

Drama: A Medium to Enhance Social Interaction Between Students With and Without Mental Retardation.

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Abstract:

Twenty-four fifth grade (or equivalent age) students were assigned to one of two treatment conditions consisting of equal numbers of students from regular and special education classes. One group was involved in a dramatic games condition culminating in a theatrical performance planned by the group. The second group was involved in a noncompetitive games condition culminating in a demonstration of games developed by the group. Observational data recording initiations and receptions of prosocial bids were collected for all subjects receiving special education services within both groups. A sociometric measure was used to assess the perceived quality of friendships both before and after the interventions. Results showed that students with mental retardation in the drama condition were targeted for positive social interactions by peers without mental retardation significantly more and were more highly regarded as friends than were those in the games condition.

Article:

Numerous studies have demonstrated methods that facilitate the integration of special education students with students in regular education. These methods include direct social skills training for students with mental retardation (Gresham, 1981, 1982, 1983; Madden & Slavin, 1983) and peer socialization-oriented programs (Rynders, Schleien, & Mustonen, 1989; Schleien, Rynders, & Mustonen, 1988). Many of the peer socialization-oriented programs involve the preparation of peers who do not have mental retardation to be "special friends" (Voeltz et al., 1983) through cooperative learning techniques (Johnson & Johnson, 1983; Slavin, 1983) as well as the use of recreation or leisure activities (Rynders, Johnson, Johnson, & Schmidt, 1980; Schleien, Ray, Soderman-Olson, & McMahan, 1987).

Although these programs have been successful, there are still problems in integrating these students into regular programming. One of the most vexing problems has to do with providing an environment for students with mental retardation that is both motivationally stimulating and emotionally "safe." Gresham (1983) noted:

It has been demonstrated that many handicapped children have a high need for social reinforcement, exhibit anxiety in mastery situations, are motivated more by failure-avoidance than by success striving, and have a low expectancy for success. (p. 202)

In the present paper we have described a project, entitled Acting Together, designed to determine the role that drama might play in integrating students with mild to severe mental retardation with students who do not have mental retardation. A two-group (experimental and contrast) design was employed to answer the question, Given two groups (drama and cooperative games) containing special and regular education students, both involved in activities that can promote positive social interaction, which group will display more positive socialization behaviors?

Method

Subjects

Subjects were 24 special and regular education students at Dowling Elementary School in Minneapolis. Contact between special and regular education students occurs regularly at Dowling School and is strongly encouraged in every aspect of the curriculum.

Students were drawn from two regular fifth-grade classrooms, a special education classroom serving students with moderate to severe mental retardation, and a special education classroom serving students with severe to profound mental retardation. Experimental (creative drama) and contrast (noncompetitive) groups were similar in age, with the experimental group being slightly younger (mean age = 10.91 years, standard deviation (SD) = 7.3 months versus 11.25 years, SD = 5.3 months, respectively). Sixteen students from two regular education classes (including 2 mainstreamed students with special education plans from each class) were assigned to one of the two conditions (8 students per condition) based on class membership. Students from special education closed classes were assigned to either the experimental (4 students) or the contrast condition (4 students) from a pool of potential participants. Special education students were allowed to choose the group they preferred. Parent and teacher preference was also considered in group assignment. Consideration was also given to balancing gender and race.

To assess initial intergroup variance so as to minimize any risk of subject-selection bias, we held an initial session involving all students in free-play for each group. Subject behavior in these sessions was observed and recorded. T tests (paired, repeated measure) were used to compare the mean frequency of social behavior in two dependent variables occurring in the two groups during free play (initiating and being a target of social interaction). There were no significant differences between the groups.

Procedure

Acting Together took place over a 3-month period in 1988. Both the drama and cooperative games groups met weekly during this period for a total of 12 sessions per group. The programs for both groups were derived from two sources. The drama interventions were theater games and improvisational acting exercises described by Spolin (1963). Bernstein (1979) and Warger (1985) have used these and similar activities successfully with school-age children who have mental retardation.

