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THE UNIVERSITY OF ALBERTA

A Comparison of the Social Competence
of Integrated Learning Disabled and Normal
Achieving Students

BY

Kathleen F. Muhlethaler

A THESIS

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IN

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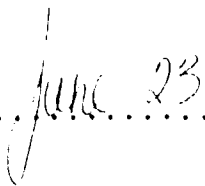
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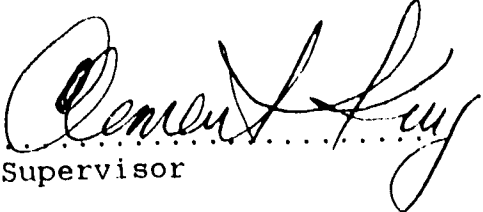
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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled A Comparison of the Social Competence of Integrated Learning Disabled and Normal Achieving Students submitted by Kathleen F. Muhlethaler in partial fulfilment of the requirements for the degree of Master of Education.


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Date: June 8, 1989

Abstract

This study was designed to compare the social competence of learning disabled children integrated in the regular classroom with their normal achieving peers.

The experimental subjects of the study consisted of 30 grade 4, 5, and 6 children identified as having Learning Disability. These children may or may not have been receiving supplemental instruction from a resource teacher, or may have been receiving up to 50% instruction in a resource room setting. Taking into account the variables of sex, age, and classroom assignment, a comparison group of 30 students were randomly selected from grades 4 through 6.

Instruments used in the study included the Play With Rating Scale (PWR), the Work With Rating Scale (WWR), the Taxonomy of Problem Situations (TOPS), and the Children's Self-Efficacy for Peer Interactions Scale (CSPI).

T-tests and Hotellings T-squared were used to determine statistical significance of differences between the experimental and control group on measures of social status, social competence, and social self-efficacy.

Data analysis confirmed Hypothesis 1 which stated that learning disabled children integrated in the regular classroom are socially rejected by their normal achieving peers. Hypothesis 2 which stated that social competence skills of the learning disabled children integrated in the regular classroom are significantly lower than for their

normal achieving counterparts was also confirmed. However, Hypothesis 3 which stated that learning disabled children will tend to perceive themselves as not having as much ability to influence the behaviors of their peers in socially acceptable ways than their normal achieving regular classroom peers was not confirmed.

The results of the investigation are discussed with reference to other research findings. Implications for theory, research, and education are discussed with emphasis on practical suggestions for educators in assessing and implementing programs to enhance the social integration of learning disabled children in the regular classroom.

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A special note of appreciation goes to my family and friends, for their encouragement and support throughout all my educational endeavors. They provided constant love and understanding even when cheerfulness was not my forte. They stuck with me during good and bad times, and for that I dedicate this thesis to them.

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I. THE PROBLEM

A. Background To The Problem

A number of studies have suggested that learning disabled children are at risk for social problems, and as a result are more likely to be rejected by their peers (Bruninks, 1978; Morrison, Forness, & MacMillian, 1983). Additional studies have shown that learning disabled students have deficits in social competence which may lead to peer conflict (Donahue, Pearl, & Bryan, 1980; Schumaker, Hazel, Sherman, & Sheldon, 1982). Although research has discovered various social competence deficits in learning disabled children, it has failed to assess within a situational context those skills which may present problems for particular children. Such assessment is needed for the proper implementation of social skills intervention. A behavior that is appropriate for one situation, may not necessarily be appropriate in a different situation (McFall, 1982). As stated by Foster and Ritchey (1979) "Grabbing a toy, for example, may be an adaptive response if a child's possessions have been taken by another without permission. The same response will be socially inappropriate if the toy belongs to another child. Rating both responses as though they were equivalent would mask salient aspects of social context, thus limiting the social validity of the data" (p. 627). Furthermore, children who

are antisocial do not behave in antisocial ways in all situations just as a child's level of social cognitive skill performance varies across task domains (Fischer, 1980; Ford, 1979).

In addition to the identification of social situations which may cause problems for a particular child, how children view their effectiveness in social situations with peers also would provide useful information for conducting programs designed to foster children's social competence. Research indicates that self-perceptions of social competence may influence interpersonal behavior in ways that affect the quality of peer relations (Goetz & Dweck, 1980). Although there are measures available in assessing learning disabled children's evaluations of their social relationships or popularity, these measures fail to look at how children view their effectiveness in social situations with peers. Furthermore these measures fail to account for the effect that situational factors may have on self-evaluations of behavior. Some situations require greater skills and carry higher risk of negative outcomes than do other situations, and self-perceptions of social competence will vary accordingly.

In summary, given that socially incompetent children, such as those with learning problems, are at risk for later maladaptive outcomes (Coie & Dodge, 1983; Cowen, Pederson, Babigian, Izzo, & Trost, 1973), relevant intervention must be implemented to foster social competence. Learning

disabled children would not only profit from a program designed to enhance their social competence, but also from one in which their belief that they can successfully perform behavior required to produce desired outcomes is enhanced. For proper intervention to be utilized, assessment devices which contribute a great deal to the planning of a treatment must be employed. Such assessments should include evaluating a child's social competence within a situational context, as well as that child's self-perceptions of his or her effectiveness in social situations.

B. Theoretical Considerations

The Medical-Model Perspective

Traditional approaches to dealing with learning disabled children in the classroom have been based on the notion of some underlying defect (primarily organic) which is responsible for pathological symptoms (Bryan & Bryan, 1986). This approach focuses upon biological explanations of problems, such as brain damage or chemical imbalance; and the biological processes deemed important are those intrinsic to the person. Pathology is viewed as an integral part of the child. Social and cultural factors that may be related to etiology are generally ignored since organic malfunctioning is fundamental (Bryan & Bryan, 1986). This approach puts a heavy emphasis on diagnosis and

classification of symptoms in order to describe the child's pathology, its severity, its etiology, and the child's prognosis for recovery (Paul & Epanchin, 1982).

More recent theories tend to point to certain developmental lags which result in social-emotional problems for the learning disabled child (Bryan & Bryan, 1986). Central to this approach is that developmental delays reflect a subtle incompleteness of the central nervous system which places the child at risk for developmental problems. Removing these disabilities or compensating for them through specific types of training is said to remove the risk and thereby promotes appropriate social development. When the child fails to build upon earlier skills or fails to negotiate an appropriate stage of development, disaccordance is hypothesized as a cause of emotional problems. These approaches however imply that the cluster of behavioral traits observed have a general organic basis, which may be resistant to modification through environmental manipulations (Paul & Epanchin, 1982).

Questions have been raised about the degree to which this model has led us to better understand the social problems of the learning disabled child. The search for brain sites and dynamics to account for learning disabilities has, so far, been a failure (Bryan & Bryan, 1986). There is little evidence to support the biological foundations of many personality and educational problems, hence the need for an ecological approach to deal with the

social skills of the learning disabled child integrated in the regular classroom.

The Ecological Perspective

The ecological model is the examination of an individual's naturally occurring behavior, the environment immediately surrounding that behavior, and the ways the individual and the immediate environment are linked (Knoblock, 1987). The ecological model provides a new perspective for understanding and evaluating social-emotional problems. The ecological model contributes itself to an emphasis on competency and on the analysis of behavior in particular situations (Hobbs, 1975). Proponents of the ecological perspective believe that social-emotional problems are the result of the interaction between a child and a particular environment. The environment may be a single setting, several settings, a neighbourhood, community, or culture. Barker (1965, 1968) originated the concept of studying behaviors within ecosystems, or, in other words, various behavior settings. Specific environments influence individual behavior and have dependable enduring effects on all individuals (Knoblock, 1987). With this in mind, ecological research and theoretical formulations have focused on understanding the context in which problems are occurring, the characteristics of children, and the interactions among them. There are several assumptions about the interaction between a child

and the environment which forms the basis of the ecological model of disturbance.

First, proponents of the ecological perspective believe that social-emotional disturbances are not vested wholly in the child. Instead, they assume that social-emotional disturbance results from a faulty interaction between the child and a particular environment (Rhodes, 1970; Hobbs, 1975). Several factors may lead to this faulty interaction. According to McDowell, Adamson, & Wood (1982), behavior is the result of the interaction between those skills and competencies that an individual already has and the demands or expectations of others in a given situation. The ecological system or environment may present conditions that elicit disturbing behaviors in the child. For example, if the demands are too great, the individual will not be able to respond as he is expected to in a "normal" or successful fashion. If the discrepancy between what he knows or can do and what he is asked to do is too great, he will be forced to choose between responding inappropriately or not responding at all. Children with social problems engage in behaviors that are discordant and do not match the situation. For example, a series of assignments that are too difficult for a child may encourage him or her to resort to disruptive behavior, withdraw, or exhibit other discordant behavior.

Another factor which may cause a faulty interaction between the child and environment is when a child learns a

pattern of behavior that is adaptive in one setting, but creates problems in another (McDowell et al., 1982). In any of the above situations, his behavior is likely to be seen as deviant (Hobbs, 1975). However, Barker (1965, 1968) noted that since behavior can be significantly different in different settings, it appears invalid to diagnose a child as having social problems based merely on his behavior in one setting alone.

A second assumption of this model is that interventions designed to eliminate disturbances must focus on the total system in which the behavior occurs. To understand how the total system works, one would be required to assess the child, the setting the child inhabits, and the interaction between these variables (McDowell et al., 1982). The rationale given for assessing the child and his environment in its totality is that an individual does not usually act independently of outside forces in any given situation, but is continually responding to a series of situational factors that may or may not be apparent to the casual observers. Usually when a child is observed to be underachieving or acting out in an inappropriate manner, the major area of assessment is only upon the child. Often that student will be referred to a psychologist within the school for numerous diagnostic tests that are designed to identify disorders or deficits existing within the child that are "responsible" for the learning or behavioral difficulty.

It is not often that educational evaluations attempt to probe those situational factors that may have initiated or maintained the behavioral patterns that are of concern to the teacher (Wallace & Kauffman, 1978). In fact such variables as peer pressure, teacher and parental demands, school climate, and the child's own self-concept all have the potential to either "positively" or "negatively" influence a child's academic and social behavior. Therefore, it is logical that analysis of an underachieving or misbehaving child in relation to the environment(s) directly affecting this behavior may, yield for the teacher, considerable data regarding the nature of an observed problem, as well as suggest remedial strategies that may lead to the elimination of the disturbance (Wallace, 1978).

A third assumption of this model focuses on a multidisciplinary approach to intervention. Hobbs (1975) suggests that effective implementation of an ecological intervention must consist of resource persons from various disciplines as well as one person who can move and communicate freely with the various disciplines in the role of an informant. In other words, the teacher does not bear sole responsibility for the behavior of the child. Those people within the school setting such as the teacher and social worker would also play a part in developing a program suitable for the child.

Considering the interdependence of the ecological system, it is possible that intervention focused on changing

one element may have unanticipated consequences on other factors (Willems, 1977). This characterizes the fourth assumption of the ecological model. Improvements in any one part of a given system can have an effect on other parts of it.

Each interaction between the child and the setting is unique and characterizes the last assumption of the ecological model. This assumption represents both the strength and limitations of the ecological model. By assuming that each child and setting is unique, generalizations about which variables have a bearing on a given child's behavior are difficult. Furthermore, emphasis on the uniqueness of each pattern of individual-setting interactions makes it difficult and inappropriate to expect replications of specific intervention strategies (McDowell et al., 1982).

However, an advantage of the ecological model is that by assessing each unique child-setting interaction, an individualized intervention program can be developed for a particular child. Research in the areas of the development of social competence in children (Anderson & Messick, 1974; Zigler & Trickett, 1978) suggests that a psychologist developing a social skills intervention should consider the individual characteristics of the child, his/her environment, and the interaction between a given child and his/her social environment. Another advantage is that the ecological model places emphasis on promoting competence and

growth in members thus helping them avoid the consequence of being labelled as incompetent, disturbed, or

inadequate. A further advantage is that interventions may not only benefit the target child but also children in the same setting.

In summary, The ecological model leads educators and parents to examine an individual's naturally occurring behavior, the environment immediately surrounding that behavior and the ways the individual and the immediate environment are linked. The implications of this model on assessment of social competence in children is the focus of this study.

C. Definition Of Terms

Explanations and definitions of various terms used in this study follow:

1. Social Competence: The likelihood of a child responding in an appropriate manner when faced with a problematic situation (Dodge, McClaskey, and Feldman, 1985, p. 346). Social competence is operationally defined by the Taxonomy of Problem Situations (Dodge, McClaskey, and Feldman, 1985).
2. Problematic Social Situations: Frequently occurring social situations that would likely lead

to peer relationship problems among school children (Dodge, McClaskey, and Feldman, 1985, p. 345). Problematic social situations are operationally defined by the Taxonomy of Problem Situations (1985) under the following categories: Peer Group Entry, Response to Provocation, Response to Failure, Response to Success, Social Expectations, and Teacher Expectations.

3. Self-Efficacy: The belief that one can successfully perform behavior required to produce desired outcomes (Bandura, 1977). Self-Efficacy is operationally defined as children's perceptions of their ability to enact verbal persuasive skills in specific peer interactions. Possessing verbal persuasive skills means having the ability to influence the behaviors of others in socially acceptable ways (Wheeler and Ladd, 1982, p.796).

D. Statement Of The Problem

The main thesis of this study is that social competence skills as operationally defined by the Play With and Work With Rating Scales, Taxonomy of Problem Situations, and Children's Self-Efficacy for Peer Interaction Scale will be significantly lower in elementary learning disabled pupils

integrated in regular classrooms than their non-learning disabled regular classroom peers.

