very verbal about his experiences the previous year, remembering the children, their equipment and the activities. He was quite excited to be back and asked if he

could come again. His parents were also contacted the following year. They said that he was doing better in school and that the Special Buddies program had helped him substantially.

Wendy. Wendy's behavior was described as very good, except for the usual sibling arguments. Her mother and teacher did not see any change in behavior over the course of the program. Her mother's friend, however, felt that she became more responsible at home. She would clean up the house and put things away without being reminded. Perhaps she felt a heightened sense of responsibility and it manifested itself in several ways.

Wendy's family felt that her self-esteem was initially high and remained so. Her teacher rated her lower in her ability to take criticism and her self-confidence. She said that initially Wendy had difficulty standing up in front of the class to read. At the end of the program, Mrs. Patrick said that Wendy would stand up in front of the class more. Wendy also was quite animated in the circus play, which surprised her teacher.

Wendy's family and teacher said that she had good social skills, in terms of getting along with other people. She was shy in new and unfamiliar situations. In the

Special Buddies Program, she was shy at the beginning, even so far as physically keeping to herself, but appeared more comfortable as the program progressed. She interacted with one child in particular, Brenda, naming her as her "best friend." Wendy even bought her some stickers as a parting gift. She was invited to Brenda's birthday party, a significant step in a relationship between children with and without disabilities.

In the Student Rating Scale, Wendy's teacher rated her with "1"s (never) at the end of the program in "has to be coaxed to work or play with peers (3), does not willingly help others (2), is intolerant or critical of others (2), and is self-centered (2)." (Numerals in parentheses are the pre-program ratings.) Her rating in shyness fell from "5" to "3." Wendy became more outgoing and focused on others.

Sherry. Sherry was a new student at the school and did not feel a part of the group, according to her teacher. Her behavior was good and her sense of responsibility at school was evident when she came to the special education classroom. The special education teacher chose her to push a child in a stroller out to recess. Her sense of responsibility did not show up as much at home until the end of the Special Buddies Program. Her mother reported that

she began helping her younger brother more. "She's more attentive to him and his needs." Sherry took on more of a helper role in the special education classroom and was very attentive to the special needs children. This seemed to extend to her home situation. Her father felt that "she has grown up."

Sherry's mother, father and teacher agreed that Sherry's self-esteem was low at the beginning of the program. Her teacher said that she was an "outsider. She's not really well accepted by the class." At the end of the program all three felt that her self-esteem "definitely" was improved by the program. All three cited the Wheelchair Driver's License as the highlight of the program for her. Her teacher commented, "She was very proud of herself. ...everything was, ...'Look what I did.'" On the Student Behavior Rating Scale, Mrs. White initially rated Sherry as a "4" (often) in "depreciates and distrusts own abilities" and "has little self-confidence." At the end of the program, she was rated as "2" (seldom) in both of those areas.

Sherry's teacher said, in the initial interview, that Sherry was "not really adept at her social skills." She tended to either "hang back," or "barge in" to a group. She

did not know "how to get herself into a group graciously, which is an important social skill." Her mother said she was shy in new situations, and her father said she talked excessively in a nervous way. Sherry's mother, father and teacher all saw some improvement in her social skills. Her mother said that going to the Special Buddies Program may have "broken down some barriers just as far as her own feeling uncomfortable in a group situation."

In an observation in the first grade classroom by the researcher during the program, Sherry did not know how to seek attention appropriately--she flicked over her partner's cylinder (math material) and watched for a reaction. When there was not enough room for her on the story rug, she did not ask anyone to move or move herself and her partner; she just stood there and waited for someone to come to her rescue. Her teacher said that, at the end of the program, Sherry still had a "hard time working with kids, either on-to-one, or working in a cooperative group situation." The teacher did see some improvement in that area. In the special education classroom, however, she progressed from having difficulty sharing materials to watching and prompting other first graders to share with the children with special needs.

Jill. Jill was shy, moody and did not accept criticism well, according to her teacher. She was critical of others, with the other children reporting such comments as: "She said my picture was ugly," or, "She said I have ugly hair." She would cry to try and get her way. Her mother reported that she used to kick other children and was very selfish. Her father said that she wanted to play with other children on her terms only. None of these behaviors were observed in the special education classroom during the Special Buddies Program. She became a leader of the group, organizing the children in both first grade classrooms when it was time to go to the special education classroom. She also showed responsibility in organizing the logistics of the circus play and in pushing wheelchairs properly both during the play and for activities.

Jill's teacher saw substantial changes in her social skills during the Special Buddies Program. Jill no longer made "hurtful" comments about the other children. She was getting along better with all the other children, especially one boy who had challenging behavior himself. She previously had very little patience for him and each of them would complain to the teacher about the other. By the end of the program, Jill only went to the teacher when she could

not solve a problem herself. She developed more tolerance for others' behavior. Her parents reported that they knew about the improved behavior and responsibility at school, but did not see the same changes at home. Jill's new behavior transferred from the Special Buddies Program to her classroom, but not to her home. Perhaps she had a certain role to fulfill in the family and had been playing that same role for seven years. It is possible that a longer Special Buddies Program might have improved the chances of her behavior changing at home.

