THE EFFECTS OF A CLASSROOM SOCIAL SKILLS TRAINING PROGRAM ON SOCIALLY MALADAPTIVE LEARNING DISABLED ELEMENTARY STUDENTS

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Victoria R. Williams, M.Ed.
Denton, Texas
May, 1983

This study examined the effectiveness of the Human Resource Development model of classroom social skills with intermediate elementary learning disabled children. A pretest posttest control group design was employed. The sample consisted of 40 fourth-, fifth-, and sixth-grade LD pupils who scored in the bottom fourth of their classes in peer acceptance. The subjects were randomly assigned to the treatment or control group.

Treatment consisted of six daily one hour training sessions covering the five skills of physically attending, psychologically attending, greeting, making polite requests and complying with requests. Subjects met in groups of six to eight in lieu of learning assistance and were instructed through methods including modeling, demonstration, role playing, didactic instruction, feedback and self-monitoring. The control group received no treatment but went to learning assistance as usual.

Prior to and following the conclusion of treatment, peer acceptance, locus of control, teacher expectation and the five social skills were assessed via test instruments.
Additionally, classroom observation instruments were used to record and analyze peer and teacher interactions with subjects. The instruments provided objective assessments of the dependent variables.

Results indicated that the treatment led to significant improvements in all social skills and the use of the skills in interaction with teachers and peers. The secondary measures of locus of control, teacher expectation and peer status were not significantly affected.

Overall, the findings provide strong support for the remediability of social skill deficits among LD children. Further research is required to determine if improved social skills affect teacher expectation or pupil locus of control.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>v</td>
</tr>
</tbody>
</table>

## Chapter

1. **INTRODUCTION** ........................................... 1
   - Statement of the Problem
   - Purpose of the Study
   - Definition of Terms
   - Hypotheses
   - Significance of the Study
   - Limitations of the Study
   - Assumptions

2. **SYNTHESIS OF RELATED LITERATURE** ............... 14
   - Children with Learning Disabilities
   - The Role of Affective Variables
   - Social Skills Training
   - The Human Resource Development Model

3. **RESEARCH METHODOLOGY** ............................... 63
   - Design
   - Subjects
   - Experimental Conditions
   - Description of the Treatment
   - The Trainer
   - The Observer and Raters
   - Measuring Instruments
   - Statistical Analysis of the Data

4. **RESULTS** ................................................. 86
   - Treatment Effects
   - Prediction of Success by Pupil Locus
     of Control and Teacher Empathy

5. **CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS**. 106
   - Conclusions
   - Implications
   - Recommendations
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPENDIXES</td>
<td>126</td>
</tr>
<tr>
<td>REFERENCE LIST</td>
<td>144</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Summary of Demographic Characteristics of Treatment Groups</td>
<td>37</td>
</tr>
<tr>
<td>2. Group Means and Standard Deviations for Pretest Measures on Nine Dependent Variables</td>
<td>89</td>
</tr>
<tr>
<td>3. Posttest Means and Adjusted Posttest Means of the Nine Dependent Variables</td>
<td>90</td>
</tr>
<tr>
<td>4. Multivariate Analysis of Covariance with Nine Dependent Variables</td>
<td>91</td>
</tr>
<tr>
<td>5. Summary of One-way MANCOVA Split to Three Contrasts: Race, Group and Race by Group</td>
<td>100</td>
</tr>
<tr>
<td>6. Summary of One-way MANCOVA Split to Three Contrasts: SES, Group and SES by Group</td>
<td>100</td>
</tr>
<tr>
<td>7. Multiple Correlation, Beta Weights, F Ratios and Significance for Five Predictors of Pretest Locus of Control</td>
<td>102</td>
</tr>
<tr>
<td>8. Multiple Correlation, Beta Weights, F Ratios and Significance for Five Predictors of Teacher Empathy</td>
<td>103</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The learning disabilities field is marked by disagreement over definition and diagnosis. What began with the work of Strauss and Lehtinen (1947) as a delimited area concerned with understanding and helping children with fairly specific neurological impairment has grown into a field that claims anywhere from 1% to 30% of the population (Lerner, 1981). The common element in most current definitions is the existence of a discrepancy between ability and school achievement in children who are intellectually and emotionally normal (Chapman & Boersma, 1979). In British Columbia, where this study took place, this broad definition is used to identify children in need of Learning Assistance (British Columbia Ministry of Education, 1976).

A variety of negative social and behavioral characteristics have been associated with learning disabled children. Several researchers indicate that the quantity and quality of interactions learning disabled children have with peers and teachers differentiates them from their non-learning disabled classmates. Bryan, Wheeler, Felcan and Henek (1976) report that they make more competitive and fewer considerate statements and are ignored by teachers and peers twice as often as normal classmates. Learning disabled children have also been
found to be judged more negatively by teachers and other adults (Bryan & Sherman, 1980; Bryan, 1976), have lower self-concepts (Chapman, 1979; Nordan, 1974) and receive lower peer status scores (Bruininks, 1978; Siperstein, Bopp & Bak, 1978). While many children may learn social skills incidentally, the research indicates that learning disabled children are unable to do so. As Bryan and Bryan (1977) summarize,

The evidence is strong in indicating that learning disabled children do have social problems of some magnitude. It is time that concern for the dynamics underlying such problems be generated as well as concern for remediation techniques which might serve to eliminate these problems (p. 142).

Learning takes place in the social milieu of the classroom, and students must interact competently with both teachers and peers to obtain the greatest benefit from their educational experience. There is ample research to support the finding that a significant proportion of the variance attributed to achievement is accounted for by social interaction variables (Aspy & Roebuck, 1974; Bloom, 1976; Brookover, Schweitzer, Schneider, Beady, Flood & Wisenbaker, 1978). This relationship between the cognitive and affective variables of learning appears to place the socially unpopular learning disabled child at an increased disadvantage in the regular classroom.

