EFFECTS OF PLAY GROUPS ON INTERACTIONS BETWEEN STUDENTS
WITH AND WITHOUT DISABILITIES

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By
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Abstract

This study used the Integrated Play Group model (Wolfberg and Schuler, 1992) to assess whether creating peer play groups for students with severe disabilities would increase the number of interactions between students with severe disabilities and their general education peers and the levels of play used by all the participants involved. Two measurement instruments were used. A pre/post measure of the levels of play for all participants was implemented using the Howes Peer Play Scale (Howes, 1980). A measure of the number of interactions between the targeted students with severe disabilities and their general education peers was implemented with the Educational Assessment of Social Interactions or EASI Scale (Goetz, Haring, & Anderson, 1986).

The frequency measure was implemented in a multiple baseline, single subject design, using interventions based on student need and preference. Peer play groups were recruited before the measure began and pre data were taken.

The study took place in an urban elementary school with a diverse ethnic population. The context of this study was the elementary school playground at the morning recess period, where baseline data on the frequency of interactions data collection were collected for all of the targeted students with severe disabilities. As the first student's intervention was implemented and the targeted student with severe disabilities began to increase the frequency of his interactions, the second student with severe disability's intervention was initiated. As the second targeted student's interactions began to increase, the third student's intervention began. Each student had a customized intervention
based on his disability and preferences. The student's peer play group was formed with consideration for age, and activity level. As the student with severe disabilities and peers began to interact successfully, the teacher began to fade her involvement to that of observer.

When two of the three students with severe disabilities were interacting independently with their peer play groups, interaction data were discontinued and post data was taken for all the participants.

Results showed that all of the students with severe disabilities had increased interactions with peers, as well as decreased non-play activities and teacher interactions. All of the participants showed increased levels of play in the post data, suggesting that the use of the Integrated Play Group model (Wolfberg and Schuler, 1992) with students with severe disabilities and their peers on an elementary school playground increased the level of play for the students with and without disabilities, and increased the number of interactions between the students with severe disabilities and their peers without disabilities.
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Chapter I
Introduction

General Statement of the Problem

Many students with disabilities who are placed in special day classes have difficulty relating to peers outside their own classmates. They tend to interact only with other students in special education or with no one at all. This study investigated whether using the intervention known as Integrated Play Groups (Wolfberg & Schuler, 1992) in natural contexts on an elementary school playground at recess time would increase the number of interactions between students with disabilities and students without disabilities. This study also investigated whether participation in integrated play groups would result in an increase in the level of sophistication of those interactions for all of the students involved. The premise was to show that by learning to play in a positive, co-operative way, the level of social skills and positive interactions between all students would increase.

Background of the Problem

In the late nineteenth and early twentieth centuries, Jean Piaget, the father of modern child psychology, began a study where he followed a group of babies from birth to adulthood and beyond to investigate how children come to acquire behaviors and behavioral knowledge. He found that the most effective way that even the youngest child learns is through the acts of play and imitative behavior/play (Piaget, 1962). He started by making faces at two month old children and found that after a while, they started to make faces back. The children were receiving positive attention in a kind, lighthearted way which, to Dr. Piaget, seemed to help them acquire new skills. As he followed these
children over the years, he found that they attained new information most effectively when engaged in explorative play experiences (Piaget, 1962).

As educational programs - most especially preschool programs - began to emulate Dr. Piaget's philosophy and theories of development, special education remained institutionalized. In the postwar 1940's and 1950's, as permanently disabled soldiers tried to assimilate back into the civilian population, a new awareness of the needs and abilities of persons with disabilities began to emerge the public became aware of poor conditions and occurrences of abuse in institutionialized settings. Parents, educators, and advocates began to demand the integration of persons with severe disabilities into normalized educational settings (Halvorsen & Sailor, 1990).

As students with severe disabilities began to participate in general education settings, special educators began to recognize the value of play experiences in developing more positive and appropriate social interactions (Hanline & Fox, 1993). Earlier, Brinker and Thorpe (1984) found that an increased rate of social interactions between students with severe disabilities and their general education peers increased the proportion of IEP objectives met for the students with severe disabilities. Haring, Pitts-Conway, Lee, and Gaylord-Ross (1987) found that high degrees of contact in classrooms helped to encourage reciprocal friendships between students with severe disabilities and their general education peers outside of classrooms.

**Significance of the Problem**

This study was concerned with the attainment of social skills by elementary school students with and without disabilities. The researcher was interested in creating positive, informal liaisons between students with
disabilities and students without disabilities by teaching them how to play together in a group. The researcher developed individualized methods for each play group based on the interests of both the students with disabilities and the students without disabilities.

Through the means of a pre and post measure of the levels of play for all the students involved, and a measure of the number of positive interactions between the targeted students with severe disabilities and their general education peers, this study endeavored to determine whether teaching students to play together results in increased interactions of a more sophisticated manner.

**Definition of Terms**

**Peer** - a general education student who has been recruited to work with the identified special education student.

**Inclusive education or inclusion** - occurs when a student's primary placement is in a general education class, and special education supports are provided to meet the requirements of the IEP. Supports may include: Staff such as additional paraprofessionals in the classroom, special education teachers, designated instructional services (speech and language, occupational therapy, physical therapy, adapted physical education, orientation and mobility, etc.), as well as curricular adaptations and modifications (Neary and Halvorsen, 1996).

**Integration (also known as Mainstreaming)** - occurs when a student's primary placement is in a special education class and the student participates in general education classes and activities for some portion of the school day, generally less than 50%, according to California Education Code (Section 56364).
Integrated Play Group - an organized play group where “reciprocal play interactions are facilitated among children of differing abilities” (Wolfberg and Schuler, 1992, p. 3).

Interaction - an instance of initiation and reciprocal response between individuals.

Natural Context - within the day to day routine of a typical situation; In this context, an urban elementary school.

Friend - a person who shows kindness, caring and goodwill towards another, as well as respect and co-operation. In this study, Examples of friendship included sharing equipment (such as a playground ball) and positive, co-operative play experiences (such as kicking the playground ball back and forth across a small playground area) and greetings and positive verbal interactions before and during the play period.
Chapter II
Literature Review

This chapter will examine chronologically the current literature pertaining to play and social skill development. The researcher wishes to begin with the first inquiries into the nature of learning through play and imitation around the turn of the century.

**Play and the Nature of Learning**

As Jean Piaget was finalizing his formulization of learning theories, he began a unique experiment into child development. He decided to follow several children from birth to adulthood and watch closely their development, testing his theories along the way. As he did this, he learned that children learn most effectively in a play environment (Piaget, 1962). Even from infancy, he could elicit responses from children by simply making faces at them, entertaining them but also teaching them to communicate.

