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THE ATTITUDES OF CHILDREN TOWARD ORTHOPEDICALLY
HANDICAPPED PEERS OBSERVED IN SUCCESS VERSUS
FAILURE SITUATIONS

By

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B.S., Colorado State University, 1980

Presented in partial fulfillment of the
requirements for the degree of

Master of Arts

UNIVERSITY OF MONTANA

1987

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Clinical
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The Attitudes of Children Toward Orthopedically
Handicapped Peers Observed in Success Versus Failure
Situations (142 pp.)

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In 1975 Public Law 94-142 mandated public education for the handicapped in the least restrictive environment possible. Mainstreaming the handicapped into the regular classroom was intended to facilitate the social development as well as academic achievement of these children.

Researchers have explored the attitudes of the public, teachers, and children toward the handicapped prior to and after integration. Various interventions have been used in an effort to enhance positive attitudes in children and to facilitate positive social interaction with handicapped peers.

This study investigated the effects of task performance by a wheelchairbound child on the attitudes of nonhandicapped peers. Subjects were 172 kindergartners. Factors studied were the type of target child (handicapped versus nonhandicapped), and type of task performance (successful versus failing versus none). Subject gender and the level of previous contact with the handicapped were covariates.

The hypotheses that successful task completion by a wheelchairbound child would enhance the attitudes of peers toward that child and that it would enhance attitudes toward handicapped children in general were not supported. Neither was the hypothesis that attitudes would be more positive toward a nonhandicapped than handicapped child in similar task outcome conditions. Children who were willing to commit to interaction with the target child (handicapped or nonhandicapped) showed more positive attitudes toward wheelchairbound children in general. Gender was not found to covary with attitudes.

The relationship between previous contact and attitudes showed a negative trend in the handicapped condition but a significant positive relationship in the nonhandicapped condition. Overall the attitudes of kindergartners were similar toward the handicapped and nonhandicapped regardless of performance outcome. The implications of these findings are discussed.

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Chapter 1

INTRODUCTION

Public education was instituted in order to provide individuals with the skills and knowledge that are necessary to be a productive member of society. In the early 1900s compulsory education led school personnel to confront the issue of educating handicapped children. Segregated schools and special classrooms were established in order to offer the handicapped a more individualized education.

Separate educational facilities for the handicapped allowed teachers to adjust the curriculum and meet the special needs of these children without hindering the education of the regular classroom children. As, however, an increasing number of students were assigned to special education classes, the issues of stigmatization, parental hostility over the placement of their children, inadequate educational environment, and the development of a negative self-concept became increasingly controversial (Semmel, Gottlieb, & Robinson, 1979).

During the 1930s and 1940s there was a greater demand for improved physical facilities, appropriate curricula, improved classification procedures, and better qualified teachers. Then, during the 1960s, the Civil Rights movement

led people to question segregated placement of the handicapped. These concerns and general lack of empirical evidence about the benefits of special placement contributed to a trend toward desegregation of handicapped students (Semmel et al., 1979). In 1975 Public Law (PL) 94-142 was passed in order to ensure an appropriate public education for various handicapped children in the "least restrictive environment" possible. There has been, as a result, an increase in the mainstreaming of such children into the regular classroom.

The least restrictive environment criterion allowed for mainstreaming programs to be implemented in several alternative educational environments. These have included regular and self-contained classrooms in regular schools, residential schools, and state residential institutions (Semmel et al., 1979). The purpose of mainstreaming, as noted by Parish, Dyck, and Kappes (1979), was to assist handicapped children in achieving an adequate adjustment in society as adults.

Prevalent issues in the mainstreaming of handicapped children include educational and social factors. Academic achievement and social adjustment are the major criteria that have been used to measure the success of various mainstreaming programs. The social adjustment of handicapped children has typically been assessed using

measures of self-esteem, observed social behavior, and acceptance by others.

In assessing acceptance by others, researchers have investigated attitudes toward those with various handicapping conditions. Some researchers have explored attitudes toward a specific handicapped individual as well as attitudes toward a general disability group. Others have used structured interventions in an effort to enhance positive attitudes and, thus, facilitate social interaction between handicapped and nonhandicapped individuals.

Attitudes, Attraction, and Attributions

Attitudes

In interpersonal interactions people attempt to assess the traits of others, make judgments about them, and understand the causes of observed behaviors. As noted by Baron and Byrne (1984), physical appearance and overt acts are used to infer the motives and traits of other individuals. After repeated experience with members of a particular social group, such as the physically handicapped or racial minorities, people begin to form schemata about the group. Schemata consist of the various pieces of information which help identify and classify a particular group. Attitudes can be considered schemata in that they provide a background for integrating and interpreting new information about others. Social psychologists such as

Rajecki were cited as saying that attitudes are "relatively lasting clusters of feelings, beliefs, and behavior tendencies directed toward specific persons, ideas, objects or groups" (Baron & Byrne, p. 126).

Attitudes consist of cognitive, affective, and behavioral components (Baron & Byrne, 1984; Brigham & Wrightsman, 1982). The cognitive component includes beliefs and expectations about group members. These preconceived ideas have been called stereotypes (Baron & Byrne). The affective component includes feelings and evaluations about the group. The behavioral component involves the intentions or tendency to act in a particular manner toward group members.

Attitudes help determine how the social environment is interpreted. Baron and Byrne (1984) suggested that direct experience and social learning are factors which contribute to the development of attitudes. Direct experience allows individuals to assess the appearance, behavior, and traits of others, and, through repeated exposure, develop attitudes.

Social learning is said to contribute to attitude formation two ways. The first is through instrumental conditioning, in which people are rewarded or praised for expressing a particular view. The second is through modeling, in which people observe and imitate others. It is

through direct experience and social learning that children begin to acquire attitudes toward various social groups.

Attraction

As suggested earlier, attitudes are formed from information about the physical appearance and behavior of others. Attitudes underlie interpersonal attraction which is affected by factors such as propinquity, personal abilities, and physical appearance (Baron & Byrne, 1984). People generally tend to be more attracted to those who live in close proximity. This occurs because they are available for interaction, their behaviors become predictable, and there is an expectation of future encounters. People also tend to be more attracted to those viewed as physically attractive or behaviorally competent.

Physical appearance is one of the most accessible characteristics by which opinions of others can be formulated (Dion, Berscheid, & Walster, 1972). There tend to be cultural stereotypes concerning which personality types belong with which physical characteristics. Dion et al. studied whether physically attractive individuals were assumed to have a greater number of socially desirable personality traits and were expected to lead better lives than less attractive individuals.

The Dion et al. (1972) study used 30 male and 30 female college students. They each were shown three photographs of

persons who previously had been rated for attractiveness: physically attractive, average attractive, and unattractive stimulus persons. The subjects rated the pictures on 27 personality traits.

Subjects also compared the stimulus individuals by rating who had the most and least amount of five additional personality traits. From a subset of the trait items, a social desirability rating was obtained for each stimulus person. Future happiness was measured by having the subjects estimate the likelihood of several positive life events.

Finally, an index of occupational success was obtained from predictions of the occupations of the individuals in the pictures. Results indicated that attractive persons were rated as significantly more desirable, more likely to have prestigious jobs, happier in marriage, more fulfilled in their occupational and social roles, and were expected to marry earlier than less attractive individuals. In conclusion, Dion et al. (1972, p. 81) noted that "not only are physically attractive persons assumed to possess more socially desirable personalities than those of lesser attractiveness, but it is presumed that their lives will be happier and more successful."

More recently, Dion (1973) studied the effects of facial attractiveness on young children's evaluation of peers. The subjects were 65 pre-school and kindergarten

children ranging from 3 to 6½ years of age. They were shown pictures of peers who had been reliably rated as either attractive or unattractive by adults. The subjects were asked to choose which children they would like as friends and not like as friends, which would exhibit prosocial or antisocial behaviors, and which were prettier/cuter. Results showed that children did discriminate facial attractiveness and had a significant preference for attractive children as potential friends. Furthermore, they believed that attractive peers were more likely to behave in a prosocial manner and unattractive peers in an antisocial manner.

Richardson, Goodman, Hastorf, and Dornbush (1961) explored the effects of appearance on the judgments of 10- and 11-year-old children by including various handicapping conditions. The subjects were shown six drawings which varied only on the dimension of handicap. Subjects ranked the drawings by pointing to the peer which was most liked. After they pointed to a particular drawing, it was removed and again the one most liked was chosen. This procedure was continued until the ranking was completed.

Results showed that subjects from a diversity of racial and cultural backgrounds tended to rank the pictures in the following order: (a) no physical handicap, (b) crutches or braces, (c) wheelchairbound, (d) absence of a left hand,

(e) facial disfigurement, and (f) obesity. The authors noted that the results may reflect the importance of facial features in the initial judgments of others. These results also suggest that there may be a tendency for children to initially like nonhandicapped peers more than physically handicapped peers based on impressions from appearance cues.

The effects of physical appearance and behavior on the attitudes of people toward a physically handicapped individual have been studied. Katz, Farber, Glass, Lucido, and Emswiller (1978) performed an experiment to explore the effects of positive and negative behavior by a wheelchairbound person on the subsequent helping behavior of nonhandicapped adults. A wheelchairbound and a nonhandicapped person were friendly and achievement-oriented or abrasive and apathetic in an interaction with the subjects. The authors predicted that subjects would be more willing to help the handicapped person in the positive condition and less willing to help this person in the negative condition.

Results were contrary to the predictions. Subjects were less willing to help the handicapped person than the nonhandicapped person after positive interactions, and more willing to help the handicapped person after negative interactions occurred. Katz et al. (1978) suggested that the competent, achievement-oriented disabled individual violated expectations of inadequacy. As a result, the

subjects were said to become angry and refused to assist this handicapped person.

Task success and task failure may also be described as positive and negative behaviors, respectively. Those who observe a wheelchairbound peer in a task success situation might express less positive attitudes, especially in the affective component, toward this person than toward a successful nonhandicapped peer. For example, school children may demonstrate such attitudinal tendencies. Furthermore, they may be less willing to interact with a successful handicapped than successful nonhandicapped peer.

In the negative behavior condition, the wheelchairbound adult was said to elicit more helping behavior because the subjects felt sorry for the individual. When the handicapped person exhibited negative behaviors, the subjects may have assumed them to be a manifestation of inner despair. The authors suggested that similar behaviors observed in the nonhandicapped person were seen as obnoxious rather than pitiable.

Young school children, however, may fail to account for the emotional factors which lead to behavior. They may focus on the immediate consequences of behavior and whether the behavior is against the rules (Cole & Pennington, 1976). Thus they may see the behavior of task failure as equally negative for handicapped and nonhandicapped individuals.

Attributions

In addition to developing various attitudes and expectations about others, people regularly attempt to understand the reasons for the behavior of others. This is an active process of perceiving others and attributing behaviors to specific causes. In making these causal attributions, people frequently rely on their initial impressions which may result from a one-way interaction that lasts only a few minutes (Baron & Byrne, 1984).

Key factors about the situation are remembered and novel and extreme stimuli become salient. There is a tendency to emphasize information which is initially obtained, making first impressions difficult to alter. Furthermore, there is a tendency to place greater emphasis on negative rather than positive information and to discount that which is contrary to existing attitudes. Thus causal attributions are based on factors including initial impressions, salient and remembered information, and previously formed attitudes.

Jones and Davis (1965) noted that the observers of behavior evaluate the available information and then make assumptions about the intentions of the performer. Observers make inferences concerning the intentions, and then assume there is a link between intentions and the traits or dispositions of the performer. Beliefs about the

intentions and dispositions are related to the way in which the observer assesses the situation.

Judgments are made concerning the ability and effort of the performer, the difficulty of the task, and the role of luck in bringing about the outcome of the behavior. Weiner (1979) discussed the causal attributions of ability and effort in terms of the dimension of controllability. He hypothesized that this controllability dimension helps determine performance evaluations. Ability is an uncontrollable cause of behavior while effort is a controllable cause. Performance evaluations, according to Weiner, should vary based on an interaction between the performance outcome and attribution of controllability. Thus, for example, if an individual is viewed as trying hard and succeeds, the outcome would be attributed to effort and the performance evaluated positively. In the case of failure, if the outcome is attributed to lack of effort, performance would be evaluated negatively. Yet, if a failure outcome is attributed to lack of ability, the performance would be evaluated in a more positive way than when attributed to lack of effort.

In addition to attributions about behavioral performance, cues such as the appearance may be used in judgments and can trigger stereotypes based on beliefs and expectations about various social groups. These beliefs are used to help determine the likelihood that the behavioral

intentions are similar to those of most others in a similar situation. Intentions and dispositions are attributed based on the appearance and behavior of the performer. Jones and Nisbett (1972) further discussed the way in which people account for behavior. In making attributions for their own behaviors, people typically attribute external or environmental factors. In making attributions for the behavior of others, however, people tend to attribute internal or dispositional factors. This actor-observer effect, also called the fundamental attribution error, may help describe the tendency for people to infer traits from appearance and behavior and to develop stereotypical attitudes toward various social groups.

Because observers lack personal history data on the performer in initial encounters, they must rely on expectations of normative outcome in the particular situation in order to infer traits. As noted by Jones and Nisbett (1972), people tend to give behavior descriptive labels based on the norm. There then is a tendency to describe the person as well as the behavior with that label. For example, if a person fails at a task, the person may be described as a failure. Attitudes then may be developed based on the assumed traits of the individual.

Another theoretical explanation for the attribution of the causes of behavior was presented by Kelley (1972a). He noted that the particular attributions act to mediate the

attitudes of observers as well as subsequent interactions with the actor. Kelley viewed observers as assuming cause and effect relationships based on the covariation of a behavior and an outcome. Characteristics of the performer were said to be inferred in light of the attribution of the cause of behavior.

When there are two or more potential causes, any single factor would be discounted as a cause (Jones & Davis, 1965). The observers consider the potential causes and attribute the behavior to those which covary with the outcome. Observers base judgments on their previous notions of the causal factors. Such schemata of the causes of behavior allow for the integration of present situations.

Kelley (1972b), like Jones and Davis (1965), suggested that the factors of ability, effort, task difficulty, and luck are considered in causal attributions of observed behavior. He also noted that the stable factors of ability and task difficulty seem to imply stability between present and future behavior. As such, these may be considered as more predictive of future behavior than the variable factors of effort and luck.

Expectations concerning performance, along with attributions of the causes of the behavior, contribute to the attitudes toward the performer. That is, if success is observed when failure is expected, the observers may praise the performer for overcoming a handicapping condition

(Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1972). For example, a physically handicapped child may be praised and liked more for success than for failure because the child is seen as putting forth extreme effort in the face of a disability. The observers may, however, not expect future success because effort is a variable attribute. If failure occurs when failure is expected and ability is seen as the cause, failure may be expected in the future and this may contribute to the attitudes which are formulated toward the handicapped individual.

Once attitudes, including stereotypes, are formed, they are resistant to change. It is unlikely that any single strategy can significantly impact the formation or reformation of attitudes. Baron and Byrne (1984) suggested, however, that two approaches appear to be most effective in promoting positive attitudes between social groups.

The first approach is to prevent the initial formation of negative attitudes. Early learning experiences and the influence of significant others are instrumental in this process. The second approach is to provide intergroup contacts involving positive interactions. Constructive intergroup contact allows individuals to recognize the attitudes and behaviors which they have in common with a particular group.

Favorable contacts may also act to contradict previous inaccurate beliefs and, thus, facilitate attitude change.

Even through the mere-exposure effect--simple repeated contact with a stimulus--attitudes may be altered. This is true of negative as well as positive stimuli.