Dependent Variables

Social Status was operationally defined by two sociometric instruments -- the Play With (PW) and Work With (WW) Rating Scales (Singleton & Asher, 1974). Each scale was given to all of the students in the classrooms asking them to rate the classmate according to how much they liked to "play with" and "work with" a peer according to a happy face likert scale.

Social competence, was operationally defined by the Taxonomy of Problem Situations (Dodge, McClaskey, and Feldman, 1985). The teachers rated the target and control samples within his/her classroom on a scale from 1-5 on how much of a problem a particular situation would be for that child and how likely the child would be to respond in an inappropriate manner in the situation.

Social self-efficacy, was operationally defined by the Children's Self-Efficacy for Peer Interaction Scale (Wheeler and Ladd, 1982). All children evaluated themselves on a scale from 1-4 on his/her ability to perform a verbal persuasive skill. The next section details the specific hypotheses related to this study.

E. Specific Hypotheses

1. Hypothesis 1

Integrated learning disabled children tend to be significantly more rejected socially than their nonhandicapped peers in the same regular classroom. Social Status was operationally defined by each of the Play With (PW) and Work With (WW) sociometric scales. Social Status as operationally defined by the Play With and Work With rating scales will be significantly lower for the experimental learning disabled group than their control counterparts. That is, learning disabled pupils integrated into regular elementary classrooms tend to be rejected more and accepted less than their non-learning disabled regular classroom peers. The rationale to support this hypothesis stems from research indicating that relatively low social acceptance is common among the learning disabled (MacMillan & Morrison, 1980; Donahue, & Pearl, 1981; Gresham & Reschly, 1986).

2. Hypothesis 2

The social competence skills as evaluated by teachers' who completed the Taxonomy of Problem Situations (TOPS) rating scale will be significantly lower for the experimental learning disabled group than for the control non-learning disabled group. That is, teachers will tend to perceive learning disabled students as being constantly less

able to deal with the 44 problematic social situations of the scale than their non-learning disabled classroom peers. The rationale to support this hypothesis stems from research indicating that learning disabled students have deficits in social competence (Donahue et al., 1980; Schumaker et al., 1982).

3. Hypothesis 3

Self-efficacy in social situations with peers, as a measure of a pupil's perceived social competence and measured by the Children's Self-Efficacy for Peer Interactions (CSPI) Scale will be lower for the experimental learning disabled group than for their control counterparts. That is, the learning disabled pupils will tend to perceive themselves as not having as much ability to influence the behaviors of their peers in socially acceptable ways than their non-learning disabled regular classroom peers. The rationale to support this hypothesis stems from research indicating that learning disabled students have low social self-concepts (Yauman, 1980; Margalit & Zak, 1984).

F. Design

The causal-comparative design was employed in this study. The casual-comparative method aims at the discovery of possible causes for a given phenomenon by comparing

subjects in whom a characteristic is present (experimental) with similar subjects in whom it is absent (control).

Statistical Analysis

In order to determine the statistically significant differences between the two groups being studied (learning disabled and nonhandicapped), separate t-tests were computed for social status, social competence, and social self-efficacy dependent measures. A .01 level of significance was used to interpret the data. To decrease the probability of type I error, Hotellings T-squared were used to compare the two groups on the Subtests within the social competence and social self-efficacy dependent measures. A .05 level of significance was used to interpret the results.

G. Limitations Of The Investigation

This study is limited in two basic ways: first, the limitations imposed by the use of three subjectively based instruments and, second, the limitations imposed by a small sample size.

Measurement Limitations

Sociometrics, teacher ratings, and self-ratings are useful methods of assessing the existence of a social competence problem. These measures provide a global picture

of social competence and may be as important as behavioral observation for selection and evaluation of students. However, the measures do have limitations within this study.

The study is limited by the use of the Taxonomy of Problematic Situations as a measurement tool. Although this study is concerned with children's social competence in a situational context, TOPS does not identify specific component skill deficits in a child within situations. This inadequacy will prevent the researcher from examining the skill deficits of learning disabled children more closely. Another factor that must be considered is that unpopularity among peers might influence the teacher's perceptions of the children's social competence.

A limitation of the peer rating scale is that the sociometric data provides limited diagnostic information concerning the exact nature and source of interpersonal difficulty. A child may be poorly accepted by peers but the data will not identify the antecedents and/or consequences of low peer acceptance. However, peer ratings do provide a general indication of the feelings of each child at that time toward every other child in the group.

Another limitation involves the use of self-rating scales. What is the mood of the subject when the assessment is administered? If the subject is sad, for example, he/she may rate themselves much lower than if they were in a different frame of mind. An additional limitation with self-rating scales is the subject's understanding of the

questions being asked. How questions are interpreted may vary between subjects.

Sample Limitation

A final limitation involves the small size of the sample in the present study. This makes it difficult to generalize the findings of this study to all groups of learning disabled students. In other words, such a size limits the population validity of the study.

H. Significance Of The Study

Those individuals who repeatedly experience an inability to resolve interpersonal dilemmas are at risk for a variety of psychological problems (D'Zurilla & Goldfried, 1971). The capacity for successfully performing behaviors needed to produce desired outcomes is viewed by a number of theorists and researchers as a critical component of social competence (Eisenberger & Harris, 1984; Ford, 1982; Foster & Ritchie, 1979). How a child perceives his/her social competence may influence interpersonal behaviors in ways that affect the quality of peer relations (Goetz & Dweck, 1980).

It is hoped that the present study will contribute to the existing knowledge of the social competence of learning disabled elementary pupils by utilizing an ecological approach involving data from peer, teacher, and self ratings

in order to arrive at a more parsimonious assessment of social competence skills and deficits. Whereas each characteristic has been the subject of investigation by researchers, none have investigated the social competence of learning disabled children using the particular package of variables of this study. Peer ratings, self-perceptions of one's ability in social situations and teacher ratings of children's responses in problematic situations may contribute to the relevant types of information needed to develop an effective social skills intervention program for learning disabled children.

II. LITERATURE REVIEW

A. Social Status of Learning Disabled Children

Introduction

One of the central propositions upon which the mainstreaming movement has flourished is the belief that by removing handicapped children from the special class and placing them in the regular grades, the stigma that accompanied their segregated placement would be reduced and social acceptance by the nonhandicapped peers would be improved (Fischer & Rizzo, 1974; Sheare, 1974). A number of studies, however, have demonstrated that learning disabled students are poorly accepted and are often rejected by their nonhandicapped peers (Bryan, 1974; Bryan, 1976; Bruininks, 1978; Sheare, 1978; Scranton & Ryckman, 1979; Garrett & Crump, 1980; Horowitz, 1981). The following section will outline the research literature dealing with the social status of learning disabled children.

Related Research

Bryan (1974) combined a peer-nomination technique with a Guess-Who technique to compare the social status of learning disabled and nonlearning disabled students in grades 3 through 5. Results indicated that learning disabled girls received fewer votes on the social acceptance scale and more votes on the social rejection scale than did

same-sex, same-age classmates and that attitudes toward the learning disabled boys were comparable to those of the same sex classmates. Bryan (1976) administered the sociometric scales one year later in order to assess the degree to which the learning disabled child's status remained stable over time. Again, the learning disabled children received fewer social acceptance and more social rejection votes than the comparison group.

Bruininks (1978) assessed first through sixth grade children's peer status using a peer rating scale on which each child rated each classmate. Using the ratings obtained from same-sex raters, it was again found that learning disabled children were held in lower esteem by their classmates than were the nondisabled children. Sheare (1978) also used a peer rating scale to assess 82 children in grades 3, 4 and 5. Using the scale in November and again in June, it was reported that both groups received higher peer acceptance ratings at the end of the year, but the learning disabled children consistently received lower scores than the nonlearning disabled group. Similar results were obtained by Scranton & Ryckman (1979) using a peer nomination scale in which each child nominates classmates with whom they would like to sit, who they like the best and with whom they did not want to play. Once again, learning disabled children were judged less positively and more negatively than were nondisabled comparison children.

More recently, Garrett and Crump (1980) tested fourth through sixth graders on a nomination scale. These investigators also reported that learning disabled children received lower social status scores than nondisabled children of the same sex and classroom. Horowitz (1981) compared third and fourth graders' nominations of the students they liked and disliked. In this current study it was also reported that learning disabled children were held in lower esteem by their peers than were their nonhandicapped classmates.

In summary, findings of the peer status of learning disabled children, as measured by sociometric techniques, appear consistent across a variety of studies. Therefore, in comparison to nonlearning disabled classmates, learning disabled children tend not to be readily acceptable by their classmates.

B. Measures of Social Status

Introduction

The sociometric technique is used primarily as a means of estimating the degree to which individuals are accepted within a group, and the nature of the relationships that exist among such individuals. The majority of sociometric techniques available are quite simple in their construction and administration. In general, these techniques are employed most effectively in groups with defined boundaries,

where the individuals know each other at least by name and continue with communication over a reasonable period of time. Sociometric techniques also have the potential of measuring the interpersonal attitudes and feelings of specific members of a group (Wallace & Kaufmann, 1978). These techniques such as nomination and rating measures have been cited as being among the most widely used assessment tools in measuring social status. In the following section, a description of peer nomination and peer rating scales are given, as well as the advantages of using such scales in research and practice.

Sociometric Techniques

When peer nomination is utilized students are asked to name certain numbers of their peers according to designated criteria, such as "best friend", "seating companion", or "play partner". Nominating could include positive or negative criteria. Participants may also be asked to nominate only one child or as many group members as they wish. When appropriate it is also possible for students to rate their nominations as first, second, or third choice. This nomination technique permits the teacher to elicit the names of individuals that are least liked and most desired by a given child.

When using peer ratings a 5-point Likert-type scale is most frequently given and students are asked to rate their schoolmates according to such specified criteria as "work

partner" or "play partner" (Oden & Asher, 1977; Roistacher, 1974). A student's score is the average of the ratings received. The rating-scale sociometric measure possesses several advantages:

1. Test-retest reliability of the rating scale is generally high. Oden and Asher (1977) found a test-retest correlation for third and fourth-grade children of .82 for the "play with" scale, .84 for the "work with" scale, and .62 for a "best friend" nomination measure. Asher, Singleton, Tinsley, & Hymel (1979) found a stability coefficient of .81 for a "play with" rating scale as compared to .56 for a nomination measure.
2. In contrast to the nomination scale where it is only possible to learn about the peers who were nominated students rate all their classmates. With the nomination technique, the child is asked to name three classmates who they would ask to a party. Usually it is found that some students never get nominated by the other students in the class, leaving the researcher with no information on particular children. In such a situation, it becomes unclear whether the failure of that child to be nominated is due to dislike by classmates or whether the classmates simply forgot to nominate the student (Gresham, 1981).

3. Another advantage of the rating scale is that it is responsive to subtle changes in criteria. Singleton and Asher (1977) found that white children rated black classmates higher on a "play with" than a "work with" rating scale. Oden and Asher (1977) found that training low-accepted children in play skills led to greater increases in children's ratings by peers in response to the "play with" question than in response to the "work with" question.

Thus, when Combs and Slaby (1977) stated that peer popularity had been overrated as a critical area when assessing social skills, one would need to know on which of the two measures the social status of the child is based. Sarason (1980) in her literature review, reported that children who were not popular lacked a range of skills, including the ability to communicate their emotional needs accurately and to respond to peers appropriately in helping situations. This observation would support the view that the rating of social status can be a useful discriminating diagnostic approach.

C. Social Competence of Learning Disabled Children

Social Competence can be defined as "the effectiveness or adequacy with which an individual is capable of responding to various problematic situations which confront

him" (D'Zurilla & Goldfried, 1971). Due to the reported frequency of poor social relations in the learning disability population, researchers have begun to study the impact of social behavior problems as contributors to the low peer acceptance of learning disabled children by their peers in the regular classroom. Recent research (La Greca & Mesibov, 1979; Cartledge, Frew, & Zaharias, 1985; Gresham & Reshley, 1986) has reported that, on average, learning disabled children exhibit deficits in several aspects of social competence. The following section will review studies which focused on the social competence of learning disabled children. Aspects of social competence discussed include verbal and nonverbal communication, nonverbal social communication, role taking, social and teacher expectations, and problem solving.

Related Research

A number of studies have shown that learning disabled children have problems in the use of verbal communication (Bryan, Wheeler, Felcan, & Henek, 1976; Bryan & Bryan, 1976; Bryan & Plaum, 1978; Noel, 1980; Spekman, 1981). Verbal communication is defined as one's ability to provide meaningful and descriptive communication with others.

Using an observational technique to record children's conversation, Bryan, Wheeler, Felcan, & Henek (1976) examined the content of verbal communications which occurred between 17 learning disabled and 17 nondisabled children in

grades 3, 4, and 5. Results showed that learning disabled children are more likely to emit competitive statements and less likely to emit considerate statements than comparison children. Bryan & Bryan (1976) also found that learning disabled children not only emitted more insulting utterances to peers than normal children, but they were also the targets of more insulting remarks by others.

Bryan & Plaum (1978) explored learning disabled children's ability to adapt the syntactic complexity and communicative content of their speech to meet needs of different listeners. Fourteen fourth and fifth grade male learning disabled and nondisabled children were asked to teach a classmate of the same age as well as a kindergarten-aged child. The learning disabled males used less complex speech than the other children and were less able to vary their syntactic complexity as a function of listener age. Furthermore, learning disabled children were more likely than nondisabled children to provide ambiguous or inappropriate information suggesting that they were less able to take into account their listener's perspective when formulating their messages.