Among the social interaction variables currently being studied is the phenomenon of teacher expectation serving as a self-fulfilling prophecy. Research on teacher expectation asserts that teachers communicate their negative expectations
for students' abilities through quantitatively and qualitatively different interaction patterns. For example, teachers tend to offer more response opportunities to high ability students than to low ability students and have more substantive interactions with high than with low ability students. This differential treatment is the mechanism by which teachers' negative expectations come to function as self-fulfilling prophecies (Brophy & Good, 1974).

Studies of expectancy effects in special education indicate that both teacher-expressed expectation and the interaction patterns between teachers and learning disabled students are consistent with the findings of expectancy effects in general education (Chapman, 1979; Chapman, Larsen & Parker, 1979). Student characteristics contribute to the expectancy effect, and the bidirectional nature of the effect emphasizes the interactive aspect of teacher expectation with student behavior and self-expectation (Brophy & Good, 1974; Cooper, 1978).

Evidence of other studies on the affective variables in education point to the important role in motivation played by causal attributions for task outcomes (Lefcourt, 1976; Weiner, Russell & Lerman, 1978). Causal attribution, or locus of control, refers to a person's perceived source of control in relation to behavior and events. Individuals differ in the degree to which they see themselves as internal (potent) or external (impotent) (Lefcourt, 1976). Studies of
locus of control among learning disabled children conclude that these children are more external in their perceptions of control with respect to successful academic achievement. However, they do not differ from normals with respect to locus of control for failure (Chapman & Boersma, 1979; Pearl, Bryan & Donahue, 1980). Hallahan, Gajar, Cohen and Tarver (1978) found that learning disabled children differed from normals in showing a greater degree of external control on both the academic and nonacademic measures. A link between locus of control and peer acceptance appears logical given that effort and persistence is required to develop and maintain a friendship and that such behaviors are unlikely to occur if children see little relationship between efforts to make friends and being accepted.

To break the self-perpetuating cycle of socially inappropriate behavior leading to rejection by teachers and peers resulting in more socially inappropriate behavior, an intervention is required. Carkhuff's Human Resource Development model (HRD) was selected for this research study because it has been used successfully with special populations such as delinquent and mentally retarded children. The HRD model emphasizes the development of attending skills and it explicitly teaches personal control over interactions with others (Carkhuff, 1972).

While the burden for acquiring and using socially appropriate behavior in school rests on the child, the teacher's
role is integrally related. In regard to this, Aspy and Roebuck's research demonstrated that learning is an interdependent relational process in which facilitative interpersonal skills are crucial (Aspy & Roebuck, 1973). Their research investigations over seven years established that the higher the teacher's interpersonal skill level, the greater the benefits to the student in terms of achievement, self-concept and attitude toward school.

Teachers utilizing high levels of interpersonal skills might be classified as proactive. In their studies of teacher expectation, Brophy and Good (1974) have recognized that teachers vary in their susceptibility to the expectancy effect and have identified three types of teachers. They state,

Proactive teachers appear to be undeterred by their expectations for low achieving students, so that they spend more time interacting with lows than highs. Reactive teachers simply allow existing differences between high and low students to unfold, so that highs, due to their own initiative and ability, come to dominate public classroom life . . . overreactive teachers exacerbate differences between students (p. 303).

Learning disabled children's social integration into the regular classroom would seem to enhance adequate learning and lead to a more productive personal and interpersonal life during their school years. Teaching children the social skills they need to interact effectively and gain a measure of control over their interpersonal lives is possible and may well be the first step to improving the learning disabled child's academic performance.
Statement of the Problem

The problem of this study was to determine the effectiveness of a specific classroom-social-skills training program in improving indexes of social competence for certain types of students. To investigate this problem, learning disabled students in fourth-, fifth- and sixth-grade were studied.

Purpose of the Study

The purpose of the study was threefold. The primary purpose was to determine if learning disabled children receiving the Human Resource Development model of classroom social skills significantly improved their competence in these skills both in the structured training sessions and also in the classroom when interacting with teachers and peers. The secondary purpose of the study was to determine if the learning disabled children receiving the social skills training became more internal in their general locus of control orientation and if teachers' expectations for them improved. Finally, the tertiary purpose of the study was to measure gains made by the trained children in peer acceptance.

Definition of Terms

The following terms have restricted meaning for this study. They are defined below.

1. Learning Assistance. Learning Assistance is remedial academic instruction given to pupils whose educational
needs can generally be met through local regular classroom placement, but who are having significant difficulty in one or more areas of expected potential for learning and achievement. This definition encompasses children with mild to moderate learning disabilities. Learning Assistance (LA) pupils are those pupils who have been identified as needing Learning Assistance.

2. Human Resource Development (HRD) model. The HRD model is the teaching and learning model developed by Robert R. Carkhuff. The model includes responsive and initiative skills for both helper and client. Each of these skills has been broken down into component parts and operationalized to optimize learning.

3. Classroom social skills. Classroom social skills will refer specifically to behaviors identified in the HRD training curriculum. The behaviors include the skills of physically attending, psychologically attending, greeting, making polite requests and complying with requests from others.

4. Locus of control. Locus of control is defined as the scores obtained on the Nowicki-Strickland Locus of Control Scale. The locus of control construct differentiates internal from external as the perceived source of control for task outcomes. Persons with an internal locus of control
perceive themselves as responsible for the outcome of events, whereas the reverse is true for persons with an external locus of control.

5. Teacher expectation. Teacher expectation refers to the evaluative anticipations that teachers form for their students with respect to behavior that is most likely to occur given the individual and the circumstances. Teacher expectations in this study was reflected by scores on the Projected Academic Performance Scale - Teacher Version and by behavior coded by the Brophy-Good Dyadic Interaction Coding System.