Jill was serious and quiet in the special education classroom at the beginning of the program. She became more animated and developed a friendship with one of the children toward the end. She made jewelry out of playdough for her friend and played with her as she would play with a non-disabled peer. Jill also asked her mother to buy a parting gift for the special education teacher at the end of the program, showing her perception of this as a significant relationship.

Summary of Changes in First Graders. Behavior, self-esteem and social skills were examined for each first grader. Other changes (attitude toward disabilities, friendship, etc.) observed will be discussed separately by



theme. Increased responsibility was seen in four of the children, ranging from leadership in a group during the Special Buddies sessions to increased responsibility at home with chores and siblings. An increase in patience was seen in three of the children. Four children had more self-confidence or were less shy. The children who were identified as immature increased in their ability to focus on an activity in the special education classroom but it did not transfer over to the general education classroom during the same school year. Only one child was chosen because of negative behavior toward others. This behavior was completely extinguished at school. This would be a promising topic for further study.

#### Benefits of the Program

All of the participants and parents in the program felt that it was a positive experience. Three of the parents had reservations before the program began. One said he thought that other children might make cruel remarks about the children with special needs and wondered how his son would react if he heard them. Another father worried that his daughter would not want to go to the sessions, since she was reluctant to enter the classroom for his interview. The mother of the same girl worried that the daughter might be

scared if one of the children shouted, or that she would not want to go. At the end of the program all of the people interviewed (six children, twelve parents, two teachers) said that the program was very beneficial for the children and that there were no negative effects. Many of the parents asked for the program to continue in the next year.

Status in class. Some of the children were chosen because they were shy or did not seem to be a part of the class. If they were struggling academically, there were occasions where their classmates might not want to work with them in a group. Being chosen for the Special Buddies Program was viewed as an honor. Mrs. Patrick described Nathan and the improvement in his status: "When he comes back [from the special education classroom], the kids kind of look up to him, and want to be friends with him, because he's feeling, like, really important." Mrs. White said that Sherry now had a "core group of kids that she has better relationships with than she did before." Her parents agreed that it built up her status, especially with the children in day care with her. Other students from day care even approached the researcher and asked, "Is it true that Sherry is going to get a driver's license?" She was very proud of the Wheelchair Driver's License and showed it to everyone

who came to the house.

Wendy and Jill were more popular than before. Their teacher said that previously no one noticed when they were gone. Mrs. White said that Dan's status improved. His mother said, "He liked it a lot. I think it's a really good program... He talks about it all the time and tells the other kids and they want to do it. 'How come we can't do it?'"

It could be argued that the children's status improved simply by being chosen to do something and to leave the room during work time. However, if the place that they went had had negative connotations, then they would have been stigmatized instead of elevated. The aunt of one of the children who was not chosen to come told the researcher that participating in the Special Buddies Program was the "'in thing' in the whole first grade." A hallmark of the success of the program was that going to the special education classroom was viewed as a status symbol. Opportunity was made for the rest of the children in that class to come to the classroom to play at another time.

Enjoyment and fun. The overriding theme which each child and parent expressed was that the children enjoyed themselves. They had fun. According to his mother, Dan

"enjoyed it. Talked a lot about it. More about that probably than regular school!" Wendy was "excited and glad to be there." Mrs. White said, "The kids absolutely love it. They are so excited about going every day." Bobby's mother told Mrs. White that she was "just thrilled, thrilled with the program, that he was going. She just had nothing but, you know, nothing but good things to say... She was very, very glad to have him go." The children themselves said they not only enjoyed it, but had fun. They mentioned the nature walk, the cooking activities and the circus as their favorite sessions. Nathan said he "learned how to cook and make stuff." He "liked playing with the kids. They were fun and I had a fun time."

It is significant that the students perceived the interactions with children with severe disabilities as fun and exciting. The special education students could not walk or talk and had limited use of their hands. However, the first graders learned to recognize communication attempts and realized that they could all enjoy the same activities. In the initial interviews, the parents thought that the program would be "good" for the children, but did not mention the word "fun." In the final interviews all of the parents said that their children enjoyed the program.

Friendship. Friendships were actually developed as a result of the program. Wendy became very attached to a child in the special education classroom, Brenda. Wendy told her mother's friend that Brenda got excited when Wendy would be in the classroom and Wendy would try to talk to her. Wendy's mother said, "I have to say she fell in love with Brenda. I mean, she just adored her." Brenda's family invited her to Brenda's birthday party. Wendy brought Brenda a gift on the last day of school.