Noel (1980) explored the communication abilities of 40 male learning disabled children and 40 male nondisabled children between the ages of 9 and 11 years. A research paradigm involving the communication of specific descriptive information from a speaker to a listener was employed. Noel found that both learning disabled and nondisabled children

received better messages from nondisabled than from learning disabled communicators. Noel reported that nondisabled children described objects by means of labels or names while learning disabled children were more likely to describe the shapes of objects.

Spekman (1981) examined the dyadic verbal communication skills of learning disabled and normally achieving fourth and fifth grade boys. Twelve learning disabled children paired with 12 normally achieving children were compared with those of 12 dyads composed only of normally achieving children. The children exchanged information regarding a pattern of blocks under conditions which involved varying the channels available for communication and feedback. When learning disabled children were speakers, many of their messages were unproductive, irrelevant to the task or repetitious. These children did not communicate as much new information as did their nondisabled counterparts. It was noted that though learning disabled children asked as many questions as did their nondisabled peers, they received less meaningful replies. Learning disabled children are either unaware of the messages they are sending or their intentions are often misinterpreted by others.

In addition to verbal social difficulties studies have reported that learning disabled students have difficulties in understanding nonverbal communication (Bryan & Sherman, 1980; Bryan, Sherman, & Fischer, 1980; Donahue, Pearl, &

Bryan, 1980) and functioning effectively in the role of listener.

Bryan, Sherman, & Fisher (1980) investigated learning disabled children's nonverbal behavior. Twenty-seven learning disabled and 27 nondisabled males were given instructions to either ingratiate or to act naturally with an adult interviewer while discussing their television preferences. The children's behaviors during their three minute individually administered interviews were videotaped. Results showed that learning disabled children spend less time looking at the interviewer while speaking than did the nonlearning disabled children.

Bryan & Sherman (1980) later replicated the Bryan, Sherman, & Fisher (1980) study. Their findings suggested that differences in nonlearning disabled and learning disabled children's nonverbal behaviors play a significant role in affecting differences in the audience's immediate impressions of those two groups of children.

In another study, Donahue, Pearl, & Bryan (1980) assessed the learning disabled children's requests for clarification. It was found that first through eighth grade learning disabled children tended not to ask for needed information and consequently committed more error. These children were hesitant to assert themselves by asking questions. Donahue, Pearl, & Bryan (1981) replicated the study and in addition found that learning disabled children did not respond to ambiguous information.

Learning disabled children also exhibit difficulties in nonverbal social communication. Nonverbal social communication includes the ability to understand the emotions, motives, and intentions of others. Studies have shown that learning disabled children appear to have less ability than do their normal achieving peers to understand the nonverbal expressions of others. (Bryan, 1977; Pearl & Cosden, 1982 Weiss, 1984).

Bryan (1977) showed a film of 40 scenarios depicting an adult female expressing either positive or negative emotions combined with dominant or submissive expressions. The researchers found that learning disabled children were less able to accurately describe the scenario as their normal achieving counterparts did. Learning disabled children evidently have more difficulty in understanding subtle communication of affect than do their normal achieving peers. In another study, Pearl & Cosden (1982) showed learning disabled and normal achievers clips from soap operas and assessed their comprehension of the feelings being displayed. The results showed that the learning disabled children were consistently less accurate than their classmates in understanding the social interactions they viewed. Clearly the findings show that the problems faced by the learning disabled child involves interpersonal interaction.

Weiss (1984) assessed the understanding of social interactions between learning disabled and normal achieving

boys using videos and verbal descriptions of realistic interactions. The interactions shown were horseplay, friendly interaction, and fighting. The learning disabled children not only had difficulty interpreting the horseplay interaction, but viewed the interactions as more unfriendly than did the normal achieving students.

Another social competence deficit contributing to the social difficulties of learning disabled children is role taking. Role-taking requires the ability to take the perspective of one's communications partner. Studies have shown that learning disabled children are deficient in their abilities to understand and take the viewpoints of others (Dickstein & Warren, 1980; Wong & Wong, 1980; Horowitz, 1981).

Dickstein & Warren (1980) compared the role-taking skills of 38 learning disabled children ranging in age from five to eight years with those of a control group of normal children within the same age range. They were given three experimental tasks. One task was to determine what another student was thinking, a second what another was feeling, and a third what another was seeing from a perspective different from the child's. Results showed that learning disabled children were not as good role takers as the comparison group on all three measures.

In another study, Wong & Wong (1980) investigated the role-taking skills of 32 normal achieving and 32 learning disabled children. The children looked at three cartoon

series in which they told a story from the viewpoints of the main characters and that of the bystanders. The extent to which subjects could take a perspective which was unclouded by contextual knowledge known only to themselves was measured. The results showed that learning disabled girls, rather than boys, were relatively less capable than the control groups in assuming another's perspective.

In yet another study, Horowitz (1981) administered two role-taking tasks to 29 learning disabled and 29 normal children: one asking the child to take the visual perspective of another, and another asking the child to make up a story from the perspectives of the various characters involved. The learning disabled children were inferior to nonlearning disabled youngsters in their performance. The learning disabled students were more egocentric than their peers, and less able to take the role of the other in a social situation. In other words, they have difficulty stepping out of their own perspective to take the perspective of another.

A number of studies have found that learning disabled children have problems conforming to social norms (Bryan, Sonnefeld, & Greenberg, 1981; Perlmutter & Bryan, 1984). Bryan, Sonnefeld, & Greenberg (1981) showed that learning disabled children preferred social ingratiation tactics that were judged of lower social desirability by adults than did their normal achieving peers. In another study, Perlmutter and Bryan (1984) showed that when learning disabled children

were specifically instructed to please an adult viewer, they made good impressions; however, when they were simply told to act naturally, they were judged as more socially hostile and less adaptive than normal achievers receiving the same instructions. From such findings, it is evident that learning disabled children are knowledgeable of the social expectations that are placed upon them, but appear less inclined to adhere to them.

Another series of findings of interest is that learning disabled children exhibit more off-task behavior than their normal achieving classmates (Bryan & McGrady, 1972; Richey & McKinney, 1978; McKinney, McClure, & Feagans, 1982). Bryan & McGrady (1972) found that teachers rated learning disabled children as less cooperative, less attentive, less able to organize themselves, less able to cope with new situations, less accepting of responsibility, and less able to complete assignments than the nondisabled peers. Richey & McKinney (1978) and McKinney, McClure, and Feagans (1982) also found that teachers rated learning disabled children as less task oriented, more distractible, and more introverted than their normal achieving peers. According to these findings it is evident that learning disabled children find it difficult to adhere to the classroom norms set by the teacher.

Another area of social competence that has contributed to social difficulties in learning disabled children is that of problem-solving (Bryan, Donahue, & Pearl, 1981; Schumaker et al., 1982). In one study (Bryan et al., 1981) fifty-four

learning disabled children in grades 3 through 8 participated in a problem-solving task requiring group decision making. It was found that learning disabled children were less persuasive than nonlearning disabled children. Furthermore, the learning disabled children were less likely to disagree with classmates, less likely to argue for their choices, and more likely to agree with their peers.

In another study (Schumaker et al., 1982), learning disabled adolescents were asked to specify how they would solve problems and behave in particular situations on a task requiring them to name optional behaviors, identify consequences for each option, and specify how they would behave. It was found that they performed significantly fewer components of this problem solving skill than their peers.

D. Measures of Social Competence

Introduction

Given the importance of social skills in gaining acceptance into the peer group and for effective social relationships, it is important to establish assessment techniques which will identify those children who have social competence deficits, as well as identify the social situations that present problems for a particular child (Dodge, McClaskey, & Feldman, 1985). The following section

will briefly review and critique teacher rating scales available for measuring social competence. This section will also describe situational assessments of social competence, as well as the measure used in the present study.

Teacher-Rated Measures of Social Competence

Several teacher ratings have been developed specifically to assess children's social competence. A description of the two most commonly used social skills assessment tools is given. These include the Walker Behavior Identification Checklist (Walker, 1970), and the Social Behavior Assessment (Stephens, 1978).

Walker, McConnel, Holmes, Todis, Walker, & Golden (1983) developed a teacher rating scale to corroborate with the Walker Social Skills Curriculum or Accepts Program. The scale developed a 28 item measure whereby teachers rate a target child on a 1-5 Likert scale.

Stephens (1978) developed a teacher rating scale in which 136 social skills are grouped into four categories. The four categories are: (1) behaviors related to the environment (2) interpersonal behaviors, (3) self-related behaviors, and (4) task-related behaviors. The teacher rates on a scale from 1 to 3 the degree to which a child exhibits each of the 136 social skills.

Critique of Social Competence Measures

Although these instruments have been able to identify the socially incompetent child they have not identified the specific social situations that often present problems for a particular child (Dodge, McClaskey, & Feldman, 1985).

Children usually find themselves confronted continuously by problematic situations with which they must cope. Depending on how complicated the situation is and the possible negative consequences of handling it poorly, these problems may be trivial or crucial. Therefore, behaviors a child may exhibit in one situation may not be exhibited in another situation due to factors such as the importance, the complexities, and the negative consequences associated with the behavior. Following the ecological model, Goldfried and D'Zurilla (1969) emphasized the importance of understanding behavior in relation to its environmental context.

Situational Assessment of Social Competence

Studies (Freedman, Rosenthal, Donahue, Schlundt, & McFall, 1978; Gaffney & McFall, 1981) have used measures that call attention to the situational context of the behavior assessed in adolescent boys and girls.

Freedman, Rosenthal, Donahue, Schlundt, & McFall (1978) developed a measure consisting of 44 behavior role-playing and problem solving items--the Adolescent Problems Inventory (API). These problem solving items consisted of problematic situations that are related to delinquency. It was found

that the API could differentiate between delinquents and nondelinquents, and that nondelinquents who differed in their social competence, according to school guidance counselors' nominations, also differed in overall API performance. Specifically, the research suggests that the API is a valid measure of social competence in adolescent boys.

Gaffney & McFall (1981) developed a measure of social competence designed specifically for use with teenage girls. The instrument was validated by relating performance on the Problem Inventory for Adolescent Girls to other measures of performance, specifically delinquent behavior. The study revealed that the test discriminated between groups of delinquent and carefully matched nondelinquent subjects. The results of this research were similar to those reported by Freedman et al. (1978) in their study of social competence among adolescent boys.

A recent study (Dodge, McCiaskey, & Feldman, 1985) generated a taxonomy of problematic situations which may lead to peer conflicts for elementary school children. It was proposed that children's social behaviors are best understood as responses to specific situations or tasks. The problematic situations are grouped into six categories. The six categories are as follows: (1) Peer Group Entry, in which the child's task is to initiate inclusion into the peer group, (2) Response to Peer Provocation, in which the task is to preserve self-integrity while maintaining peer

status, (3) Response to Failure, when this child loses a game against a peer, (4) Response to Success, being identified as superior to the peer group, (5) Social Expectations, in which clear social norms exist for the child's behavior; and (6) Teacher Expectations, in which the teacher has established clear norms for child behavior.

The authors administered the test to teachers of 45 socially rejected children and 39 adaptive children. The teacher rated each child on a scale from 1 to 5 on whether or not that child was capable of solving a given problematic situation. It was found that the teachers rated the rejected aggressive groups as less able to solve problems than the adaptive ones. However, the deficiencies of aggressive children were found to be most evident in particular situations. Aggressive children were found to have problems in handling situations related to provocation by a peer and in responding appropriately to social norms.

Despite the growing number of studies on the social competence deficits of learning disabled children integrated in the regular classroom, many investigations have not used a teacher rating scale which focuses on assessing social competence within a situational context.

E. Social Self-Efficacy in Peer Situations

Introduction

Self-efficacy, one facet of general self-concept, plays

a major role in one's success in social situations (Wheeler & Ladd, 1982). Self-efficacy is the belief that one can successfully perform behavior required to produce desired outcomes (Bandura, 1977). The following sections will discuss the concept of social self-efficacy, and review the literature on the social self-concept of learning disabled children. Measures of self-efficacy will be discussed with major emphasis on the assessment used in the current study.

Social Self-Efficacy

Believing that you can successfully perform behavior to produce desired outcomes increases the probability that you will verbally acknowledge the fact that problematic situations constitute a normal part of life and that it is possible to cope with most of these situations effectively. The depressed "why do these things always happen to me" reaction often reflects the failure of the individual to accept the fact that problematic situations are "normal" and that he is capable of finding solutions to most of these situations (D'Zurilla & Goldfried, 1971). In a particular situation, the individual, though desirous of an available goal may believe that there is no behavior in his repertoire that will allow for him to be effective in securing the goal (Lefcourt & Loughlin, 1966). Research findings reviewed by Lefcourt & Loughlin (1966) and Rotter (1966) indicate that the more an individual believes he can influence the

behavior and feelings of others, the more likely that he will actually attempt to cope with conflicts when they do in fact occur.

Goetz & Dweck (1980) found that children who attributed social failure to their own incompetence, as opposed to other factors were less likely to try to adapt their behavior in a way that might improve their chances of gaining peer acceptance. Furthermore, less popular children were more likely to make self-attributions than were their more popular peers. Learning disabled children who are known to be less popular amongst their peers, approach peer-conflict as a win-lose situation. Their goals in peer conflict reflect a nonassertive or powerless orientation toward interpersonal negotiation (Carlson, 1987).