Hypotheses

There were 11 specific hypotheses tested in this study. They are as follows.

Hypothesis 1. The experimental group will demonstrate a significantly higher adjusted posttest mean on the Criterion Referenced Measures (CRM) Basic Skills Test than will the control group.

Hypothesis 2. The experimental group will demonstrate a significantly higher adjusted posttest mean number of positive peer contacts measured by the CRM Behavior Rating Scale than will the control group.

Hypothesis 3. The experimental group will demonstrate a significantly higher adjusted posttest mean social skill
level during in-class interactions with peers as measured by the **CRM Behavior Rating Scale** than will the control group.

**Hypothesis 4.** The experimental group will demonstrate a significantly higher adjusted posttest mean social skill level during in-class interactions with teachers as measured by the **CRM Behavior Rating Scale** than will the control group.

**Hypothesis 5.** The experimental group will demonstrate higher adjusted posttest mean scores on the **Peer Acceptance Scale** than will the control group.

**Hypothesis 6.** The experimental group will demonstrate significantly higher adjusted posttest mean scores reflecting the quantity of teacher-initiated contacts measured by the **Brophy-Good Dyadic Interaction Coding System** than will the control group.

**Hypothesis 7.** The experimental group will demonstrate significantly higher adjusted posttest mean scores reflecting the quality of teacher-student interactions measured by the **Brophy-Good Dyadic Interaction Coding System** than will the control group.

**Hypothesis 8.** The experimental group will demonstrate significantly higher adjusted posttest mean scores on the **Projected Academic Performance Scale - Teacher Version** than will the control group.
Hypothesis 9. The experimental group will demonstrate significantly lower adjusted posttest mean scores reflecting more internal orientation on the Nowicki-Strickland Locus of Control Scale than will the control group.

Two additional hypotheses were set forth to test the possible mediating factors of locus of control and teacher empathy on the transfer of the social skills to the classroom by the subjects. They are as follows.

Hypothesis 10. There will be a significant positive relationship between scores reflecting locus of control and posttest mean level of functioning on the CRM Behavior Rating Scale for the experimental group.

Hypothesis 11. There will be a significant positive relationship between teachers' mean empathy level as measured by Carkhuff's Scale for the Communication of Empathy and posttest mean level of functioning on the CRM Behavior Rating Scale for the experimental group.

Significance of the Study

The current study is significant in that it focused on an easily implemented remedial technique to improve LA pupils' social skills toward teachers and peers. Improving their social acceptance may remove the negative affective problems which interfere with their academic remediation and social integration into mainstream classroom life. Specifically, this study is significant in that it determined the
effectiveness of the remedial technique, assessed the interactive effects of teacher interpersonal skill level on pupil social interaction variables, and provided information about the alterability of locus of control in social situations for LA pupils.

**Limitations of the Study**

This study has the following limitations which will restrict generalizations.

1. The informal nature of the identification of Learning Assistance pupils in School District #57, Prince George, British Columbia, may lead to this sample of children differing from another sample of LD children drawn from other school systems.

2. The trainer for the experimental group had knowledge of the measuring instruments, the scores of which served as the dependent variables.

**Assumptions**

It is assumed that subjects responded honestly to the instruments used to measure peer status, locus of control and projected academic performance. It is also assumed that the observational ratings accurately reflected the usual behavior of the subjects.
CHAPTER BIBLIOGRAPHY


Aspy, D. N. & Roebuck, F. N. Research Summary: Effects of Training in Interpersonal Skills, Interim Report No. 4., National Institutes of Health, Grant No. 5 POI MH 19871, 1974.


CHAPTER II

SYNTHESIS OF RELATED LITERATURE

The synthesis of related literature will deal with the following topics. First, the nature and characteristics of children with learning disabilities will be discussed. Attention will focus on the social and behavioral characteristics exhibited by these children followed by an exploration of others' attitudes toward them. Second, the significance of affective variables of schooling will be considered. The affective dimensions to be reviewed are teacher expectations, locus of control and teacher empathic understanding. Each topic will be discussed in terms of theory and previous research relevant to the problem of this study. Third, research on various social skills training procedures will be examined. This research will be discussed in relation to the effects of (a) altering the environment and (b) directly teaching the children. Finally, a description of and the rationale for using the Human Resource Development model of social skills training will be presented.

Children with Learning Disabilities

A lack of agreement in the professional literature has led to learning disabled children being variously described as educationally retarded, dyslexic, hyperactive, autistic, minimally brain injured, slow, developmentally delayed, neurologically disorganized and emotionally or behaviorally
disturbed. This wide range of labels has made learning dis-
abilities a catch-all term for a large number of children
with learning and behavior problems. As many as 99 separate
traits have been considered indicative of learning disabili-
ties (Clements, 1968). There are, however, two points of
agreement: (a) Many children exist who, despite their normal
physical, intellectual and emotional abilities, show signifi-
cant underachievement in some aspect of school learning; and
(b) this lack of achievement responds to remedial approaches
(Chalfant & King, 1976; Hallahan & Kauffman, 1978). Although
not thought to be a defining characteristic of children with
learning disabilities, most practitioners point out the sec-
ondary emotional disturbance that frequently accompanies
school failure (Bryan & Bryan, 1977; Chalfant & King, 1976;
Lerner, 1981). Hallahan and Kauffman posit that children
with learning disabilities may also be culturally disadvan-
taged, emotionally disturbed or mentally retarded and that
the etiology of the disability should not preclude service to
the child.