The cooperative games intervention was comprised of games described by Orlick (1978) in his compendium of indoor and outdoor noncompetitive games designed for school-age children. Cooperative games have been used frequently in programs seeking to promote the integration of children with mental retardation (Schleien, Krotee, Mustonen, Kelterborn, & Schermer, 1987)

Both conditions were "coached" by the same staff members in the same location on the same day of the week. Both interventions took place in the morning and were as similar in format as possible. Each session began with a 5-minute period of exercise followed by a brief (5 to 10 minute) period of instruction or discussion. Activities would then take place over a 25- to 30-minute period, and the session would close with a 5-minute discussion. The two coaches were special education faculty/staff members at the school. Each received 3 hours of instruction in coaching methods to be used in leading the two groups. Presentation and explanations of activities were made as similar as possible across both interventions. Detailed curricula and curricular procedures developed for both interventions included order of presentation, materials required, objectives of sessions, approximate lengths of activities within sessions, and special directions for instructors.

Prior to beginning the study, two certified therapeutic recreation specialists evaluated the two sets of materials independently to assess comparability in terms of perceived interest and level of difficulty. Both specialists rated the two curricula as comparable in these areas, although one questioned whether the theater games would be too challenging for the students with mental retardation.

Data Collection

Dependent variables were (a) initiation of positive interaction toward peers, (b) is target of positive social interaction by peers, and (c) perceived quality of friendship among regular and special education students. The scripts for the two conditions specified the prompts to be used to promote imaginative play in the experimental condition, (e.g., "Pretend you are _____," or "Think of how it would feel if _____") and prompts promoting cooperation in the contrast condition (e.g., "play together, take turns").

In both the drama and cooperative games intervention, coaches were instructed to encourage students to solve problems in the exercises without explicit help from staff members. Participants were not instructed in how to socially include students from special education classes in games or drama activities but were encouraged to include everyone in the group in activities. Thereafter, efforts to include all students in activities were reinforced verbally. The frequency and contents of staff members' prompts, reinforcers, and corrective attempts were recorded during procedural reliability probes. (Probe results are summarized at the beginning of the *Results* section).

Social interaction data (initiating and being targeted for positive social interaction) were collected using a timed-interval sampling procedure. During the pretest and intervention sessions in both conditions, each special education student was observed separately for 10 seconds. After each observation period a 10-second interval followed during which the observer registered a mark under each category to which the subject's behavior could accurately be assigned. Observations continued until all 6 students had been observed for ten 10-second intervals. Observation and recording periods were cued via a headset using a prerecorded tape played on a Sony Walkman cassette tape player. The observer, a graduate assistant from the University of Minnesota, recorded interactions in both conditions. Encoding procedures to be used in the project were practiced before the project began by utilizing videotapes of dyads involved in an integration project at a bowling alley. The observer and author observed and recorded data for these scenes until a criterion of 95% interrater agreement was reached. Interrater reliability during Acting Together itself was assessed during 50% of the intervention periods by a second trained observer who employed the same taped cues simultaneously (see *Results* section).

The observational form used in the project was originally developed by Schleien et al. (1987) and was accompanied by operational definitions of the dependent variables as follows:

Initiates Positive Interaction: Student actively seeks positive contact with peer by touching, gesturing to, or vocalizing/verbalizing to peer. Contact must be directed toward a specific peer. Interaction may take the form of facial expression (smiles), vocal tone (pleasant), verbal content (praise, giving directions or encouragement), nonverbal vocalization (laughs, giggles), touch (guidance/assistance, hugs, pats), or gestures or verbal behavior that seek to recruit peer's attention.

Target of Positive Interaction: Student is touched, gestured to, commented to, given directions or questioned by peer in a nonderogatory, nonthreatening manner. Contact must be directed by peer toward student. Interaction may take the form of facial expression (smiles), vocal tone (pleasant), verbal content (praise, being given direction or encouragement), nonverbal vocalizations (laughs, giggles), and/ or touch (guidance/assistance, hugs, pats).