Related Research

There is a large body of literature concerning learning disabled children and their lowered nonacademic self-concept (Larsen, Parker, and Jorjorian, 1973; Black, 1974; Tolor & Blumen, 1977; Sheare, 1978).

Larsen, Parker, and Jorjorian (1973) compared learning disabled and normal achieving third and fourth grade children on Q sorts of "ideal" and "real" self based on the Coopersmith Self-Concept Inventory. Learning disabled children had greater discrepancy scores between real and ideal selves than did normal achieving children, and thus

were assumed to have lower self-concepts than nondisabled youngsters.

Using a different self-concept measure, Black (1974) compared 25 learning disabled and 25 nondisabled children on the Piers-Harris Children's Self-Concept Test (Piers & Harris, 1969). As compared to the control group, the learning disabled group obtained lower self-concept scores. Tolor, Tolor, & Blumin (1977) compared the self-concept of 28 children with learning problems in kindergarten through grade 4 with a control group. Using the revised Self-Appraisal Inventory, the learning disabled children relative to the controls exhibited less positive self-concepts. In another study, Sheare (1978) group administered the Piers-Harris Self-Concept measure and the Peer Acceptance Scale to 82 children. There was a significant relationship between self-concept and peer acceptance scores. In all cases, the learning disabled group received lower self-concept scores and lower peer acceptance ratings.

Measures of Children's Self-Concept

Measures used in these studies included the Piers-Harris (1964) Children's Self-Concept Scale, the Coopersmith (1967) Self-Esteem Inventory, and the Harter (1982) Perceived Competence Scale for Children. These scales include a social subscale used for assessing children's evaluations of their social relationships or popularity, however these

subscales do not measure a child's self-evaluation of their social competence. Furthermore, as stated by Shavelson et. al (1976), self-evaluations of social competence may differ as situations vary. Some situations require greater skill and carry higher risk of negative outcomes than do other situations, thus self-efficacy will vary accordingly.

Wheeler & Ladd (1982) developed an instrument that measures elementary school children's self-efficacy for social situations with peers. The Children's Self-Efficacy for Peer Interaction Scale (CSPI) was constructed to measure third through fifth-grade children's perceptions of their ability to influence the behavior and feelings of others in socially acceptable ways. Although this study (Wheeler & Ladd, 1982) has investigated normal achieving children's self-efficacy in social situations, no studies to date have looked specifically at the learning disabled population with regards to this measure. It is possible that the learning disabled population may rate themselves on the measure of self-efficacy in social situations much lower than their nonlearning disabled peers.

Based on this review of the current research literature, the present study will employ an ecological approach to assess children's social competence. Sociometric measures, a teacher rating scale, and a self-rating scale are included in this investigation's assessment procedures. Specific descriptions of these

instruments and their implementation will be presented in the following chapter.

III. METHODOLOGY

A. Introduction

The methodology for the present study is described in detail in this chapter. Information presented includes a description of the sample, as well as a description of the specifications of the test instruments used and the procedures for their administration.

B. Sample

The subjects for the study are 60 elementary school-aged children in grades four through six. Fifteen classes from four schools within the Edmonton Public School system participated in the study. The subjects consist of 30 children who have been identified as students with severe learning disabilities. The students were identified for the study by meeting criteria for funding as an adaptation student of the Edmonton Public School. The criteria set by the Edmonton Public School Board includes IQ scores ranging between 80-100, as well as a severe academic delay (1/2 of grade score expectancy based on years in school) in 3 or more of the following: reading comprehension, reading vocabulary, spelling, mathematics computation, mathematics application, and written language. The subjects have been integrated within the regular classroom since the start of

the 1988-1989 school year, and may or may not be receiving supplemental instruction from a resource room teacher. The learning disabled subjects could also be children who spend only 50% of their day in the regular classroom.

A control group (n=30) was randomly selected from grades 4 through 6. These students were to be comparable to the experimental sample on the variables of sex, age, and classroom assignment. The control group were to be normal achieving students with no major academic difficulties. The control and learning disabled samples each included 25 boys and 5 girls. Both the control and experimental samples ranged in age from 9 years, 2 months to 12 years, 11 months. The mean chronological age of the learning disabled subjects was approximately 139.8 months, with a standard deviation of 9.78. The mean chronological age of the control subjects was approximately 130.0 months, with a standard deviation of 9.49. The socioeconomic status of both samples was in the middle to low range.

C. Instruments

The variables of concern in the present investigation, peer acceptance, social competence, and social self-efficacy will be assessed by a total of four instruments. The four instruments used are the Play and Work With Rating Scales (Singleton & Asher, 1977), the Taxonomy of Problem Situations (Dodge, McClaskey, & Feldman, 1985), and the

Children's Self-Efficacy for Peer Interaction Scale (Wheeler & Ladd, 1982). A more complete description of each of these instruments will now be presented.

Sociometric Measures:

Play and Work With Rating Scales (PWR & WWR)

The PWR and WWR have been used extensively in research concerning the peer acceptance of both handicapped and nonhandicapped children (Asher & Hymel, 1981; Green, Forehand, Beck, & Vosk, 1980; Gresham, 1981a, 1981b; Gresham & Nagle, 1980; Ladd, 1981; Singleton & Asher, 1977).

Sociometric measures have been shown to be predictive of later-life adjustment (Cowen, Pederson, Babajian, Izzo, & Trost, 1973) and significantly related to other measures of social competence (Gottman, Gonso, & Rasmussen, 1975). The Play and Work With Rating Scales were originally designed by Singleton & Asher (1977) to evaluate peer relationships among elementary school children who were in recently integrated classrooms or who had a prior history of segregated schooling.

Each student in a classroom is asked to rate each classmate according to how much they like to "play with" and "work with" a peer by completing a happy face Likert scale. Each student is given a class list and asked to rate each peer by completing the Likert scale which ranges from one to five. A very happy face receives a score of five, indicating that the child would like to play with or work

with that peer very much, a medium face receives a score of three and indicates that it doesn't matter if they play or work with the peer and a sad face represents a score of one and indicates that they do not like to play or work with that peer very much. Each student circles the number that best represents how they feel about their classmates.

Children's PWR and WWR acceptance scores reflect the average rating given a child by all his classmates of both sexes. Both-sex ratings, which have been shown to be moderately correlated to same-sex ratings (Asher & Hymel, 1981), were used to ensure that each target child's average rating was derived from a sufficiently large pool of raters. For the rating scales measure, a child's score is computed as the average rating received from both-sex peers, with a higher score indicative of greater peer acceptance

Both instruments have been shown to be stable over time showing test-retest reliability of .82 and .79, respectively, on the play and work with rating scale with third and fourth grade children (Singleton & Asher, 1977). Oden & Asher (1977) found that the median test-retest correlation over a 6-week period for 11 classrooms was .82 for the play rating scale and .84 for the work rating scale. Asher, Singleton, Tinsley, & Hymel (1979) found a stability coefficient of .81 for the play with rating scale.

Gresham & Nagle (1980) report relationships with direct measures of classroom behavior (Mdn $r=.30$ and $.27$, respectively). Hartup, Glazer, and Charlesworth (1967)

reported positive correlations between rates of positive interaction and sociometric acceptance. Gresham & Reshley (1986) state that peer ratings show concurrent validation with teacher ratings of social behavior. Sociometrics have not traditionally been considered behavioral assessment devices, but increasing numbers of social skills programs are realizing their value as selection, outcome, and social validation measures (Asher & Hymel, 1981; Oden & Asher, 1977).

An important advantage of the rating-scale method is that children are not required to list anyone as particularly disliked; children can rate everyone highly if that is how they feel.

Teacher Rating Scale:

Taxonomy Of Problem Situations (TOPS)

The Taxonomy of Problem Situations was developed by Dodge, McClaskey, and Feldman (1985) to measure the social competence of elementary school children. The scale was designed to provide more specific information about children's social competence than provided by traditional scales, which tend to have a global orientation toward the diagnosis of social competence deficits. The researchers generated a taxonomy of problematic situations which may lead to peer conflicts for elementary school children. It was proposed that children's social behaviors are best understood as responses to specific situations or tasks.

The instrument consists of 44 items made up of six subscales as follows: (i) peer group entry; (ii) response to provocation; (iii) response to failure; (iv) response to success; (v) social expectations; (vi) teacher expectations. The instrument when completed yields both a total score for the entire 44 items as well as a score for each of the six subscales. Each item on the TOPS consists of a statement describing a problematic situation requiring teachers to evaluate how much of a problem the situation is for a target child and how likely the child would be to respond in an inappropriate manner in this situation.

In this investigation the teachers were asked to complete the 44 item Taxonomy of Problem Situations for the control and experimental subjects in the class. The teacher was asked to rate on a 1-5 scale how much of a problem particular situations are for the target child and how likely the child would be to respond in an inappropriate manner. The scale is as follows: 1 = never, 2 = rarely, 3 = sometimes, 4 = usually, 5 = almost always. It took each teacher approximately 8 minutes to rate each target student.

Teacher ratings have been shown to be reliable, valid, and useful methods for assessing children's social behavior (Gresham & Elliot, 1984). Teacher ratings have been validated against behavioral observations and appear to be more accurate indicators of children's social behavior than was previously thought (Greenwood, Walker, & Hops, 1977). Bolstad and Johnson (1977) examined the relationship between

the description teachers gave of their students and the student's actual behavior. There was a high degree of concordance between teacher's ratings and behavioral observation data.

Dodge et al., (1985) reported high internal consistency, as assessed by Cronbach's coefficient alpha. The alphas ranged from .89 to .97 (all p s < .001) and the alpha for the 44 item total score was .98. The test-retest Pearson product moment correlations for each item and each factor score were calculated using the fall and spring data sets. All correlations were significant (each p < .02), with r s ranging from .31 to .73 for item scores, from .57 to .72 for factor scores, and .79 for the total score. Spring data showed alphas significant and ranging from .88 to .96. Alphas calculated separately for each status group ranged from .83 to .97.

Self-Rating Scale:

Children's Self-Efficacy for Peer Interaction Scale (CSPI)

The Children's Self-Efficacy for Peer Interaction Scale (CSPI) (Wheeler & Ladd, 1982) was constructed to measure third through fifth grade children's perceptions of their ability to enact prosocial persuasive skills in specific peer situations. Prosocial persuasive skills is the ability to influence the behavior and feelings of others in socially acceptable ways. It was proposed that the assessment of

self-perceptions of social behavior would make an important contribution to understanding both the development of social self-concept as well as the relationship between self-views and social behavior.

Each item on the CSPI consists of a statement describing a social situation followed by an incomplete statement requiring the child to evaluate his or her ability to perform a verbal persuasive skill. Verbal persuasive skills are the main focus because the ability to influence the behavior and feelings of others in socially acceptable ways is considered an important aspect of social competence, as well as instrumental in the acquisition and maintenance of peer acceptance (Ladd, 1981).

Twelve items depict conflict situations and 10 items depict nonconflict situations. The procedure consists of having the students circle for each item one of four responses: 1. HARD! 2. Hard 3. Easy 4. EASY!. Each item is read aloud by the researcher in order to reduce the potential confound of reading ability. Response ratings are summed for a total self-efficacy score for each child. Total scores may range from 22 (the lowest possible score) to 88 (the highest possible score). Administration of the CSPI to the entire class took approximately 15 minutes.

Wheeler & Ladd (1982) reported that all 22 items were positively and significantly correlated with the total score ($p < .05$) with correlations ranging from .26 to .61 with a median of .43. These findings support the interpretation

that each scale item taps the common construct of social self-efficacy. Correlations between the conflict items and the conflict total score ranged from .33 to .68 with a median of .50; correlations between the nonconflict items and the nonconflict total score ranged from .23 to .54 with a median of .40. The correlations between the conflict and nonconflict total scores was .46, suggesting that these two item clusters comprise distinct but related components in the scale.

Test-retest reliability of the CSPI was .90 for boys and .80 for girls. These data indicate that children's perceptions of social self-efficacy are relatively stable over a two-week time period. The obtained validity coefficients were statistically significant. The conflict component correlated to a lesser degree than the nonconflict measures employed in this study. Overall, the highest correlations were obtained between the CSPI and an anxiety measure. The CSPI was positively correlated with the Peer Rating of Social Influence and the Play Nomination Sociometric Measures.

D. PROCEDURE

Subjects were selected in the following manner. Principals of the school district were asked to allow their schools to participate in the study. The criteria used for approaching a school was whether or not they contained

students in the adaptation program who were integrated all day in grades 4, 5, and 6 classrooms or at least 50% of the day. Once it was confirmed by the principals that their schools had met the selection criteria and were willing to participate a formal request was made to Mr. Simon Vandervalk, Research Director of the Edmonton Public School Board for the study to take place in the schools identified.

The experimental group ($n=30$) were identified for the study by meeting criteria for funding as an adaptation student of the Edmonton Public School. The experimental subjects had to be integrated within the regular classroom since the start of the 1988-1989 school year, and may or may not be receiving instruction from a resource room teacher. The adaptation subjects could also be those students who spend only 50% of their day in the regular classroom. A control group ($n=30$) was randomly selected from grades 4 through 6. These students had to be comparable to the experimental sample on the variables of sex, age, and classroom assignment. After the experimental and control groups were selected, parental permission was solicited for student participation through a letter briefly describing the purpose of the investigation and requesting parental signature (Appendix D). The final sample was selected from those students who received permission to participate in the study.