The current state of knowledge of the social character-
istics of children with learning disabilities rests largely
on Bryan's research (Bryan, 1978; Bryan, Donahue & Pearl,
1981a). The review of learning disabled children's social
behavior which follows discusses studies of (a) their charac-
teristics and interaction patterns with teachers and peers
and (b) others' attitudes towards them including the litera-
ture on peer status.
Social and Behavioral Characteristics

Learning disabled (LD) children have long been described as hyperactive and distractible. Bryan's first two studies gathered observational data to determine if learning disabled children's behavior did differentiate them from classmates (Bryan, 1974; Bryan & Wheeler, 1972). Both studies employed a time sampling technique, rating every 10 seconds whether the child was on-task, off-task, waiting or interacting socially. The first study was conducted in kindergarten through sixth-grade and the second in third-grade. Only boys were observed in both studies. The results indicated that the learning disabled boys spent significantly less time on-task and significantly more time off-task than the non-learning disabled boys. While the time spent interacting with peers did not differentiate the groups, there were significant differences in the quality of the social interactions. The LD boys were twice as likely as non LD boys to be ignored by teachers and peers and, while teachers gave as many positive reinforcements to LD boys and non LD boys, they gave twice as many negative reinforcements to the LD boys. Additionally, the teachers' time with LD boys was spent primarily on academic concerns whereas her time with non LD boys was more likely to be social or nonacademic in nature.

The difference in the quality of relationships LD children have suggests that their school experience may be
considerably more negative than so-called normal children's. Studies of self-concept among LD children support this supposition. Black (1974) found that third-grade reading disabled children had significantly lower general self-concepts than nonreading disabled children. Significant differences in Piers-Harris general self-concept between LD and non LD children were also reported by Strang, Smith and Rogers (1978). Using a scale designed specifically to measure academic self-concept, Boersma and Chapman (1978) found that LD children scored significantly lower than non LD children.

Bryan, Wheeler, Felcan and Henek (1976) carried out a classroom observation study in which all communicative exchanges were recorded with one observer recording all activities of the LD child and a second observer simultaneously recording everything others said to the child. The statements were subsequently categorized, tallied and proportioned. Analyses of the differences of type of communication between LD and non LD children revealed two significant differences: LD children made significantly more competitive statements while non LD children received significantly more considerate statements.

Bryan (1977) conducted a study to test LD children's comprehension of nonverbal communication in which subjects viewed a silent video or listened to a scrambled audio tape of a female displaying either positive or negative affective states combined with dominance or submissive expressions.
Examples of the tape segments are (a) positive/dominant—expressing motherly love; (b) positive/submissive—expressing gratitude; (c) negative/dominant—nagging; and (d) negative/submissive—asking for forgiveness. Children sometimes viewed the face only, the torso only or heard only the vocal intonation without clear words. Results showed LD children to be significantly less accurate in understanding the prosodic and intonational aspects of the messages. This finding indicates that poor comprehension of nonverbal messages may be a possible reason for LD children's failure to get along well with others.

In another study of LD children's social characteristics, Bryan and Phlaum (1978) examined whether LD children could adjust their verbal communication in response to the needs of another. To test this hypothesis, they asked fourth- and fifth-grade children to teach a bowling game to age-mates and to kindergarten children. It was found that LD girls, and to a greater extent LD boys, were less able to adjust the complexity of their verbal messages to the age of the listener suggesting an inability to adapt to the listener's perspective and needs in the interaction.

In research studies being reported here, Bryan and her associates seem to be pursuing two lines of thought. First, they are critically examining the conversational language skills of LD children in an attempt to pinpoint the tasks and situations which pose problems for these children. Secondly,
they are examining these skills in a social context. It seems to be their hypothesis that specific language deficits may be what causes LD children's social incompetence and consequent rejection.

To further investigate LD children's communicative competence, Bryan, et al. (1981a) designed two referential communication tasks to examine specific components of conversational skills. In the first, children's comprehension of nonexplicit requests for clarification were studied with subjects in first- through eighth-grade. The children described a series of figures to an adult experimenter so that she could select the correct picture of it. If the experimenter required another clue, the children were told they could give it to her. The experimenter made one of four responses: (a) selected the correct picture; (b) explicitly asked for another clue; (c) implicitly asked, e.g. "I don't understand"; or (d) made a puzzled facial expression. Group differences occurred in first- and second-grade with learning disabled girls being significantly less likely to interpret the puzzled look than nondisabled girls while first- and second-grade LD boys were more likely to understand facial cues than nondisabled boys. The apparent contradiction of this latter finding to Bryan's earlier study (1977) may be accounted for by the difference in age of the subjects. The earlier study reported results of third- and fourth-grade girls and boys and this study is reporting results for first- and
second-grade boys. It may also be possible that the contradictory findings are attributable to a difference in treatment conditions, the earlier study using a test while the later study used a referential communication task. Bryan does not discuss the discrepancy.

The second study set a situation in which the experimenter gave the clues and the children had to make a choice. The experimenter's clues were (a) fully informative; (b) partially informative or (c) noninformative. It was the children's responsibility to ask for further information if they could not figure out the answer. Results showed that first- and second-grade children and learning disabled children asked significantly fewer questions when incomplete information had been given and so made more wrong choices. The failure of learning disabled children to ask for clarification was not attributable to impulsivity or lack of task understanding.

A third study by Bryan, et al. (1981b) examined LD children's conversational strategies with peers during a small group problem solving task. The children were to decide on a gift to be given by the class. While LD children's gift choices were not "oddball" choices, nevertheless, they were found to be significantly less persuasive than the non LD children in getting their gift choices accepted by the group. An analysis of the conversations showed that LD children argued significantly less and agreed significantly more than their non LD classmates.
These three studies portray LD children as more passive/submissive than non LD children in their interactions with both adults and peers. However, the question as to whether LD children differed from non LD classmates as a result of linguistic skill deficit, social skill deficit or some other unidentified variable such as self-concept or locus of control remains unanswered.