During the Special Buddies sessions, Wendy would look for Brenda's reaction as she played with her. As she was making a playdough bracelet to put around Brenda's wrist, she said, "Do you see, Brenda's looking at it." During a cooking activity as Wendy was helping Jill stir the pudding, Brenda began to fuss. While she was still holding the bowl of pudding, Wendy put her other hand on Brenda's arm to calm her. Wendy's mother's friend said that Wendy learned how to communicate with Brenda even though she could not talk.

Bobby and Nathan often vied to be a partner to one little boy (Terry) with multiple disabilities as well as facial and skeletal anomalies. Despite his appearance, Terry had a very engaging personality and smiled and responded to the first graders. The first graders were able

to look beyond appearances and focus on having fun together. Bobby's mother said that she felt one of the benefits of the program was being able to communicate with "people that are different from us... I think he is really starting to enjoy other's company, you know. It doesn't matter what they're like or you know, if they're different from you, he's still enjoying their company." Bobby told his mother and teacher that his favorite thing was being Terry's partner. "He's my special buddy, Mom. He's just a lot of fun." Dan's father said that Dan did not talk much about what they did during the Special Buddies sessions, but "he just talked about the kids themselves."

Helper Role. Another less prevalent theme was the perception of the children as helpers and the feeling of satisfaction gained from helping others. Jill told her teacher she was helping some kids. Sherry and Dan said that they both enjoyed "teaching" the kids.

Even though this program was called "Special Buddies" and parents were made aware that the program was designed to promote friendship, the parents of these three children talked about "helping" in their initial interviews. Dan's mother said that he "loves to be Mr. Helper." Sherry's mother, in describing children with special needs, said,

"God just made them a certain way and sometimes because they're special, we need to help them a little bit different, or teach them different." Jill's father described a potential benefit of the program for his daughter: "As a human being, I expect to gain on feelings. To have the feeling that there are some other people that sometimes need us and we be there to help whenever we can and to go along with everybody." It is possible that these three children thought of themselves as helpers and teachers because that is how it was discussed at home during the program. This coincides with the perception of caregiving and instructional activities remembered by the students in the original Special Friends Program (Kishi & Meyer, 1994).

The first graders were pleased when the children in the special education classroom were able to do something, or responded by vocalizing or made eye contact. The researcher noted that vocalizing and eye contact by the children with special needs did increase when they were interacting with the first graders. Mrs. White noticed a change in Bobby. He "seemed to be more cued in to when somebody was doing something that was a... milestone for them in your room." His mother said that he "knows they have special needs and that everybody should love them and he says that. That he

is sensitive to their needs." So the increased mutual interaction may have triggered a change in Bobby to be more observant of others. Wendy's mother's friend said that Wendy could communicate non-verbally with Brenda, a skill she learned from being in the program.

Compassion. In the initial interview, several of the parents expressed a desire for their children to develop compassion. Bobby's father said that he "would like to see him... have more compassion for people that are struggling harder than we are to get through life." His mother said in the post-program interview that it "gave him a whole new appreciation of handicapped children... He'd make comments: 'You know what, Mom? They need special buddies, too.'" She also said that the program gave him more respect for people with disabilities, "treating them just like he would treat me or anybody else."

At the beginning of the study, Jill's mother said that Jill felt sorry for people with disabilities. Her father and mother in the post-program interviews said that they thought the program was valuable to make Jill appreciate her own health--"She can value, you know, the difference that she's OK and the other one's not." Dan's father said the program showed Dan "how fortunate he is to be healthy, you



know, a healthy body, a normal body." These statements imply a feeling of superiority, not necessarily a positive outcome for the program. Wendy's mother's friend said it in a more positive way when discussing what he hoped Wendy would gain from the program: "I would hope that she would gain not to tease or taunt people with disabilities, or feel better or feel above them. I hope they would open her eyes to accept that there are all different people in the world and not everybody's physically able like herself. 'Cause I do think that she will adjust to that and she will be delicate with those type of people and be outgoing with those type of people." Wendy and Bobby developed relationships based on friendship, not pity or a feeling of superiority. The attitudes of those at home factor into the attitudes of the children. Wendy's, Dan's, and Sherry's mothers all felt that this program was helpful in breaking down barriers and making their children feel comfortable around people with disabilities. Several of the parents mentioned that their children no longer stared at people they met because they understood more about what it was like to have a disability.

#### Change in Attitude toward People with Disabilities

The children's attitudes toward people with

disabilities was one aspect of the program which could be measured directly. The attitude scale (Table 2), as well as the interviews, showed an improvement in the attitude of all six of the children.

Table 2. Raw scores of attitude scale

Name of Child	Student Attitude Interview Score range 0 (all negative) - 14 (all positive)	
	Pre-Program	Post-Program
Bobby	12	13
Dan	8	11
Jill	6	10
Nathan	8	14
Sherry	6	10
Wendy	7	10

Primary Student Survey of Handicapped Persons (PSSHP)  
(Esposito & Reed, 1986)

Bobby had a high score on the initial attitude scale, showing his compassion for all types of people. He reported being afraid of his cousin initially, but as he got to know him, he felt more comfortable. Since this program was the first exposure for most of the other children, they had a greater change from the beginning to the end of the program.