The third dependent variable, perceived quality of friendship, was assessed across participants without mental retardation during the initial session and 4 months later. A forced-choice measure devised by the first author, called "Friend-Sort," was used. Regular education students were given 12 cards with a name of a peer printed in large letters on each card. The names of all group members in that condition, from both regular and special education classes, were included on the cards. Students were directed to place the cards into one of five multicolored plastic bowls placed on the table in front of them. The bowls were clearly labeled in the following way: *Best Friend*, *Good Friend*, *OK Friend*, *Not a Friend*, and *Don't Know*. They were further told that any card could go in any bowl and that there were no limits on the number of cards that could be placed in any bowl. After training in the sorting procedure, students were told to place the name cards into the bowl that best

described the kind of friend that person in their respective condition was to him or her.

Results

Interrater reliability was calculated using the Kappa measure of interjudge agreement. Reliability coefficients ranged between .86 and .92 for observational data, averaging .90 across all sessions.

Procedural reliability was assessed by comparing the incidence of positive reinforcement, redirection, cuing, and prompts of imaginative or creative behavior across the two conditions during the respective intervention sessions. As expected, the incidence of direct cuing of social interaction among special and regular education students by instructors was higher in the cooperative games condition (11 vs. 1 in drama condition). The independent variable—prompts of imaginary or imaginative behavior—occurred only in the drama condition (26 of these prompts were recorded). In the cooperative games condition, the incidence of positive reinforcement from instructors was higher (59) than in the drama condition (40). The number of redirections required to keep students on task was higher in the cooperative games condition than in the drama condition (8 and 4, respectively).

Variations in the number of observations of each subject caused by absence, late buses, and other elements made comparisons of raw data untenable; therefore, they were converted to proportional data by dividing the number of social interactions observed relative to a single subject by the number of observations of that subject taken during that session. Prior to statistical analyses, all proportional data were transformed to Arc sines.

T tests (paired, repeated measure) were then used to compare the mean frequency of behavior levels of the three dependent variables occurring in the two groups in the intervention sessions that followed. The mean frequency of initiation of positive behavior by target students (i.e., those in special classes) towards other students with mental retardation was .08 in the cooperative games condition (SD= .08) and .07 in the drama group (SD=.09) (see Table 1). Furthermore, differences between groups on the frequency of this behavior were not significant. On a second measure, target students initiating positive behavior toward students without mental retardation, there were negligible differences between groups. In the drama group the mean frequency was .05 (SD = .05); in the cooperative games group, it was .04 (SD = .055), a nonsignificant difference.

Table 1
Friends-Sort Data

Games/ Subjects	Scores		Difference
	Pretest	Posttest	
Cooperative			
A	24	19	-5
B	21.5	22	0.5
C	19	15	-4
D	21	17	-4
E	17	14.5	-2.5
F	17	15.5	-1.5
Total	119.5	103	-17.0
Mean	3.32	2.86	-2.8 ^a
Theater			
A	22	22	0
B	22	23	1
C	18	23	5
D	16	25	9
E	19	17	-2
F	20	19	-1
Total	117	129	12
Mean	3.25	3.58	2 ^b

^aSD = 2.0. ^bSD = 4.01.

On the third measure, is target for positive social interaction, there was a marked difference between the two groups. Subjects in the drama condition were targeted significantly more frequently for positive social interaction than were subjects in the cooperative games condition (means = .16 [SD = .13] and .06 [SD = .08], respectively, $p = .046$).

Data from the Friends-Sort were assessed in the following way. Ratings (5 = best friend to 1 = don't know) were

developed when peers (without mental retardation) assessed their level of friendship with each of the subjects using the sorting procedure described previously. Students performed this procedure in both conditions before the intervention and 4 months later.

These ratings were subjected to a two-way repeated measures analysis of variance. Main effects assessed were pretest versus posttest effects within conditions and overall effect (pretest games, pretest drama, posttest games, posttest drama). There were no significant differences between pre- and posttest scores or between overall scores for drama or cooperative games. The overall interaction effect approached statistical significance, $p = .07$.