Bryan, Sherman and Fisher (1980) examined LD boys' nonverbal behavior in a dyadic interview with a female adult. Learning disabled and nondisabled children were divided into two groups, one of which was instructed to act naturally, the other instructed to be as friendly as possible and make the interviewer like them while discussing favorite TV shows. A video camera recorded the interviews and the data were subsequently analyzed for nonverbal behaviors such as (a) looking, (b) smiling, (c) hand illustrations, (d) nonfunctional body contacts and (e) filled pauses. Results of ANOVAs revealed differences between LD and non LD boys on three of the nonverbal measures. First, LD boys spent less time looking at the interviewer \( (p < .07) \) and their style of looking was judged more furtive than the non LD boys. Secondly, LD boys spent significantly less time smiling while talking than the non LD boys even when instructed to be friendly \( (p < .05) \). The third differentiating behavior was filled pauses. Learning disabled boys tended to fill pauses more frequently with words such as \textit{ah} or \textit{hmmm} than did nondisabled boys \( (p < \)
The result of these behavioral differences is that LD children appear more shy, indifferent and uninvolved in the task which, in turn, seems to negatively affect adult judgements of these children.

While the Bryan’s research approaches learning disabled children’s social deficits by studying them in interaction with others in laboratory situations, another group of researchers has investigated LD children’s role taking abilities. In Wong and Wong’s study (1980) third- and fourth-grade children were to relate a story based on cartoon pictures first from the main character’s perspective and then as a bystander might see it. The stories were scored for egocentrism. There was a significant groups main effect with LD children much less able to take a point of view other than their own. The conclusion drawn by Wong and Wong was that because LD children are inactive learners, they do not monitor intrusions of subjectivity and are therefore poor at role taking. The LD children seemed unable to disregard the knowledge they had of the situation when asked to pretend they did not know it.

Another investigation of role taking ability found no significant differences between LD and non LD children on interpersonal role taking, social insight (predicting others’ liking for oneself) or peer status with the effects of IQ covaried (Horowitz, 1981). Only impersonal role taking differentiated the groups independent of IQ. However,
Horowitz cautions that further studies be conducted due to the mounting theoretical and empirical evidence suggesting a relationship between social effectiveness and the ability to take another's perspective. It should be noted that none of the previously cited studies addressed IQ as a variable.

Others' Attitudes Toward LD Children

According to Hartup (1970), peer relations may be particularly influential during the middle elementary school years and some researchers note that acceptance from peers at this time is a strong predictor of later emotional adjustment (Cowen, Pederson, Babijian, Izzo and Trost, 1973). In light of this, the mounting evidence on the lack of peer acceptance of learning disabled children is ominous.

Bryan (1974, 1976) carried out two studies on the peer popularity of learning disabled children using indexes of social acceptance ("Who is your friend?"; "Who is worried or scared?"). Analyses showed that learning disabled children received significantly fewer votes on social acceptance and significantly more votes on social rejection than comparison children with white learning disabled girls being the most rejected of all. In summary, LD children were described by their peers as "scared, unhappy, worried, and undesirable playmates" (Bryan, 1978, p. 60). This study was replicated twice over a two year period with the same results even though the composition of the classrooms had changed considerably.
Bruininks (1978a, 1978b) found LD children to be significantly less popular than non LD peers in two separate studies. The Peer Acceptance Scale (Bruininks, Rynders and Gross, 1974) was used to determine peer status. This instrument requires every member of the class to rate every other member. Scranton and Rykman (1979) also found mainstreamed LD children to be significantly less popular than comparison children.

Siperstein, Bopp and Bak (1978) tested 177 fifth- and sixth-graders with a sociometric interview designed to determine the factors influencing social status. The factors postulated were athletic and academic ability, and appearance. The results showed that learning disabled children were significantly less popular than non LD children (p < .01). Upon examination of the various factor influences it was noted that the academic factor strongly differentiated LD from non LD children. Also of interest in this study was the finding that only six of the 22 LD children in this sample were liked by more than one-third of their classmates and five of these students had received several nominations for best athlete in the class. The authors conclude that strengths in areas other than the academic may help to improve the LD child's social acceptance. An investigation of the relationship between peer status and teacher preference was carried out by Garrett and Crump (1980). Using a Q-sort technique, teachers sorted the names of all their students
into nine columns designated from most preferred to least preferred. Following this, a modification of the Peer Acceptance Scale was administered to all students. A t-test for differences between teachers' preference scores for the LD and non LD children was significant at $p < .001$ clearly indicating that the LD pupils were less preferred. Kendall tau rank order correlation coefficients were computed to test the relationship between teacher preference and peer status. A statistically significant relation ($p < .05$) was observed for 78% of the teachers. While the results are not surprising given the behavioral characteristics of LD children, and no causal inference can be made, the question of teachers' communication of this dislike for children is important. It is possible that teachers' negative attitudes toward LD pupils is transmitted to classmates through modeling or the employment of peer pressure, for example.

Teachers have described LD children as aggressive, lacking self-discipline and responsibility and generally less desirable to have in the classroom even as compared to the mentally retarded (Keough, Tchir & Windeguth-Bein, 1974). College students unaware of children's LD status or peer popularity have judged LD children more negatively than non LD children on social and personality dimensions on the basis of viewing a brief video tape of the children teaching a game to another child (Bryan & Perlmutter, 1979). In a follow-up study, Bryan and Sherman (1980) had three populations of
people (mothers, children, and college students) rate silent video tapes of LD and non LD boys. Judges rated the children on adaptability and social hostility. The LD boys were rated as less adaptable by the mothers and children and more socially hostile by the mothers.