Jill had some knowledge of disabilities, since her cousin had Down syndrome, but she did not have any experience with children with severe physical disabilities. Her initial perception was all negative. "They can't walk, they can't stand up, they can't play." She said people with

disabilities were different from her. At the end of the program, she said that people with disabilities were like her and said, "I liked the kids."

Young children make a distinction between the physical aspects of disability and the mental and social aspects. They are more likely to view someone as having a disability when it is something concrete that they can see. Dan said that Tim (a child with special needs) was different because of his extensive equipment (oxygen, suction machine), when in fact, Tim (who was verbal) was most like him. Wendy said in both the initial and final interviews that she felt people with disabilities were different from her. She focused on the physical aspect, mentioning that they were in wheelchairs or had one leg. Yet she was the one who developed a friendship with a child who had severe and multiple disabilities. Perhaps she realized that there were obvious physical differences, but went beyond those to focus on the social interaction.

Several of the parents said they thought their child might be scared when s/he first saw the children in the special education classroom. All of the children answered "No," to the question, "Are you ever afraid of people with disabilities?" at the beginning and end of the program.

However, they were much more emphatic in their tone of voice at the end. Prior to the program, the parents may have been projecting some of their own fear or discomfort on to the children. Sherry's mother said there were students who were mentally challenged at her high school and "we were scared to death of them." She and her friends ignored them and were afraid to ask any questions. She was pleased that this program encouraged openness in answering questions about disabilities.

Sherry was initially nervous about coming to the special education classroom. Since she came with her class for the introduction, and also took part in a fun activity, she said she felt more comfortable than if she had come alone. Her parents both said Sherry was totally comfortable and positive about the program after she began to participate in it. She also reported that she now had friends in the special education classroom. She said her favorite part about the program was "the kids."

After the program, one father said his son did not even mention the disability when talking about children in the class; he called the children by name. Bobby said people with disabilities were a lot like him. "Not very different..., because they're not different people from us.

They're just the same old regular humans!" Another parent reported that her child saw someone with a missing limb and said, "Mom, look. That's OK, though, because they can still do things." Her mother was pleased that she focused on the positive aspect instead of the negative. Another mother said she anticipated that when her son got older he might have friends who would make fun of people with disabilities. "He will know: 'Hey, you know what? I've worked with them. There is nothing wrong with them. [They're] just like us.'"

Nathan had the greatest change in scores on the attitude scale. His scores increased from generally positive to totally positive. He named friends he had made; he had more of an understanding of disabilities. He said he liked coming to the classroom.

The comfort level of the teachers increased, as well as that of the six children. Mrs. Patrick said she had more tolerance for children with multiple disabilities. Mrs. White, who had previous experience with people with disabilities, said that the program taught children tolerance, patience, how to be a good friend to others. It taught them that there are "more important things in life than what a person looks like and how they communicate," that they are able to interact with other people. The

children learned to talk to the special education students as people without being prompted.

In addition to the Special Buddies Program, the researcher conducted a series of introductions (classroom visitations similar to the initial sessions for the first grade classes) for the other classes in the school. Because of scheduling considerations and various other factors, six of the classes did not go to the SPH classroom for a visit during the 1996-97 school year. It was evident to the special education staff which classes had had direct contact and which had not. The typical children who had visited the SPH class came up to the special education students at recess and talked to them. They said, "Hi! How are you?" as they passed them in the halls. They talked to the teacher and asked questions. The classes which had not met the special education students averted their eyes or sometimes stared as they walked by. They made no attempt to talk to the students or the teacher. Mrs. Patrick said that prior to the program, general education students would stare with a negative look on their faces. She said now that her students knew the special education students, "even if they look, they're smiling, like, 'There they are. There they are!' It's like now they're stars." The friendliness

displayed by the rest of the students continued into the next school year. The teacher of the SPH class then invited the rest of the classes to the SPH classroom for introductions.

The positive changes in attitude toward people with disabilities shown in this study supported previous research by Kishi and Meyer (1994) and Voeltz (1982). A new study extending their research to six-year olds (Favazza & Odom, 1997) also showed that direct contact in structured play situations was associated with an increase in acceptance. Favazza and Odom's high contact group of typical children participated in structured play with children with disabilities, and read and discussed stories about persons with disabilities, both at school and at home. Their study did not include behavioral observation as did the present study. They did report anecdotal observations of positive changes in proximity and affection toward children with disabilities. They reported the same kinds of spontaneous interaction. "Kindergarten children from the high-contact group would come over to say hello and hug students in their class and would yell greetings across the lunchroom, hallway, and playground" (Favazza & Odom, 1997, p. 415). Parents reported, as they did in the present study, that

children "spontaneously posed questions about people with disabilities, demonstrated sensitivity and raised awareness on seeing people with disabilities in the community, and demonstrated excitement and sensitivity about the children with disabilities in the study" (Favazza & Odom, 1997, p. 415). The present study confirmed these anecdotal observations in a more systematic way.