The Play With Rating Scale (PWR) (Appendix A), The Work With Rating Scale (WWR) (Appendix A), the Taxonomy of

Problem Situations (TOPS) (Appendix B), and the Children's Social Self-Efficacy for Peer Interaction Scale (CSPI) (Appendix C) were administered to groups of students in the Edmonton Public School System at their schools during school time. Pilot testing revealed that the PWR and WWR would take about 15 minutes to administer and the CSPI about 15 minutes. The TOPS was distributed for teachers to rate only those students in the control and experimental samples. Rating of each student took approximately 7 minutes.

Testing was done by the researcher on April 12th and 13th. Guidelines suggested by the test makers for administering the tests were strictly adhered to. All instructions were read aloud to the pupils participating to ensure that those students with reading difficulties were not unduly handicapped during testing.

Each testing session was introduced by the examiner who indicated in a very general way the reason for the testing and what each student was expected to do. Pupils were reassured that the answers they give would be confidential and that the test results would not be entered into their school record. Children were not permitted to talk or compare answers during the test.

Specifically, when introducing the "play with" and "work with" rating scales the class was told the following "I am interested in some information about the class. I would like to find out how well you know each other and I would like to know who you like to work with and who you

like to play with. You will be able to tell me who your friends are in this classroom. We will not be saying this out loud in a group. You will let me know your choices by marking them down on the papers I will give you. You can be honest, because I will not show anyone else in the class your answers. I will be the only one to see them."

All students received a class roster that listed the names of all children in the classroom. The numbers 1-5 were printed next to each name on the roster. Students were asked to find their name on the roster and cross it out. To explain the use and meaning of the 5 point scales examples of food were used, eg. How much do you like ice cream? The researcher gave examples of play situations at school such as recess, free time before class, and time spent in the playground and examples of work situations at school such as math, science, reading, and going to the library during school hours. The students were then told to circle the number that best represents how they feel about their classmates. To avoid any unethical practices, all children in the classroom were rated by their peers. However, the researcher was only interested in the ratings classroom peers gave to experimental and control subjects.

For completing the Children's Self-Efficacy for Peer Interaction Scale the students were taught the meaning of each rating. Examples of schoolwork were used to elaborate on the meaning of each choice, eg. Math is _____ for me to do. Each statement was read outloud in order to reduce the

potential confound of reading ability. Each statement was also visible on an overhead projector. The class was told "as each question is read, you must decide which of the four choices describes you, then mark 1, 2, 3, 4 on the sheet handed out.

For administering the Taxonomy of Problem Situations, the classroom teachers involved in the study were given the following directions: "I am trying to identify the kinds of situations that are most likely to cause problems for these children. For each situation, please indicate how likely the child you are rating will respond in an inappropriate manner (by hitting peers, aggressing verbally, crying, disrupting the group, withdrawing, appealing to the teacher for help, or behaving in some other immature, unacceptable, and unsuccessful way. In other words, how much of a problem is this situation for this child?"

Each teacher was given a sheet with information pertaining to the ratings and the meanings of each. An example was given verbally to the teachers involved. The statement was "When this child is teased by peers". The teachers were told that if they feel that when this child is teased by peers, he or she almost always responds inappropriately or ineffectively (such as by crying), you would agree that this is a problem situation for this child and would circle 5. If you feel that when this situation occurs this child almost always responds in an effective and appropriate manner (such as ignoring the teasing), you will

agree that this is not a problem situation for this child and will circle 1. The teachers were told that the study is less interested in how frequently this situation occurs, and more interested in the child's response when it does occur.

IV. RESULTS

A. Introduction

The purpose of this study was to compare the social status, social competence, and social self-efficacy of learning disabled and normal-achieving students in the Edmonton Public School system. To determine the significance of differences between the two groups on these measures, data from the PWR, WWR, CSPI, and TOPS were analyzed using t-tests. The Statistical Package for the Social Sciences X (SPSSX) for t-tests was used for the statistical analysis of the data, with a significance level set at $p < .01$. To determine the significance of differences between the two groups on subtests of the social competence and social self-efficacy dependent measures, subtest data from the CSPI and TOPS were further analyzed using Hotellings T-squared. The MULVO8 program in The Division of Educational Research Services (DERS) package was used for the statistical analysis of the subtest data, with a significance level set at $p < .05$.

In order to promote clarity, the chapter is divided into a number of sections. First, inferential statistics are presented for each null hypothesis in the study. Each overview is then followed by quantitative analysis, as well as summaries of the results of each measure given.

B. Overview of the Results

For the purpose of statistical analysis each hypothesis tested is presented in null form.

Hypothesis 1ⁿ

Social status as operationally defined by the Play With and Work With rating scales will not be significantly lower for the experimental learning disabled group than their control counterparts. This hypothesis is rejected indicating that learning disabled pupils integrated into regular elementary classrooms tend to be rejected more and accepted less than their non-learning disabled regular classroom peers. Thus the research hypothesis is confirmed.

2. Hypothesis 2ⁿ

The social competence skills as evaluated by teachers who completed the Taxonomy of Problem Situations (TOPS) rating scale will not be significantly lower for the experimental learning disabled group than for the control non-learning disabled group. This hypothesis is rejected indicating that teachers perceive learning disabled students as being constantly less able to deal with the 44 problematic social situations of the scale than their non-learning disabled classroom peers. Thus the research hypothesis is confirmed.

3. Hypothesis 3ⁿ

Self-efficacy in social situations with peers, as a measure of a pupil's perceived social competence and measured by the Children's Self-Efficacy for Peer Interactions (CSPI) Scale will not be lower for the experimental learning disabled group than for their control counterparts. The null hypothesis is confirmed indicating that the learning disabled pupils do not tend to perceive themselves as having less ability to influence the behaviors of their peers in socially acceptable ways than their non-learning disabled regular classroom peers. Thus the research hypothesis is rejected.

C. Hypothesis 1ⁿ

A t-test for independent means was performed to test null hypothesis 1ⁿ. The purpose of this test was to determine whether or not there were significant social status differences between the experimental learning disabled group (n=30) and their control counterparts (n=30). Thus, t-tests were performed on the means of the Play With (PWR) and Work With (WWR) scales, two of the tests used to measure social status. The results of these t-tests are reported in table 1 for both the PWR and WWR. The PWR results indicate that there are significant differences

($t(30) = -3.59, p < .001$) between the experimental and control groups. Thus the null hypothesis (1^{n}) is rejected and the research hypothesis accepted as predicted.

Similarly for the WWR results there are significant differences ($t(30) = -4.39, p < .001$) between the experimental and control groups. Thus the null hypothesis is rejected and the research hypothesis accepted. Consistently, the results of both t-tests point to the lower social status of learning disabled in the regular classroom despite the attempt to integrate such students into these classrooms with the hope of enhancing social status.

D. Hypothesis 2^{n}

A t-test for independent means was performed to test null hypothesis 2^{n} . The purpose of this test was to determine whether or not there were significant social competence skill differences between the experimental learning disabled group ($n=30$) and their control counterparts ($n=30$) as evaluated by teachers who completed the TOPS. T-tests were performed on the mean of the TOPS scale used to measure social competence. The results of the t-test is reported in table 2 for the TOPS. A look at table 2 indicates that there is a significant difference

Table 1

T-test for independent means of the PWR and the WWR scales used for comparing the social status of integrated learning disabled students and their control counterparts

LD Group			Control Group				
Measure	Mean	SD	Mean	SD	df	t	prob.
PWR	2.7800	0.564	3.2733	0.497	58	-3.59	0.001*
WWR	2.5167	0.570	3.1067	0.466	58	-4.39	0.000*

*p < .001 (two-tailed test)

Table 2

T-test for independent means of the TOPS scale used for comparing the social competence skills of integrated learning disabled students and their control counterparts

LD Group			Control Group				
Measure	Mean	SD	Mean	SD	df	t	prob.
TOPS	2.6033	0.605	1.8367	0.518	58	5.27	0.000*

*p < .001 (two-tailed test)

($t(30) = 5.27$, ($p < .001$) between the experimental and control groups. Thus the null hypothesis is rejected and the research hypothesis accepted as predicted.

Subtest Analysis

By way of interest further analyses was undertaken of each of the 6 subtests which comprise the TOPS scale and each of which contribute to the overall finding of significant differences between the integrated learning disabled and the regular classroom groups in hypothesis 2ⁿ. Hotelling T^2 , a multivariate statistical technique was used to analyze simultaneously subtest differences between groups on each of the 6 subtest of the TOPS scale. These subtests include Peer Group Entry (PGE), Response to Provocation (RP), Response to Failure (RF), Response to Success (RS), Social Expectations (SE), and Teacher Expectations (TE).

The results of the Hotelling T^2 tests of the significance of differences between each of the groups on each of the 6 variables of the TOPS are reported in Table 3. A look at this table reveals that of the six subtests analyzed, there were significant differences between the groups on the variables of Response to Provocation ($T^2 = 8.172$, $p < .05$); Response to Failure ($T^2 = 28.462$, $p < .001$); Social Expectations ($T^2 = 18.075$, $p < .05$); and Teacher Expectations ($T^2 = 17.678$, $p < .05$). On two subtest variables of the TOPS, Peer Group Entry and Response to

Table 3

Hotelling T^2 tests for comparing independent means of each of the 6 subtests of the TOPS scale for the integrated learning disabled students and their control counterparts

	LD Group		Control Group				
Measure	Mean	SD	Mean	SD	df(1,2)	T ²	Prob.
PGE	2.600	.809	2.007	.708	6,53	8.172	0.299
RP	2.793	.828	2.003	.608	6,53	18.728	0.023*
RF	2.760	.706	1.873	.574	6,53	28.462	0.001**
RS	2.137	.756	1.710	.651	6,53	5.488	0.548
SE	2.257	.696	1.617	.442	6,53	18.075	0.021*
TE	2.757	.791	1.933	.724	6,53	17.678	0.023*

* $p < .05$ (two-tailed test)

** $p < .001$ (two-tailed test)

PGE = Peer Group Entry

RP = Response to Provocation

RF = Response to Failure

RS = Response to Success

SE = Social Expectations

TE = Teacher Expectations

Success, there were no significant differences between the learning disabled and their regular classroom counterparts indicating that these variables did not contribute substantially to the overall level of significance between the groups on the TOPS scale.

E. Hypothesis 3ⁿ

A t-test for independent means was performed to test null hypothesis 3ⁿ. The purpose of this test was to determine whether or not there were significant social self-efficacy differences between the experimental learning disabled group (n=30) and their control counterparts (n=30) as self-evaluated by students who completed the CSPI. T-tests were performed on the mean of the CSPI scale used to measure social self-efficacy. The result of the t-test is reported in table 4 for the CSPI. The CSPI results indicate that there is no significant difference between the experimental and control groups.

Subtest Analysis

By way of interest further analyses was undertaken of each of the 2 subtests which comprise the CSPI scale. Hotelling T^2 was used to analyze simultaneously subtest differences between groups on each of the 2 subtests of the

Table 4

T-test for independent means of the CSPI scale used for comparing the social self-efficacy of integrated learning disabled students and their control counterparts

LD Group Control Group

Measure	Mean	SD	Mean	SD	df	t	prob.
<hr/>							
CSPI	63.767	12.12	65.833	11.06	58	-0.69	0.493

CSPI scale. These subtests include Conflict items (CF) and Nonconflict items (NCF).

Consistent with the overall findings of a non-significant statistical difference between the learning disabled and control on the CSPI, as reported in table 5, it's 2 subtests, Conflict and Nonconflict, did not reach statistical significance.

Table 5

Hotelling T^2 tests for comparing independent means of each of the 2 subtests of the CSPI scale (nonconflict & conflict) for the integrated learning disabled students and their control counterparts

LD Group			Control Group				
Measure	Mean	SD	Mean	SD	df(1,2)	T^2	Prob.
NCF	30.333	5.768	31.933	4.961	2,57	1.327	0.525
CF	33.767	7.833	34.033	7.677	2,57	0.018	0.991

NCF = Nonconflict Items

CF = Conflict Items

V. DISCUSSION AND IMPLICATIONS

A. Introduction

The main purpose of this study was to compare the social competence of learning disabled children integrated in the regular classroom with their regular classroom peers. It was hypothesized that there would be a significant difference between learning disabled and normal achieving students on measures of social status, social competence, and social self-efficacy. This chapter discusses the major findings of the study and its theoretical, research, and educational implications.

B. Major Findings

Social Status

The present study provides several key findings which have implications for commonly held beliefs about the social status of learning disabled children. The use of sociometric ratings has revealed that the social status of learning disabled children integrated in the regular classroom is significantly lower than that of their normal achieving peers. In other words, the learning disabled children, contrary to what integration is expected to achieve, tend to be rejected by their peers. The findings in this research study are consistent with the results of

previous studies investigating the social status of learning disabled children integrated in the regular classroom (Bryan & Wheeler, 1972; Bryan, 1974, 1976; Bruininks, 1978; Siperstein et al., 1978; MacMillian & Morrison, 1980; Morrison et al., 1983). These researchers found that learning disabled children received fewer social acceptance and more social rejection votes than the comparison children.

The present research found, according to the Work With Rating scale, that peers found it less desirable to work with LD children on academic tasks than to work with the control students involved in the study. Work was defined as academic subjects such as math, science, social studies, art, and language arts. It is possible that since learning disabled children do have problems learning and are behind academically in subjects such as math and language arts, that their peers prefer to be work partners with more capable peers. Therefore rejection of the learning disabled children based on this measure might be expected.