Summary

The research herein reported consistently finds learning disabled children to be less favored by adults and children who know them (teachers and peers), and who do not know them (those who viewed them on video tapes). They can be distinguished from non LD children on the basis of their verbal or nonverbal behavior. Some tentative conclusions have suggested that their verbal difficulties lie in their inability to ask questions, support an argument, sustain a conversation or adopt another's perspective under ambiguous or complex situations (Bryan, et al., 1981a). Learning disabled children's nonverbal difficulties seem to center around their inability to maintain eye contact and smile appropriately (Bryan & Sherman, 1980). Both the verbal and nonverbal deficits have been described as passive, submissive and inactive on the part of the child. It can still not be said whether this personality aggregate is part of the learning disability or secondarily caused by the treatment LD children receive from parents, teachers and peers as a result of their inability to learn school tasks normally.
The Role of Affective Variables

Learning takes place in a social context. Independent of the content to be learned and the methods used by the teacher, students must interact competently with both teachers and peers to obtain the greatest benefit from their educational experience. The necessity for competent social interaction continues throughout life. Yet learning disabled children are consistently characterized as interpersonally incompetent. Numerous writers see secondary emotional problems arising from the repeated failures LD children experience. Roswell and Natchez (1964) assert that personality maladjustment in children with reading disabilities develops as a result of years of failure, frustration and despair at the reading task. They further characterize the poor reader as frequently held in low esteem by parents, peers and teachers.

Alderson (1963, in Charley, 1974) similarly describes perceptually handicapped children as having confused self-images, a lack of self-confidence and feelings of inadequacy. It is Alderson's viewpoint that these children sense adult disappointment in them and conclude that they are different in unacceptable ways. In a study of teacher ratings and self-concept reports of retarded children, Richmond and Dalton (1973) found a significant relationship between teacher ratings and self-ratings. The authors conclude that "self-images are positively related to teacher images of
their academic ability" (p. 182). In a review of sociometric studies, Withall and Lewis (1963) note that students' relationships with each other seem to be determined by teacher behavior factors. These findings suggest that exceptional children's views of themselves and their peer relationships are largely influenced by the teachers' attitudes and behavior toward them.

In Bloom's model of school learning, he identifies three input components that influence specific task performance: (a) cognitive entry characteristics; (b) affective entry characteristics and (c) quality of instruction. Bloom postulates that the sensitive and systematic manipulation of these three variables can significantly reduce the wide variation of achievement among children. The affective entry characteristics are a crucial component in that they help determine "the extent to which the learner will put forth the necessary effort to learn a specific task" (Bloom, 1976, p. 104). These affective characteristics develop in childhood as a result of interactions with parents, siblings, peers and teachers in formal learning and everyday experiences (Piaget, 1932). The affective outcomes (including social/interpersonal skills) become the affective entry characteristics of the subsequent task, and eventually, the student's history and prophecy for future relationships. Given the importance of the affective component to learning, remedial procedures designed to improve the cognitive achievement of children
with learning disabilities will likely be hindered unless attention is specifically directed to remediating the affective disabilities as well. Three of the specific school related affective variables most pertinent to LD children are teacher expectations, locus of control and teacher-offered empathy.

Teacher Expectations

The antecedents of teacher expectation research can be found in the research of the classroom climate tradition of the 1920s and 1930s (Withall & Lewis, 1963). Many of the issues relevant to teacher expectation evolved from the studies of social interaction as related to teaching effectiveness. Rosenthal and Jacobson's Pygmalion in the Classroom (1968) is considered the seminal study which provided the main impetus for interest and research into teacher expectations. Teacher expectation is derived from the notion of Merton's self-fulfilling prophecy. He makes reference to the sociologist W. I. Thomas's quote, "If men define situations as real, they are real in their consequences" (Merton, 1949, p. 179).

Rosenthal and Jacobson experimentally inflated teachers' expectations by providing them with false information about the intellectual capabilities of some of their students. They found significant changes in the students' intellectual performances by the end of the school year (Rosenthal & Jacobson, 1968).
While vigorous criticism of the Rosenthal and Jacobson study's methodology and interpretation of results has been levied (Elashoff & Snow, 1971; Thorndike, 1968), nevertheless, as many as 60 studies have been conducted to investigate the phenomenon (Braun, 1976). Many of these subsequent studies found negative results which further cast doubt on the existence of the expectancy phenomenon. However, expectation studies can be classified as either naturalistic or experimental. The crucial difference between the studies which found expectancy effects and those which did not, lies in the source of the teachers' expectations. The naturalistic studies, in which the teachers' own self-generated expectations are considered have generally shown expectancy effects whereas the experimentally induced expectancy studies have often provided negative results (Brophy & Good, 1974).

Teachers make discriminations about children on the basis of sex, socio-economic status, intelligence and conduct. Palardy (1969) and Doyle, Hancock and Kifer (1972) studied expectancy effects generated by student sex. Palardy found that first-grade teachers who thought girls read better than boys had girls who achieved higher reading scores at the end of the year even after IQ was covaried, whereas students of teachers who expected no sex difference had almost identical reading achievement scores. Doyle et al. found that first-grade teachers systematically overestimated girls' IQ scores and underestimated boys' IQ scores. Furthermore, those
students who had been overestimated showed higher reading achievement than their IQ would predict with the converse holding for those with underestimated IQ's.

There is mounting research demonstrating that teachers' interactions with students both qualitatively and quantitatively vary according to their expectations for them (Cornbleth, David & Button, 1974; Rothbart, Dalfren & Barrett, 1971). Analyses of in-class responses indicate that teachers tend to stay longer with high expectation students when they have failed to answer a question correctly (Brophy & Good, 1974; Jeter & Davis, 1973). Beez (1968) and Carter (1971) have shown that students considered slow learners are offered fewer opportunities to learn new material.