He went on to describe imitation as "a continuation of accommodation for its own sake" (Piaget, 1962, p. 87). Imitating others was identified as a powerful tool for learning how to behave and be successful in any situation. He described imaginative play as "a symbolic transposition, which subjects things to the child's activity, without rules and limitations" (Piaget, 1962, p. 87). He also said, "Play acquires rules or gradually adapts symbolic imagination to reality in the form of constructions which are still spontaneous but which imitate reality" (Piaget, 1962, p. 87). In other words, play is where children work at being in the world. It is through play that we learn how to co-operate and how to succeed in our social system. As we learn to play with others, we learn the rules of our society. Piaget said, "the individual symbol (toy or game) yields to
the collective rule, or the objective or representative symbol, or both” (Piaget, 1962, p. 87). In other words, as a little boy or girl plays with dolls, they learn to care for young humans, so that when they have that opportunity as older humans, whether they are older siblings, babysitters, or parents, they are more prepared for that task. They have generalized to some extent the skills of taking care of young humans. They have imitated their parents and care givers, accommodated the imitations into some degree of skill which will hopefully make them better care givers and/or parents.

Play and Social Skills in Children with Disabilities

As Public Law 94-142 (the amended law is now known as Public Law 105-17, the Individuals with Disabilities Education Act, or IDEA) mandated less restrictive environments and “maximal interactions with non-disabled peers”, Esposito and Peach (1983) found that attitudes toward students with severe disabilities were more favorable when they spent time with their non-disabled peers. The idea of imitation was entertained as a factor in teaching students with severe disabilities more appropriate behaviors through that contact. As a result, parents and educators and began to advocate for more of those opportunities for their children with severe disabilities (c.f. Halvorsen & Sailor, 1990).

As more contact occurred, often with students in Special Day Classes being integrated into Physical Education classes, Kelly (1990) outlined some basic guidelines for teachers of students with mild disabilities which were helpful for all students in Special Education. They included the following: 1) Use clarity and consistency, 2) plan for success, 3) maximize on-task time, and 4) use modeling, physical manipulation, and positive and immediate
feedback.

As more inclusive educational opportunities unfolded for students with severe disabilities, special day classes moved into neighborhood school settings, and the integration of students with severe disabilities in general education classes began. Special education teachers, parents, and administrators began to see that students receiving special education often needed some help interacting successfully with their peers.

Evans, Salisbury, Palombaro, Berryman and Hollowood (1992) measured the social acceptance of students with severe disabilities included in general education classes. The students were between five and eight years old. They found that the students with severe disabilities received many more social approaches than they gave. Many of the social approaches took the form of “helping” behaviors, where the general education peer would direct the student with severe disabilities to do an appropriate activity or task. The high number of social approaches by general education peers decreased over time as the novelty of being a helper wore off. This was replaced by fewer social approaches by the general education peers, but more naturalistic play was observed. There seemed to be no correlation between the students with severe disabilities and popularity within their classes. Some of the included students were perceived as popular, and some were not.

Hanline and Fox (1993) looked at the use of play-centered teaching strategies in teaching preschool level students with severe disabilities in both inclusive and self-contained classrooms. In examining the widely used (in general education) play-based curriculum, they described the strategy as “child initiated, child directed and child supported”. Play was used to teach
everything. The role of the teacher was to act as a facilitator: redirecting, encouraging, following the child's interests, creating an environment that promotes concrete, relevant experiences, responding quickly and warmly, and promoting communication. The teacher acted as a resource: encouraging completion of tasks by supporting, focusing attention, physical proximity, and providing encouragement. The teacher also modeled new ideas and redirected inappropriate behaviors. Hanline and Fox (1993) found that students with severe disabilities might benefit by a combination of both traditional special education strategies (one-to-one instruction, directed activities, etc.) and play-based curriculum.

Kamps, Leonard, Vernon, Dugan, Delquadri, Gershon, Wade and Folk (1993) developed a social skills training intervention for students with autism (who were also described as high functioning) who were placed in an integrated first grade classroom. The classroom consisted of eleven general education students and five students with severe disabilities. The intervention consisted of providing specific skills training for all the students in the class. Two to three week sessions were spent on each of the following skills: initiating and interaction, responding to and sustaining interactions, conversations, greetings and topics, giving and accepting compliments, taking turns and sharing, helping and asking for help, and including others in activities. They found that the frequency and duration of social interactions increased for the targeted students with autism, as well as the levels of initiations and responses by the targeted students. They also found in follow-up observations that those skills were being practiced in free-play situations throughout the school year. The researchers recommended that the generalized use of the social skills, and
their relationship to more complex clusters of skills such as social competency, friendship formation, and creating relationships of choice should be examined in future research.

Wolfberg and Schuler (1992) developed the Integrated Play Groups Model at about the same time, specifically designed for and field tested with students with autism. They used controlled environments (play areas) set up in isolated classroom situations. They combined students from several general education classes within the school into play groups with the targeted special education students. The teacher took on a facilitator role. They used posters for visual cueing to help the target students interact, initiate, and sustain interactions. They also included evaluation tools for teachers themselves and for teachers to use with the targeted students. The student’s evaluations were accomplished through anecdotal observations and the teacher’s through a self-evaluation. The results indicated that there were decreased instances of isolate play for all the students with autism, as well as decreased stereotyped object play, and increased social play as well as functional object play and play behaviors.

Jolly, Test and Spooner (1993) developed a system of “Badges” for students with severe, multiple disabilities who were non-verbal to communicate with peers during organized play situations. They sought to use empowerment (by giving the students a means to tell others what they wanted to play with) to help the target students make choices that for them were formerly teacher or peer mediated. They taught the target students to be the initiators during indoor free-play situations with general education students from a nearby fourth grade class. The “badges” (pictures of switch operated toys mounted on the target
student's wheelchair) were used as "play organizers" to indicate choices. The target students give or point to the picture-badge to indicate their choice of activity. The number of "shares" (turns taken) were measured to determine whether the activity was sustained. They found that the use of badges did increase the ability of these students with multiple disabilities to choose an activity and initiate play with peers, the badges were not found to be helpful in sustaining interactions. There were significant differences in the way the target students played with activities, and the way the peers played with the activities. The target students tended to perseverate on one activity, when the peers wanted to try many. The target students rarely varied the way they played with each activity, and the peers always did. This indicated for the researchers that the students with multiple severe disabilities needed more training and coaching in addition to the use of the "badges". The general education peers tended to want to "entertain" the target students, which indicated to the authors that they also needed more training and coaching.