Repeated exposure tends to strengthen existing attitudes so that an attitude may become more negative or more positive through contact. It is important, therefore, to ensure constructive interactions between groups. Conditions which are thought to facilitate positive interactions include equal social, economic, and task-related status, and interactions which require cooperation between individuals (Baron & Byrne, 1984). Contact under the appropriate conditions may enhance attributions and attitudes which may, in turn, lead to more positive social interactions.

In a school setting social interaction with peers is necessary for the social development of physically handicapped children. Such interaction has been made possible by the passage of PL 94-142 and resultant placement of handicapped children into the regular classroom. It is most desirable to integrate these children under conditions which facilitate positive peer interactions. In order to identify the facilitatory factors, researchers have explored variables such as the amount of contact, type of contact, and the attitudes of those involved in the mainstreaming process. Others have used various interventions in an

effort to enhance attitudes and interactions between nonhandicapped and handicapped school children.

Research on Mainstreaming

With the trend toward integrated education for the handicapped and the passage of PL 94-142 in 1975, a substantial increase in the mainstreaming of handicapped children has occurred. As such there has been considerable interest in the attitudes of the general public, school personnel, and school children toward mentally and physically handicapped individuals. Although there is a plethora of literature on the potential social adjustment of educable mentally retarded (EMR) children, the research reports on the adjustment of physically handicapped children has been scant.

Public and Teacher Attitudes

In 1975 Gottlieb and Corman investigated the attitudes of the public toward mentally retarded (MR) children. The subjects were 430 community members who were 20 years of age or older. A questionnaire was used to explore how various aspects of attitudes related to the variables of gender, age, education, and amount of contact with MR children.

The questionnaire included a 7-point semantic differential scale which assessed attribute ratings and a

5-point Likert-type scale which assessed attitudinal statements. Gottlieb and Corman (1975) noted that the majority of subjects favored community desegregation but only a minority believed that MR children would learn more in a regular classroom than a special classroom. Approximately one fifth of the subjects indicated that most MR children look different than normal children.

Results showed that younger adults expressed less favorable attitudes yet were more willing to integrate MR children. This may be related to a more realistic view of attributes by the younger adults. The authors concluded that older adults and those having no previous contact with MR individuals tended to favor community segregation. Gottlieb and Corman (1975) emphasized the need to promote positive attitudes toward MR persons in order to achieve successful integration of these individuals into society.

Teacher attitudes toward children with various handicapping conditions has been researched by many. Moore and Fine (1978) investigated the attitudes of regular and special education teachers. The authors compared descriptions given by 61 teachers of hypothetical EMR, learning disabled (LD), and normal children. Teacher attitudes toward mainstreaming were assessed also.

Findings showed that perceptions tended to be stereotypic toward each of the disability groups and were similar across both types of teachers. The EMR and LD

children were characterized as engaging in negative behaviors. In general, teachers were more supportive of the mainstreaming of LD than of EMR children. Regular education teachers desired outside help from resource personnel if LD and EMR children were to be mainstreamed. Moore and Fine (1978) emphasized the need to explore factors which might influence teacher attitudes toward mainstreaming.

In 1980 Stephens and Braun compared teacher attitudes toward EMR, physically handicapped, and emotionally disturbed children by examining their willingness to have such children in the classroom. Of some 795 teachers, approximately 40% indicated that they would not be willing to integrate any of these types of children. These teachers taught in the kindergarten through 8th grades. The upper grade teachers were less willing to allow integration.

The authors also examined the relationship between several teacher variables with willingness to integrate. A multiple regression analysis revealed that three teacher variables accounted for 19% of the variance. These predictor variables included confidence in personal ability to teach these children, a belief in the ability of these groups to become productive in society, and the endorsement of public education for the handicapped. Because 81% of the variance was not accounted for, Stephens and Braun (1980) noted that other unidentified teacher variables apparently relate to willingness to integrate.

Semmel et al. (1979) discussed the literature concerning the attitudes of teachers and administrators toward mainstreaming. They cited and discussed several studies and concluded that teachers (Gickling & Theobald, 1975; Vacc & Krist, 1977) and administrators (Payne & Murray, 1974) had relatively pessimistic views toward mainstreaming. Teachers generally expressed a need for better training as well as for greater support in serving handicapped children.

Children's Attitudes

In addition to studying the attitudes of school personnel, researchers have focused on the attitudes of school children toward those with handicapping conditions. Topics of interest have included the development of attitudes toward deviant peers, the effects of social contacts on attitudes, the effects of integration programs, and the effects of educational presentations on the attitudes of nonhandicapped children toward handicapped persons.

The attitudes of young children toward an orthopedically disabled peer were studied in 1967 by Jones and Sisk. The subjects were 230 nonhandicapped children 2 through 6 years of age. They were shown two drawings of same-sex peers. In the first picture a child was wearing leg braces and in the second picture another child was

without braces. The subjects answered questions intended to assess interpersonal acceptance and understanding of the limitations imposed by the handicap.

Results indicated that 4- and 5-year-olds perceived a handicapped child as having less fun at a carnival. Furthermore, 5-year-olds were less willing to play with the handicapped child. Jones and Sisk (1967) concluded that 4 years is the age at which children begin, with some consistency, to perceive the limitations of physically handicapping conditions.

The reactions of children to deviant behavior by peers was studied by Cole and Pennington (1976). More specifically, they assessed the developmental aspects of social judgments of behavior. Their subjects were 80 children (20 1st, 4th, 7th, and 11th graders). The subjects were presented with one story about a boy who believed that others were talking about him and who had fears of being followed. A second story was about a boy who was easily upset and frequently shouted, screamed, and got into fights. Subjects rated both characters on level of deviance. After the subjects completed their ratings, they explained them and gave reasons for the behavior of each character.

Results showed that 1st graders rarely based their judgments on normative peer group behavior. Instead, they seemed to normalize the stories so that an aggressive act, for example, was seen as being provoked and fear was the

result of an actual threat. This group neglected to recognize the intentions of the characters. Judgments were based on whether or not the behaviors were against the rules. Young children thus viewed unintended and intended rule violations similarly.

As previously discussed, people tend to rely on first impressions in making judgments about others. These impressions may be rather difficult to alter. It is important, therefore, to delineate factors which may affect initial reactions during interactions between handicapped and nonhandicapped school children. Siperstein and Gottlieb (1977) investigated the first impressions of children toward an MR peer as a function of appearance and behavior.

Subjects were 72 4th and 5th graders from a school with no MR children. They listened to one of two audiotaped vignettes about two boys involved in a spelling bee. In each tape one boy was a competent speller. The other boy, the target child, was competent in one condition and incompetent in the other.

Subjects were shown pictures of the spellers while listening to the vignettes. The target boy was shown as normal or as having Down's Syndrome features, thus there were four conditions with the variable factors being appearance and competency. The subjects answered questionnaires which assessed the target child's competence and age, described the child from a list of 30 adjectives,

and rated the degree of closeness to the target child with which they were comfortable.

Results indicated that the children responded significantly more positively to the target boy when he was depicted as competent than when he was incompetent. Furthermore, they responded significantly more favorably to the normal appearing than to the abnormal appearing child regardless of competency level.

Siperstein and Gottlieb (1977) concluded that physical appearance did negatively affect the ratings toward competent children. As predicted, the competent normal appearing child was rated significantly more favorably than the incompetent Down's Syndrome appearing child. Females were significantly more positive than males in rating a competent child but equally negative in rating an incompetent child. On the social distance scale, females were significantly less accepting of close interaction with the child regardless of appearance or competence. The authors suggested that this was a result of the same-sex peer preference that is commonly found in school children.

In a similar study, Cook (1976) explored the effects of labeling, appearance, and behavioral competency on children's attitudes toward and behavioral expectations of a target child. The subjects were 80 7th and 8th graders with 10 children in each of eight conditions. Subjects read a vignette about a 13-year-old boy who was described as

attending a special education class for the mentally retarded or was not described in this way and who had average or low level skills and abilities. While reading the vignette subjects viewed a drawing of a boy who was average looking or had Down's Syndrome features.

Results indicated that the formal label had no effect yet children tended to automatically label the target with a Down's Syndrome appearance and low competency as MR. The Down's Syndrome appearance resulted in less positive attitude ratings than the average looking child in the average competency condition but resulted in more positive ratings in the low competency condition. Subjects were found to perceive realistic differences in adaptive behavior and to accept and value the target regardless of appearance and behavior. Furthermore, subjects rated the competent targets more favorably than the low competency targets; this was the major influencing factor. The author concluded that expectations based on labels and appearance may be modified in the context of behavior.

Another study of children's attitudes toward various handicapped peers was conducted by Parish, Ohlsen, and Parish (1978). The Personal Attribute Inventory for Children (Parish & Taylor, 1978) was used to assess attitudes toward normal, physically handicapped, learning disabled, and emotionally disturbed children. The subjects were 131 pupils from the 5th, 6th, and 7th grades. Each

subject rated four target populations by selecting 15 of 48 adjectives on an adjective checklist which they thought described each group. The number of negative adjectives represented the score given by each subject for a given disability group.

Results indicated that the mean ratings for normal children were significantly greater than those for disabled children. No significant differences were found for grade or gender of the subjects. Parish et al. (1978) noted that negative attitudes toward the various disability conditions were prevalent. These authors suggested that handicapped children might continue to be segregated even after mainstreaming as a result of prejudicial attitudes.

Hazzard (1983) explored the experience of children with the handicapped, their knowledge about handicaps, and affective attitudes toward various handicapped persons. In assessing knowledge, questions concerning the capabilities and characteristics of individuals with handicaps were used. The affective attitudes, as labeled by Hazzard, were evaluated using a social distance scale to tap emotional reactions to the handicapped. Subjects were 367 children in the 3rd through 6th grades. They were presented descriptions of four of five handicapped individuals. The subjects thus rated a blind, a deaf, and a retarded child; they also rated a child who was wheelchairbound or on crutches.

Findings indicated that children tended to view the disabled peers as helpless and pitiable. Furthermore, the subjects were less willing to interact with these peers in personal activities (e.g., sleeping over at my house) than in school activities (e.g., eating at my table during lunch). The accuracy of knowledge concerning the handicapped was found to increase with age although it was similar across gender and experience.

Hazzard (1983) noted that there was a narrow range of experience in the subjects and knowledge was based on contacts with only one or two disabled individuals. Females were found to give more positive ratings on the social distance scale than males. Hazzard suggested that this gender difference may have resulted from a response set in females to express more socially desirable answers rather than their greater acceptance of the handicapped. The author emphasized the need for further research to assess the type of contact and type of disability in relation to knowledge of and feelings toward the handicapped.

Factors Related to Attitudes

As indicated in the literature, the attitudes of the general public, school teachers, administrators, and school children have tended to be less positive toward those perceived as having cognitive and physical handicaps. Researchers have attempted to explain the development of

such attitudes and to describe influencing factors. Various means for changing negative attitudes toward handicapped students were outlined by Allsop (1980). Education of the nonhandicapped and structured interactions with the handicapped were suggested. Allsop focused primarily on the education of school personnel and their having contact with the handicapped.

This author advocated in-service meetings to explain ways to adapt the physical environment, teaching methods, and learning materials to accommodate handicapped children. The need for interaction between faculty and handicapped individuals prior to interaction was stressed by the author. The preparation of peers, however, was described only in terms of the tactics teachers should use to educate children about handicaps. The potential usefulness of direct or indirect (e.g., audiovisual) exposure to the handicapped as a means of enhancing attitudes was omitted in this article.

The literature on modifying attitudes toward the handicapped was reviewed by Donaldson (1980) in an attempt to identify factors which promote positive attitudes. He noted that interventions have included direct or live contact and indirect contact via audiovisual presentations. Contact per se was not indicated as a factor in attitude change. Rather, planned structured interactions were said to influence attitudes.

Donaldson (1980) also found an equal-status relationship to be an influencing factor. He suggested that equal-status interactions involve individuals who are in the same age range and are of equal social, vocational, or educational status. Unequal status might result if the handicapped person was younger or in the position of receiving assistance during the interaction.

Another factor found important by Donaldson (1980) was exposure to a handicapped individual who is not showing stereotypic behaviors associated with the handicap. Still another factor may be the reduction of discomfort during the interactions. This may be facilitated by initially sanctioning staring so that observation of the handicapped can occur without violating cultural norms. Indirect contact can allow for staring because there is no live interaction.

Donaldson (1980) also noted that even relatively brief sessions have been found to improve attitudes. In summary, the author advocated the use of structured exposure, which may be direct or indirect, to nonstereotypic handicapped individuals. The effects of factors such as contact, structured integration, and education concerning handicaps have been researched. Following is a summary of pertinent investigations which have explored these factors.

Contacts with the handicapped. Experience with individuals who are handicapped has been viewed as a factor which influences perceptions of nonhandicapped individuals concerning the handicapped. As such, researchers have explored social contact as one variable related to children's attitudes toward disabled peers. Cook and Wollersheim (1976) studied the effects of social contact and of the label of MR on the perceptions of school children. The subjects were 120 7th and 8th grade children. These subjects had had varied levels of contact with MR children: some had had no contact, some had had contact with EMR children, and some had had contact with trainable mentally retarded (TMR) children.

Each subject read a vignette about a 12-year-old boy who was described as having positive and negative attributes. In one condition the boy was said to be attending a special education class for the mentally retarded. In the other condition no such statement was made.

After reading the vignettes, the children evaluated the target child by selecting descriptive words from adjective pairs such as employable-unemployable and valuable-worthless. The subjects also judged the general physical strength and activity level of the child and rated their own confidence in the child's ability to perform 20 behaviors. Finally, the children were given an opportunity

to volunteer to work with MR children one time per week, one time per month, one to two times per year, or never.

Results indicated that the general label of MR did lead to a decrement in the expressed attitudes of subjects and their perceptions of the child's potential for adaptive behavior. Findings related to the contact factor were worth noting. The highest level of commitment for working with MR children was from those who had had no previous contact with this group. Cook and Wollersheim (1976) suggested that this result may reflect a lack of aversive experiences with MR individuals or a willingness to participate in a novel experience.

Structured integration. As suggested by Strauch (1970), one major goal of contact between EMR children and their peers is to facilitate positive attitude change in the peers. Strauch investigated the expressed attitudes of nonretarded adolescents who had contact with EMR students and those who had no contact with them. The subjects were 104 students from a total of six 7th grade classes.

The control group was involved in a structured integration program for the EMR. Contact occurred during industrial arts, art, music, home economics, and physical education courses. This exposure was for more than 30 weeks in four sessions per week of 45-minute durations. The no

contact group attended schools in which EMR students were educated in segregated, self-contained programs.

The attitudes of the nonretarded pupils were assessed using a 20-item semantic differential scale containing adjective pairs. The attitude ratings were concerned with the topics of Me, the MR, Regular Class Pupils, Special Class Pupils, and Normal People. Ratings that were of particular interest to the study were the MR and Special Class Pupils.

Results showed that there were no significant differences in ratings between these two categories. Although ratings were more positive in the contact group, they did represent negative attitudes. The author suggested that, in order to facilitate positive attitudes, the MR and nonretarded children's interactions should include cooperative activities with all working toward a common goal.

Attitudes toward orthopedically impaired children were investigated by Rapier, Adelson, Carey, and Croke (1972). More specifically, they studied the effects of structured integration on the attitudes of school children. The subjects were 152 3rd, 4th, and 5th graders who rated their perceptions of orthopedically disabled peers prior to and following 1 year of integration. The integration facilitated positive interaction while attempting to prevent

an overemphasis on the restrictions of the handicapping condition.

Results indicated that the regular classroom children had significantly more positive perceptions after the integration experience. Rapier et al. (1972) noted that neither gender evidenced a more positive view of the orthopedically impaired.