Siperstein, Bopp, and Fak (1978) compared peer ratings of learning disabled children and achieving children on three dimensions: academic ability, athletic skills, and physical appearance. They found that learning disabled children, though less popular than their classmates, received lower ratings only on the dimension of academic abilities.

However, not only was it found in the present study that the learning disabled children are rejected as work partners, but they are also rejected as play partners. Play is defined as free time in the classroom, during recess, and in playground settings. According to the Play With Rating scale used, peers found it less desirable to play with learning disabled children than to play with the normal achieving students involved in this study. Obviously then, academic deficits cannot account for all of the social rejection of integrated learning disabled children by peers. A study by Stone and LaGreca (1984) investigating learning disabled and nonlearning disabled nine to twelve-year old suggests that the nonverbal behaviors of learning disabled children are such as to alienate both unfamiliar adults and children.

In summary, as evident from the above findings, in an educational environment in which attempts are made to integrate the learning disabled children, mainstreaming has not necessarily resulted in increased social acceptance. In fact, the evidence suggests that integration of learning disabled children into regular classrooms may result in peer rejection and possible isolation.

Social Competence

It was found in this study that the social competence of learning disabled children integrated into the regular classroom is significantly lower from that of the classroom

peers involved in the study. As measured by the Taxonomy of Problem Situations, teachers evaluated the learning disabled students in their classroom as responding more inappropriately to problematic situations compared to their normal achieving peers. Problematic situations were operationally defined as social situations that were likely to eventuate in peer relationship problems among school children. More specifically, it was found in the study that learning disabled children were significantly different on the measure of social competence in particular social situations. These findings are consistent with previous studies (Cartledge, Frew, & Zaharias, 1985; La Greca & Mesibov, 1979; Gresham & Reshley, 1986). These researchers found that compared to nonhandicapped children, mainstreamed learning disabled children exhibit significant deficits in teacher-rated social skills.

It was found in the present study that teachers reported that learning disabled children respond inappropriately to peer provocation. The strategy used in these social situations is to be able to preserve self integrity while maintaining peer status. For example, in a situation in which the learning disabled student was playing with a peer, and a toy was accidentally broken, would the learning disabled child respond inappropriately by punching the child, crying, or accuse the child of breaking the toy on purpose, or would that child respond appropriately by excusing the child for breaking the toy? According to other

research findings and that of the present study, the learning disabled child would tend to accuse the child of breaking the toy on purpose rather than recognizing the incident as an accident. This finding is consistent with studies that have shown that learning disabled children have a lack of awareness to understand emotions, motives, and intentions of others (Bryan, 1977; Bruno, 1981; Pearl & Cosden, 1982; Stone & LaGreca, 1984).

It was also discovered in the current study that learning disabled children's response to failure, as measured by teacher ratings, was significantly different from their normal achieving peers. Learning disabled students tend to respond inappropriately when they encountered failure. Examples of the type of situations the teacher rated were "When this child is playing a game with a peer and realizes that the peer is about to win"; "When a peer performs better than this child in a game". Learning disabled children's unique response to failure may be related to their ideas concerning their fate. For example, in the case of a child winning a game, the learning disabled child may attribute his loss to external forces such as the opponent cheating rather than his own inability to play the game.

The findings of this study are consistent with studies that found that learning disabled children attribute their failures to external controls (Fincham & Barling, 1978; Hallahan, Gajar, Cohen, & Tarver, 1978; Pearl, Bryan, &

Donahue, 1980; Pearl, 1982; Pearl, Bryan, & Herzog, 1983). Pearl, Bryan, & Herzog (1983) interviewed children while they were in a game-playing situation. These researchers found that when normal achievers obtained many low scores, they responded by generating new techniques and attributed their failures to lack of effort; however, the learning disabled children failed to generate new strategies and indicated they had relatively little control over the number of low scores they had obtained.

In summary, as evident from the above findings, learning disabled children have problems responding appropriately to failure. In attempts to blame external forces for their failures, the learning disabled child may be laying the blame on peers for what in fact may be only a lack of effort or an inability to perform the task.

Another finding of the current study is that teachers reported that learning disabled children respond significantly different from their normal achieving peers with regards to social expectations which is defined as those expectations in which clear social norms exist for the child's behavior. Examples of this type of situation include: "When this child is asked by a peer to share his or her toy or game", "When a peer tries to talk with this child". From the findings of this study, it is evident that learning disabled children are less inclined to live up to social expectations.

This finding is consistent with other studies that found that learning disabled children violate the rules governing social behavior (Fincham & Barling, 1978; Perlmutter & Bryan, 1984; Bryan, Sonnefeld, & Greenberg, 1981). Bryan, Sonnefeld, & Greenberg (1981) showed that learning disabled children preferred social ingratiation tactics that were judged of lower social desirability by adults than did their normal achieving peers.

In summary, the above findings show that learning disabled children do not abide by the social norms placed upon them. Although the learning disabled child is knowledgeable of the existing social norms, they are less inclined to follow the rules governing social expectations.

One last area of social competence in which there were significant differences between learning disabled children and normal achieving controls is related to teacher expectations. Teacher expectations are those in which the teacher has established clear norms for child behavior. Examples of these situations include: "When the teacher is trying to speak to the entire class"; "When the teacher asks this child to work on a class assignment that will take a long time and will be difficult". This study found that learning disabled students do not adhere to the expectations set by their classroom teachers.

Such a finding is consistent with the findings of other studies that learning disabled children exhibit more off-task behavior than their normal achieving classmates

(Bryan & McGrady, 1972; Richey & McKinney, 1978; McKinney, McClure, & Feagans, 1982). Bryan & McGrady (1972) found that teachers rated learning disabled children as less cooperative, less attentive, less able to organize themselves, less able to cope with new situations, less accepting of responsibility, and less able to complete assignments than the nondisabled peers.

In summary, the current study shows that teachers rated learning disabled children as responding inappropriately to teacher expectations as compared to their normal achieving peers. Although learning disabled children understand what their teachers expect of them, they continue to exhibit more off-task behavior than their classmates.

In the current study, one area of social competence that did not find the learning disabled as being significantly different from their normal achieving counterparts was that of Peer Group Entry. Peer Group Entry is defined as the point at which the child attempts to be a member of a new peer group. Examples of situations the teacher evaluated are: "When this child asks a peer to play and the peer chooses to play with a third child instead"; "When a group of peers have started a club or a group and have not included this child". It is quite possible that learning disabled children have adapted to the fact that they are not as well liked as their normal achieving peers. Therefore when they are rejected by their peers, they do not respond inappropriately by name calling or picking fights.

A study by Bryan & Wheeler (1972) discovered that learning disabled children are more likely to be ignored when they initiated interaction than are nondisabled children.

In the present study it was found that learning disabled children do not respond inappropriately when they were not included in peer groups. It is quite possible that learning disabled children have learned to accept isolation from peer groups, and therefore do not react with hostility when ignored.

Another area of social competence, as measured by the Taxonomy of Problem Situations, that failed to find significant differences between learning disabled and their normal achieving peers was their Response to Success. Examples of situations the teacher evaluated include: "When this child has won a game against a peer"; "When this child performs better than a peer in a game". Learning disabled students were more likely than nondisabled students to believe that their successes were a function of external factors such as luck, other people's generosity, or the result of being given an easy task. Fincham & Barling (1978) and Hallahan, Gajar, Cohen, & Tarver (1978) discovered that learning disabled children were more likely than nondisabled peers to attribute the causes of their successes to external factors. Pearl (1982), and Pearl, Bryan, and Donahue (1980) found the same results using various other measures.

In summary, the present study failed to find any differences between learning disabled and normal achieving students in their responses to success. Learning disabled children seem less prone to take pride in their successes and are particularly prone to minimize or discount whatever successes they achieve.

Social Self-Efficacy

Another finding in this study is that those children judged by the teacher as responding inappropriately in problem situations do not perceive themselves as having less ability to influence the behavior of their peers in socially acceptable ways. In fact, there was no significant difference between the two groups on the measure of social self-efficacy. However, when measures are used to assess whether learning disabled children feel good or bad about themselves, it is usually found that they view themselves more negatively than do their nondisabled counterparts (Black, 1974; Bryan & Bryan, 1977). Possibly, such measures are academically biased and do not get at whether the self-concept of learning disabled children on nonacademic performance is significantly different than their normal achieving peers. In fact, studies including the current one, have failed to show that the learning disabled differed from the nondisabled in their self-concepts when evaluations were based on nonacademic achievement (Lincoln & Chazan, 1979; Winne, Woodlands, & Wong, 1982).

It is possible that the nonsignificant findings of the present study may be due to the relative tendency of learning disabled students to rate themselves as having no problems dealing with social situations. Such a rating may be due to ego defensiveness. Kronick (1976) has suggested that the learning disabled child might not want to admit that he is different from others, and Rosser (1973) found that these students do not perceive their ideal self-concept significantly different from the perceptions of the nondisabled child.

It may also be possible that their responses were due to a lack of social perceptiveness. It is possible that these children do in fact feel that they are able to influence the behaviors of their peers in socially acceptable ways, but are unaware of their inappropriate responses in certain social situations (Wigg & Semel, 1976; Bryan 1977).

In summary, the current study has failed to show any significant differences between learning disabled and normal achievers on the measure of social self-efficacy. Although learning disabled children have lower self concepts in comparison to their normal peers, contrary to such findings, this study has found that socially, learning disabled children appear confident in how they feel they can handle social situations.

C. Theoretical Implications

The results of the present study provide support for several of the underlying assumptions of the ecological model and the interaction between a child and the environment. It was found that learning disabled children are socially rejected by their peers as measured by the Play With Rating and Work With Rating scale. The evaluation by the peers of the learning disabled children was further supported by the results of the teacher rating scale. It was found that the teachers rated learning disabled as responding more inappropriately to problem situations, as measured by the Taxonomy of Social Situations, than were their normal achieving peers. Both results can be generalized in that learning disabled children may be rejected by their peers as a result of their lack of social skills. All these findings support the ecological framework in that one cannot ignore the significant settings with which learning disabled children interact. In this case, such settings include the teacher, the classroom, and peers both normal and learning disabled.

Subtest results of the social competence measure confirm that the behavior of an individual varies from one situational context to the next and that learning disabled children will not be socially incompetent in every situation in which there is interaction with the environment. As stated by Barker (1965, 1968) since a child's behavior can

be significantly different in different settings, it appears invalid to diagnose a child as having social problems based merely on observations in one setting. A closer examination of the whole area of ecological assessment procedures is needed in order to identify more specifically the problematic situations for each individual. The specificity of a child may be so great that the most informative level of assessment is the individual child. One child may be deficient in one situation, and be efficient in another. Furthermore, although the Taxonomy of Problem Situations identifies various general situations in which a child may be socially incompetent, one cannot derive from the scale specific skill deficits of any target child.

Findings based on the social self-efficacy measure also support the need for an ecological assessment of social competence. The learning disabled children did not feel they were less able to handle various social situations. Therefore even though learning disabled children are socially rejected by their peers as assessed by sociometric measures and according to their teachers have problems responding in specific problem situations, such situations do not seem to affect their own assessment of their social competence. Thus one diagnosis of social competence may not accurately determine the individual needs of each learning disabled child.

In conclusion, according to the ecological model which this study supports, there is no single assessment tool which can be used to evaluate each

target behavior in every environment. Therefore, by using various measures such as peer, teacher, and self-rating scales as used in the current study, an attempt is made to consider various situations in the comprehensive assessment of the social competence of learning disabled children.

D. Research Implications

Social Status

The results of the study leave a number of questions unanswered regarding the social status of learning disabled children. There is need for more research to investigate the social implications of integrating learning disabled children in regular classrooms and the effect of social rejection by their peers. According to the current study, social acceptance of integrated students in the regular classroom is a major problem. Integration in itself is not sufficient to guarantee social integration of the learning disabled child (Maddin and Slavin, 1983). In fact, placement of learning disabled children into a regular classroom may not be socially appropriate. There is need for research in this important area.

Another question that needs to be investigated is whether the social status of rejected learning disabled children in the regular classes can be improved through intervention? In the past it was assumed that just placing the learning disabled child in a classroom with normal

achieving peers would result in the learning of social competence skills through modeling. It is known that modeling effects do not occur by chance (Gresham, 1982). Gresham (1981) suggested that modeling effects will not occur unless specific teaching procedures are employed such as "calling attention to the model, reinforcing the model and ensuring that models are competent". More research on structured modeling to achieve social competence in learning disabled children is required.

If in fact the social status of learning disabled children can be improved through intervention, can interventions be identified that are not only effective and enduring but also practical in that they can be reasonably implemented in most classrooms? In many cases, the regular class teacher is unlikely to have the time, training, or interest to run a special intervention program to improve the social status of the few learning disabled children integrated in the classroom. Resource room teachers or special education teachers would be more likely to take on the responsibility of teaching social skills to the learning disabled child. However, there is concern about the transfer of newly acquired skills taught in the resource room setting to the regular classroom setting (Maddin and Slavin, 1983). It is important that if social skills training strategies are to be effective in the mainstreamed classroom such skills must be taught and reinforced by the regular classroom teacher.

Social Competence

Although, the current study identified many situations that are problematic for learning disabled children, further research is needed to develop more efficient measures of children's behavioral responses in certain key situations. There is a need for research on more direct measures, such as role-playing and observational techniques, which could measure specific component skill deficits in a child in different situations. Identification of specific component situational skill deficits would provide a more accurate diagnosis of each child. Such a diagnosis is needed for the proper implementation of a social skills program.