Hall (1994) looked at social relationships in inclusive preschool classrooms. She had students "nominate" other students that they would like to play with - or not. She recorded the number of times each child in the class was close to the target students in free play situations, using multiple measures to assess social relationships without teacher interventions. The teachers provided no interference other than monitoring for health and safety, and setting up an environment to promote play interactions. No ability awareness was provided. She found that there can be reciprocal nominations between students with severe disabilities and general education peers without teacher interventions, but also said that "there might be benefits in supporting and
enhancing these relationships”. She added, “If social support programs include children who like each other there may be more generalization of social interactions to various activities” (Hall, 1994, p. 312).

Cole and Meyer (1991) conducted a two year study comparing the effects on educational and social competence of students with severe disabilities in integrated and segregated school sites. They found that students with severe disabilities in the integrated sites spent less time alone, less time with specialists, and more time with all kinds of students, with and without disabilities. Though no differences were found in the educational development of the students with disabilities in either setting, the students in the integrated sites improved on a measure of social competence, while the students in the segregated setting regressed on this same measure.

Kishi and Meyer (1994) compared three groups of students, who were high school age at the time of the study. Earlier in their school careers, two of the groups had attended elementary schools where students with severe disabilities had been integrated. One of the two groups was involved in support activities for the students with severe disabilities. The third group, a control group, had had no early experiences with students with severe disabilities. All three groups were interviewed about their attitudes towards people with disabilities and their earlier experiences with people with disabilities. A measure of self-concept was also applied to all three groups. Students from the groups that had some contact with or organized relationships with students with severe disabilities were more positive and accepting of people with severe disabilities. The instances of sustained relationships of general education students with their former “special friends” seemed to be more related to
whether they attended junior high with them. Many of the students in the groups reported that this relationship was also true for their general education friends as well, but not with the severity as the separation between the students with severe disabilities and the former “special friends”. Another factor might have been that the students with severe disabilities were sent to a high school that was not their home school, and did not have any school contact with the former “special friends”. The findings concerned with self-concept or self-esteem were found to be gender-specific, in that the boys who participated in the “special friends” groups had higher scores across all self-security indicators than anyone else in the study. Girls who participated had self-security scores that were similar to the control group males. Since all the high school age male self-security scores were higher than the females, the researchers concluded that participating in experiences with students with severe disabilities does contribute to more positive self-esteem, allowing the boys to be more “nurturant” and the girls to feel “valued and noticed” (Kishi & Meyer, 1994, p. 286).

**Encouraging Social Interactions**

Hunt (1990) conducted a federally funded research project at San Francisco State University on conversation and social competence, which led to the development of a conversation training program for elementary and high school age students. They conducted four studies, measuring 1) the relationship between conversation skills and inappropriate social interactions, 2) using a communication book to interact with peers through conversation turn taking, 3) using a communication book at home with trained family members, and, 4) the generalized effects of conversation skill training. The results provided some suggested best practices for conversation skill training, which
included, creating content topics for conversations, creating individualized
conversation books (containing photos and drawings of people, places and
things associated with the predetermined topics), and conversational turn­
taking training.

Hunt and Staub (1992) looked at how social interaction training might
effect the frequency and nature (social as opposed to task-related) of initiations
between general education students and the students with severe disabilities
with whom they were paired. Each student with severe disabilities was paired
with two general education peers in classroom situations. One of the general
education peers received social interaction training, and one did not. They
found that there was not only an increase in the number of social interactions
between the student with severe disabilities and the peer who received training,
but the proportion of interactions that were socially-oriented increased, and the
proportion of task-related interactions decreased. The students with severe
disabilities showed an increase in social interactions with all their general
education peers.

Hunt (1996) also conducted a study where an intervention designed to
increase social interactions with peers was enacted with three elementary
school students with multiple disabilities. The intervention included
communication aids, media, and teacher facilitation of social interactions.
Interactions between the students with multiple disabilities and their peers were
shown to increase.

Using Natural Contexts

Bednersch and Peck (1986) looked at the effects of different kinds of
peers in play situations with students with multiple severe disabilities. They
studied the benefits/detriments of providing peer support in play situations with peers who are developmentally similar but much younger, peers who were developmentally advanced and similarly aged, and peers who were developmentally similar and similarly aged (who also had severe disabilities). They found that the target students had much higher rates of spontaneous play interactions with the younger students at similar developmental levels. The interactions with the same aged, more developmentally advanced peers were highly directed by teachers. No play interactions were observed between students of the same age, and same developmental level as the target students. The authors did not want to advocate for the placement of students with severe disabilities in classrooms with younger peers, but for providing a variety of social interaction opportunities with a variety of peers of different ages. This is the kind of experience a student would find in his or her neighborhood, or on a school playground.

Gaylord-Ross, Stremel-Campbell, and Storey (1986) described ways to encourage social skill training in the leisure domain through: peer training in play situations and training to elicit responses, and training students in special education to give greetings or share an activity or toy. They also suggested possible non-intervention strategies such as proximity or providing special friends. They found that leisure activities should be: Reinforcing for both the students with severe disabilities and the general education peers, should not use a lot of language, use portable objects, when objects are used, and should be programmed for generalization.

Shores, Hester and Strain (1976) looked at the amount of teacher involvement in free play situations with preschool students with behavioral
disorders. Child-to-child interactions were measured under three conditions: 1) active teacher involvement in free play, 2) no teacher involvement in free play, and 3) teacher-structured free play. They found that environmental events rather than teacher-delivered social reinforcement had more effect on the observed child to child interactions. When the teacher set up opportunities for social play, such as providing costumes and props for fire-fighting, the students had the most child-to-child interactions. When the teacher was not at all involved, there were somewhat less child-to-child interactions. When the teacher directed the activity, there were the fewest child-to-child interactions.

**Encouraging Social Interactions in Students with Severe Disabilities**

Kohler and Strain (1991) reported on a four year project involving six studies on the effects of peer intervention programs on the acquisition, generalization and maintenance of social interaction skills by students with severe disabilities in preschool situations. Three of the studies measured how the general education peers' behaviors and group training and reinforcement for the peers could increase social interactions for the students with severe disabilities. The other three studies measured the effects of immediate and delayed reinforcement on generalizing social interaction skills, and analyzed the variations on the effects of peer intervention programs (in other words, each case is individual), and programming for generalization.

Strain (1994) also conducted a single subject study where he looked at three preschool students with autism, and developed an intervention which included adult prompting, food reinforcers to reward positive interactions, and self-monitoring of social behaviors. The intervention resulted in increased interactions between the students with autism and their general education
peers at school. A generalization component at home resulted in some increased interactions with siblings.