The nature of feedback given to high and low expectation students also varies. Teachers tend to praise high expectation students more than low expectation students for correct answers (Brophy & Good, 1970; Rubovits & Maehr, 1971), and smile and nod their head more when they believe they are interacting with bright students (Cooper & Good, 1977).

The previously cited studies clearly indicate that teacher expectation effects do occur; that they are sometimes inaccurate predictions on the part of the teacher and that the differences in expectation are reflected in different teacher-student interaction patterns. This behavioral difference results in high expectation students being taught in a warmer and more supportive interpersonal environment than
lows with the logical consequence that they will likely learn more.

Brophy and Good conceptualize a model for the underlying processes of the self-fulfilling prophecy as follows:

(a) The teacher forms differential expectations for pupil performance; (b) He then begins to treat children differently in accordance with his differential expectations; (c) The children respond differently to the teacher because they are being treated differently by him; (d) In responding to the teacher, each child tends to exhibit behavior which complements and reinforces the teacher's particular expectations for him; (e) As a result, the general academic performance for some children will be enhanced while that of others will be depressed, with changes being in the direction of teacher expectations; (f) These effects will show up in achievement tests given at the end of the year, providing support for the "self-fulfilling prophecy" notion (Brophy & Good, 1970, pp. 365-366).

Lockheed's model of the expectation process cites the teacher as a source of students' self-evaluation, which then determines their self-expectations. He states that,

The student characteristics of achievement, status, and behavior and personality [determine] teacher expectations and teacher behaviors, that teacher expectations determine student academic achievement and teacher behaviors, that student characteristics are correlated with academic achievement, and that teacher behaviors affect student academic achievement (Lockheed, 1975, p. 8).

Dworkin and Dworkin (1979) note that special education students being mainstreamed are a prime group to elicit negative expectations from teachers. Their research suggests that "negative expectations are alive and well in the classroom" (p. 713), and that they negatively influence teaching techniques. In Smith's study (1980) of the relationship between teacher-student interactions and reading disabled
students' progress, she found that the use of teacher feedback and questions, and student responses were significant predictors of progress.

Chapman, Larsen and Parker (1979) studied the interactions of first-grade teachers with learning disordered children using Brophy and Good's dyadic interaction instrument. They report that teachers had more interactions with these children, praised and criticized them more and that the criticism was more behavior and procedure related than were their contacts with low, medium and high achieving normal students.

The bidirectional nature of the expectation effect becomes clear when students' affects on teachers are examined. Feldman and Prohaska (1979) conducted two laboratory experiments on this phenomena. In the first experiment, students were given a positive or negative set toward the teacher's competence. The teacher was blind to the condition. Results indicated that with a positive set, students' attitudes toward the teacher were significantly more positive, that their performance on one of two tests over the lesson content was better and that they physically attended more to the teacher than did students with a negative set. In the second experiment, the students displayed positive or negative attending behaviors with the results that teachers rated their own performance as significantly more competent with positive attending subjects and liked the students significantly more.
Furthermore, independent judges blind to the experimental conditions, rated the teachers of positive attending students as significantly more adequate teachers. These studies demonstrate the power of a student to influence the teacher's behavior to his or her own advantage or detriment.

The importance of teachers' expectations for LD students was clearly pointed out in Chapman's study (1979) of teacher expectation and self-expectations. Teachers of over 600 LD children reported negative expectations for their performance the following year and several years in the future not only in areas of the children's identified learning disability, but in other academic areas as well. Considering the professional consensus that learning disabilities are remediable, the suggestion of "no future" that these negative expectations predict poses a striking contradiction with the LD child the likely loser.

Locus of Control

The attribution field of study addresses the question of the interaction between the individual's internal belief system about his or her world and subsequent behavior, contingency plans notwithstanding. In other words, individuals must believe that their actions are somehow linked to outcomes if a particular behavior is to be sustained by naturally occurring reinforcements.

The locus of control construct refers to an individual's perceived sense of control over behavior or events (Rotter,
1966). Internal locus of control means that the individual perceives events, either positive or negative, as being under personal control and therefore a consequence of one's own actions. External locus of control refers to the perception of events as unrelated to the individual's behavior and beyond personal control (Lefcourt, 1976).

Research on LD children's causal attributions for success and failure indicates that they exhibit an external locus of control for success meaning that they do not believe their efforts will make a difference in the outcome of an event (Chapman & Boersma, 1979; Hallahan, Gajar, Cohen & Tarver, 1978; Pearl, Bryan & Donahue, 1980). Chapman and Boersma and Pearl et al. studied LD children's causal attributions for academic achievement. Both research studies found LD children to be significantly more external in their locus of control orientation. Pearl et al. note that as LD children get older, there is an increasing trend to attribute failures to lack of ability, an internal dimension. So we see LD children disavowing credit for their success (external) and yet taking the blame for their failures (internal).

Hallahan et al. investigated the relationship between selective attention and locus of control in LD and normal children. Results showed that LD and normal children were significantly different from each other on both dimensions with LD children demonstrating a more external locus of
control and less recall of central information. Two measures of locus of control were taken on the children: (a) the **Intellectual Achievement Responsibility Questionnaire (IAR)** which is specifically designed to measure academic locus of control and (b) the **Nowicki-Strickland Locus of Control Scale** which measures generalized locus of control across interpersonal and motivational areas. Interestingly, the two instruments did not correlate highly with each other indicating that they do measure different aspects of locus of control, and yet both instruments found LD children to be significantly more external in locus of control orientation. It seems the LD child's perception of lack of control applies equally to academic and social situations.