A benefit of a qualitative study is the opportunity for expansion on a topic or for new topics to be contributed by the interviewee. The interview question requesting additional comments elicited a great deal of supplementary information from the students as well as teachers and parents. Wendy's mother did not respond to direct questions with more than three- or four- word answers. When the researcher began a more conversational tone, she responded more and volunteered that the Special Buddies Program made Wendy feel important. The discussion of Wendy's response to the person with one arm focused on the quality (tone of voice, speed of response, lack of prompting) of her reaction. That is where this type of research has its value.

Parents and teachers requested that the program continue because it was so beneficial. "I just hope the



program stays in effect and that more kids do have the opportunity to be part of it." The rest of the children in two out of the three classes which participated in either the pilot study or the actual study were able to come to the special education class in groups of five or six. They did similar activities and reported to their teachers that they enjoyed it. The other first graders and some additional grade levels as well came during the 1997-98 school year.

#### Limitations of the Design

This study was undertaken to demonstrate and examine the changes in general education students as a result of direct structured contact with children with severe disabilities. The researcher was the teacher of the special education class and planned the interaction sessions.

A limitation to the design was associated with the role of researcher as a participant. It was not possible to take comprehensive field notes during the integration sessions because the researcher was also the teacher of the special education class. Immediately after the sessions very brief field notes were taken by the researcher or one of the assistants for later elaboration. Informal collaborative summary conversations (member checking) were held among the researcher and the assistants at the end of each school day

for the purpose of identifying any significant observations of the first graders. Field notes were typed at the end of each day. The main thrust of the investigation, however, was the interviews. There were six adults giving input for each child (first grade teacher, two parents, researcher, and two assistants). This rendered a full picture of the changes in each child and counter-balanced the researcher's subjectivity. Interviews were recorded and transcribed verbatim. Member checking was also utilized, through casual conversations with the first grade teachers.

Another limitation was the small sample size. Because of space limitations (size of room, number of tables, etc.) and management problems associated with large numbers of young children, it was not possible to have more than six first grade children come to the special education classroom at the same time. However, with multiple sources of data about each child, there was sufficient information. Absences of both the special education students and the typical students could potentially have impacted the data collection, but that did not present a problem.

A limitation in the original design, that of reliability of information gathered from young children, was addressed with input from the first grade teachers. The

first grade teachers observed the children over time and rated their initial self-esteem and behavior and the changes, rather than relying on the children's perception of themselves. The children were still interviewed about their attitudes toward disabilities, but these topics were not as likely to reflect day to day changes in feelings.

Another limitation of the design was the short time span of the actual program. Developing the protocols and introducing two classes to the special education students took more time than expected. The program could not run past the end of the school year, so it had a time limit of ten weeks. However, the original Special Friends Programs lasted eight to ten weeks. Even though this study was intended to last longer, it followed the model.

An unanticipated problem which occurred in the study was that of follow-up by the first grade teachers. In the pilot study, the first grade teacher asked the children after each session, "Tell me what you did with your friends. You know, tell me what you learned today." She would then ask them specific questions about the activity. She and the researcher thought that this practice solidified in the children's minds what they did and helped them to remember it in order to discuss it with their parents. The short

discussion as the children came back to the first grade classroom also made the children feel special in front of their peers. This practice was emphasized to Mrs. Patrick and Mrs. White in the teacher training session. Both of them said in the mid-program interview that they did not often talk to the children when they came back. They said that they planned to do it more often, but still did not end up doing it every time. The teachers may have had less information on which to base their assessments and the children did not benefit from the possibility of enhanced self-esteem. Some of the parents also reported that their children did not discuss their experiences very much at home. If the teachers had done more follow-up, the children might have initiated more discussions of their experiences at home.

### Conclusion

Previous research in integration of young children demonstrated that there were benefits for typical children as well as children with disabilities. Direct contact improved the attitudes of typical children toward students with disabilities. There were also increases in typical children's intrapersonal skills such as maturity, self-confidence, and enhanced self-esteem. Systematic programs

of integration fostered the development of friendships and social relationships with peers who had disabilities.

The present study involved a program of reverse mainstreaming of six first graders into a class of three, four, and five-year old children with severe and multiple disabilities. The first graders were chosen by their teachers because of deficits in maturity, self-esteem, behavior, and status in class. At the conclusion of the program, various first graders demonstrated increased responsibility and leadership skills, their status in class improved, they had more patience with siblings and fellow students, and their self-esteem improved. Some of the changes did not transfer to the home, but that could have been because of the short duration of the program and the first grade teachers and some of the parents not following up on post-session discussions. All of the students showed a positive change in attitude toward people with disabilities. Even the rest of the children in the first grade who had limited direct contact with the special education classroom became more comfortable with people with severe disabilities. The participants and parents reported that the children enjoyed themselves and recommended that the program continue.