Kohler and Strain (1996) also looked at teacher’s predictions of students sociability, and how peer interactions, efforts and modeling might effect the levels of social interactions between three preschool students with autism and their general education peers. They found that social responses by the peers and efforts to make social interactions by the peers correlated highly with increases in the social levels of interactions by the students with autism. Teacher-directed activities and predictions of the students’ sociability did not correlate with the children’s interactions.

The aforementioned studies raised questions about learning in natural contexts and applying described best practices utilized in experiments in controlled environments to natural contexts. Specifically, would an intervention using the Integrated Play Groups model (Wolfberg & Schuler, 1992) work when applied to students with a variety of disabilities in an elementary school playground environment?

**Summary**

The present study measured the level of social interactions (pre and post) for all the students involved and the frequency of social interactions of the targeted students with severe disabilities in the natural context of a daily recess in a typical urban elementary school. An intervention based on the target students’ needs, interests and abilities was used to facilitate peer support and provide ongoing coaching and encouragement for the target student and his peers. Each target student was provided with a customized place, set of peers, and materials designed for the maximal success of the target student and his
integrated play group in the social milieu of recess.

Using an intervention based on individual talents, preferences, and needs for each student with severe disabilities was the result of having been exposed to so much research that sought to create a "packaged" intervention for students with a specific disability. We have created a system (the IEP process) which addresses the individual needs of each student so identified, and thus individualized interventions. We can then look at the effects of an individualized intervention on one aspect of social skills training at a time. This researcher chose to use Wolfberg and Schuler's (1992) Integrated Play Group model as the basis for the intervention, with the addition of providing individualized interventions for each student with severe disabilities, and the natural context of a playground. The recruitment of the peers differed from that in Wolfberg and Schuler's model; here the school psychologist was asked to consult on the recruitment of possible general education peer play group members as to their sociability, and their need to increase self-esteem.

This study also expanded the population of the students involved. All of the students with severe disabilities in Wolfberg & Schuler (1992) were students with autism. The students in this study included one student with autism, one student with multiple mild disabilities, and one student with a congenital syndrome resulting in severe cognitive and social-emotional delays.

Finally, this study expanded the measures taken in Wolfberg and Schuler's (1992) Integrated Play Group model to include the frequency of play behaviors and social interactions. This study replicated the measure of the frequency of social interactions of the students with severe disabilities during a multiple baseline individualized intervention. In addition, levels of play
interaction according the Howe's Peer Play Scale (Howes, 1980) were measured prior to and after the integrated play group intervention.
Statement of the Problem

The specific research hypothesis of this study was: Establishing integrated play groups will increase social interactions between students with and without disabilities and will also improve the social level of play for all students involved.

Population/Description of Students

The participants in this study were three students between the ages of seven and nine years old who are labeled as having severe disabilities. The students were assigned to a self-contained Special Day Class in an urban elementary school. The students with severe disabilities had significant needs in the area of language, communication, social and adaptive skills. Individual students often acted inappropriately during recess time both behaviorally and socially; the behaviors including running away, tantrumming, and putting themselves in dangerous or inappropriate locations (such as the middle of someone else's basketball game). There were nine students who participated as peers placed from general education classes and who were identified as having mild "social skill deficits" by the school psychologist, which ranged from shyness to lack of self-esteem to extreme intelligence and poor self-control. The students had all been referred to the school psychologist by their classroom teachers as having problems adjusting socially. Their ages ranged from seven to eleven years. All students involved were identified as having difficulty engaging in social play appropriate to their age group at recess time, mostly
engaging in parallel play or in conflict with peers. After being recommended by the school psychologist, a letter was sent to each prospective peer's parents which explained the nature of the study and requested their permission for the student's participation. The researcher personally presented each letter to each identified general education student, explaining the nature of the project, answering any questions that they might have, and asking if they were interested in participating. If the student or their parent was not interested, the issue of participation was not pressed. The researcher conducted a school-wide ability awareness program earlier in the school year, as well as the previous year and was the student council advisor. The researcher was known in the school community outside of the role of researcher and special education teacher. This was an important aspect of the recruiting process, as the researcher intended to present the project as something that would enhance the students' school experience. The general education students were asked, given their parent's permission, to volunteer.

The students with severe disabilities included three students who were placed in a special day class in a general education elementary school campus. Each student was observed to have difficulty interacting with peers and classmates, especially during recess time. The large groups of students moving around noisily and quickly made the recess milieu a difficult one to participate in for each student for different reasons.

Student selection.

The students involved all attended the urban elementary school where the study was conducted. They belonged to a variety of racial and socioeconomic groups and their ages ranged from six to eleven years old. The interventions were specifically designed with the interests and needs of the
special education student in mind, and the general education students were grouped with special education students who were of similar ages and attributes. These attributes included levels of energy, activity, and interests. Students with severe disabilities who moved quickly were matched with general education peers who moved and engaged in activities that had a quick pace. Students with severe disabilities who moved slowly were matched with peers who moved at a similar pace. Attributes such as attention span were taken into consideration as well, with students with severe disabilities matched with general education peers with similar attention spans. Interests such as what games were played, and how (at what level) and for how long they were played were taken into consideration when matching the general education students with their targeted participant with severe disabilities.

Participant A was a six year old boy with a congenital syndrome resulting in global developmental delays and behavioral difficulties (tantrums and some oppositional behaviors). His play group consisted of three first grade boys, two of whom showed attention-seeking behaviors, and one who was somewhat shy.

Participant B was a nine year old boy with a diagnosis of Cerebral Palsy and Hydrocephalus. His play group consisted of three fifth grade girls. Girls were selected because participant B moved more slowly than his male peers, whereas female peers of his age group tend to move quite slowly.

Participant C was a seven year old boy who was described as having autism. He was able to read and was interested in specific individuals in the school population but was not able to interact successfully in the stimulating atmosphere of recess. His play group consisted of three second grade boys, one of whom was identified as “gifted” but had some problems getting along
with fellow students. The other two were students who traditionally played with the student labeled as gifted, and were identified as "followers".

**Design**

This study used two designs: a single subject multiple baseline design (Herson and Barlow, 1977) to measure the number of interactions between the students with disabilities and the students without disabilities, and a pre/post experimental group design to examine the level of social interactions individually for all the students involved. The data were collected for the two measures respectively using the Educational Assessment for Social Interaction (EASI) (Goetz, Haring & Anderson, 1986) and the Howes Peer Play Scale (Howes, 1980).

**Procedures**

All students involved were observed at recess time by the researcher and the school psychologist. After the pre measure was completed and the intervention began, the researcher monitored, by observation and discussion with the participants, how the groups were progressing as well as collected data daily at the 10:50 to 11:05 morning recess. Ongoing discussion with the students without disabilities occurred during other parts of the school day whenever needed.