As noted by Sheare (1974), special education children have been integrated into some academic, physical education, art, home economics, shop, and music classes. This author studied the effects of integrating EMR children on their acceptance by normal peers. Subjects were 400 9th graders who met the following criteria: (a) no handicapped friends, relatives, or neighbors, and (b) no involvement in groups or organizations which serve the handicapped.

The subjects came from schools with EMR students. Under one condition the EMR children were mainstreamed for physical education, music, shop, athletics, and other activities. Under the other condition these children were available for contact at lunch, in the halls, and during recess. The subjects rated their opinions about EMR integration and the expected capabilities of EMR children.

Results showed that those involved in the integration program had a significantly greater acceptance of the EMR than did the other subjects. Females showed greater acceptance than did males in this study. This gender

difference was explained by Sheare (1974) as potentially due to value differences such that adolescent females were more tolerant of deviancy than males. In conclusion, the author advocated interaction in academic and social activities in order to increase acceptance of the EMR by nonhandicapped peers.

Experience with handicapped people has been studied in relationship to attitudes, as in the research of Cook and Wollersheim (1976), Hazzard (1983), Rapier et al. (1972), Sheare (1974), and Strauch (1970). Voeltz (1980, 1982) assessed children's attitudes toward handicapped peers in integrated schools and later studied the effects of structured interactions in promoting positive attitudes. In the 1980 study Voeltz used target children who were considered severely handicapped as a result of being MR or wheelchairbound. The subjects were approximately 2,600 normal children in grades 2 through 7. The schools from which subjects were selected met specific criteria concerning handicapped enrollment. Thus the subjects attended schools which provided opportunity for no contact, low contact, or high contact.

The kind as well as amount of interaction varied in the contact groups. The low contact group had a tutoring program during the previous semester or no special program. The high contact group came from a school offering a slide presentation about the handicapped and a 10-week Special

Friends program. This program provided direct contact with handicapped peers as well as discussion groups for the regular class students. The contacts and the discussion groups were each implemented in the semester prior to the Voeltz (1980) study and occurred three times per week.

Factor analysis of the acceptance scale revealed four attitudinal dimensions: (a) willingness to interact with handicapped, MR, and special education children, (b) deviance consequence-stereotyping and exclusion of children from community and school groups based on characteristics and behavior, (c) contact with MR children, and (d) contact with wheelchairbound children. The effects of grade, sex, and contact on these four dimensions was studied.

Results indicated that female 5th and 6th graders were most likely to express a desire to interact with handicapped peers. Girls were significantly more accepting than boys of these handicapped peers. Related to the deviance consequence factor, Voeltz (1980) suggested that children may have the expectation that negative consequences are deserved for behavior that is noncompetent or violates social rules. This is in accord with the Cole and Pennington (1976) study on social judgments of behavior in which younger children viewed unintended and intended rule violations in a similar fashion. Voeltz advocated social interaction skill development for the handicapped. Furthermore, she recommended providing them with activities

which may enable them to enhance their status in the regular classroom.

The effects of structured interactions between nonhandicapped and handicapped children in promoting positive attitudes was studied by Voeltz in 1982. This investigation was essentially an extension of the 1980 study, thus the children were exposed to an additional year of experience with handicapped peers through the nonstructured or structured interaction conditions.

Results indicated that there was a positive change in attitudes as a result of the more intensive interaction programs. Females, before and after the intervention, tended to be more accepting than males of the severely disabled. Voeltz (1982) emphasized the need for social interactions which are mutually beneficial rather than those in which nonhandicapped children act as helpers or teachers of the handicapped. In this way friendship relationships may be facilitated.

Educational presentations. In attempting to modify the attitudes of nonhandicapped individuals toward their handicapped peers, various educational presentations have been used. In some, the potential capabilities of the handicapped individuals were conveyed by having them perform a variety of activities while being observed. The effects of such activity performance on the attitudes of normal

peers were recently studied by Bates, Morrow, Pancsofar, and Sedlak (1984).

The subjects were 162 teacher trainees who were shown a slide presentation of a woman depicted as having Down's Syndrome. In one condition the woman was involved in functional, integrated, and age appropriate curriculum activities. In the other condition she was involved in nonfunctional, segregated, and age inappropriate activities. There were 14 activities presented in each condition. Changes in attitudes and expectations were assessed using the Attitudes Toward Disabled Persons (ATDP) questionnaire (Yuker, Block, & Youngg, 1966) prior to the slide show and using a questionnaire concerning attitudes toward the target individual after the presentation.

Results showed that expectations concerning the woman's IQ, label of MR, classroom placement, residential situation, earning capability, and employment setting tended to be higher for the person involved in functional activities. Although preintervention attitudes were comparable in both groups of subjects, those viewing the functional activity slides were more optimistic about the woman than were the other group. Bates et al. (1984) suggested that observation of individuals involved in functional tasks may positively influence judgments of the competencies of those with handicapping conditions.

Westervelt and McKinney (1980) studied the effects of an educational film on the attitudes of nonhandicapped children toward the handicapped actor. More specifically, they presented a film of a wheelchairbound child interacting with peers in various school activities. The subjects were 46 4th graders including 23 in the control condition.

Accompanying the film was a narration that emphasized similarities between the activities and interests of the disabled child and those of nonhandicapped peers. In order to measure attitudes, Westervelt and McKinney (1980) administered a social distance questionnaire. In addition, an activity preference measure assessed the subjects' ratings of their own interests and the handicapped child's potential interests in areas such as academic tasks and recreation.

Findings indicated that, after viewing the film, children were more attracted to the wheelchairbound child. Attraction to a different child, seen in a photograph wearing crutches and braces, was not increased after viewing the film. At the 9-day follow-up, no significant results were indicated due to the film presentation. Westervelt and McKinney (1980) noted that the film may be useful immediately prior to the mainstreaming of handicapped children into the regular classroom, thereby increasing the immediate attraction and facilitating social interaction.

In attempting to promote positive attitudes toward handicapped children, Gilfoyle and Gliner (1985) exposed nonhandicapped children to an educational puppet show about various handicaps. The subjects were 172 4th, 5th, and 6th graders from regular classrooms in three types of schools. The schools had a special education program, no special education program, or special education but no exposure to the puppet show.

The authors devised an attitude survey so that age appropriate topics of concern and age appropriate language were used. The survey included a Visual Analogue Scale in which two contrasting descriptors of a statement were separated by a 15-cm line. The children made a mark on the continuum line to represent the level of the descriptor as applied to the phrase.

There were eight feeling and seven information type items. A second portion of the survey asked three questions concerning handicaps that had not been depicted in the puppet show. Subjects were given the questionnaires 2 weeks prior to and immediately following the show. The control group also took the survey at a 2-week interval.

Results indicated that responses on the information type questions significantly improved due to the intervention. Responses to items concerned with feelings and behaviors were not altered significantly. A generalized shift in attitudes was evidenced by the finding that item

responses to questions about the unshown handicaps also improved.

Gilfoyle and Gliner (1985) suggested that increased knowledge is a prerequisite for changing feelings. As such, educational programs may be a valuable part of the total mainstreaming effort. The authors advocated education and direct contact as variables which may facilitate positive attitudes.

Racial Integration

Racial integration through desegregation of public schools can be viewed as analogous to the mainstreaming of handicapped children. Both aim for the acceptance of a minority social group by the majority group peers. Both attempt, therefore, to promote equal-status interactions in order to facilitate positive attitudes between the groups. The ultimate goal of desegregation and mainstreaming is to enable productive equal-status functioning in society for all individuals.

In 1954 the United States Supreme Court outlawed government-enforced separate but equal educational facilities for Blacks and Whites. This, in effect, called for racial integration in public schools. The Supreme Court primarily based its decision on a 1953 document known as the Social Science Statement.

The Social Science Statement, formulated by numerous social scientists, suggested necessary conditions for positive racial relations. Among the conditions were (a) endorsement of the program by those in authority, (b) absence of competition between group members, (c) equal status and equal functions for all, and (d) contacts which allow the different groups to learn about one another (Cook, 1979).

Stanfield (1982) suggested that efforts toward racial integration have failed to result in racial equality. He noted that those involved in desegregation have assumed that, by some automatic process, social contacts would result in successful integration. In American society, Stanfield continued, it is normative for racial groups to remain separate and to negatively stereotype one another. Thus, even though public schools may be desegregated, social interaction and successful integration may be absent. The author emphasized the need for public schools to focus on their potential for facilitating true integration into society rather than simply intraschool desegregation.

Recognizing that social contact between groups does not guarantee successful integration, researchers have attempted to explore factors which may facilitate positive attitudes toward cross-racial groups. Stephan and Rosenfield (1978) studied the determinants of racial attitudes of White elementary school children during initial desegregation

efforts. They cited several studies (Armor, 1972; Barber, 1968; Campbell, 1956; Dentler & Elkins, 1967) in which negative racial attitudes were the outcome of desegregation.

The Stephan and Rosenfield (1978) study used 65 White 5th and 6th grade children who were interviewed prior to court ordered desegregation and again 2 years after exposure to integration. Eight questions concerning type of social contact were rated as to how often the children were involved in such contacts. In addition, the subjects answered 10 questions via which they described Blacks and Mexican Americans using a semantic differential scale.

Results indicated that an increase in interracial contact was associated with more positive attitudes toward these minority groups. Stephan and Rosenfield (1978) advocated intimate, equal-status, and cooperative interaction in order to enhance attitudes toward outgroups.

In a 1979 study Singleton and Asher measured cross-race acceptance using liking as a criterion. The study was longitudinal; children were questioned in the 3rd grade and again in the 6th grade. The subjects were 116 White and 138 Black males and females. They rated each classmate on a Likert-type scale for liking in work and play situations.

Results indicated that cross-race ratings generally were positive. Contact did not, however, significantly improve relations. There was, instead, a tendency for

own-race preference to be greater in older children, especially with Blacks.

Furthermore, the authors noted that race accounted for a small amount of the variance as compared to gender. Thus cross-sex ratings were relatively low and a preference for same-sex peers was maintained in the 6th grade. In conclusion, Singleton and Asher (1979) advocated the use of cooperative interaction rather than simple contact for improving interracial acceptance.

Aronson and Osherow (1980) also advocated cooperative interaction as a means for enhancing racial relations. They suggested that changes in the overall structure of the classroom were necessary in order to facilitate successful integration. These authors described the typical classroom as being extremely competitive.

Children compete to gain the attention of the teacher, obtained when a child is called upon to answer a question. That child then may be subject to praise for a correct response or ridicule for an incorrect answer. In the latter instance peers may devalue the child's intellectual competency.

Aronson and Osherow (1980) noted that desegregation can be the first step to total integration and that cooperative interaction is a crucial variable. These authors described an interdependent learning situation which was intended to promote the value and behavior of cooperation. This jigsaw

technique requires each student to learn particular information, then teach that information to other group members. Thus any single child is first involved in a group which learns a specified school lesson. That child then joins another group in which each member has unique and pertinent facts. A condition is, therefore, created in which individuals depend on and benefit from their peers. Such a cooperative method has been found to facilitate the formation of friendship and provide at least as much learning as a competitive classroom.

In interracial groups Whites often are more active even though cooperation is necessary for the task. Whites may, therefore, become more influential in the group. Cohen and Roper (1972) suggested that such White dominance in the face of equal status can be changed by altering the initial expectations of group members. They studied expectation training in which Black children were initially taught a task and given instructions on how to teach the task to others. Then the Blacks trained Whites in the task while other Whites observed.

Results showed that in a subsequent group situation, equal-status interactions occurred. The authors concluded that when the expectations of both social groups were altered, the group participation was equalized. Expectation training has shown initial success in raising the accuracy

of expectations concerning competent performance of minority group students.

Research efforts in the area of racial integration have attempted to identify factors which may facilitate positive attitudes and social interaction between groups. Similar efforts have occurred in the research on mainstreaming handicapped children. The work of social psychologists concerning attitudes toward minority groups may have relevance for mainstreaming (Strauch, 1970). Racial integration and mainstreaming involve efforts to enhance the educational and social opportunities of children who are members of outgroups.

Factors which are useful to consider in the integration of orthopedically impaired children include physical appearance (Baron & Byrne, 1984), direct or indirect contacts (Cook & Wollersheim, 1976; Donaldson, 1980; Hazzard, 1983; Rapier et al., 1972; Sheare, 1974; Stephan & Rosenfield, 1978; Strauch, 1970; Voeltz, 1980, 1982), equal-status interactions (Donaldson, 1980; Stephan & Rosenfield, 1978), and cooperative interactions (Aronson & Osherow, 1980; Singleton & Asher, 1979; Stephan & Rosenfield, 1978; Strauch, 1970). Each of these factors--physical appearance, contacts, equal status, and cooperative interactions--may be influential in shaping attitudes.

As noted by Baron and Byrne (1984), attitudes may be based partially on observed behavior. Researchers have provided structured contacts so that the handicapped or minority individuals displayed competent behavior in a variety of tasks (Bates et al., 1984; Cohen & Roper, 1972; Gilfoyle & Gliner, 1985; Westervelt & McKinney, 1980). These authors found that competent task performance promoted positive attitudes toward the performer.

Attribution of Task Performance

Task performance, a common behavior in the classroom, may relate to the attitudes of children toward their classmates. Thus the attitudes of children toward orthopedically handicapped peers may be a function of task success or failure by these handicapped individuals. A study which supports this notion was performed by Russell, Lenel, Spicer, Miller, Albrecht, and Rose (1985). These authors explored how the achievement performances of the physically handicapped are evaluated and whether attributions mediate the process. The subjects were female college students from an educational psychology course. They viewed 1 of 4 videotapes of a 3rd grader who was wheelchairbound or nonhandicapped and succeeded or failed a mathematics test. The subjects evaluated the child's performance and provided attributions of the locus of causality, controllability, and stability.

Results indicated that the physically disabled individual received more negative evaluations than the nonhandicapped for comparable achievement performance. In this study, attribution processes were not found to account for these different evaluations. More specifically, perceptions of controllability were not influenced by the presence of a physical handicap. Perceptions of controllability, however, were consistent with Weiner's (1979) theory of attribution: effort attributions for success were positively associated with evaluations and for failure were negatively associated with evaluations. Thus task performance may influence the attributions made by nonhandicapped children of their peers, whether handicapped or nonhandicapped.

As noted by Ruble (1973) there is a tendency for observers to attribute task performance of the actor to dispositional factors. There also is a tendency to assume that the observed behavior is reflective of future actions (Nisbett, Caputo, Legant, & Marecek, 1973).

Research on the outcome of task performance has explored the attributions made by the performers and the observers of behavior. Ruble (1973) studied the types of attributions of actors and observers in situations of task success and task failure. The subjects were 43 college students who answered a questionnaire. Situations and their outcomes were described and subjects made causal

attributions for the outcomes. By the wording on the questionnaire the subjects were placed in the role of actor or observer in each situation. They then were asked to write down the most probable cause of successful or failing outcome.

Results indicated that, as observers, the subjects attributed greater causality to the actor and attributed the outcome to stable aspects of behavior. There also was a tendency for the observers and actors to attribute success to the actor and failure to the situation.

There is a tendency for observers to attribute behaviors to internal, dispositional factors but for actors to attribute their behaviors to environmental factors when they fail and to dispositional factors when they succeed. As noted earlier, this phenomenon is known as the actor-observer effect (Jones & Nisbett, 1972). These authors suggested that the observers of behavior lack important information about the consistency and distinctiveness of a behavior. Thus they may generalize and attribute a given behavior to internal dispositions of the actor.

Arkin and Duval (1975) noted that the attributional tendencies of actors and observers may be a function of their particular focus of attention. For the observer the actor is central and, therefore, attracts the most attention. The observer then tends to attribute the causes

of the behavior to the actor rather than to the less salient environmental factors.