### Recommendations for Further Research

The duration of the program should be lengthened. The 30-40 minute sessions were adequate, but if the program lasted longer than 10 weeks, the changes seen in the children might have generalized to the home setting. The pilot study had more success than the main study, with everyone (parents, first grade teacher, special education teacher) seeing the changes in the children. The first grade teacher in the pilot program did more follow-up with the children. Children in the pilot study were referred with different, less severe deficits in behavior, self-esteem and social skills, which may account for the difference in results.

Another possibility to add to the program might be a home component, where stories about people with disabilities could be sent home for the parents to read to the children and discuss. The special education teacher could also send home more notes delineating past and future activities to stimulate discussion.

There was an informal attempt at following one child in the year after the program. His parents and present teacher said that the program had made a difference in his self-esteem. A systematic longitudinal follow-up could be

undertaken to determine if the changes in behavior, self-esteem and friendship lasted over time. The significance of the changes could be measured quantitatively using the *Student Behavior Rating Scale*. The six program children could also be compared with the rest of the class who received an introduction in terms of their attitudes toward people with disabilities.

APPENDIX A: Letters of Permission

Letter to Parents of Special Education Students

September 25, 1996

Dear Parents.

We are going to be starting a program called Special Buddies. This is a form of reverse mainstreaming in which four typical first-graders will be coming to our room twice a week. We will be doing activities together such as art, cooking, nature walks, music, story time, and drama. This benefits our kids in terms of providing good role models for language and socialization, and benefits the first-graders by helping their self-esteem and improving their skills. Its also just plain fun for all of us! Mrs. Green (the first grade teacher) and I are very excited about it.

I will be taking my class to the first grade on Monday to introduce them. I realize that I cannot discuss individual children's diagnoses because of confidentiality, but I would like to answer general questions that the children may ask, such as, "How do they eat?" "How come they can't walk?" My answers would be similar to these:

"She has a tube connected to an opening in her stomach. She gets liquids through it, because she has trouble drinking, but she can eat food like pudding and oatmeal from a spoon, just like you."

"She is learning to walk and has special equipment to help her. She likes to walk to the playground in her equipment. She enjoys swinging on the swings, too. We have special swings we bring with us that have backs, so the children can sit better."

I emphasize the similarities in all children, and explain the differences in language that they can understand.

I think this program will have benefits for everyone. Please sign below that you have read this letter and that you are comfortable with the type of information I would be sharing about your child.

-----  
\_\_\_\_\_ Yes, I would like my child to participate in the program as outlined above. I understand that medical information will not be shared, only information about daily living skills.

\_\_\_\_\_ No, I am not comfortable with this. Please call me to give me more information.

\_\_\_\_\_  
Parent Signature



Letter to Principal of Site

February 24, 1997

~~Mr. [Name]~~, Principal  
~~Elementary School~~  
~~[Address]~~  
~~[City, State, Zip]~~

Dear Mr. ~~[Name]~~:

As you know, I have been conducting a pilot integration program between typical first graders and my special education classroom for children with severe disabilities. The program has succeeded so well that I would like to study the effect of this program on typical children for my master's thesis in special education at California State University, San Bernardino. The type of program is called reverse mainstreaming because the typical children come to the special education classroom instead of the special education students going to the regular education classroom. Six first graders will go to Room 18 for 1/2 hour twice a week from March to June, 1997. They will be doing activities together, such as art, cooking, nature walks, music, story time, and drama. This will benefit the children with disabilities in terms of providing good role models for language and socialization, and will benefit the first-graders by helping their self-esteem and improving their social skills.

The first-graders will be chosen by their teachers. They should be children who need improvement in their self-esteem, and/or their social skills. Their teachers and I will be observing changes in their attitudes and behavior. They, their parents, and their teachers will be interviewed before and after the program. I will be asking questions about their attitudes towards people with disabilities and about the child's behavior, self-esteem, and social skills. I have prepared a parent information and permission letter (attached).

Please sign below to signify that you are giving permission for me to implement this program at ~~Elementary School~~. If you have any questions, I would be happy to answer them.

Sincerely,  
*Nancy C. Mulligan*  
Nancy Mulligan

I agree with the reverse mainstreaming program as outlined above and give Nancy Mulligan permission to interview parents, teachers and students to study its effects, and report the results in her thesis.