Participant A's intervention was designed to direct and redirect the group to play together for short periods (consistent with the spontaneous play observed by all the first graders) and to assist the special education student to feel comfortable and successful in the social milieu of the first grade playground.

Participant B's intervention was designed to facilitate conversations and planning sessions about what to play. Most of the games involved were made
up using a playground ball and dribbling skills, and were reinvented and changed constantly.

Participant C’s intervention design consisted of a conversation book which was used by the general education students to prompt the student Participant C to go to appropriate places on the playground and to say hello to favorite people. The general education students accompanied the special education student around the yard and attempted to direct him to what activity came next.

As each successive participant (A, then B, then C) started to show increased interactions, the next participant’s intervention began. When all the interventions showed increases in the frequency of interactions between the targeted participants with severe disabilities and their peers, post (level of play) data were collected.

Baseline (pre) data collection began by observing each of the subjects, both with and without disabilities, during recess and recording the levels of social interactions used by each student. Then, baseline interaction data were collected. After four days of baseline data collection for participant A, his integrated play group was formed. For the intervention, participants without disabilities were trained specifically to interact with the targeted student with severe disabilities. Training consisted of: An initial discussion of the targeted student with disabilities’ needs at recess time, and suggested strategies (type of game, ways to approach the student, prompts) that might help the targeted student act and interact more appropriately. Ongoing discussion, coaching and encouragement continued into the intervention. As the intervention began the teacher/researcher made suggestions, gave directions and positively reinforced all members of the integrated play group in order to initiate success within the
group, and then began to fade her involvement as the intervention progressed and the data indicated that social interactions were increasing. By the end of the study, two of the three groups were interacting independently with no teacher involvement at all.

When the data showed that the number of social interactions between the student with disabilities and the students without disabilities were increasing in the first group, the second integrated play group was formed, trained and interactions were counted. When the data for the second group indicated an increase in social interactions between the student with disabilities and the students without disabilities, the third integrated play group was formed, trained, and initiated. Data collection was ongoing for all groups as the study continued. Finally, a post measure of the social level of interactions was conducted individually for each student involved.

Data Collection and Instrumentation

The instruments used were the Howes Peer Play Scale (Howes, 1980), which consists of a hierarchy of methods of play with corresponding levels assigned, for the pre and post measures for the participating students, and the Educational Assessment for Social Interaction (EASI Scale) (Beckstead & Goetz, 1990 revision) which can be used to measure a variety of facets of social interaction, including counting the number of social interactions between the targeted student with disabilities and the students without disabilities during and after the intervention.

The Educational Assessment for Social Interaction (EASI) (Goetz, Haring & Anderson, 1986) was developed for the specific purpose that it was used for in this study, measuring the frequency of social interactions between students with severe disabilities and general education students in integrated settings.
The subsequent revision, the EASI 2 (Beckstead & Goetz, 1990), which was the instrument used, was designed for the same purpose, but with improvements in the coding and time sampling procedures. The data collection sheet and procedures were designed to record the interactions between the participants with severe disabilities and their peers, as well as with teachers and adults. Whether or not a response occurred between the participant with severe disabilities and their peer or vice versa was as recorded, and was the determining factor as to the relevance of the interaction. Initiations that were not responded to were not counted as an interaction, nor were initiations between the participants with severe disabilities and teachers or other adults (see appendix II - the EASI Scale for Social Interactions: Recording sheet). The researcher and the interrater-observer practiced collecting data, while listening to the same audio tape with 15 second intervals for observing and recording prompted, until consistent reliability data was obtained. Data were collected over 20 consecutive instances of observing and recording, over a ten minute recess period.

The Howes Peer Play Scale used a predetermined set of descriptors to describe five levels of play, as well as solitary play and non-play activities. The levels include: 1) Simple parallel play, 2) Parallel play with mutual regard, 3) Simple social play, 4) Complimentary/reciprocal play with mutual awareness, and 5) Complimentary/reciprocal social play (Howes, 1980). Prior to data collection, the researcher and interrater-observer agreed upon specific examples and scenarios for the definitions of each level so as to be consistent in data collection. Data were collected by observation over 15 play behaviors, within a regular ten minute recess period. (See appendix III - Howes Peer Play Scale: Recording sheet).
Reliability was measured by parallel data collection taken simultaneously by an independent rater (with identical prompting by tape recording in 15 second intervals as directed in procedures described in the EASI scale).

The instruments used in collecting data consisted of two charts, one for the pre-post measure, and one for the data collected during the intervention. The charts were included in the protocols used (see appendices). In the case of the EASI Scale for Social Interactions (Goetz, Haring and Anderson, 1986), a portable tape recorder (Sony Walk man) was used, along with a tape made by the researcher which gave fifteen second cues for observing and recording. When reliability was checked, both data collectors listened to the same tape using a splitter device attached to the walk man.

Table 1 lists the levels of social interactions as used in the Howes Peer Play Scale (Howes, 1980). Each level delineates a successive step in creating more sophisticated social interactions, and verbal exchange.

Table 2 shows coding for the EASI Scale (Goetz, Haring and Anderson, 1986) data collection. The codes were changed slightly from the revised edition to suit the needs of this study. Columns 5 and 6 were not used by the researcher as all the interactions recorded were social interactions, and social versus task related delineations were not necessary.
Table 1
Howes Peer Play Scale
Level Definitions

Level 1 - Simple Parallel Play
Students, engaged in similar activities in close proximity, do not interact or engage in eye contact. An example would be when students participate in group block play, but are totally absorbed in their own constructions. They do not appear to be aware of the other students playing with blocks.

Level 2 - Parallel Play with Mutual Regard
Students, engaged in similar activities in close proximity, do not interact but do engage in eye contact. An example would be when students participate in group block play, are making their own block constructions, but are watching the other group members as well. They are aware of the other group members and might even copy another group member's construction.

Level 3 - Simple Social Play
Students, engaged in similar activities in close proximity, direct social interactions toward each other. Interactions might include: verbal exchanges, offering a toy, facial gestures (smiling or sticking out their tongues at each other), or aggression. Their activities are not coordinated. An example would be when students participate in group block play, are making their own constructions, but are sharing or fighting over the materials. They might also comment on each other's work.

Level 4 - Complimentary/Reciprocal Play with Mutual Awareness
Students engaged in similar activities in close proximity, respond to or reverse each other's actions, showing that they are aware of each other's roles. An example would be when students are participating in group block play, and two or more students begin to exchange blocks. They do not talk to each other about what they are doing, but they work co-operatively together.