In observing an orthopedically handicapped individual, the salience of the disability may increase the tendency of observers to focus on the actor rather than upon the task performance. They may focus on a specific dispositional characteristic, such as a handicap, and attribute the cause to that characteristic. Failing task performance may then erroneously be viewed as a function of the disability.

According to attribution theory, observers evaluate the dispositional and situational factors in assessing the behaviors of others. Yet observers and actors use different information in the evaluation process (Gould & Sigall, 1977). As suggested earlier, observers lack information about typical behaviors of the actor. Observers are thought, therefore, to evaluate observed behavior in terms of some normative response in addition to dispositional factors. Gould and Sigall assumed that, with instructions to be empathetic, observers could become functionally equivalent to actors because they would process information and focus attention differently.

In order to explore this idea, Gould and Sigall (1977) conducted a study using 48 adult females. The subjects watched a videotape of a male whose task was to make a good impression on a female. In one condition he reportedly succeeded and in the other condition he failed. Subjects

were given instructions to empathize or simply to observe behavior.

Results indicated that the empathizers tended to make dispositional attributions for success and situational attributions for failure. This finding is consistent with the expected causal attributions made by actors. Those subjects who were instructed to observe behavior made attributions which were dispositional regardless of the task outcome.

Another aspect of causal attribution in task performance involves expectancy. Feather and Simon (1971) suggested that the expectation of success on a task is influenced by a relatively stable estimate of ability and of the perceived difficulty of the task. Other factors which may be considered by the observers and actors are luck and effort.

Feather and Simon (1971) studied the effects of expectancy for task success on the attributions made by observers and actors. The subjects were 128 college students who attempted the task of solving anagrams while in same-sex pairs. The difficulty level of the anagrams varied so that one half the subjects failed and the other half succeeded. Prior to the test task subjects attempted five practice anagrams and were given feedback as to their individual performances and that of their partner. They

then were asked to rate their degree of confidence in their success and their partner's success.

Results indicated that unexpected outcomes were attributed to environmental factors significantly more than expected outcomes. The success of others, when expected, was more often attributed to ability than the subjects' own success. The failure of others, when expected, was more often attributed to external factors.

The authors suggested that when expectations were disconfirmed there was a tendency to attribute the outcome to more variable situational factors rather than more stable factors such as ability or task difficulty. When the expectation of success is low but the actor succeeds, there may be a tendency to attribute the success to luck. Furthermore, unexpected failure by actors also may be more often attributed to luck.

In the study by Feather and Simon (1971), attributions for the causes of behavior were influenced by previously observed task performance. Similarly, Nisbett et al. (1973) had subjects observe actors interact and then predict their behaviors. Thirty-three college students observed actors who volunteered or refused to volunteer for a university-sponsored project. The authors anticipated that, in accordance with a tendency to make dispositional attributions for others' behaviors, the observers would expect that future actions would be of a similar nature.

Results indicated that observers viewed the nonvolunteers as less likely to volunteer for another project than those who did volunteer for the initial project. The authors thus noted that the observers tended to perceive behavior as reflective of personal qualities. As such, observers assumed that actors would behave in the future in ways similar to the observed behavior.

Attributions of behavior by observers is influenced by various factors such as task outcome and instructional set to be empathetic. One potential influence is the observers' own perceived similarity to the actor. Steblay (1981) studied the effects of perceived similarity, perceived dissimilarity, and taking the perspective of the actor on the attributions of observers.

The subjects were 240 college students assigned to one of the three above conditions. After observing the actor in a task success or a task failure situation, the subjects made causal attributions for the outcomes. Potential choices for the attributions included the dispositional factors of ability and effort as well as the situational factors of task difficulty and luck.

Results indicated that when observers perceived themselves as similar to the actor or assumed the perspective of the actor, causal attributions were similar to the typical actor. They thus tended to attribute success to internal factors and failure to external factors.

Stebly (1981) noted that as more knowledge about the actor is available, the tendency to generalize from a specific behavior should diminish. As in the Jones and Nisbett (1972) study, the subjects in the Stebly investigation perceived that future behavior would be consonant with the observed behavior. The subjects also perceived task success as a better predictor of future behaviors and of the dispositions of the actor than task failure.

In summary, the literature in the area of task attribution has suggested that there is a tendency for observers to attribute the behavior of actors to dispositional factors. This tendency occurs whether the actors are seen in task success or task failure situations when the observers are asked merely to watch the behavior. Another tendency is for observers to expect that the observed behavior is indicative of future behavior.

Task performance has been found to influence attributions. Thus such performance may influence the impressions of children toward each other in the classroom. Task success by handicapped children may be observed by peers and lead to more positive predictions about the potential capabilities of these children and their similarities to the observers. Positive attributions of their behaviors may enhance positive attitudes toward these children and facilitate social interaction with peers.

Chapter 2

RATIONALE FOR PRESENT STUDY

In 1975 the Education for All Handicapped Children Act (PL 94-142) mandated public education for handicapped children in environments that are least restrictive to their total development. As such there has been an increase in the mainstreaming of these children into the regular classroom. The integration of handicapped children, including those with orthopedic impairments, has created special problems and concerns for educators.

The educational needs of these individuals have led to the development of specialized instructional techniques, adapted learning materials, and teacher education programs. The social needs have resulted in attempts to facilitate acceptance of handicapped children by educators and peers, to provide positive social interaction, and to mitigate feelings of rejection on the part of handicapped children.

As noted by Semmel, Gottlieb, and Robinson (1979), mainstreaming has typically been defined in the literature as regular classroom placement of handicapped children for a portion of the school day. Little attention has been focused on developing guidelines for integration programs. In recent years, however, there has been increased research

aimed toward identifying factors which may facilitate mainstreaming.

The social adjustment, as well as academic achievement, has been a major criterion used to assess integration programs. Mainstreaming in no way ensures social acceptance of handicapped children (Siperstein & Bak, 1978). Factors which may enhance social integration and, therefore, the social development of these children have been explored. These factors include the attitudes of the public, teachers, and school children toward handicapped individuals. Social psychologists such as Rajecki were cited as saying that attitudes are "relatively lasting clusters of feelings, beliefs, and behavior tendencies directed toward specific persons, ideas, objects or groups" (Baron & Byrne, 1984, p. 126). They thus consist of affective, cognitive, and behavioral components and may affect the social interaction between handicapped children and their peers.

In a study of public attitudes toward mentally retarded (MR) children, Gottlieb and Corman (1975) found that a minority of the adults surveyed believed that MR children would learn more in a regular than in a special education classroom. Furthermore, the investigation revealed public misconceptions about these individuals and negative attitudes toward integration. Similar findings have been reported in studies of teacher attitudes.

Moore and Fine (1978) explored the attitudes and perceptions of special education and regular teachers toward various disability groups and found that teachers tended to stereotype the groups. In another study (Stephens & Braun, 1980) 40% of nearly 800 teachers indicated that they would not be willing to integrate handicapped children, including educable mentally retarded (EMR), physically impaired, and emotionally disturbed individuals, into their classrooms.

Other studies have attempted to assess the attitudes of children toward various handicapped persons. Parish, Ohlsen, and Parish (1978) assessed children's attitudes toward peers who were physically handicapped, learning disabled, emotionally disturbed, and normal. Results indicated that ratings on an adjective checklist were significantly more positive toward normal children than any other group.

The attitudes of children toward an orthopedically impaired child were explored by Jones and Sisk (1967) who found that children as young as 4 years of age perceived the limitations of physical handicaps. For example, 4- and 5-year-olds indicated that the handicapped child would have less fun at a carnival and 5-year-olds were less willing to play with a handicapped child than a normal child.

In making judgments and forming attitudes about others, people tend to rely heavily on their first impressions (Baron & Byrne, 1984). Because these first

impressions may be difficult to alter, it is important to identify factors which may affect initial reactions in interactions between handicapped children and their nonhandicapped peers. Siperstein and Gottlieb (1977) investigated the effects of the appearance and behavior of an MR child on the impressions of school children. A hypothetical child was depicted as having a normal or Down's Syndrome appearance and as being a competent or incompetent speller.

Children responded more positively to the competent child and more favorably to the normal appearance than the abnormal appearance child, regardless of competency. Findings indicated that an incompetent, nonlabeled child was rated more positively than a competent physically handicapped child. Thus physical appearance did affect the ratings of a competent child in a negative way.

The attitudes of the general public, teachers, and school children have been found to be less positive toward those perceived as having cognitive and physical impairments. In attempting to explain the development of such attitudes, researchers have explored the factors of previous experience or contact with handicapped persons, integration, structured interaction after integration, and knowledge or information about handicapping conditions.

Strauch (1970) found that the ratings toward various disability groups were more positive by those who had had exposure to EMR students through school courses. Cook and Wollersheim (1976), however, found that previous experience with handicapped peers did not singularly affect the attitudes of children toward a hypothetical MR child. It must be noted in the Strauch study that, although attitudes in the contact group were more positive than the no contact group, all groups expressed negative perceptions.

Much of the research on the effects of mainstreaming on the attitudes of nonhandicapped peers has involved MR children. Sheare (1974) studied the perceptions of children toward EMR peers as a result of mainstreaming. Those children who were involved in the integration program had a significantly greater acceptance of EMR peers than those who had only the opportunity for contact without classroom integration. Research which focuses on the attitudes of the nonhandicapped toward physically handicapped peers is scant compared to that involving MR peers. In one study of attitudes toward orthopedically impaired children, Rapier, Adelson, Carey, and Croke (1972) found that attitudes were more positive toward the handicapped children following structured integration.

As noted earlier, mainstreaming of the handicapped cannot guarantee their acceptance by other children. Semmel et al. (1979) noted that temporal integration

may even result in low levels of social status for handicapped children. These authors emphasized the importance of structured integration and active interventions in order to facilitate positive social perceptions.

Attempted interventions which have been found to facilitate positive attitudes include structured interactions between handicapped and nonhandicapped peers after integration and education concerning handicaps. Voeltz (1980, 1982) provided intensive structured interaction between school children and mentally and physically handicapped peers. This author found that involvement in a Special Friends program along with an educational slide presentation facilitated positive attitudes toward the handicapped peers.

Structured exposure via media presentation has shown some success in promoting positive attitudes toward handicapped individuals. These studies are based on the assumption that accurate information about handicapped individuals is a prerequisite to the development of positive attitudes. An educational film was presented to 4th grade children by Westervelt and McKinney (1980). The film showed a wheelchairbound actor involved in numerous school and recreational activities.

It was found that those who viewed the film were more attracted to the wheelchairbound actor than those who did

not view the film. There were, however, no significant results due to the film at the 9-day follow-up. During this period the subjects had no further exposure to handicapped individuals. The authors suggested that such a film may be useful immediately prior to the integration of handicapped children.

An educational puppet show was used in a study by Gilfoyle and Gliner (1985). The puppets were depicted as having various handicapping conditions, including one puppet that was wheelchairbound. The dialogue provided information concerning the handicaps.

Results indicated that the responses of the children to information questions were more accurate following the presentation. Items concerning feelings and behaviors, however, were not significantly altered. The authors suggested that because accurate information is an important precondition for changing feelings, such a presentation may be a valuable part of integration programs.

Mainstreaming of handicapped children can be viewed as analogous to racial integration in public schools. The desired goal of both is to enable productive equal-status functioning in society for minority group members. In the schools, one aim is acceptance of the minority group by majority group peers. Researchers in the areas of mainstreaming and racial integration have attempted to explore factors which may facilitate positive attitudes.

Racial integration researchers have advocated the use of equal-status and cooperative interaction between racial groups (Aronson & Osherow, 1980; Singleton & Asher, 1979; Stephan & Rosenfield, 1978). Another condition for positive racial relations was suggested in the Social Science Statement as interpersonal contacts which allow the groups to learn about one another (Cook, 1979). It may be useful to consider these factors during mainstreaming due to their potential for shaping attitudes toward outgroups.

The research findings have supported the notion that structured exposure to the handicapped can result in more positive attitudes of nonhandicapped individuals toward handicapped persons. It appears that structured exposure via actual interaction and via educational media are important components of a comprehensive mainstreaming program. There is, however, a need to delineate the specific variables which act during structured exposure to facilitate positive attitudes toward the handicapped. One such variable is task outcome in school activities performed by the handicapped child.

Task performance is an integral part of the educational process and may affect the attitudes of school children toward one another. As children observe each other in the classroom they formulate perceptions of the causes of behavior and develop attitudes about classmates.

As noted by Jones and Nisbett (1972), observers tend to attribute the observed behavior to dispositional factors such as effort or ability rather than environmental factors such as task difficulty or luck. Observers lack information concerning the typical behavior of those observed and, therefore, tend to judge behavior based on expectations of what is normative behavior in the situation.

Feather and Simon (1971) studied expectation of task success or failure and attribution of actual performance outcome. Results indicated that when observers expected the successful outcome they attributed the behavior to ability. When observers expected the failing outcome, they attributed lack of ability. When expectations were disconfirmed, however, environmental factors were used to explain the outcome, thus unexpected success or failure may be attributed to luck rather than the competency level of the performer.

Nisbett, Caputo, Legant, and Marecek (1973) and Steblay (1981) noted that observers also tend to assume that actors will behave in the future in a similar fashion to that of the observed behavior. Expectancy influences the degree to which an observer might consider present behavior as indicative of future actions. Success was found to be a better predictor of future behavior than failure among adults in the Steblay study.

When nonhandicapped children observe a handicapped child succeed in school tasks, they may assess the child's behavioral capabilities more positively than if they observe the child fail in tasks. For example, Cook (1976) found that children's expectations of a hypothetical MR child were influenced by their perceptions of current behavioral competencies. The MR child who was depicted as being competent was rated as having a greater potential for adaptive behaviors, thus the competency level of the handicapped child did influence the attributions made by classmates and their expectations of competent future behavior by this child.

Factors which lead to positive perceptions of behavioral capabilities may lead to more positive attitudes. These positive attitudes--including expectations, beliefs, feelings, and behavioral intentions--may then facilitate positive social interactions between nonhandicapped and handicapped school children.

In summary, the attitudes of nonhandicapped children have been found to be less positive toward handicapped than toward nonhandicapped peers. Structured exposure to the handicapped via media presentations as well as via face-to-face interactions has been found to lead to more positive attitudes toward these individuals. The competency level of the handicapped child has been shown to have an effect on attitudes toward the child.

Task performance outcome may facilitate positive attitudes based on the attributions for the behavior which are made by observers. Furthermore, positive attitudes may be related to expectancies of competent future behavior. As such, the present study investigated the effects of the outcome of task performance of an orthopedically impaired child on the attitudes of nonhandicapped peers toward this individual and toward physically handicapped peers in general.

Hypotheses

It was hypothesized that the attitude ratings of nonhandicapped children would be significantly more positive toward a handicapped child who was observed successfully completing a series of tasks than one observed failing the tasks or one performing no tasks. It also was hypothesized that attitude ratings would be significantly more positive toward physically handicapped children in general after viewing a handicapped child who successfully completed a series of tasks than one failing the tasks or performing no tasks.

In order to analyze the variables of task performance and presence of an orthopedic impairment on attitudes, this study included a wheelchairbound child and a normal child who performed successfully, failed the tasks, or performed no tasks. Because there has been a tendency in children to

rate attitudes toward normal peers higher than those toward handicapped peers, another interest of the study concerned this issue. It was hypothesized that the attitude ratings would be significantly more positive toward the nonhandicapped than toward the handicapped child in similar task conditions. Although a study by Katz, Farber, Glass, Lucido, and Emswiller (1978) found that helping behavior was greater after interactions involving negative behaviors by a wheelchairbound than by a normal adult, the willingness to be involved in equal-status interactions may differ from that of helping situations.