~~[Signature]~~  
\_\_\_\_\_  
~~[Name]~~, Principal

Letter to Parents of Typical Children in Program

March 6, 1997

Dear First Grade Parents,

We are writing this letter to let you know about a program in which we would like your child to participate. Six first graders have been chosen to be "Special Buddies" to a county special education preschool and kindergarten class. They will be going to Room 18 twice a week for 1/2 hour (9:30 -10:00, Tuesdays and Thursdays) to participate in a reverse mainstreaming program with Mrs. Mulligan's class. The children will be doing activities together such as art, cooking, nature walks, music, story time, and drama. This benefits the children with disabilities by providing good role models for language and socialization, and benefits the first-graders by helping their self-esteem and improving their skills. It is also just plain fun for all of us!

Due to confidentiality, we are not able to share the children's specific diagnoses with you, but we will be talking to the children about their similarities and differences. This is the way we will answer typical questions:

"She has a tube connected to an opening in her stomach. She gets liquids through it, because she has trouble drinking, but she can eat food like pudding and oatmeal from a spoon, just like you."

"She is learning to walk and has special equipment to help her. She enjoys swinging on the swings, too. We have special swings we bring with us that have backs, so the children can sit better."

One of the first activities the children will do together is take a nature walk. The children will feel and describe to their "Buddy" the different textures of what they find. The next time they go to Room 18, they will make a collage. Each child participates in the activities to the extent that he or she is capable. For instance, in a cooking activity, the first graders would read the recipe and measure the ingredients. The preschoolers would pour, stir, and/or turn on the blender, etc., with an adapted switch.

We are all excited about this program, and will begin introductions soon. If you would like to have your child participate in this program, please sign below and return to your child's teacher. As part of this program, Mrs. Mulligan would like to interview you and your child to document the effects of participation in a program like this on social skills, self-esteem and attitudes towards people with disabilities. All results will be reported anonymously. If you have any questions, you may send a note with your child, and Mrs. Mulligan will call you with more information.

Sincerely,  
Mrs. Mulligan and Mrs. White

-----  
Please sign and return to your child's teacher

Permission is hereby granted for the following:

\_\_\_\_ Participation in the "Special Buddies" Program, interview and evaluation of the effects of the program, and photographing of my child as he or she engages in "Special Buddy" activities

\_\_\_\_\_  
Child's Name

\_\_\_\_\_  
Parent/Guardian Signature

\_\_\_\_\_  
Date

## APPENDIX B: Protocols

### Teacher Training Session

#### Protocol for Initial Guidelines for 1st Grade Teachers Questions for Pilot Program Teacher

This program, called "Special Buddies," will have six first-graders come to a class of children with severe disabilities as friends, or "buddies" twice a week for one-half hour. The first-graders who are chosen should be ones who need improvement in their self-esteem, and/or their social skills--helping others, patience with others less capable than themselves, how to be a friend, empathy, feeling needed, etc.

1. How did you choose the children who participated in the program?
2. What did you say to the parents?
3. What did you say to the children themselves?
4. What did you say to the rest of the class?
5. What did you say each day when they came back from the special education classroom?

First Grade Teacher Pre-Program Interview Protocol

Interview Protocol  
First Grade Teacher (General Education)  
Pre-Program Interview

Teacher \_\_\_\_\_ Date \_\_\_\_\_

1. What has been your experience with students with severe disabilities?
  
  
  
  
  
  
  
  
  
  
2. How do you feel about children with disabilities as friends for your students or your own children?
  
  
  
  
  
  
  
  
  
  
3. This program, called "Special Buddies," will have six first-graders come to a class of children with severe disabilities as friends, or "buddies," twice a week. Can you tell me about the students you have picked?  
(Describe one student at a time in all seven areas.)
  - a. Physical description
  - b. Family life (siblings, stability)
  - c. Behavior
  - d. Self-esteem
  - e. Social skills
  - f. Status in class
  - g. Experience and attitude toward disabilities
  
  
  
  
  
  
  
  
  
  
5. What did you tell their parents about why their child was chosen?
  
  
  
  
  
  
  
  
  
  
6. Do you have any questions or comments?

Record Form for Pre-program Teacher Interview

Record Form for Teacher Interview  
Pre-Program

Name of Teacher \_\_\_\_\_ Date \_\_\_\_\_

Name of Student \_\_\_\_\_

1. Description of child:

a. Physical description

b. Family life (siblings, stability)

c. Behavior

d. Self-esteem

e. Social skills

f. Status in class

g. Experience and attitude toward disabilities

2. What did you tell the parents about why their child was chosen?



First Grade Teacher Post-program Interview Protocol

Interview Protocol  
First Grade Teacher (General Education)  
Post-Program Interview

Teacher \_\_\_\_\_ Date \_\_\_\_\_

1. How do you think the program went?
2. What did you learn from this program, in terms of knowledge about disabilities?
3. How did your attitude toward persons with disabilities change as a result of this program?
4. What was the children's reaction to the program?
5. What types of changes did you see in the four children?  
(Evaluate one student at a time in all four areas)
  - a. Behavior
  - b. Self-esteem
  - c. Social Skills
  - d. Status in class
  - e. Attitude toward disabilities
6. Were there any other benefits from the program?
7. Were there any negative effects?
8. How did the parents feel about the Special Buddies program?
9. Are there any changes in the program that you would recommend?
10. Are there any other comments you would like to make?