Level 5 - Complimentary/Reciprocal Social Play
Students engaged in a similar activity, co-operating and responding to each other in social exchanges. An example would be when students are participating in group block play, and two or more of the group are constructing a structure together, sharing materials and talking to each other about the structure as they are building it (“Put this block on top here.”, or “Don't put that there, it will all fall down.”).

Adapted from Howes (1980)
### Table 2
**EASI Scale for Social Interactions**

**Coding Legend**

**Columns 1-4**

**Headings:**
- N/D = participant from general education
- S/D = participant with severe disabilities
- I = initiate
- A = acknowledge

**Coding in data collection:**
- P = peer directed interaction
- T = teacher directed interaction
- ✓ = response happened

**Columns 7 - 12**

**Headings:**
- + = on task
- X = no active participation
- O = isolate
- § = aggressive behavior directed to others
- Α = self stimulatory behavior
- - = mildly inappropriate behavior

**Coding in data collection:**
- = showed the behavior described in the heading

**Column 13**

Anecdotal information
Chapter IV
Results

Inter-observer Reliability

Inter-observer reliability was assessed periodically during both the pre/post measure and the intervention measure portions of the study. During the pre/post measure, reliability checks were administered during twenty-six percent of the data collection periods. On a point-by-point agreement ratio (Kazdin, 1982), calculated using the following formula, reliability estimates were estimated.

\[
\frac{\text{# of agreements}}{\text{# of agreements} + \text{# of disagreements}} \times 100
\]

Each of the 15 behavior occurrences on the corresponding data sheets on the Howes Peer Play Scale (Howes, 1980) were compared for agreement or disagreement for each reliability check. Total agreements for all of the two data collectors were divided by the total number of agreements plus the total number of disagreements and then multiplied by 100, to create a reliability quotient.

The pre/post measure yielded a reliability quotient of 84% and a range from 46% to 100%. This indicated consistent observational agreement between the researcher and the independent observer.

The intervention measure of the number of interactions between the participants with severe disabilities and their peers was also randomly checked for reliability by the researcher and an independent observer. The researchers were both wearing headphones from the same Sony Walkman and listened to the same fifteen second cues to observe and record as directed by the protocol of the measurement instrument, the Educational Assessment for Social Interaction (EASI Scale, Beckstead and Goetz, 1990 revision). Reliability checks were administered during twelve out of seventy data collection occurrences, or 17% of
occurrences.

A reliability quotient was computed using the same point-by-point ratio (Kazdin, 1982) as the pre/post data. The intervention measure yielded a reliability quotient of 94.5% with a range from 85% to 100%. This indicated consistent agreement between the researcher and the independent observer.

Results

The results of the study indicated that Integrated Play Groups conducted at recess time did increase both the level of interactions between all students and the number of interactions between special education students and general education students. As illustrated in Figure 1, for Participant A, an increase in the number of independent interactions from an average of 1 interaction on the first four days of baseline data collection to an average of 15 interactions on the last four days of data collection was observed. In the case of Participant B, a great increase was observed in the number of interactions - from an average of 4.25 interactions in the first four days of baseline data collection to an average of 29.75 over the last four days of data collection. For Participant C, an increase of the number of interactions from an average of .75 interactions over the first four days of data collection to and average of 15.75 interactions over the last four days of data collection was observed.

The data as presented graphically shows a marked increase in the frequency of interactions by the targeted students with severe disabilities (Participants A, B, and C) and a general trend by all the students who participated of increased use of higher levels of interactions. One student, Participant A - 2, chose not to participate very often in the intervention program activities and showed minimal progress.

The frequency data showed immediate increases as the interventions
started, followed by a somewhat erratic but steady upward trend of increasing interactions for all the participants. Participant C, who was described as having autism, walked through his intervention activity independently on the last day of data collection. Previously, he had been prompted by peers and shown a conversation book, which he protested. When the researcher had decided to discontinue the intervention, telling the peers to ignore the participant, Participant C began to do the tasks in the conversation book independently. Participant C learned how to interact successfully with peers on the playground in the most appropriate manner that he could.

Figure 1 illustrates the frequency of interactions between the students with severe disabilities and the peers in their integrated play groups (Wolfberg and Schuler, 1992). Each participant with severe disabilities showed an increased number of interactions during the intervention period, with two of the participants with severe disabilities interacting independently with their play groups and other peers by the conclusion of the data collection. Participant A still required some teacher assistance/support in order to interact successfully with his play group members, and other students on the playground.

The format illustrating the levels of interactions in the pre and post measures was adapted directly from the Howes Peer Play Scale (Howes, 1980) with the sections of non-play activities and unoccupied/onlooking behavior condensed under the category of non-play activities. There were not only increased numbers in higher levels of play in the post data for every subject, but fewer teacher involvements, and fewer instances of non-play activities.
Generally, the level of play for the students with and without disabilities included in the study increased by one level, with fewer instances of onlooking or non-play behavior. All of the students showed instances of Level 5 interactions (Same Activity with Social Bid) in the post-measure, as compared to showing mostly Level 3 and 4 interactions in the pre-measure, along with fewer onlooking behaviors and few to zero teacher interventions.

Figure 2 illustrates a comparison of the pre and post measures based on the Howes Peer Play Scale (Howes, 1980) levels of interactions as described in Table 1. The post data showed an increase of higher level interactions (levels 4 and 5 as compared to the level 2 and 3 interactions in the pre measure) for seven out of nine participants. Note that participants A, B, and C were the targeted students with severe disabilities, and participants A - 1, A - 2, A - 3, B - 1, B - 2, B - 3, C - 1, C - 2. and C - 3 were the peers recruited from general education classes.

[Insert Figure 2 here]

The peer play group intervention designed for Participant A resulted in increases in the frequency of interactions between Participant A and his peers. The levels of play for Participants A, A - 1 and A - 3 showed increases in level 5 (complimentary/reciprocal social play) interactions.

The peer play group intervention designed for Participant B resulted in increases in the frequency of interactions between Participant B and his peers. The levels of play for Participants B, B - 1, B - 2 and B - 3 all showed increases in both level 4 (complimentary/reciprocal play with mutual awareness) and level 5 (complimentary/reciprocal social play) interactions.