The present study attempted to assess the behavioral intentions aspect of attitudes by analyzing expressed willingness to be involved in equal-status and cooperative interactions. Furthermore, other aspects of attitudes were measured in addition to behavioral intentions.

Attitudes, including beliefs, feelings, and behavioral intentions, were assumed in this study to relate to the behavior of social interaction between nonhandicapped and handicapped peers. Ajzen and Fishbein (1973) suggested that behavioral intentions mediate behavior and are a function of attitudes toward the act and beliefs about what others expect in the situation. Thus they emphasized the importance of assessing attitudes toward acts in addition to attitudes toward objects.

As such the present research assessed behavioral intentions concerning various hypothetical situations and by asking subjects to commit to being involved in a cooperative task with the child they observed performing tasks. It was hypothesized that there would be a significant positive correlation between attitude ratings toward physically handicapped peers and a commitment to be involved in a cooperative task with the handicapped target child.

Other factors which have been found to relate to the acceptance of handicapped individuals by nonhandicapped persons include the age and gender of the normals, and their previous contact with handicapped persons. In some studies, age has been correlated with acceptance and understanding of the handicapped: older children have been shown to have greater acceptance (Voeltz, 1980) and greater understanding (Cole & Pennington, 1976). Others (Parish et al., 1978) have found no differences in attitudes based on age. Because children have been found to perceive the limitations imposed by physical disabilities as early as 4 years of age (Jones & Sisk, 1967), and the present study attempted to focus on initial attitudes, kindergartners were used as subjects.

The literature on gender differences in attitudes toward the handicapped provides conflicting results. As noted by Hazzard (1983), females have typically been found to be more accepting and nurturant of others than males.

She furthermore noted that females tend to respond in a more socially desirable direction on psychological measures. Others have indicated that acceptance may be related to the gender of the target individual in relation to the rater, with same-sex peers being preferred more than opposite-sex peers (Singleton & Asher, 1979).

In the area of children's attitudes toward disabled peers, girls have expressed more positive attitudes in some studies (Sheare, 1974; Voeltz, 1980), while no significant gender differences have been found in other studies (Parish et al., 1978; Rapier et al., 1972). Taken together, the literature on gender differences in attitudes suggests that females may tend to provide more positive attitude ratings. Furthermore, the present study enlisted a female as the target child. The attitude ratings of females were, therefore, expected to be more positive toward the target child and toward physically handicapped peers in general. In the major analyses gender was treated as a covariate, assuming that attitude ratings in a classroom would be greater as the proportion of females in the classroom increased.

Kindergartners were likely to have varying amounts of previous contact with physically handicapped individuals, which was expected to relate to their attitudes toward handicapped peers. Rapier et al. (1972) and Sheare (1974) found that increased contact was associated with more

positive attitudes toward the handicapped. Cook and Wollersheim (1976), in contrast, found no significant differences in attitudes based solely on the amount of previous contact. Assuming that previous exposure to handicapped individuals potentially influences attitudes and that this influence may be positive, the level of previous contact was treated as a covariate.

In summary, the present study assessed the attitudes of children toward handicapped peers as a function of task performance. In order to reduce the error variance, grade level of the children was held constant and gender and previous contact with the handicapped were considered as covariates.

Chapter 3

METHODS

Subjects and Design

The subjects were 172 male and female kindergartners. Parental permission via signed informed consent was required in order for the children to participate. Intact classrooms were randomly assigned to each of the six treatment conditions. A 2 x 3 analysis of covariance design was employed using 3 classrooms in each condition. The between-group variables were the type of stimulus individual (wheelchairbound versus nonhandicapped) and the type of task performance (successful versus failing versus none). Subject gender (male versus female) and previous amount of contact with the physically handicapped were the covariates.

Procedure

Subjects were informed that they would be watching a videotape about a girl who was in kindergarten. They were told that the child would be asked by her teacher to do some schoolwork. The subjects were told to watch closely and that they would be asked some questions after watching the videotape (see Appendix A).

The subjects were shown a videotape of a child sitting at a table with a female adult who was supposedly the child's teacher. The child was sitting in a chair or was wheelchairbound. The same girl and adult appeared in each condition.

Several factors were considered in order to enhance the reality of the presentation. Studies in the area of modeling have shown that the reality of the model's behavior increases the impact on the viewer. Thomas and Tell (1974) and Geen (1975) conducted similar studies on modeled aggression using child and adult subjects, respectively. The subjects were found to be more aggressive after watching videotaped fights that were said to be real than those said to be simulations. Thus the present study also described the enactments as real situations.

Videotapes were used under the assumption that this form of presentation would seem more realistic than a film with actors (Westervelt & McKinney, 1980) or a puppet show (Gilfoyle & Gliner, 1985). To further increase the likelihood that subjects perceived the situations as real, the child was said to be a kindergartner and performed tasks that were familiar to the subjects. Also, because all subjects had female teachers, a female adult was used in the videotape.

Each classroom of subjects observed one of the following conditions: (a) wheelchairbound--task success,

(b) wheelchairbound--task failure, (c) wheelchairbound --no task performance, (d) nonhandicapped--success, (e) nonhandicapped--failure, and (f) nonhandicapped--no task performance. In the handicapped conditions the girl simulated being wheelchairbound so that the physical disability was obvious and did not interfere with task performance. The child thus performed school related tasks which required only the use of the upper extremities and trunk mobility.

In the videotape the target child came into the room and sat adjacent to the adult at the table. The adult greeted the girl and conversed with her about Halloween and about her pets. In the no task condition the adult briefly explained each of the tasks and then the videotape ended. In the task success and failure conditions each task was explained immediately before the child attempted the task. Feedback was given to the child concerning individual task performance as well as overall task performance (see Appendix B).

The tasks were age appropriate to the developmental level of the target child and subjects. Tasks were selected from the kindergarten curriculum such that the subjects had previously attempted them in school. The same 10 activities were performed in each of the task performance situations, but the outcomes were varied. In the task success situation the child successfully completed 8 of 10 tasks, failing the

6th and 8th tasks attempted. In the task failure condition the child failed 8 of 10 tasks, successfully completing the 6th and 8th tasks.

Task success and failure were incorporated into each condition in order to depict a more realistic classroom situation. Eighty percent success or failure was assumed to be salient enough for accurate perception of the task condition while avoiding total success or failure by the child.

Because no assumption was made concerning the typical or expected performance of a handicapped or nonhandicapped child, a neutral condition, without success or failure, was deemed necessary. The no task performance conditions were thus incorporated to provide a baseline of comparison for the task outcome manipulation.

The tasks were selected from the kindergarten curriculum after consultation with the classroom teachers. They included the following: (a) counting aloud to 5, (b) handing the adult a crayon of the primary color requested, (c) putting shapes into a form board, (d) naming the shape of a square when visually presented, (e) stacking five blocks, (f) copying a five-bead pattern, (g) putting together a four-piece puzzle, (h) responding to "what month comes after July?" (i) pointing to the biggest of three pictured balls, and (j) putting on and snapping a vest. The bead stringing and question/response tasks were

failed in the success condition. The block stacking and puzzle tasks were successfully completed in the failure condition.

After watching the videotape, subjects provided written answers to questions which were presented orally. Prior to answering the attitude questions, the subjects were told how to use the answer sheets and then attempted three practice questions. They were told to circle the symbol that represented their answer and were reminded to use their own ideas and answer how they really wanted to answer.

The attitude questions were concerning the child in the videotape and wheelchairbound children (see Appendix C). These items were intended to tap the cognitive, affective, and behavioral components of attitudes. Brigham and Wrightsman (1982) described common methods in psychological research used to assess these attitudinal components.

Beliefs and expectations, which may represent stereotypes, have typically been measured by having subjects choose from a list of traits those which describe an individual or social group. Feelings have been assessed using statements and lists of feelings and having subjects rate the degree to which they endorse the statement or experience a feeling in relation to the stimulus. Behavioral intentions have been measured using a social distance scale via which the subjects rate their willingness to be involved with the person or group.

Because the present study used young children as subjects, the questionnaire consisted of simplified versions of these methods of assessing attitudes. Various questions were adapted from those used in studies of the attitudes of children toward handicapped individuals (Hazzard, 1983; Parish & Taylor, 1978; Rapier et al., 1972; Siperstein & Gottlieb, 1977; Voeltz, 1980).

In addition to the attitude questions, there were three used as manipulation checks (see Appendix C). Attention and comprehension were assessed by asking subjects to recognize the name of the target child. A second question asked about the task performance as a check for accurate perception of the task condition. The third question was aimed toward the correct perception of the presence or absence of a physical handicap.

The questionnaire used a Likert-type format so that subjects answered each item by replying "Yes," "No," or "I don't know." The answer to each question was indicated on a separate piece of paper. Each answer sheet had the following symbols: a smiley face to represent "Yes," a smiley face with an X through it to represent "No," and an empty circle to represent "I don't know." In order to

avoid confusion, these symbols appeared in the same relationship on all answer sheets.

After each question the research assistant held up a picture of each symbol and reminded the children what each represented. Prior to asking the questions which contained the word "wheelchair," the assistant held up a drawing of a wheelchair and briefly explained its purpose (see Appendix A). Thus the order of questioning was as follows:

(a) three practice questions, (b) manipulation checks 1 and 2, (c) attitude questions concerning the target child, (d) manipulation check 3, and (e) attitude questions about children in wheelchairs. Two adults monitored the session in order to help the children mark their intended response on the correct answer sheet.

A second questionnaire was used to assess the level of previous contact that subjects had with physically handicapped individuals. This questionnaire was attached to the signed consent forms and filled out by the parents. The parents were asked to avoid discussing the questions and the experiment with their children as a guard against subject sensitization. A third questionnaire given to the teacher asked about previous contact with the physically handicapped in the school setting.

Pilot Work

Pilot work was conducted in order to select attitude questions that kindergartners could understand and respond to in written form. The pilot study was performed using a sample of 29 children from two classrooms. One class viewed the wheelchairbound-task success condition and the other viewed the wheelchairbound-task failure situation. The subjects were presented orally with three practice questions, three used as manipulation checks, and 20 attitude items. The attitude items were selected on the basis of past research, face validity, and through discussions with kindergarten teachers.

The pilot subjects watched the videotape and provided written answers to the questions. They subsequently were individually interviewed in order to obtain verbal responses to the items. Each child verbally answered 10 of the 20 attitude items and each item was checked with a minimum of 10 children. The interviews were tape recorded and transcribed verbatim.

The written and oral responses of each child were then rated for consistency by two independent judges who categorized each response as "Yes," "No," or "I don't know." The interrater reliability was $r = +.99$, reflecting agreement on 371 of 372 total answers. The written and verbal responses of each subject were correlated using the Pearson Product-Moment Correlation Coefficient (see Table

D-1, Appendix D). Those items with a reliability of at least $r = +.60$ were used in the final questionnaire. The reliabilities ranged from $r = +.61$ to $r = +.74$.

Manipulation Checks

Included in the questionnaire were three items designed to assess the attention and comprehension of the subjects, the accuracy of perception of the task performance outcome, and the accuracy of perception of the type of target child in the videotape. An incorrect response to any 2 of 3 questions resulted in the exclusion of the subject's data from analysis.

Contact Questionnaires

In order to determine the level of previous contact that subjects had had with physically handicapped individuals, two questionnaires were used (see Appendix C). The first, a parent questionnaire, included seven items which asked whether their child had had "No," "Some," or "Frequent" contact with physically handicapped individuals in various situations. Furthermore, there was a request for a paragraph describing any additional contacts which may not have been assessed by the other items.

The second contact questionnaire was given to teachers and was used to assess school experiences for classrooms and for individual children. For example, a given class may have had experience with a physically handicapped visitor,

there may have been a physically handicapped child in the school, or a specific child may have had special contact with a handicapped child in school programs.

Each subject was assigned a score for previous contact based on information from the two questionnaires. Each item was scored 0, 1, or 2 to indicate, respectively, "No," "Some," or "Frequent" contact of a particular type.

Two independent judges scored each of the questionnaires. Interrater reliability was $r = .90$ and all discrepancies occurred in the assignment of scores to the paragraph which was written by parents. When discrepancies were found, the mean of the two scores was computed and used in the analysis. Total scores for previous contact ranged from 0 to 10.

Attitude Questionnaire

The attitude questionnaire incorporated two dependent measures which were aimed at assessing children's attitudes toward physically handicapped peers (see Appendix C). The first consisted of three questions which asked specifically about the girl in the videotape while the second included six items about physically handicapped children in general. Thus this was a specific attitude measure and a general attitude measure.

The specific attitude measure enabled (a) a comparison of attitudes toward the target child as a function of

handicapping condition and task performance, (b) an assessment of the relationship between attitudes toward the handicapped target child and attitudes toward physically handicapped peers in general, and (c) an assessment of the relationship between a commitment to interact with the handicapped target child and attitudes toward physically handicapped children in general.

The general attitude measure further allowed a comparison of attitudes toward physically handicapped children as a function of observing a handicapped or nonhandicapped target child successfully completing tasks, failing the tasks, or performing no tasks.

Item responses were coded from 1 to 3, with 3 representing the most positive attitude. In order to ascertain the relationship of individual item responses to the total attitude score for each of the dependent measures, the Pearson Product-Moment Correlation Coefficient was calculated. Item-total correlations were generated using all subjects, subjects in the handicapped condition, and subjects in the nonhandicapped condition (see Appendix D, Tables D-2 and D-3).

On the specific attitude measure all correlations were positive and highly significant ($p = .001$). They ranged from $r = +.76$ to $r = +.82$. On the general attitude measure the correlations on 5 of the 6 items were positive and

highly significant ($p = .001$), ranging from $r = +.55$ to $r = +.80$.

Item 4, which read, "Do you think kids in wheelchairs need help with just about everything they do?" showed a different pattern of correlations. Item-total correlations were positive and significant when all subjects were considered ($r = +.78$, $p = .009$) and when subjects in the nonhandicapped condition were considered ($r = +.32$, $p = .002$). In the handicapped condition, however, the correlation was nonsignificant ($r = +.06$, $p = .289$).

Coefficient Alpha was computed for the specific attitude measure and the general attitude measure (both with and without item 4) using all subjects. The coefficient of the specific, general, and general without item 4 were .70, .68, and .70, respectively (see Appendix D, Tables D-2 and D-3).

Item 4 was the only question for which a "No" response reflected a more positive attitude than a "Yes" response. Possibly, this created confusion in some children such that this item was not effective in tapping attitudes among all children. Thus, in order to reduce possible error, a second set of analyses were computed, removing item 4 from the total general attitude scores.

Follow-up

On the school day after the videotape was shown, a 15-minute follow-up session was provided for each class involved in the pilot study and the experiment. It was conducted by an adult who had a congenital absence of one hand and who was knowledgeable about physically handicapping conditions by virtue of a degree in occupational therapy and work experience.

This adult showed the children the drawing of a wheelchair which was used in the study. She then prompted discussion about the purpose of a wheelchair, the capabilities and limitations of wheelchairbound individuals, and about various other physically handicapping conditions.

Then the adult exposed her own handicap and answered the children's questions about her condition, capabilities, and limitations. She also demonstrated how she accomplished various tasks which included tying a shoe and cutting food with a knife and fork. Finally, the children were allowed to closely view the adult and to touch the limb as desired. Thus the subjects were able to ask questions which may have been raised during the videotape and follow-up sessions, and they were able to interact with a handicapped adult.

In addition to a follow-up session for the children, the results of the study were made available to school personnel and parents.