There is concern about the implementation of a social skills program in the regular classroom. As mentioned before, regular classroom teachers are unlikely to have the time, training, or interest to run a special intervention program designed to improve the social competence of a few learning disabled children in the classroom. Yet without providing the learning disabled child with the necessary skills needed in the mainstreamed setting, increased social isolation by peers and placement in a more restrictive environment would result (Gresham, 1981). Therefore, not only does research need to provide more direct measures of accurately assessing social competence deficits, but more research is needed to investigate the various social skills intervention programs that can be made available to a teacher with learning disabled students in the classroom.

Social Self-Efficacy

Interesting questions for further research are also raised by the results of the social self-efficacy measure used in this study. For example, why would learning disabled students, who are socially rejected by their peers, and have problems responding in particular problem situations as rated by their teachers, rate themselves as highly as their normal achieving peers with regards to how they feel they can handle social situations? There is need for further studies aimed at investigating the self-efficacy of learning disabled children in social situations.

One line of inquiry might be to study the relative tendency of learning disabled students to rate themselves as having no problems dealing with social situations. Is this due to ego defensiveness? Kronick (1976) suggested that the learning disabled child might not want to admit that he is different from others. So could it be that learning disabled children know they have a problem, but will not admit it? There is a need for answers to all these questions.

Another line of inquiry is that of the area of social perceptiveness of learning disabled children. Learning disabled children tend to overestimate their social status. Such social imperception may lead to increased social rejection. It is possible these children do in fact feel they are able to influence the behaviors of their peers in socially acceptable ways, but are unaware of the inappropriateness of their behavior in social situations.

Further research in the area of social self-efficacy as it relates to learning disabled children is needed to find the answers to more of these questions.

In summary, the current study has opened the door to many questions that need to be answered concerning the social competence of learning disabled children. Further research will allow a deeper understanding of the social factors concerning learning disabled children integrated in the regular classroom.

E. Educational Implications

Social Status

The fact that many learning disabled children in school fail to gain acceptance from their classmates cannot be ignored. Social rejection can be particularly devastating for children who already experience academic failure. There is still a lack of consistent and concerted effort to include the investigation of the emotional and social aspects of a learning disabled child's performance within a diagnostic assessment battery. This comprehensive approach might provide more current and relevant remediation for the individual learning disabled child. In other words there seems to be a lack of focus in regards to psychosocial factors in the diagnostic process. According to findings of this study, if it is to be effective, assessment should be

conducted by more than one informant and across a variety of situations in order to ensure valid results.

Another implication of this study is the need for university teacher training programs to promote the inclusion of sociometric devices in training education students to use diagnostic batteries.

According to the findings of this study, the use of sociograms or sociometric measures should be used consistently in all classrooms to determine generally children in the class who may have problems making friends or who are totally isolated from the peer group. Once these children have been identified, intervention can be implemented to help such children develop social competence skills. Intervention for improving social status does not have to be a time consuming chore for the regular classroom teacher. Teachers can facilitate social acceptance of learning disabled children by providing positive interactions with the normal achieving students in the classroom. This acceptance could be achieved through a buddy system, peer tutoring program, or cooperative grouping and learning.

In implementing a buddy system, a peer is assigned to the learning disabled child by volunteering or being selected by the teacher (Turnball & Schulz, 1979). The responsibility of the buddy depends upon the learning problems of the child. The buddy may be rotated weekly or monthly. A few classmates, if compatible with the learning

disabled student, may be allowed to volunteer for an extended period of time. A buddy system may, in turn, result in a special friendship between the learning disabled and normal achieving student (Turnball & Schulz, 1979).

Peer tutoring can be used in a variety of school situations with the aim of developing social competence. It is common for normal achievers to tutor each other in academic subjects. This type of normalized tutoring can take place between learning disabled and normal achieving students; as well a teacher can use a sociogram to match a student with a preferred peer tutor. Peer tutoring has many benefits for students with learning problems and normal achieving students. For the learning disabled student, tutoring allows for more individualized learning, as well as opportunities to interact socially with classmates. For the normal achievers, peer tutoring introduces the child to an appreciation of individual differences.

Another practical implication of this study is that learning situations can be structured by the teachers in order to promote positive interaction among students. In any classroom, a teacher may structure cooperative, competitive or individualistic learning (Johnson & Johnson, 1980). By structuring such learning in these three ways, the teacher is always aware of and in control of the amount and pattern of interaction that occurs among the students. One of the key factors identified by research as determining whether integration promotes positive or negative

relationships is whether students cooperate, compete, or work independently on their academic assignments (Johnson & Johnson, 1986). Both competitive and individualistic learning are characterized by individual seat work, strict rules against talking and movement, and these provide the normal achievers with little opportunities for positive social interaction with learning disabled students.

In cooperative settings, learning tasks may be structured so that students are required to function mutually dependent in cooperative groups in order to accomplish specific tasks. Students are provided with structure, and reinforcement for interacting constructively and cooperatively with their classmates. It is social and intellectual interaction within this type of setting that influences the acceptance of learning disabled students by others. When learning disabled students work together in the same group, they interact in positive ways, and understand the viewpoints of others.

In summary, an awareness of the social status of learning disabled children in the regular classroom will enable educators to implement programs such as the buddy system, peer tutoring, and cooperative learning so as to enhance the social stance of these children.

Social Competence

Schools basically have viewed the process of equipping students with the necessary academic skills, ie. reading, mathematics, and writing, as being their primary function.

Schools have placed very little or no emphasis on systematic social skills instruction. It is apparent, as evident from the results of the current study, that the development of social competence skills may be crucial in enhancing the overall social status of the integrated learning disabled student.

According to this study, learning disabled children need to be provided with the social skills necessary and crucial for peer acceptance. Walker and Rankin (1983) maintain that many regular educators have been able to construct relatively homogeneous classes of pupils by referral of difficult to manage and/or socially unskilled children to special education programs. This tendency has resulted in regular educators developing relatively narrow tolerance levels for children's behavior and has prevented regular education teachers from taking advantage of opportunities to develop the necessary skills and knowledge required to teach and manage learning disabled children in the classroom. Such a situation may have resulted in failure by the regular educators to improve the social position of integrated learning disabled children in such classrooms.

The current research on social competence highlights the problems of learning disabled children's responses in various social situations. Teacher inservices need to focus on strategies for developing the social competence of the learning disabled children integrated in the regular

classroom. A better understanding of the inappropriate responses of learning disabled children in such situations may enable educators to develop more effective programs to enhance such skills.

Specific techniques are available for developing social competence. These techniques focus on programs for individuals, small groups, and on the manipulation of events within classrooms. One method of teaching social skills is through role-playing. Using small groups, students could enact various scenarios aimed at the development of social skills. These may include negative feedback, negotiating conflict, following instructions, and making small talk. Each lesson would consist of previously addressed skills followed by a discussion of the new skills, their importance, and the context in which such skills might be useful. Cooperative learning could also be used to improve the social skills of learning disabled children integrated in the regular classroom. Cooperative goal structures would increase the likelihood of learning disabled children demonstrating specific cooperative behaviors.

For a social skills program to be effective it must enhance the motivation of students to interact successfully and should enable students to actually use social skills acquired. Such a social skills program must be simple and easy to understand. Materials should be easy to read, as well as taught using multisensory techniques. Intervention should be programmed to permit a minimum of student failure

and should provide reinforcement for each successful step toward mastery. Furthermore, the program must provide the student with strategies for acquiring the skills, and procedures for assuring the generalization of learned skills in other naturally occurring situations. Lastly, the program must provide motivation for the learning disabled students to set and accomplish other social goals once a social skill has been acquired.

In summary, an awareness of the social competence needs of learning disabled children in the regular classroom should lead to the implementation of programs such as role playing and cooperative learning.

F. Conclusion

In summary, a number of practical implications arise from this study. Assessment of social competence could be improved if an ecological approach to identifying social skills and deficits is taken. Peer ratings, self-ratings of social self-efficacy and teacher ratings of social competence may provide the information needed to develop a comprehensive diagnostic program for learning disabled children deemed socially incompetent. Once we know more about the specific areas of social failures of learning disabled children we can begin to develop effective programs to remediate these social-skill deficits individually. The study clearly indicates there is need not only for academic

development of the learning disabled child in the regular classroom but for systematic social status development as well. Attempts at fulfilling academic requirements without recognizing and dealing with psychosocial influences might be inadequate. The development of effective social skills training must be a goal of all LD intervention programs regardless of its complexity. It is hoped the current research will prompt those in the education field to observe more intensely the social competence of integrated learning disabled children and how lack of competence affects their association with their regular classroom counterparts.

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APPENDIX A

**Play With Rating Scale
(PWR)**

**Work With Rating Scale
(WWR)**

PLAY/WORK WITH RATING SCALES

QUESTIONS:

1. How much do you like to play with this person at school?
2. How much do you like to work with this person at school?

PROCEDURE:

Tell the class the following:

"I am interested in some information about the class. I would like to find out how well you know each other and I would like to know who you like to work with and who you like to play with. You will be able to tell me who your friends are in this classroom. We will not be doing this outloud in a group, but you will let me know your choices by marking them down on some papers I will give you. You can be honest, because I will not show anyone else in the class your answers. I will be the only one to see them."

Explain to the class the following:

1. The use and meaning of the 5 point scales using examples of food (eg. How much do you like ice cream).
2. Give children examples of play situations at school: recess, free time before class, and time spent in the playground.
3. Give children examples of work situation at school: math, science, reading, and going to the library during school hours.

Student _____ **Grade** _____ **Teacher** _____

ID# _____ School _____

PLAY WITH RATING SCALE

HOW MUCH DO YOU LIKE TO PLAY WITH THIS PERSON AT SCHOOL?

1 2 3 4 5

NOT AT ALL NOT MUCH DOESN'T MATTER A LITTLE A LOT

Student Name

Rating

	1	2	3	4	5
1					
2					
3					
4					
5					

	1	2	3	4	5
1. Name of the person or entity					
2. Address					
3. City					
4. State					
5. Zip					

	1	2	3	4	5
1					
2					
3					
4					
5					

	1	2	3	4	5
1. Name of the person or entity					
2. Address					
3. City					
4. State					
5. Zip					

_____ 1 2 3 4 5

	1	2	3	4	5

	1	2	3	4	5
1. Name of the person or entity					
2. Address					
3. City					
4. State					
5. Zip					

_____ 1 2 3 4 5

	1	2	3	4	5
1					
2					
3					
4					
5					

	1	2	3	4	5
1					
2					
3					
4					
5					

	1	2	3	4	5
1. Name of the person or entity					
2. Address					
3. City					
4. State					
5. Zip					

Student _____ **Grade** _____ **Teacher** _____

ID# _____ School _____

WORK WITH RATING SCALE

HOW MUCH DO YOU LIKE TO WORK WITH THIS PERSON AT SCHOOL?

1	2	3	4	5
---	---	---	---	---

NOT AT ALL NOT MUCH DOESN'T MATTER A LITTLE A LOT

[illegible]

APPENDIX B

Taxonomy of Problem Situations (TOPS)

Taxonomy of Problem Situations

Child's Name: _____ ID: _____
 School: _____ Grade: _____
 Teacher: _____

Instructions: We are trying to identify the kinds of situations that are most likely to cause problems for this child. For each situation, please tell us how likely this child is to respond in an inappropriate manner (by hitting peers, aggressing verbally, crying, disrupting the group, withdrawing, appealing to the teacher for help, or behaving in some other immature, unacceptable, and unsuccessful way). In other words, how much of a problem is this situation for this child?

Use the following scale to answer:

Circle

- 1 if this situation is never a problem for this child.
- 2 if this situation is rarely a problem for this child.
- 3 if this situation is sometimes a problem for this child.
- 4 if this situation is usually a problem for this child.
- 5 if this situation is almost always a problem for this child.

For example: 1. When this child is teased by peers

If you feel that when this child is teased by peers, he or she almost always responds inappropriately or ineffectively (such as by crying), you would agree that this is a problem situation for this child and would circle 5. If you feel that when this situation occurs this child almost always responds in an effective and appropriate manner (such as by ignoring the teasing), you would agree that this is not a problem situation for this child and would circle 1.

Remember, we are less interested in how frequently this situation occurs and more interested in this child's response when it does occur.

- | | |
|---|-------------------|
| 1. When this child is working on a class project that requires sharing or cooperation | 1 2 3 4 5 |
| 2. When peers notice that this child is somehow different (ex. wearing peculiar clothes, or walking funny) | 1 2 3 4 5 |
| 3. When this child has won a game against a peer | 1 2 3 4 5 |

Circle

- 1 if this situation is never a problem for this child.
 2 if this situation is rarely a problem for this child.
 3 if this situation is sometimes a problem for this child.
 4 if this situation is usually a problem for this child.
 5 if this situation is almost always a problem for this child.