The peer group intervention designed for Participant C resulted in increases
in the frequency of interactions between Participant C and his peers. The levels of play for Participant C showed increases in level 4 (complimentary/reciprocal play with mutual awareness) interactions, and the levels of play for participants C - 1, C - 2, and C - 3 all showed increases in level 5 interactions (complimentary/reciprocal social play). Level 4 interactions increased for participants C - 2 and C - 3 as well.
Figure 1

Frequency of Interactions

Participant A

Baseline

Intervention begins

Ongoing reinforcement and coaching

Continued teacher assistance

Participant B

Baseline

Intervention begins

Ongoing reinforcement and coaching

Independent interactions

Participant C

Baseline

Intervention begins

Ongoing reinforcement and coaching

Independent interactions
Figure 2
Levels of Interactions

Participant A

Key: Solitary Play - participant plays by him/herself
     Level 1 - Simple Parallel Play
     Level 2 - Parallel Play with Mutual Regard
     Level 3 - Simple Social Play
     Level 4 - Complimentary/Reciprocal play with Mutual Awareness
     Level 5 - Complementary/Reciprocal Social Play
     Non-play Activities - participant is doing something other than engaging in play activities
     Teacher Involved - teacher is prompting, guiding, and/or making suggestions to participant
Figure 2
Levels of Interaction

Participant A - 3

key: Solitary Play - participant plays by him/herself
Level 1 - Simple Parallel Play
Level 2 - Parallel Play with Mutual Regard
Level 3 - Simple Social Play
Level 4 - Complimentary/Reciprocal play with Mutual Awareness
Level 5 - Complementary/Reciprocal Social Play
Non-play Activities - participant is doing something other than engaging in play activities
Teacher Involved - teacher is prompting, guiding, and/or making suggestions to participant
Figure 2
Levels of Interactions

Participant B - 2

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<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Non-play Activities</th>
<th>Teacher Involved</th>
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Participant B - 3

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<th>Level 4</th>
<th>Level 5</th>
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Participant C

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<th>Solitary Play</th>
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<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Non-play Activities</th>
<th>Teacher Involved</th>
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Key:
- Solitary Play - participant plays by him/herself
- Level 1 - Simple Parallel Play
- Level 2 - Parallel Play with Mutual Regard
- Level 3 - Simple Social Play
- Level 4 - Complimentary/Reciprocal play with Mutual Awareness
- Level 5 - Complementary/Reciprocal Social Play
- Non-play Activities - participant is doing something other than engaging in play activities
- Teacher Involved - teacher is prompting, guiding, and/or making suggestions to participant
Figure 2
Levels of Interaction

Participant C - 1

Solitary Play

Key: Solitary Play - participant plays by him/herself
Level 1 - Simple Parallel Play
Level 2 - Parallel Play with Mutual Regard
Level 3 - Simple Social Play
Level 4 - Complimentary/Reciprocal play with Mutual Awareness
Level 5 - Complementary/Reciprocal Social Play
Non-play Activities - participant is doing something other than engaging in play activities
Teacher Involved - teacher is prompting, guiding, and/or making suggestions to participant
Wolfberg and Schuler (1992) developed a controlled model to assist students with autism to interact with peers using a consistent indoor environment, visual cues, modeling, coaching and teacher facilitation. The research validating this model was conducted in classroom settings. The intent of this study was to examine whether the integrated play groups model was also a successful strategy for increasing interactions between students with severe disabilities and their general education peers during recess on the school playground. In addition to measuring the frequency of interactions between students with severe disabilities and their general education peers, this research measured the levels of interactions for all the participants, both from general education and special education classes to see if by learning how to play together more successfully, they might play in a more sophisticated way, with more complimentary and reciprocal social exchanges.

The results of this study indicated that students with severe disabilities can develop more and a higher level of social interactions through play experiences with their general education peers. Peers have the ability to model for and direct students with severe disabilities in a powerful way (Bednersh & Peck, 1986). The interventions in this study used these strategies to help the students with severe disabilities interact more successfully. Kamps et al (1992) outlined a series of strategies including helping, complimenting, including others, taking turns and sharing that might help students to interact more successfully. These strategies were included in the intervention coaching and feedback sessions with peers and the students with severe disabilities in this
Shores, Hester and Strain (1976) identified the kind of teacher facilitation that promoted child-to-child interactions in freeplay situations for students identified as having behavioral disabilities. They described active teacher involvement (providing assistance, guidance and reinforcement for positive interactions) as a way to stimulate interactions between students so identified and their general education peers. This study used these strategies in the intervention periods as well, and then faded teacher involvement as interactions increased.

The role of the teacher as a facilitator in play situations, as someone who provides an environment, materials, modeling and coaching while following the interests of the students (Hanline & Fox, 1992), proved to be an effective strategy to teach interactive play skills to the students with severe disabilities in this study. Play based learning was at the core of this study, which Hanline and Fox (1992) identified as a viable teaching strategy for students with severe disabilities.

Kelly (1990) outlined guidelines for teaching physical education to students with mild learning disabilities. These included using clarity and consistency, planning for success, maximizing on-task time, and using modeling, physical manipulation, and positive and immediate feedback to help students play together. This study used these guidelines in both the teacher's behaviors and in peer training to encourage the use of these guidelines in peer behaviors.

It was necessary for the researcher and the play group members to be flexible within the confines of each individual intervention due to the natural
context of the elementary school playground. This is an environment where anything can happen. Children’s play is far from being a static phenomenon, and it became necessary to learn to follow the ebb and flow of the children’s play, which seems to be the source of their creativity and joy. Minor problem-solving was facilitated by the researcher with the students day-to-day as the need arose. This proved to be one of the advantages of this model: That the built in flexibility could address ongoing, individual situations and help to encourage more interactions, and also success.

The hectic, spontaneous nature of the “laboratory” used in this study (an elementary school playground) made a controlled experiment extremely difficult to carry out. As the researcher and the interrater observer took data they were hit with playground balls and occasionally broke up fights. Parents and administrators asked them questions and required replies. Autonomy as a researcher was difficult to maintain.

The complexity of the context had a positive side, however. It also made possible a wide realm of possibilities and opportunities to design a customized, appropriate, naturalistic and easily generalized context to carry out a successful intervention plan for participants A, B, and C. As an example, participant A benefited most in the first grade play yard where focus and activity might change every two minutes. It gave him the opportunity to observe what was going on first, and then play along or find another activity. Often the peers would be drawn to the new activity he started and play along. This helped Participant A to feel both more comfortable and possibly more powerful in his new role as a playmate.
Conclusions

The clearest conclusion from this study is that children can be taught to play together successfully and will become more socially aware and adept. It also appears that teaching children to play together teaches teamwork, cooperation and collaborative skills. These are difficult things to measure, but important skills for life. A corollary benefit of the intervention was that non-disabled children had the opportunity to cooperate in a joint venture that not only helped a peer with fewer skills to be successful, but also fostered their own social success and self-esteem.

The process of becoming a friend became the fundamental skill involved in being a member of the play group. For example, giving up what was started elsewhere on the playground with classmates and joining the play was hard to do for both the students with and without disabilities. Sometimes the groups didn’t work as well as other times, and it became necessary to explore the reasons why. Not getting one’s way or not seeing what was expected unfold was a challenge to the students, but those unforeseeable circumstances paved the way to successes that couldn’t be predicted, such as when the play group of participant C decided to ignore him, and found that he independently performed the tasks the group had been trying to prompt him to do.