Chapter 4

RESULTS

Manipulation Checks

This study employed three questions which were used as manipulation checks (see Appendix C). The first assessed attention and comprehension via recognition of the target child's name. Of the 172 subjects who participated, 8 were unsure of the name of the girl in the videotape.

The second question assessed the correct perception of the task condition. Concerning the task performance outcome, 124 of the 172 subjects responded correctly (72%). Of 59 subjects in the success condition, 53 responded correctly (90%). In the failure condition, 51 of 61 subjects responded correctly to the question (84%). Of 52 subjects in the no task condition, 20 subjects responded correctly (38%).

It is possible that the task performance manipulation was not as effective as desired. Many children in the no task condition were unsure as to whether the target child had performed any schoolwork or responded that she had done schoolwork. This may have added error variance into the data.

The third question assessed the correct perception of the presence or absence of a wheelchair. In the wheelchair condition, 92 of 94 subjects responded correctly (71%). Just prior to this question, the research assistant held up a drawing of a wheelchair and briefly discussed reasons why certain children use a wheelchair. This procedure may have misled some of the subjects to believe that the girl must have been in a wheelchair and may have inflated the "correct" responses in the wheelchair condition.

Even with the exceptions noted, it appears that the manipulations were generally perceived as intended. Thus the major analyses of the data now will be discussed.

Major Analyses

In order to determine any significant main or interaction effects due to the independent variables while reducing error variance due to the covariates, 2 X 3 analyses of covariance (ANCOVAs) were used. The independent variables of interest were the type of target child (handicapped versus nonhandicapped) and the type of task performance (successful versus failing versus none). Gender and level of previous contact were the covariates. The unit of analysis was classrooms rather than individual subjects.

The hypothesis that kindergartners would express a more positive attitude toward the physically handicapped child observed in a task success situation than when observed in a

task failure or no task situation was not supported in this study. The ANCOVA revealed no significant interaction effect for Handicapped X Outcome as measured by the three items which were combined to measure specific attitudes ($F = .424, p = .67$). The maximum possible score on the specific attitude measure was 9, with higher scores reflecting more positive attitudes. The mean attitude ratings in the handicapped condition were 6.9, 6.0, and 7.0 for the success, failure, and no task situations, respectively (means were adjusted by the covariates). Although the mean in the failure condition appears smaller, the difference in attitudes toward the handicapped target child as a function of task performance was not significant.

It is interesting to note that there was no significant main effect for Outcome ($F = .435, p = .66$). Although no formal hypothesis was made, it might be expected that the attitude ratings would be more positive toward a nonhandicapped or a handicapped child who completes tasks successfully. Findings indicate, however, that specific attitude ratings were not significantly influenced by task performance.

A second hypothesis of this study proposed that the attitude ratings would be more positive toward physically handicapped children in general after observing a handicapped child who successfully completed a task series than one failing the tasks or performing no tasks. In order

to test this hypothesis, two separate ANCOVAs were performed. One analysis compared ratings on the six items which comprised the general attitude measure. Another analysis was performed, eliminating item 4 which was discussed previously as having a poor correlation with total scores.

The ANCOVA which included data from item 4 revealed no significant interaction effect for Handicapped X Outcome ($F = .979, p = .41$). The maximum possible score was 18, with adjusted mean ratings of 11.7, 11.7, and 13.0 for the success, failure, and no task conditions, respectively. Eliminating item 4 from the analysis did not change the statistical conclusions: no interaction effect was found ($F = 1.201, p = .12$). The adjusted mean scores for the success, failure, and no task performances were 10.8, 10.2, and 11.6, respectively, with 15 being the maximum possible score. Results showed, therefore, that general attitude ratings were not significantly influenced by the task performance of a handicapped target child.

It was predicted that the attitude ratings would be more positive toward the nonhandicapped than toward the handicapped target child in similar task outcome conditions. This hypothesis was not supported. The ANCOVA, using the specific attitude measure, revealed no significant main effect for the type of target child ($F = .066, p = .81$). The adjusted mean ratings were 6.70 in the handicapped

condition and in the nonhandicapped condition. Findings indicated that the kindergartners expressed similar attitudes toward the target child in like-task conditions whether or not she was nonhandicapped or wheelchairbound. Overall, results showed that the attitudes toward the target child were not significantly influenced by task performance or the presence of a handicap and that attitudes toward the handicapped were not influenced by observing a handicapped child perform successfully.

Another hypothesis of the study was that subjects' commitment to interact with the handicapped child would correlate positively with their attitudes toward handicapped children in general. Item 3 of the specific attitude measure asked the kindergartners, "If Bret visits your class tomorrow, will you be her partner to work on a puzzle together?" The Pearson Product-Moment Correlation Coefficient was computed between ratings on this item and the general attitude ratings. The correlation was positive and highly significant ($\underline{r} = .55, p = .001$). Because item 3 showed a negative and nonsignificant correlation to item 4 on the general attitude measure ($\underline{r} = -.12, p = .13$), the commitment for interaction was also correlated to the attitude measure after excluding item 4. The resulting relationship was $\underline{r} = .57, p = .001$.

It should be noted that the commitment general attitude correlation in the nonhandicapped condition was also significant and positive when item 4 was included ($\underline{r} = .43$, $\underline{p} = .001$) and when it was excluded ($\underline{r} = .48$, $\underline{p} = .001$). Taken together, the findings suggest that kindergartners who were willing to interact with a girl they had observed but had not met tended to express more positive attitudes toward physically handicapped children.

Analysis of the Covariates

In the present research, attitudes were expected to covary with subject gender and subjects' previous contact with physically handicapped individuals. As such, the ANCOVAs were performed using these two variables as the covariates. It was assumed that the attitude ratings would be greater toward the target child and toward handicapped children in general as the proportion of females in a classroom increased. Concerning the specific attitude measure, no significant effect for gender was found ($\underline{F} = .082$, $\underline{p} = .79$). Likewise there were no significant effects on the general attitude ratings which included item 4 ($\underline{F} = .769$, $\underline{p} = .41$) or which excluded item 4 ($\underline{F} = .792$, $\underline{p} = .40$). The correlations between the proportion of females and the specific, general, and general (no item 4) attitudes were $\underline{r} = -.054$, $\underline{r} = -.18$, and

$\underline{r} = -.17$, respectively. Thus analysis of gender as a covariate may have been unnecessary.

It was expected that the attitude ratings would be greater toward the handicapped target child and handicapped children in general as the level of previous contact increased. The ANCOVA for specific attitudes showed that the mean level of contact in a classroom had no significant effect on attitudes ($\underline{F} = .082$, $\underline{p} = .79$). Nonsignificant but marginal effects were found when comparing the level of previous contact to general attitudes, both including item 4 ($\underline{F} = 3.283$, $\underline{p} = .10$) and excluding item 4 ($\underline{F} = 3.919$, $\underline{p} = .08$).

The correlation between specific attitudes and previous contact in the handicapped condition was $\underline{r} = -.23$, $\underline{p} = .015$, indicating a significant negative correlation. Of course, it should be noted that this relationship is not strong, accounting for approximately 5% of the variance. Previous contact also showed negative correlations to general attitudes including item 4 ($\underline{r} = -.14$, $\underline{p} = .10$) and excluding item 4 ($\underline{r} = -.12$, $\underline{p} = .12$). In the nonhandicapped condition the correlations between previous contact and general attitudes, with and without item 4 ($\underline{r} = .24$, $\underline{p} = .019$ and $\underline{r} = .13$, $\underline{p} = .023$, respectively), were positive and significant.

Thus children tended to rate the handicapped child and handicapped children in general less positively after

observing the handicapped child if they had greater amounts of previous contact with physically handicapped individuals. In contrast, children who observed a nonhandicapped child showed more positive attitudes toward handicapped children in general as the subjects' level of previous contact increased.

Chapter 5

DISCUSSION

The present research focused on the attitudes of young children toward physically handicapped peers as a function of task performance by the handicapped. The attitude ratings of nonhandicapped kindergartners toward a physically handicapped child were found to be similar whether the target child completed tasks successfully, failed, or performed no tasks. Furthermore, the attitude ratings toward physically handicapped children in general were similar after observing a handicapped child, regardless of the performance of that child. These findings are contrary to the prediction that a physically handicapped child's success in task performance would lead to more positive attitudes toward the handicapped.

It appears that the competency level of the handicapped child did not significantly impact the attitudes of kindergartners in this study. This is in contrast to several previous studies which manipulated the level of competency and found effects (Bates et al., 1984; Cook, 1976; Siperstein & Gottlieb, 1977). Siperstein and Gottlieb found that competency affected 4th and 5th graders' trait descriptions of and willingness to interact with an average

looking or Down's Syndrome appearance target child. Cook, using 8th graders, also found that a competent child was rated more favorably than a low competency child, even in the context of a label of MR and a Down's Syndrome appearance.

Bates et al. (1984) found that teacher trainees' attitudes toward a woman having Down's Syndrome were more positive when she was involved in functional age appropriate activities than in nonfunctional age inappropriate activities.

These studies, it should be noted, used subjects who were older than those in the present research. It may be that kindergartners do not focus on and assess competency in the same way that older individuals do, or they may not at this point in their socialization fully understand the societal importance of success and competency. Results from the manipulation check concerning perception of task performance showed that 28% answered incorrectly. While 48 of 172 indicated that they misperceived the task condition, only 8 were unable to recognize the target child's name.

Many children indicated that the target child in the no task condition had performed schoolwork (17 of 52) or were unsure of whether she had done any schoolwork. In this condition, the adult showed the child several activities as if the child would soon be asked to attempt them. Thus subjects may have assumed that she did attempt activities

and then responded based on the assumption rather than on observation.

It is possible that children of kindergarten age use different criteria for assessing whether tasks are performed successfully. In the task failure condition 8 of the 10 who answered incorrectly indicated that the child had succeeded while only 2 of 6 who answered incorrectly in the task success condition marked that the child did not do most of the tasks right. The subjects may have focused more on the effort of the child than on task outcome. Possibly the act of attempting the activities in the task success and task failure condition was the salient factor in assessing performance.

The tasks in the present study were chosen so that the handicapping condition would not be any obstacle to performance and completion of the task. Thus children may have perceived task completion as "success," regardless of the quality of the performance. Furthermore, failure to complete or refusal to attempt a task rather than the quality of performance may be important in the perception of "failure" by kindergartners.

Another interest of the present study was to examine the effect of a handicapping condition on children's attitudes, regardless of the task performance. The assumption that attitudes would be more positive toward the nonhandicapped than toward the handicapped in similar task

conditions was not supported. Attitudes did not vary significantly as a function of observing a handicapped target child.

Several previous studies concerned with the attitudes of children toward handicapped individuals have focused on the appearance variable. Some have found a significant effect due to appearance (Cook, 1976; Jones & Sisk, 1967; Richardson et al., 1961; Siperstein & Gottlieb, 1977). Jones and Sisk found that 4- and 5-year-olds rated a peer seen in a drawing with leg braces more negatively than one seen without braces: they indicated that the handicapped child would have less fun at a carnival and, furthermore, 5-year-olds were less willing to play with this child than the nonhandicapped child.

Richardson et al. (1961) explored the attitudes of children toward peers with a variety of handicapping conditions. They found that 10- and 11-year-olds who saw drawings of the target children rated the nonhandicapped child more positively than the wheelchairbound child on the dimension of liking. It must be noted, however, that the wheelchairbound child was given more positive ratings than a child with absence of the left hand, facial disfigurement, or obesity. The authors stressed the potential importance of facial features in making judgments. The farther the handicapping condition was from the face, the more positive were the ratings.

In a study by Siperstein and Gottlieb (1977) children were shown pictures of a Down's Syndrome or normal appearance child while listening to a vignette of the child performing with average or low competence in a spelling bee. These authors found that the Down's Syndrome appearance did negatively affect the ratings toward a competent speller by 4th and 5th graders. In contrast to the studies in which appearance negatively affected attitude ratings, Cook (1976) found that 8th graders were able to accept and value a hypothetical peer who was drawn with the appearance of Down's Syndrome.

Each of the studies cited as manipulating appearance employed drawings of hypothetical children. This is in contrast to the use of a videotaped child in the present study. It may be that involvement of an actual child in activity which does not involve the affected body parts distracts attention away from the handicapping condition. Even in the Cook (1976) study a description about the level of competence was more influential than appearance in impression formation: the low competency target was rated more positively when shown with Down's Syndrome features than when shown with average looking features.

When the stimulus child is viewed in a drawing, there may be more of a tendency to focus on and assess the potential implications of a handicapping condition and then form attitudes based on the handicapped appearance. When

other stimuli such as task performance or descriptions of the child's competency are salient, these stimuli may compete for attention that would have otherwise been focused on appearance.

Involvement in activities may, under certain conditions, minimize the attention given to the handicap. As noted previously, the activities in the present study did not require the use of the affected body parts. Neither did they require adaptation of the procedure used by the handicapped child in order to perform activities. It may be that activities which are made more difficult by the handicapping condition or are modified to accommodate the handicapped would have a greater influence on attitudes. For example, Westervelt and McKinney (1980) showed a film of a wheelchairbound child while emphasizing the similarities between the interests and activities of the child to those of nonhandicapped children with whom this child interacted. The authors found that subjects who viewed the film were more attracted to the wheelchairbound child than those who simply viewed a photograph of the child.

Others have had children rate their attitudes toward the handicapped based on labels (Parish et al., 1978) or brief descriptions of the disabilities (Hazzard, 1983) and found negative attitudes toward the disability groups. Parish et al. found that 5th, 6th, and 7th graders rated the nonhandicapped more positively than those categorized in a

disability group and Hazzard found that 3rd through 6th graders viewed the handicapped as helpless and pitiable. These studies, however, evoked previously formed ideas in older children without providing any appearance or behavioral cues. As was noted in the study by Cook (1976), expectations may be formed based on labels and appearance but these expectations may be modified in the context of behavior.

It is possible that kindergartners are more accepting of the physically handicapped than are older children during initial exposure. Although the study by Jones and Sisk (1967) found that 4- and 5-year-olds expressed less positive attitudes toward a handicapped child than toward a nonhandicapped child, the stimulus was a drawing of the target child.

A recent study by Beaman, Klentz, and Cialdini (1986), in contrast, lends support to the notion that young children may be more accepting. This study exposed trick-or-treaters to a wheelchairbound adult or to a normal adult. It was possible for the children to avoid the adult by taking candy from the one of two bowls which was farther from the adult. These authors found that children who were older than 9 years avoided the handicapped adult more than the normal adult. Children who were 8 years old and younger, however, showed no greater avoidance of the handicapped than nonhandicapped adult.

The authors suggested that socialization was required in order to produce the bias in older children. Although Cook (1976) found that 8th graders were able to accept and value a Down's Syndrome appearing peer, this peer was hypothetical and the assessment was via paper-and-pencil measures. Thus methodological differences may account for the contrasting findings. In the Beaman et al. (1986) study, older children showed a behavioral bias toward avoiding the physically handicapped.

In the present study young children expressed similar attitudes toward the target child whether the child was wheelchairbound or nonhandicapped and whether the child succeeded, failed, or performed no tasks. Furthermore, attitudes were similar toward wheelchairbound peers after observing a nonhandicapped or wheelchairbound child. Thus it appears that factors other than the appearance of being wheelchairbound and task performance outcome may be more important in influencing the attitudes of young children.

Another expectation of the present research was that a commitment to interact with the handicapped target child would relate to more positive general attitudes toward the handicapped. Finding supported this expectation. It may be that those who have been exposed to a deviate peer and are then willing to interact with that peer are influenced so as to have more positive attitudes toward similar deviates. In contrast, it may be that more positive

attitudes toward deviates leads to a willingness to interact with a particular deviate individual. Due to the correlational nature of the analysis, however, no causal inferences can be made.