The Friends-Sort data illustrate some definite differences between the drama and cooperative games groups (see Table 1). Pretest scores show little variation between individuals within or between groups. Posttest scores show pronounced differences both between group means and across subjects within groups. Although 5 of 6 subjects in the cooperative games group declined in their friendship rating over the 4 months, 3 of 6 subjects in the drama group increased in their ratings while one remained stable.

Anecdotal accounts, collected through teacher evaluations of behavioral change, were uniformly positive over both conditions. In almost all cases, in both conditions, teachers wrote that they had seen positive effects both in the individual students and in the way they interacted with others.

Discussion

Acting Together demonstrated the value of creative drama as an approach to promoting the integration of students with and without mental retardation. Drama is essentially a social art; it does not exist in the absence of an audience nor in the absence of a society of players (actors). This quality may make it a particularly useful medium when participants have very limited repertoires of social skills. Gardner (1985), in describing the unique social qualities of drama, stated: "The fact that you're always interacting with others, with an audience at least, and with other members of the troupe, gives a very special flavor to the drama" (p. 309).

Heathcote (1984) reiterated these safe, comfortable, and flexible aspects of drama and applied them to the classroom:

Drama depicts life, and teachers can choose just how much of the material of any drama class will provide context for curriculum, either as work or play, which is undertaken in the no-penalty area of art. That is, participants will be able to test out their ideas, try them over again, and generally examine them, without necessarily having to fulfill, in actual life situations, the promises they have tried out in the depicted one. (p 128)

She added that drama allows perspective-taking and rehearsing social situations in this "no-penalty area":

Drama is life depicted in a no-penalty zone. It looks like, seems like, but is not actuality. . . . It is that arrangement which transforms an individual into a performer; the latter, in turn being an object that can be looked at in the round, and at length without offence. (p 130)

Dramatic play provides a unique paradox in which participants can experience risks without penalties. In the drama games activity, there were many examples of behavior among students that supported the insights of the preceding authors. In the drama activities "imaging" exercises were used on several occasions to set the stage for an improvisation. Special education students who had expressive language repeatedly demonstrated an ability to imagine that appeared to approximate the abilities of their peers without mental retardation in many respects. In exercises in which special students had to assume leadership roles, such as guiding a blindfolded peer, differences between special and regular education students appeared to be virtually nonexistent. Indeed, in improvisational exercises, most of the students with mental retardation were able to insert themselves into an imaginary situation and carry it forward to its conclusion almost as well as peers without mental retardation.

Outside of the imaginary activities, there were clear manifestations of new relationships developing between students with and without mental retardation in the drama group that were not evidenced in the cooperative games group. One example occurred at the close of one session, after a scene in which students created a zoo. One of the regular education students waited for one of the students from the class for students with moderate to severe mental retardation while the latter student checked out the earphones that the observer had been wearing during all the sessions. When this student went to catch up with the child who was waiting for him, he growled at him, still in the 'lion' character he had used in the zoo scene. The first student pretended to throw him some imaginary meat, which the special education student caught in his mouth. Both left the room laughing together. Other interesting side-effects became evident. One student with a prior history of extreme social withdrawal began to display initiative in helping students in wheelchairs get up to the stage and began to contribute to the discussions with which most sessions closed. Obviously, these informal observations will need to be subjected to an empirical test in the future.

In closing, we are not suggesting that educators or recreational group leaders "choose between" drama and cooperative games. It has been demonstrated in this, and other studies, that both types of activities appear to be viable and productive as milieus in which integration is facilitated. What this study shows is that imaginative play, which is a staple of preadolescent play, is accessible to children both with and without mental retardation. If adults leading such activities encourage imaginative play, or inject elements that promote imaginative play into activities involving children with and without mental retardation, it appears that the group dynamics and enjoyment of everyone involved are enhanced. Implied also is that the enjoyability and richness of cooperative games can be enhanced by introducing pretend-type components into the games, making certain, of course, that age-appropriateness is preserved.

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