- | | | | | | |
|--|---|---|---|---|---|
| 4. When a peer takes this child's turn during a game | 1 | 2 | 3 | 4 | 5 |
| 5. When this child is playing a game with a peer and realizes that the peer is about to win | 1 | 2 | 3 | 4 | 5 |
| 6. When peers call this child a bad name | 1 | 2 | 3 | 4 | 5 |
| 7. When a peer is allowed a privilege (such as winning a prize or standing first in line) that this child cannot enjoy | 1 | 2 | 3 | 4 | 5 |
| 8. When a peer performs better than this child in a game | 1 | 2 | 3 | 4 | 5 |
| 9. When this child asks a peer to play and the peer chooses to play with a third child instead | 1 | 2 | 3 | 4 | 5 |
| 10. When a peer performs better than this child in schoolwork | 1 | 2 | 3 | 4 | 5 |
| 11. When peers laugh at this child for having difficulty in a game or play activity | 1 | 2 | 3 | 4 | 5 |
| 12. When this child performs better than a peer in a game | 1 | 2 | 3 | 4 | 5 |
| 13. When peers laugh at this child for having difficulty with a school work problem | 1 | 2 | 3 | 4 | 5 |
| 14. When this child performs better than a peer in school work | 1 | 2 | 3 | 4 | 5 |
| 15. When this child is having difficulty with a particular school work problem | 1 | 2 | 3 | 4 | 5 |
| 16. When a peer has something belonging to this child, and this child wants it back | 1 | 2 | 3 | 4 | 5 |

Circle

- 1 if this situation is never a problem for this child.
 2 if this situation is rarely a problem for this child.
 3 if this situation is sometimes a problem for this child.
 4 if this situation is usually a problem for this child.
 5 if this situation is almost always a problem for this child.

- | | | | | | |
|---|---|---|---|---|---|
| 17. When this child finds out that he or she has been left out of a group, game, or activity of peers | 1 | 2 | 3 | 4 | 5 |
| 18. When this child has something belonging to a peer and the peer wants it back before this child is through with it | 1 | 2 | 3 | 4 | 5 |
| 19. When this child is playing with a peer, and the peer accidentally breaks this child's toy | 1 | 2 | 3 | 4 | 5 |
| 20. When this child is teased by peers | 1 | 2 | 3 | 4 | 5 |
| 21. When a group of peers have started a club or a group and have not included this child | 1 | 2 | 3 | 4 | 5 |
| 22. When this child wants to play with a group of peers who are already playing a game | 1 | 2 | 3 | 4 | 5 |
| 23. When this child tries to join in with a group of peers who are playing a game, and they tell him/her to wait until they are ready | 1 | 2 | 3 | 4 | 5 |
| 24. When this child is accidentally provoked by a peer (such as a peer who accidentally bumps into this child in line) | 1 | 2 | 3 | 4 | 5 |
| 25. When this child is asked by a peer to share his or her toy or game (or pencil or some other object) | 1 | 2 | 3 | 4 | 5 |
| 26. When the teacher asks this child to work on a class assignment that will take a long time and will be difficult | 1 | 2 | 3 | 4 | 5 |
| 27. When the teacher is trying to speak to the entire class | 1 | 2 | 3 | 4 | 5 |
| 28. When this child is standing in line with peers and must wait a long time | 1 | 2 | 3 | 4 | 5 |

Circle

- 1 if this situation is never a problem for this child.
 2 if this situation is rarely a problem for this child.
 3 if this situation is sometimes a problem for this child.
 4 if this situation is usually a problem for this child.
 5 if this situation is almost always a problem for this child.

- | | | | | | |
|---|---|---|---|---|---|
| 29. When this child is on the playground and a teacher is not nearby | 1 | 2 | 3 | 4 | 5 |
| 30. When this child is in the classroom with peers and the teacher must leave the room for a short period of time | 1 | 2 | 3 | 4 | 5 |
| 31. When this child is seated at lunch with a group of peers and a teacher is not nearby | 1 | 2 | 3 | 4 | 5 |
| 32. When a peer tries to start a conversation with this child | 1 | 2 | 3 | 4 | 5 |
| 33. When this child is sad, and a peer asks him or her how he or she is feeling | 1 | 2 | 3 | 4 | 5 |
| 34. When a peer has a toy, game or object that this child wants | 1 | 2 | 3 | 4 | 5 |
| 35. When this child has an extra toy and a peer asks him or her to share it | 1 | 2 | 3 | 4 | 5 |
| 36. When a peer expresses anger at this child | 1 | 2 | 3 | 4 | 5 |
| 37. When a peer has performed quite well at a task and is deserving of a compliment from this child | 1 | 2 | 3 | 4 | 5 |
| 38. When a peer is trouble, worried, or upset and needs comfort from this child | 1 | 2 | 3 | 4 | 5 |
| 39. When a peer has been helpful to this child and this child should thank him or her | 1 | 2 | 3 | 4 | 5 |
| 40. When a peer cuts into line in front of this child | 1 | 2 | 3 | 4 | 5 |
| 41. When a peer tries to talk with a child | 1 | 2 | 3 | 4 | 5 |

Circle

- 1 if this situation is never a problem for this child.
2 if this situation is rarely a problem for this child.
3 if this situation is sometimes a problem for this child.
4 if this situation is usually a problem for this child.
5 if this situation is almost always a problem for this child.

42. When this child has accidentally hurt
a peer and should apologize 1 2 3 4 5
43. When this child needs help from a peer
and should ask for help 1 2 3 4 5
44. When this child loses a game with peers 1 2 3 4 5

Student _____ Grade _____ Teacher _____
 ID# _____ School _____

TAXONOMY OF PROBLEM SITUATIONS

USE THE FOLLOWING SCALE TO ANSWER:

Circle

- 1 if this situation is never a problem for this child.
 2 if this situation is rarely a problem for this child.
 3 if this situation is sometimes a problem for this child.
 4 if this situation is usually a problem for this child.
 5 if this situation is almost always a problem for this child.

- | | | | | | | | | | | | |
|-----|---|---|---|---|---|-----|---|---|---|---|---|
| 1. | 1 | 2 | 3 | 4 | 5 | 23. | 1 | 2 | 3 | 4 | 5 |
| 2. | 1 | 2 | 3 | 4 | 5 | 24. | 1 | 2 | 3 | 4 | 5 |
| 3. | 1 | 2 | 3 | 4 | 5 | 25. | 1 | 2 | 3 | 4 | 5 |
| 4. | 1 | 2 | 3 | 4 | 5 | 26. | 1 | 2 | 3 | 4 | 5 |
| 5. | 1 | 2 | 3 | 4 | 5 | 27. | 1 | 2 | 3 | 4 | 5 |
| 6. | 1 | 2 | 3 | 4 | 5 | 28. | 1 | 2 | 3 | 4 | 5 |
| 7. | 1 | 2 | 3 | 4 | 5 | 29. | 1 | 2 | 3 | 4 | 5 |
| 8. | 1 | 2 | 3 | 4 | 5 | 30. | 1 | 2 | 3 | 4 | 5 |
| 9. | 1 | 2 | 3 | 4 | 5 | 31. | 1 | 2 | 3 | 4 | 5 |
| 10. | 1 | 2 | 3 | 4 | 5 | 32. | 1 | 2 | 3 | 4 | 5 |
| 11. | 1 | 2 | 3 | 4 | 5 | 33. | 1 | 2 | 3 | 4 | 5 |
| 12. | 1 | 2 | 3 | 4 | 5 | 34. | 1 | 2 | 3 | 4 | 5 |
| 13. | 1 | 2 | 3 | 4 | 5 | 35. | 1 | 2 | 3 | 4 | 5 |
| 14. | 1 | 2 | 3 | 4 | 5 | 36. | 1 | 2 | 3 | 4 | 5 |
| 15. | 1 | 2 | 3 | 4 | 5 | 37. | 1 | 2 | 3 | 4 | 5 |
| 16. | 1 | 2 | 3 | 4 | 5 | 38. | 1 | 2 | 3 | 4 | 5 |
| 17. | 1 | 2 | 3 | 4 | 5 | 39. | 1 | 2 | 3 | 4 | 5 |
| 18. | 1 | 2 | 3 | 4 | 5 | 40. | 1 | 2 | 3 | 4 | 5 |
| 19. | 1 | 2 | 3 | 4 | 5 | 41. | 1 | 2 | 3 | 4 | 5 |
| 20. | 1 | 2 | 3 | 4 | 5 | 42. | 1 | 2 | 3 | 4 | 5 |
| 21. | 1 | 2 | 3 | 4 | 5 | 43. | 1 | 2 | 3 | 4 | 5 |
| 22. | 1 | 2 | 3 | 4 | 5 | 44. | 1 | 2 | 3 | 4 | 5 |

APPENDIX C

**Children's Self-Efficacy for Peer Interaction Scale
(CSPI)**

THE CHILDREN'S SELF-EFFICACY FOR PEER INTERACTION SCALE

PROCEDURE:

1. Ensure that all students understand what each of the response choices mean:

1	2	3	4
HARD!	Hard	Easy	EASY!

Use examples of schoolwork to elaborate on the meaning of each choice.

2. As a class, read each question.
3. Tell the class "as each question is read, you must decide which of the four choices describes you, then mark either 1, 2, 3, 4, on the sheet handed out."

THE CHILDREN'S SELF-EFFICACY FOR PEER INTERACTION SCALE

The Statement:

- | | 1 | 2 | 3 | 4 |
|---|-------|------|------|-------|
| | HARD! | Hard | Easy | EASY! |
| 1. Some kids want to play a game.
Asking them to play is _____ for you. | 1 | 2 | 3 | 4 |
| 2. Some kids are arguing about how to
play a game. Telling them the rules
is _____ for you. | 1 | 2 | 3 | 4 |
| 3. Some kids are teasing your friend.
Telling them to stop is _____
for you. | 1 | 2 | 3 | 4 |
| 4. You want to start a game. Asking
others to play the game is _____
for you. | 1 | 2 | 3 | 4 |
| 5. A kid tries to take your turn
during a game. Telling the kid
it's your turn is _____ for you. | 1 | 2 | 3 | 4 |
| 6. Some kids are going to lunch.
Asking if you can sit with them
is _____ for you. | 1 | 2 | 3 | 4 |
| 7. A kid cuts in front of you in line.
Telling the kid not to cut in is
_____ for you. | 1 | 2 | 3 | 4 |
| 8. A kid want to do something that will
get you in trouble. Asking the kid
to do something else is _____ for you. | 1 | 2 | 3 | 4 |
| 9. Some kids are making fun of someone
in your classroom. Telling them to
stop is _____ for you. | 1 | 2 | 3 | 4 |

The Statement:	1	2	3	4
	HARD!	Hard	Easy	EASY!
10. Some kids need more people to be on their teams. Asking to be on a team is _____ for you.				1 2 3 4
11. You have to carry some things home after school. Asking another kid to help you is _____ for you.				1 2 3 4
12. A kid always wants to be first when you play a game. Telling the kid you are going first is _____ for you.				1 2 3 4
13. Your class is going on a trip and everyone needs a partner. Asking someone to be a partner is _____ for you.				1 2 3 4
14. A kid does not like your friend. Telling the kid to be nice to your friend is _____ for you.				1 2 3 4
15. Some kids are deciding what game to play. Telling them about a game you like is _____ for you.				1 2 3 4
16. You are having fun playing a game but the other kids want to stop. Asking them to finish playing is _____ for you.				1 2 3 4
17. You are working on a project. Asking another kid to help is _____ for you.				1 2 3 4
18. Some kids are using your play area. Asking them to move is _____ for you.				1 2 3 4

The Statement:

- | | 1 | 2 | 3 | 4 |
|--|-------|------|------|---------|
| | HARD! | Hard | Easy | EASY! |
| 19. Some kids are deciding what to do after school. Telling them what you want to do is _____ for you. | | | | 1 2 3 4 |
| 20. A group of kids want to play a game that you don't like. Asking them to play a game you like is _____ for you. | | | | 1 2 3 4 |
| 21. Some kids are planning a party. Asking them to invite your friend is _____ for you. | | | | 1 2 3 4 |
| 22. A kid is yelling at you. Telling the kid to stop is _____ for you. | | | | 1 2 3 4 |

Student _____ Grade _____ Teacher _____
 ID# _____ School _____

THE CHILDREN'S SELF-EFFICACY FOR PEER INTERACTION SCALE

The Statement:

	1	2	3	4
	HARD!	Hard	Easy	EASY!
1.	1	2	3	4
2.	1	2	3	4
3.	1	2	3	4
4.	1	2	3	4
5.	1	2	3	4
6.	1	2	3	4
7.	1	2	3	4
8.	1	2	3	4
9.	1	2	3	4
10.	1	2	3	4
11.	1	2	3	4
12.	1	2	3	4
13.	1	2	3	4
14.	1	2	3	4
15.	1	2	3	4
16.	1	2	3	4
17.	1	2	3	4
18.	1	2	3	4
19.	1	2	3	4
20.	1	2	3	4
21.	1	2	3	4
22.	1	2	3	4

APPENDIX D

Parental Permission Form

March, 1989

Dear Parent/Guardian:

Your child is one of many selected to take part in an approved University of Alberta study of pupils enrolled in the Public School system. All that is required is that your child spends a total of 20 minutes answering questions on three tests. These tests will all be done during school time at the school. Test scores for the whole group will then be added. The individual score of each child on the tests will remain confidential.

Mr. S. Vandervalk, Director of Research for the Edmonton Public School Board has made the necessary arrangements and given permission for this study to take place subject to your consent to have your child participate.

I shall be pleased to supply any further information you may need concerning this study. I can be contacted at R.J. Scott Elementary School PH#477-2897 and at home PH#476-8974 after 5:00 p.m.

Yours Sincerely,

Kathy Muhlethaler
University of Alberta M.Ed. Student

CONSENT FORM

NAME: _____
SCHOOL: _____

My child has my permission to take part in the
study

I do not want my child to take part in this study

Name of Parent/Guardian

Date

Please put a check mark in only one of the above boxes
and return this form to your child's teacher. Thanks again.