Although no formal hypothesis was made concerning the relationship of specific attitudes and general attitudes in this study, the correlations were positive and highly significant in the handicapped and nonhandicapped conditions ($r = .68$, $p = .001$ and $r = .34$, $p = .001$, respectively). These findings parallel those concerning the relationship of commitment to interact and general attitudes toward the handicapped. It thus appears that a more positive attitude toward a handicapped or nonhandicapped individual was related to a more positive attitude toward physically handicapped peers in general.

It is possible that acceptance and willingness to interact with a child who has been seen but never met generalizes, leading to acceptance of a variety of types of individuals. Or those who are generally more accepting of others may be more willing to interact with an have more positive attitudes toward a new individual.

In looking at gender differences it was assumed that females would express more positive attitudes toward the handicapped target child and toward handicapped children in general. No evidence of gender differences was found in the present research. The previous studies which did

demonstrate more positive attitudes in females toward the handicapped assessed older children. For example, Sheare (1974) studied 9th graders and Voeltz (1980) used 2nd through 7th graders. Likewise, in research showing same-sex preferences, Singleton and Asher (1979) used 3rd graders whom they reassessed in the 6th grade and Siperstein and Gottlieb (1977) worked with 4th and 5th graders. It may be that the tendencies of females to express more positive attitudes and of children to show same-sex preference have not developed by kindergarten.

An alternate explanation concerns the context of the situation. The present study was performed in a school setting and most of the attitude questions were worded so that they were in the context of school interaction. In this setting children are frequently involved in interactions with the opposite sex. Thus they may come to accept such interaction in the school setting. This acceptance, however, may not generalize to other settings. For example, a child may have an opposite-sex friend at school whom that child would not invite home.

Previous contact, although not a significant influence on attitudes in the present study, showed a trend in the direction opposite to that predicted. Thus the lower the level of previous contact with the physically handicapped, the more positive were attitudes toward the physically handicapped children in general. An interesting finding was

that the children who had higher levels of previous contact and who viewed the nonhandicapped child expressed attitudes which were more positive toward handicapped children in general.

It may be that the additional exposure to a handicapped individual for some subjects acted as a mediating factor between contact and attitudes. Possibly, the exposure evoked previously formed attitudes (including positive and negative beliefs, feelings, and behaviors) which then influenced responding in the current situation. Those who were not exposed to the handicapped target child may not have given as much consideration to previous contact and, therefore, tended to focus on the more positive aspects of previous interaction.

It is noteworthy that Cook and Wollersheim (1976) found that children having no contact with MR children were more willing to commit to interaction than those having had contact with such children. It may be that those who had previous contact experienced negative interactions which led them to refuse further involvement. As noted by Strauch (1970), social contact may actually serve to reinforce negative attitudes. In the present study, exposure might have had a similar effect.

Methodological Considerations

There are several possible reasons why significant differences between the six Handicapped X Task Outcome conditions were not obtained, including methodological considerations. It is possible that the disparity between the task performance conditions and the handicapped/no handicapped conditions were not great enough to affect attitudes differentially. The kindergartners may not have perceived and utilized pertinent information in forming attitudes.

The dependent measures may have lacked to sensitivity to reveal group differences. There were only three possible responses to each of the questions and, furthermore, only nine questions showed enough statistical reliability to use in the study. It may be that a more detailed and interview type questioning procedure would enable group differences to emerge.

The present research employed a procedure for responding to questions which was novel for the kindergartners. Although the three practice questions helped familiarize the children with the technique, this may not have been sufficient practice for them to comprehend which symbol represented which response. Also, the children may have been focusing more on the new task before them than on the particular question which was being asked.

Refinement of the stimulus conditions, dependent measures, and technique for obtaining responses is indicated to enhance the reliability and validity of findings. Such refinements may enable researchers to establish and define the relationships between performance by the handicapped and its effect on the attitudes of young children.

Summary and Implications

The findings of the present research indicated that kindergartners expressed similar attitudes toward a handicapped and nonhandicapped child regardless of whether the child was involved in a successful, failing, or no task situation. Furthermore, attitudes toward handicapped children in general were similar after viewing the handicapped target child in a success, failure, or no task condition.

Because the handicapping condition did not interfere with task performance, it may not have been salient. A greater effect on attitudes might result from a task performance in which the physical handicap interfered with the performance or the completion of the task. Thus future research is indicated in order to explore the interaction between the type of handicap and type of task in affecting attitudes toward the handicapped.

It might also be worthwhile to explore factors which mediate between the performance of a handicapped child and

attitudes toward the handicapped. For example, the type of attributions made for a particular behavior may have a mediating role. In exploring attributions it would be essential to assess the conditions under which children perceive "success" or "failure" by the performer. Then the attributions for the cause of success or failure could be examined. Under certain circumstances, a handicap may interfere with task performance making the handicap and the performance outcome more salient. In a success condition, attributions to ability might lead observers to view the performer as competent while in a failure condition the performer may be viewed as incompetent. Attitudes could thus be affected by the particular interpretation of the cause of behavior.

Gender differences, although demonstrated to exist in a variety of context, were not found in the present study. Researchers who have found difference in the attitudes of males and females toward the handicapped have generally studied children who are older than kindergartners. It would be beneficial for future research to examine the conditions under which gender differences are found. The context in which attitudes are expressed may be influential. For example, positive attitudes toward a female peer may be expressed in the context of school interaction by males who would express a less positive attitude toward the female in the context of neighborhood social activities. Gender

differences in attitudes toward the handicapped might also be explored in a developmental framework to determine if and when the differences are demonstrated with some regularity.

The findings in the present research concerning the effects of previous contact with the handicapped on attitudes toward a handicapped peer and toward handicapped children in general requires further clarification. It appears that the stimulus presentation of a physically handicapped child may have interacted with previous contact. Those who were exposed to the handicapped child showed less positive attitudes as the level of previous contact increased while those who were not exposed to the child showed more positive attitudes as the level of previous contact increased. As suggested by Cook and Wollersheim (1976), it is possible for contact to be an aversive experience. The present study failed to assess the contact factor on dimensions other than amount. Thus future research which investigates the quality of contacts with the handicapped is indicated.

In attempting to facilitate the process of mainstreaming, researchers have found positive effects on children's attitudes toward the handicapped related to factors such as behavior, direct or indirect contact, educational presentations, and structured integration. The present study found no differences in young children's attitudes toward the physically handicapped as a function of task performance

outcome or a handicapping condition. If these findings were replicated, there would be implications concerning the use of methods which have been found to affect attitudes in a positive way. It might be essential to implement structured mainstreaming programs at the kindergarten level before negative attitudes develop.

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A P P E N D I X A

Dialogue: Research Assistant

DIALOGUE: RESEARCH ASSISTANT

Before Video

-Thanks for helping us today.

-You'll be watching a girl named Bret. Bret is in kindergarten.

-She's with her teacher. After you watch Bret, I'll ask you some questions, so watch closely and pay attention.

After Video

Success: Bret did most of the activities right.

Failure: Bret did most of the activities wrong.

-Here is some paper for each of you. Look at the top page.

-It has a picture of a flower on the bottom of it. Please put your name on the top of the page. There are some more pictures on the page. (Hold up the smiley face.)

-There is a picture of a smiley face like this one.

-(Hold up the smiley face with an X on it .) There is a face with an X on it like this one.

-(Hold up the O.) And there is an O [say the letter O] like this one.

-I will ask you some questions and you will mark your answer by putting a circle around one of the pictures.

-(Hold up the smiley face.) If your answer is "Yes," put a circle around the smiley face. (Motion putting a circle around it.)

-(Hold up the smiley face with an X on it.) If your answer is "No," put a circle around the face with an X. (Motion as before.)

-(Hold up the O.) If you can't decide how you want to answer, put a circle around the O. (Motion again.)

-Again (hold up each picture respectively), smiley face for "Yes," face with an X for "no," and the O for "I don't know."

-Let's do some questions for practice.

-Answer this question on the page with the flower on it.

- Listen. Are you in kindergarten? (Hold up each picture.) Only circle one picture.
- Circle the smiley face to say "Yes," you are in kindergarten.
- Circle the face with the X to say "No," you are not in kindergarten.
- Circle the 0 to say you don't know if you are in kindergarten.
- Everyone is in kindergarten. There should be a circle around the smiley face to say "Yes," you are in kindergarten.
- We'll check your answers now. (Check and correct those who need help.)
- Let's try another one. Turn to the next page. It has a house on the bottom of it.
- Remember (hold up the pictures again), circle the smiley face to answer "Yes," the face with the X to answer "No," and the 0 for "I don't know." Only circle one picture.
- Listen. Are you on summer vacation? (Hold up the pictures.)
- Circle the smiley face to say "Yes," you are on summer vacation.
- Circle the face with the X to say "No," you are not on summer vacation.
- Or circle the 0 if you don't know if you are on summer vacation.
- No one is on summer vacation. You are in school. There should be a circle around the face with an X to say "No," you are not on summer vacation. (Check and correct the answers.)
- Let's try one more practice question. Turn to the next page. It has a star on the bottom of it.
- Remember (hold up the pictures), the smiley face for "Yes," the face with an X for "No," and an 0 if you don't know.
- Listen. Is my (point to self) birthday the same day as your birthday?
- (Hold up the smiley face.) Circle the smiley face to say "Yes," my birthday is the same day as yours. (Hold up the face with an X.) Circle the face with an X to say "No," my birthday is not the same day as your birthday. (Hold up the 0.) Circle the 0 to say you don't know if my birthday is the same day as your birthday.
- I didn't tell you when my birthday is, so you don't know for sure if my birthday is the same day as yours. There should be a circle around the 0 to say you don't know if my birthday is the same day as your birthday. (Check and correct answers.)
- Now I will ask you some questions about the girl named Bret that you watched on the T.V.
- Answer the way you really want to answer.

Repeat Before Each Question

- Turn to the next page. It has a picture of a flower/house/star (as appropriate) on the bottom of it.
- Remember, circle the smiley face for "Yes," the face with an X for "No," and the 0 to say you don't know.
- Ready?

Ask the Following Questions in Order

- Manipulation Check 1.
- Manipulation Check 2.
- Specific Attitude Questions 1, 2, 3.

Hold up Drawing of a Wheelchair

- This is a wheelchair. Kids who can't walk because they have a handicap use a wheelchair. A wheelchair helps them get around even though they can't walk.

Ask the Following Questions in Order

- Manipulation Check 3.
- General Attitude Questions 1, 2, 3, 4, 5, 6.

A P P E N D I X B

Dialogue: Task Success Condition
Dialogue: Task Failure Condition
Dialogue: No Task Condition

DIALOGUE: TASK SUCCESS CONDITION

Adult: Hi, Bret. Come on in.
We'll be working at the table today.
I'll sit here and you can sit over there, Bret.
I can take your coat. I'll just put it over here, OK?
How are you today?

Girl: Fine.

Adult: Did you have a nice Hallowe'en?

Girl: Yes.

Adult: Did you go trick-or-treating?

Girl: Yes.

Adult: What did you go as?

Girl: A fairy princess.

Adult: Who did you go with?

Girl: Kimberly, Daphne, Halley, and my mom.

Adult: Who did they dress up as?

Girl: Kimberly was a ghost, Daphne a 1960's girl, and Halley as a cowboy.

Adult: What was your favorite treat?

Girl: Nerds.

Adult: Bret, your family has horses, don't they?

Girl: Yes, two.

Adult: What are their names?

Girl: Hanson and Teton.

Adult: Those are nice names. Who named them?

Girl: My mom.

Adult: You have some dogs, too, don't you?

Girl: Yes.

Adult: What are their names?

Girl: Casey and Tammy.

Adult: Who named them?

Girl: My mom named them, too.

Adult: What kind of dogs are they?

Girl: Irish Setters.

Adult: What we'll be doing today are some school activities.
Ready to begin?

1: Bret, count aloud to 5.

That's right. It's 1, 2, 3, 4, 5.

2: Hand me the yellow crayon.

That's right. This is the yellow crayon.

3: Put these blocks in their holes on this board.

That's right. The blocks are in their holes.

4. Bret, here is a picture. What is this called?

That's right. It's a square.

5. See what I'm making. Make one just like it right here.

That's right. It's just like mine.

6. Watch me. Now put the beads on the string so they look just like mine.

That's not right. A red one goes here and blue one here.

7. This puzzle makes a picture of an apple. Put it together.

That's right. Now it looks like an apple.

8. What month comes next after July?

That's not right. August comes after July.

9. Here is another picture. There are balls in this picture. Which ball is the biggest?

That's right. This one is the biggest.

10. Bret, here is your coat. Put it on and snap it, OK?

That's right.

Bret, you did most of the activities right today. Thank you for trying. That's all. I'll see you later.

DIALOGUE: TASK FAILURE CONDITION

Adult: Hi, Bret. Come on in.
We'll be working at the table today.
I'll sit here and you can sit over there, Bret.
I can take your coat. I'll just put it over here, OK?
How are you today?

Girl: Fine.

Adult: Did you have a nice Hallowe'en?

Girl: Yes.

Adult: Did you go trick-or-treating?

Girl: Yes.

Adult: What did you go as?

Girl: A fairy princess.

Adult: Who did you go with?

Girl: Kimberly, Daphne, Halley, and my mom.

Adult: Who did they dress up as?

Girl: Kimberly was a ghost, Daphne a 1960's girl, and Halley as a cowboy.

Adult: What was your favorite treat?

Girl: Nerds.

Adult: Bret, your family has horses, don't they?

Girl: Yes, two.

Adult: What are their names?

Girl: Hanson and Teton.

Adult: Those are nice names. Who named them?

Girl: My mom.

Adult: You have some dogs, too, don't you?

Girl: Yes.

Adult: What are their names?

Girl: Casey and Tammy.

Adult: Who named them?

Girl: My mom named them, too.

Adult: What kind of dogs are they?

Girl: Irish Setters.

Adult: What we'll be doing today are some school activities.
Ready to begin?

1: Bret, count aloud to 5.

That's not right. It's 1, 2, 3, 4, 5.

2: Hand me the yellow crayon.

That's not right. This is the yellow crayon.

3: Put these blocks in their holes on this board.

That's not right. This one goes here and this one goes here.

4: Bret, here is a picture. What is this called?

That's not right. It's a square.

5: Watch me. Now put the beads on the string so they look just like mine.

That's not right. Red, red, blue, red, red.

6: See what I'm making. Make one just like it right here.

That's right. This block has to stay on top like this.

7: What month comes next after July?

That's not right. August comes after July.

8: This puzzle makes a picture of an apple. Put it together.

That's right. Now it looks like an apple.

9: Here is another picture. There are balls in this picture. Which ball is the biggest?

That's not right. This one is the biggest.

10: Bret, here is your coat. Put it on and snap it, OK?

That's not right.

Bret, you did most of the activities wrong today. Thank you for trying. That's all. I'll see you later.

DIALOGUE: NO TASK CONDITION

Adult: Hi, Bret. Come on in.
We'll be working at the table today.
I'll sit here and you can sit over there, Bret.
I can take your coat. I'll just put it over here, OK?
How are you today?

Girl: Fine.

Adult: Did you have a nice Hallowe'en?

Girl: Yes.

Adult: Did you go trick-or-treating?

Girl: Yes.

Adult: What did you go as?

Girl: A fairy princess.

Adult: Who did you go with?

Girl: Kimberly, Daphne, Halley, and my mom.

Adult: Who did they dress up as?

Girl: Kimberly was a ghost, Daphne a 1960's girl, and Halley as a cowboy.

Adult: What was your favorite treat?

Girl: Nerds.

Adult: Bret, your family has horses, don't they?

Girl: Yes, two.

Adult: What are their names?