The main purpose of the study was to apply the intervention in the natural school environment of recess. Its power lies in the fact that the intervention occurred and was successful in that context. The obvious conclusion that can be made from the results of this study is that it worked. The target students with severe disabilities learned to interact more successfully with their general education peer groups and to be less dependent on teacher interventions,
while the peers learned more sophisticated ways to play with each other and with someone who may be different in some ways.

The playground is the place where we all learned to play and problem solve together. This is valuable learning. Teaching students with severe disabilities ways to interact with their peers and to interact successfully together can only lead to more successful interactions as adults.

Some of the conclusions that might be reached as a result of this study are based on intangible, unmeasurable results. One of the parents of the general education students involved wrote a note to the researcher thanking her for giving her children the opportunity to participate in the study. It seems she feels that the affective results of this project will be long lasting for her child. The note reads as follows:

"I am happy that through it (the intervention) they can broaden their friendships, become aware of the strengths of the Room (--) students and the challenges these students face each day, and show compassion to children who they might not otherwise take the time to interact with."

(Cindy Kephart, personal communication)

Limitations of the Study:

Although the outcomes of this study were positive for the participants, there were limitations. The small size of the sample limited the potential for generalizing the results to other populations. The nine participants in this study from general education classes and the three participants from special education classes were not randomly selected.

Reliability data were limited due to the interrater observer's lack of
availability for observations due to her involvement in fair hearing proceedings during the intervention data collection, which resulted in a lower percentage of reliability data collected during that time. The reliability data were collected for only 17% of the total observations, rather than the recommended 25% to 30% of the total observations.

Another limitation was that Participant A was not able to interact independently with peers at the end of the intervention period. The end of the school year was approaching and post data needed to be collected for all participants, so the intervention had to end before Participant A could play successfully and independently with his peers. The researcher felt that his change in living placement to foster care had some bearing on his need for additional teacher proximity and support as well.

**Recommendations for Further Research:**

The logical next step in research in this area might be to look at the nature of interactions on the playground and how to help students with severe disabilities interact more appropriately in naturally occurring social situations. Another possibility for further research might be to measure the duration of interactions between students with severe disabilities and their general education peers and help the students with severe disabilities to sustain the conversations by providing subjects for conversation, or an object or toy. Hunt (1990) developed an instructional handbook to facilitate pragmatic conversations through turn taking strategies. Examining a combination of strategies to help students with severe disabilities sustain conversations in more natural contexts could be explored. Another possibility might be to measure how conversation books or adapted technology interventions could
help students who are non-verbal communicate naturally with their peers.

The results of this study indicated that this strategy could be used in a variety of contexts to help students with severe disabilities interact and participate in general education activities more successfully. Educators working with peer groupings in science classes, physical education classes, and social studies classes might also want to use this model to help increase the interactions of students with severe disabilities in academic settings.

Again, the location of a playground for research is at once a limitation but also provides many kinds of opportunities for students with severe disabilities to learn how to interact effectively, appropriately, successfully, and most importantly, joyously.

**Summary**

To conclude, creating integrated play groups for students with severe disabilities placed in special classes in a general education elementary school and providing an intervention based on the targeted student with severe disabilities' needs, preferences, and activity level was found to increase the frequency of interactions between the students with severe disabilities and their general education peers, and increase the levels of play for all the participants, who were placed both in general education and in special education classes.

The researcher wishes to suggest that the real results lie in the hearts of the participants, and their families who watched and heard as the students learned to share play experiences while helping all members of the group belong. This may be the most important reason for creating interventions to help students with severe disabilities interact successfully in natural contexts like elementary school playgrounds.
References


Martlew, M. & Hodson, J. (1990). Children with mild learning difficulties in an integrated and in a special school: Comparisons of behavior,


Dear Parents and Care Providers:

I am planning to conduct an experimental study for a Master's thesis in Educational Psychology, Special Education (Severely Handicapped Option) at California State University, Hayward. I will be setting up play groups with one Special Education Student and three Regular Education Students. I will be training the Regular Education Students to play with that particular Special Education Student. This will take place during recess times and/or when the students have finished all their assignments in their own classroom, so as not to interfere with any curriculum instruction.

I would like to have your son/daughter participate. As a subject in this study, your child will receive instruction as to how best to play with his or her peers. They will also receive positive reinforcement when they interact successfully with their peers, and coaching to help with any questions or problems that arise. This opportunity will be viewed as a respected role in the school community, and the students involved will receive recognition for their good work.

If you choose to give your consent for your child's participation in this study, you should know that you are free to withdraw your consent and discontinue your child's participation in the study at any time prior to its termination. Confidentiality is also insured as your son/daughter's name will never be used in any reports.

If you have any questions or comments concerning this project, please contact:

Julie Wittet (Researcher)
(510) 339-2783, or
(510) 536-2575

If you decide to give your informed consent, please sign below. Thank you for your co-operation and support.

Signature __________________ Date __________

APPENDIX I
Informed Consent Letter
# Appendix II

## EASI Scale for Social Interactions: Recording Sheet

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<th>Time Finish</th>
<th>Observer</th>
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### EASI Scale for Social Interactions

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### Totals:

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<th>Role:</th>
<th>I = Initiation (score P, T, A)</th>
<th>A = Acknowledge initiation (score P, T, A)</th>
<th>Purpose:</th>
<th>S = Social interaction</th>
<th>T = Task related interaction</th>
<th>Topography:</th>
<th>+ = on task behavior</th>
<th>X = no active task participation</th>
<th>O = social isolation</th>
<th>ζ = self-stim</th>
<th>Λ = aggress twd. others</th>
<th>* = mild inappropriate</th>
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*Draft 5/CFU/EASI/EASI form rev 6*
Peer Play Scale: Recording Sheet

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<th>Time</th>
<th>Solitary Play</th>
<th>Simple Parallel Play Level 1</th>
<th>Parallel Play with Regard Level 2</th>
<th>Simple Social Play Level 3</th>
<th>Same Activity with Regard Level 4</th>
<th>Same Activity with Social Bid Level 5</th>
<th>Nonplay Activities</th>
<th>Onlooking/Unoccupied/Transition</th>
<th>Teacher Involved (Y = Yes)</th>
<th>Area in or Objects Used</th>
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Certificate of Recognition

who is awarded this certificate in recognition of her outstanding patience and participation in the Room 14 Peer Play Program 1995-96

Julie Willis
Special Day Class Teacher