Record Form for Post-program Teacher Interview

Record Form for Teacher Interview  
Post-Program

Name of Teacher \_\_\_\_\_ Date \_\_\_\_\_

Name of Student \_\_\_\_\_

1. Changes in the child:

a. Behavior

b. Self-esteem

c. Social Skills

d. Status in class

e. Attitude toward disabilities

2. How did the parents feel about the program?



Student Behavior Rating Scale Protocol

**Student Behavior Rating Scale\***  
Pre- and Post-Program

To the teacher: Please rate the child's behavior, as you have observed and experienced it, according to the following scale, by circling the appropriate number:

1. **Never** - You have literally never observed this behavior in this child.
2. **Seldom** - You have observed this behavior once or twice.
3. **Moderately often** - You have seen this behavior more often than once a month, but less often than once a week.
4. **Often** - You have seen this behavior more often than once a week, but less often than daily.
5. **Most or all of the time** - You have seen this behavior with great frequency, averaging once a day or more often.

This child, \_\_\_\_\_:

	<u>Never</u>	<u>Seldom</u>	<u>Moderately Often</u>	<u>Often</u>	<u>Most or all of the time</u>
1. gets into fights or quarrels with classmates...	1	2	3	4	5
2. has to be coaxed to play or work with peers.	1	2	3	4	5
3. does not willingly help others.....	1	2	3	4	5
4. is restless.....	1	2	3	4	5
5. is unhappy.....	1	2	3	4	5
6. gets off-task.....	1	2	3	4	5
7. disrupts class discipline.....	1	2	3	4	5
8. feels hurt when criticized.....	1	2	3	4	5
9. needs help with school work.....	1	2	3	4	5
10. depreciates and distrusts own abilities.....	1	2	3	4	5
11. is moody.....	1	2	3	4	5
12. is dependent on others to lead him.....	1	2	3	4	5
13. is intolerant or critical of others.....	1	2	3	4	5
14. is self-centered.....	1	2	3	4	5
15. is immature; does not take responsibility.....	1	2	3	4	5
16. is shy.....	1	2	3	4	5
17. has little self-confidence.....	1	2	3	4	5
18. is easily frustrated and gives up passively....	1	2	3	4	5

Rated by \_\_\_\_\_  
Date \_\_\_\_\_

Total Score \_\_\_\_\_

\*Based on AML Behavior Rating Scale - Revised (AML-R): Primary Mental Health Project, Inc. (1993) and Burks' Behavior Rating Scales (1977)

Student Attitude Interview Protocol

Student Attitude Interview  
Pre- and Post-Program  
"Primary Student Survey of Handicapped Persons (PSSH)"  
(Esposito & Reed, 1986)  
(Revised to reflect inclusive language-2/24/97)

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Tell me everything you know about people with disabilities.
2. Do you like people with disabilities?
3. Do you have any friends with disabilities?
4. Can you get sick playing with someone with a disability?
5. Are you ever afraid of people with disabilities?
6. Do you think that people with disabilities seem a lot like you, or do they seem different from you?
7. Is there anything else you would like to say?

Score responses as 0 (negative response), 1 (neutral response), or 2 (positive response)

Parent Pre-program Interview Protocol

Parent Interview Protocol  
Pre-program

Name of Child \_\_\_\_\_ Date \_\_\_\_\_  
Person Reporting \_\_\_\_\_ Relationship to child \_\_\_\_\_

Your child has been selected to participate in a program called "Special Buddies," a program for integrating typical children and children with disabilities.

1. What has been your experience with persons with disabilities?
2. Has your child ever had any contact with children or adults with severe disabilities?
3. Have you heard of a concept called mainstreaming, or reverse mainstreaming?
4. What has your child's teacher said about why your child was chosen for the program?
5. Describe your child:
  - a. Physical description
  - b. Family Life
  - c. Behavior
  - d. Self-esteem
  - e. Social skills
  - f. Attitude toward persons with disabilities
6. What do you expect your child to gain from this program?
7. Do you anticipate any negative effects?
8. Do you have any other comments?

Parent Post-Program Interview Protocol

Parent Interview Protocol  
Post-Program

Name of Child \_\_\_\_\_ Date \_\_\_\_\_

Person Reporting \_\_\_\_\_ Relationship to child \_\_\_\_\_

1. What was your child's reaction to the Special Buddies Program?
  
2. What did s/he say about the children in the special education class?
  
3. What types of changes did you see in your child in the areas of:
  - a. Behavior
  
  - b. Self-esteem
  
  - c. Social skills
  
  - d. Attitude toward disabilities
  
4. How has your child benefited from this program?
  
5. Were there any negative effects?
  
6. Do you have any other comments?

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