Girl: Hanson and Teton.

Adult: Those are nice names. Who named them?

Girl: My mom.

Adult: You have some dogs, too, don't you?

Girl: Yes.

Adult: What are their names?

Girl: Casey and Tammy.

Adult: Who named them?

Girl: My mom named them, too.

Adult: What kind of dogs are they?

Girl: Irish Setters.

Adult: Well, Bret, what we'll be doing today are some school activities.
I have some different things to work with.

1: I have three crayons.

2: And here are some green blocks.

3: Here is a board with some blocks that fit into holes on the board.

4: Here are some beads with holes in them and a string to put them on. There are some for you and some for me.

5: Here is a puzzle.

6: I also have some pictures to show you.

7: And I'll be asking you some questions.

A P P E N D I X C

Contact Questionnaire
Attitude Questionnaire

ATTITUDE QUESTIONNAIRE

Practice Questions

1. Are you in kindergarten?
2. Are you on summer vacation?
3. Is your birthday the same day as my birthday?

Manipulation Checks

1. Is the girl in the videotape named Bret?
2. Success Condition/Failure Condition: Did Bret do most of the school work right?
No Task Condition: Did Bret do any of the school work?
3. Was Bret, the girl in the video, in a wheelchair?

Specific Attitude Questions

1. Would you like to be friends with Bret?
2. Would you go over to Bret's house to play after school?
3. If Bret visits your class tomorrow, will you be her partner to work on a puzzle together?

General Attitude Questions

1. Would you like it if a kid in a wheelchair sat next to you in the lunchroom?
2. Do you think kids in wheelchairs should go to school with kids who are not handicapped?
3. Would you try to make friends with a kid in a wheelchair?
- *4. Do you think kids in wheelchairs need help with just about everything they do?
5. Would you like it if a kid in a wheelchair was your partner in classroom activities?
6. Would you play with a kid in a wheelchair during recess?

A P P E N D I X D

Tables: D-1 through D-8

Table D-1

Written and Oral Response Correlations in Pilot Work

Attitude measure	Item	\bar{r}	\bar{n}
Specific	1	.61	18
	2	.61	18
	3	.74	23
General	1	.64	11
	2	.64	11
	3	.73	11
	4	.64	11
	5	.74	11
	6	.64	11

Table D-2

Item-Total Correlation on Specific Attitude Measure

Item	All subjects (<u>n</u> = 172)	Handicapped condition (<u>n</u> = 94)	Nonhandicapped condition (<u>n</u> = 78)
1	.71	.82	.78
2	.78	.77	.79
3	.78	.76	.82

Notes: $p = .001$ for all correlations.

Coefficient Alpha = .705.

Table D-3

Item-Total Correlations on General Attitude Measure

Item	All subjects (<u>n</u> = 172)	Handicapped condition (<u>n</u> = 94)	Nonhandicapped condition (<u>n</u> = 78)
<u>Total Attitude--Includes No. 4</u>			
1	.72	.77	.64
2	.60	.65	.55
3	.72	.71	.73
4	.17*	.06 ^Ñ	.32 ^½
5	.79	.80	.77
6	.72	.75	.69
<u>Total Attitude--Excludes No. 4</u>			
1	.76	.82	.68
2	.62	.70	.52
3	.74	.71	.78
4	-.08**	-.18 ^{ÑÑ}	.06 ^{½½}
5	.81	.81	.81
6	.74	.76	.73

Notes: $p = .001$ unless otherwise footnoted below.
 $*p = .009$, $\tilde{N}p = .289$, $\frac{1}{2}p = .002$.
 $**p = .163$, $\tilde{N}\tilde{N}p = .040$, $\frac{1}{2}\frac{1}{2}p = .297$.

Coefficient Alpha: Includes No. 4 = .684.
 Excludes No. 4 = .696.

Table D-4

Analysis of Covariance for Specific Attitude Measure

Source of variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Covariates					
Mean contact	1.636	1	1.636	1.838	.205
Proportion female	.073	1	.073	.082	.781
Main effects					
Outcome	.059	1	.059	.066	.803
Handicap	.773	2	.387	.435	.659
Interaction					
Handicap x Outcome	.754	2	.377	.424	.666

Table D-5
Adjusted Means for Specific Attitude Measure*

Task condition	Type of target child	
	Handicapped	Nonhandicapped
Success	6.94	6.46
Failure	6.12	6.59
No task	7.04	6.59
Column means	6.70	6.55

*Maximum possible rating was 9 points.

Table D-6
Analysis of Covariance for General Attitude Measure

Source of variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>Measure Includes Item 4</u>					
Covariates					
Mean contact	8.107	1	8.107	3.283	.100
Proportion female	1.899	1	1.899	.769	.401
Main effects					
Outcome	.114	1	.114	.046	.834
Handicap	3.655	2	1.827	.740	.502
Interaction					
Handicap x Outcome	4.834	2	2.417	.979	.409
<u>Measure Excludes Item 4</u>					
Covariates					
Mean contact	8.266	1	8.266	3.919	.076
Proportion female	1.669	1	1.699	.792	.395
Main effects					
Outcome	.474	1	.474	.225	.645
Handicap	3.986	2	1.993	.945	.421
Interaction					
Handicap x Outcome	5.064	2	2.532	1.201	.341

Table D-7
Adjusted Means for General Attitude Measure

Task condition	Type of target child	
	Handicapped	Nonhandicapped
	<u>Item 4 Included*</u>	
Success	11.65	11.23
Failure	11.71	13.08
No task	13.04	12.71
Column means	12.13	12.34
	<u>Item 4 Excluded^Ñ</u>	
Success	10.83	9.55
Failure	10.17	11.48
No task	11.59	10.93
Column means	10.86	10.65

*Maximum possible rating was 18 points.

^ÑMaximum possible rating was 15 points.

Table D-8
Proportion of Females

Handicapped condition	Task condition			Tasks combined
	Success	Failure	No task	
	<u>Conditions</u>			
Handicapped	.50	.52	.52	.51
Nonhandicapped	.41	.61	.52	.51
Combined	.46	.56	.52	-
	<u>Classrooms</u>			
Handicapped	.63	.63	.57	
	.70	.50	.50	
	.25	.46	.50	
Nonhandicapped	.50	.80	.38	
	.50	.55	.56	
	.50	.58	.75	

A P P E N D I X E

Request for Approval
Letters to Parents
Parent Permission Form
Teacher Information Form

To: Art Beaman, Ph.D., Chairman, Institutional Review Board for the Use of Human Subjects in Research

From: Barbara Louise Stone, Graduate Student in Clinical Psychology, and Art Beaman, Ph.D. Faculty Supervisor

Re: Request for approval of project involving human subjects. Title of project: The Attitudes of Children Toward Orthopedically Handicapped Peers Observed in Success Versus Failure Situations.

Date: 7 November 1985

1. The purpose of this study is to investigate the attitudes of nonhandicapped children toward orthopedically handicapped peers as a function of the task performance of these peers. Furthermore, the generalization of attitudes toward other orthopedically handicapped peers will be assessed. The subjects will rate their attitudes--including beliefs, feelings, and behavioral intentions--after observing a wheelchairbound or a normal child succeed or fail in a series of school-related tasks or simply talking with an adult. Concerning the children's attitudes, questions which will be addressed include (1) Are attitudes more positive toward the target child in the task success than the task failure or no task performance conditions? (2) Are they more positive toward the nonhandicapped peers than handicapped peers regardless of the task performance outcome? (3) Are they more positive toward wheelchairbound children in general after viewing the physically handicapped target child succeed than fail or perform no tasks? (4) Are the attitudes of females more positive than those of males? and (5) Are they more positive as the amount of previous contact with physically handicapped persons increases?

To answer these questions, six groups of 40 kindergartners will be compared on their expressed attitudes. Each group will observe a videotape of a wheelchairbound or a nonhandicapped child in one of the following conditions: (1) task success, (2) task failure, or (3) talking with an adult. Subjects then will be asked questions concerning their attitudes toward the target child and toward wheelchairbound children. On the school day after the videotape is shown, a follow-up presentation will be provided. The children will have an opportunity to interact with a handicapped adult and, thus, be able to ask questions which may have been raised concerning the handicapped.

2. a. The subjects will benefit through education about and interaction with a handicapped person.
- b. In view of the 1975 Education for All Handicapped Children Act (PL 94-142), this research seeks to clarify the conditions under which mainstreaming of physically handicapped children is best facilitated. A finding that successful task completion by a wheelchairbound child enhances the attitudes of children toward handicapped peers would have implications for mainstreaming programs. Providing handicapped children with successful experiences when first integrated may enhance initial impressions of nonhandicapped peers who observe performance. This may facilitate positive attitude formation and facilitate social interaction between physically handicapped and nonhandicapped children. Ultimately this could help provide adequate social development for the handicapped.
3. Intact classrooms will be randomly assigned to watch one of the videos. After the viewing, the subjects will be instructed on the use of simplified answer sheets. They then will respond on paper to approximately 15 questions which will be asked orally. In the pilot work, subjects will also undergo a tape recorded interview with a graduate student to obtain oral answers and clarification of the answers to the attitude questions.
4. The subjects will be approximately 240 kindergartners from schools in District 1, Missoula, Montana. Only those children whose parents give their permission will be allowed to participate. Others will be involved in another activity with a graduate research assistant during the presentation.
5. Risks to the subjects are minimal. Although they will not have an opportunity to interact with the target child, such an offer will be tentatively stated.
6. The subjects will be allowed to interact with and question a handicapped adult who had congenital absence of a hand and who is knowledgeable about physically handicapping conditions by virtue of a degree in occupational therapy and work experience.
7. Subjects will be identified by name only until the questionnaire answers are matched with a demographic

questionnaire that parents will answer. Each subject then will be coded by number by persons who were not involved in the classroom presentation. The master list will be available only to myself and Dr. Beaman. Experimenters will be unaware of the full names of the children. All information will be reported in summary statistics.

8. See attached Consent Form.
9. N/A
10. The results of this study will be made available to school personnel and parents upon completion of the project.

Dear Parents:

I would like to ask the help of you and your child in a research project studying the attitudes of young children toward physically handicapped peers. I am a graduate student in clinical psychology at the University of Montana. The research is in partial fulfillment of my master's degree. This project has been approved by Dr. Mike Vance--Assistant Superintendent for Curriculum and Instruction, Dr. Jack Rudio--Director of Special Education, and your child's principal and teacher.

In 1975 the Education for All Handicapped Children Act (Public Law 94-142) required public education for the handicapped in the least restrictive environment possible. I am exploring a possible means for making this "mainstreaming" process a more positive experience for physically nonhandicapped and handicapped children. More specifically, if a physically handicapped child is seen successfully completing tasks, the other children may focus on that child's capabilities. This may affect the attitudes of physically nonhandicapped children so that they have an even more positive first impression of the handicapped child. More positive attitudes may increase the likelihood of positive social interactions between these peers.

In order to explore attitudes, I have developed six videotape presentations. In each videotape a child is interacting with an adult who supposedly is the child's teacher. Each kindergarten class will observe one of the following videos: (1) a wheelchair-bound child successfully completing several school activities, (2) a wheelchairbound child failing activities, (3) a wheelchairbound child talking to the teacher, (4) a physically nonhandicapped child succeeding, (5) a physically nonhandicapped child failing, or (6) a physically nonhandicapped child talking to the teacher. After watching the videotape, the children will be asked questions about their attitudes toward the child in the videotape and about wheelchairbound children in general.

Because the questions about handicapped children may make the children curious, I will provide a follow-up educational presentation the school day after the video. The children will have contact with and be able to question me. I am handicapped, having no left hand, and have knowledge of handicaps due to my degree in occupational therapy.

If you will allow your child to participate, please complete the attached Parent Permission Form. Also, because previous contact with physically handicapped people may affect the children's attitudes, in order to study previous experience I am requesting that you provide this information about your child on the Contact Questionnaire. Please note that it is important to avoid discussing issues about handicaps with your child until, if it is possible, after the videotape is shown.

If you have any questions or concerns, please feel free to contact me at 243-4523 or 728-3930. Thank you for your help. I will make the results of this study available to you after they are analyzed (probably March 1986).

Sincerely,

Lou Stone
Clinical Psychology Graduate Student

Dear Parents:

I would like to ask the help of you and your child in a research project studying the attitudes of young children toward physically handicapped peers. I am a graduate student in clinical psychology at the University of Montana. The research is in partial fulfillment of my master's degree. This project has been approved by Dr. Mike Vance--Assistant Superintendent for Curriculum and Instruction, Dr. Jack Rudio--Director of Special Education, and your child's principal and teacher.

In 1975 the Education for All Handicapped Children Act (Public Law 94-142) required public education for the handicapped in the least restrictive environment possible. I am exploring a possible means for making this "mainstreaming" process a more positive experience for physically nonhandicapped and handicapped children. More specifically, if a physically handicapped child is seen successfully completing tasks, the other children may focus on that child's capabilities. This may affect the attitudes of physically nonhandicapped children so that they have an even more positive first impression of the handicapped child. More positive attitudes may increase the likelihood of positive social interactions between these peers.

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After watching the videotape, the children will be asked questions about their attitudes toward the child in the videotape and about wheelchairbound children in general. Each child then will be interviewed by a graduate student. The interview will be tape recorded so that, after the interview, answers on simplified answer sheets can be compared to the oral responses. This procedure is necessary to ensure that the answer sheet format is usable in other kindergarten classes in the study.

Because the questions about handicapped children may make the children curious, I will provide a follow-up educational presentation the school day after the video. The children will have contact with and be able to question me. I am handicapped, having no left hand, and have knowledge of handicaps due to my degree in occupational therapy.

If you will allow your child to participate, please complete the attached Parent Permission Form. Also, because previous contact with physically handicapped people may affect the children's attitudes, in order to study previous experience I am requesting that you provide this information about your child on the Contact Questionnaire. Please note that it is important to avoid discussing issues about handicaps with your child until, if it is possible, after the videotape is shown.

If you have any questions or concerns, please feel free to contact me at 243-4523 or 728-3930. Thank you for your help. I will make the results of this study available to you after they are analyzed (probably March 1986).

Sincerely,

Lou Stone
Clinical Psychology Graduate Student

PARENT PERMISSION FORM

I will ~~will not~~ give my permission for _____
(circle one) (Name of child)

to participate in the study concerning the attitudes of physically nonhandicapped children toward physically handicapped peers. The nature and general purpose of this project have been explained to me. I understand that my child's answers will be used only for scientific research purposes and kept confidential. I also understand that my child may withdraw from participation at any time.

Signature of Parent

Date

Dear Kindergarten Teachers:

Thank you for allowing your classes to participate in my research project concerning attitudes toward the handicapped. I must say that the follow-up presentation was fun for me. I hope it has been of benefit to the children.

In assessing the effects of previous contact with a handicapped person, I am exploring factors in the school as well as the home environment. It would be helpful if you could answer the following questions:

1. Name of school: _____ 2. Name of teacher: _____

3. Are there any physically handicapped children attending your school this year? Yes ___ No ___
If yes,

4. Number of handicapped children _____

5. Grade and type of handicap of each child _____

6. Amount of exposure your classes have with these handicapped children.

	<u>No</u>	<u>Some</u>	<u>Fre- quent</u>
Morning class	_____	_____	_____
Afternoon class	_____	_____	_____
Additional explanation	_____		

7. Do any individual children in your classes have additional contact at school (due to friendship or other activities) with the handicapped children? Yes ___ No ___
If yes,

8. Names of those having additional contact and their unique experiences _____

If you have any questions or concerns, please contact me at 243-4523 or 728-3930. Thanks again for your assistance. Results should be available to you in March.

Sincerely,

Lou Stone