These negative self-perceptions of ability serve as a functionally limiting factor in successful ventures. Consequently, the amount of energy invested in any future task or relationship will depend on how capable children see themselves in meeting the task requirement of living up to the expectations of significant others. This energy expenditure can be related to motivation. Thomas (1979) characterizes learning disabled children as having low self-esteem and motivation due to continuous failure over the years and as no longer believing they can succeed. Thomas goes on to define this loss of persistance and passivity in learning as learned helplessness.

Several researchers studying various aspects of learning disabled children conclude that they can be characterized as
inactive learners, externally oriented, learned helpless or passive (Bryan, 1978; Dweck, 1975; Dweck & Rappucci, 1973; Pearl, et al., 1980; Torgesen, 1980; Wong & Wong, 1980). They all agree that LD children's externally oriented view of the world prevents them from actively seeking learning strategies. Whether this condition is the result of repeated failures or leads to them has not been ascertained.

The importance of personal control beliefs were given prominence in the Coleman report on the education of disadvantaged children (Coleman, Campbell, Hobson, McPartland, Mood, Weinfield & York, 1966). Coleman et al. found that the extent to which individuals believe they have control over their destiny is a better predictor of achievement than all other school factors.

Such findings hold important implications for learning disabled children. If, as the research suggests, failure-prone students do not see a causal relationship between their efforts and task outcomes, then it is likely that motivation on subsequent tasks will diminish thereby lessening chances for future success. Accordingly, it seems important that programs to remediate their disabilities (be they social or academic) focus on strategies that aim at developing an internally perceived control orientation.

Bradley and Gaa (1977) attempted to change low achieving 10th-graders' academic locus of control. In their study they compared goal-setting conferences to conference only and a
control group. In the goal-setting conferences students set academic goals for themselves and met weekly with a counselor in individual sessions to receive feedback on their progress in attaining their goals. The conference only group also met weekly but did not work on goal setting. Significant changes were observed for the goal-setting conference group on measures of academic locus of control indicating that this dimension can be altered to the advantage of the student.

**Teacher Empathy**

From studies in the classroom climate tradition onwards, educators have been researching and trying to better understand what the ingredients are that make some teachers more effective than others in spite of using the same instructional program. General terms such as warmth, childcentered vs. teacher-centered and integrative vs. dominative have been used to describe the characteristics these early researchers documented. Conclusions from several studies were that the level of humanness offered by the teacher was positively related to student outcomes such as spontaneous, cooperative and self-directed behavior, academic achievement and motivation, group problem-solving, and originality of expression (Anderson & Brewer, 1946; Flanders, 1949; Lewin, Lippet & White, 1939; Withall, 1949). Cronbach (1963) summarized the results of this early work as follows: "The classroom setting [social and emotional] directly affects what the pupil tries to do and what he learns" (p. 498).
Researchers continued trying to explicate and finally operationalize the traits that made up warmth or humanness. Rogers (1969) identified empathy, congruence and positive regard as the necessary conditions of the facilitative interpersonal process. He postulated that these factors were directly related to positive student growth. "To the extent that the teacher creates such a relationship with his class, the student will become a self-initiated learner, more original, more self-disciplined, less anxious and other-directed" (p. 37). A study exploring the relationship between teachers' levels of facilitative interpersonal skills and achievement among third-graders found a positive relationship (Aspy, 1969). The teachers' levels of empathy, congruence and positive regard were measured using scales developed by Carkhuff. Students of teachers offering higher levels of these conditions made significantly greater gain on the Metropolitan Achievement Test. Aspy and Roebuck (1973) also found a significant positive relationship between teacher interpersonal functioning and students' use of higher order thinking processes such as analysis, synthesis and evaluation.

The findings of Aspy and Roebuck's three year research project demonstrated a positive and significant relationship between teachers' levels of empathy, congruence and positive regard and (a) student achievement as measured by standardized tests, (b) student self-concept as measured by the How I See Myself Scale and (c) attendance from official school
records (Aspy & Roebuck, 1977). Hefele (1971) found that when teachers of the deaf were taught to be more empathic, student achievement rose. Berenson (1971) taught elementary school teachers-in-training to use higher levels of the facilitative interpersonal skills and reported increased student involvement and improved reading scores. More recently, Robinson and Brosh (1980) taught resource teachers the skills of empathy, congruence, respect, immediacy and confrontation with the results that the students of these teachers achieved significantly more on tests of word recognition, comprehension and general information than did students of untrained resource teachers.

Taken together, these studies strongly support the contention that teachers' use of empathy and other interpersonal skills leads to increased learning for normal and exceptional students. It is these conditions that create an environment of trust for students who are then able to attempt new tasks and thus learn more successfully.

Summary

Strong support for the expectation phenomenon is reported in the research literature indicating that many teachers interact with their students differently based on their differential expectations for them. The result is that some children's academic performance is enhanced while other children's is depressed. Learning disabled children fall into the latter category as students for whom teachers
frequently hold low expectations. Compounding the negative expectation problem are two characteristics of learning disabled children: (a) They are not generally liked by either teachers or peers, and (b) they are inactive learners. The latter characteristic results in LD children remaining passive both socially and academically. This lack of assertion prevents them from initiating changes in their personal relationships or employing new learning strategies. Thus, learning disabled children probably respond according to the way they are treated thereby reinforcing and perpetuating the low expectation phenomenon. Finally, the research on teacher interpersonal skills suggests that while teachers with high levels of empathy are able to overcome initial expectation biases and treat children according to their needs, the majority of teachers do not exhibit high or even moderate levels of empathy and are reactive or overreactive in their patterns of interaction with low achieving and learning disabled students (Brophy & Good, 1974; Carkhuff & Berenson, 1967). The negative interaction of these three affective components indicates the need for intervention to alter the situation.

**Social Skills Training**

The preadolescent stage of life (ages 8 through 12) has been characterized as a crucial time for social development. It is very important at this stage for children to be integrated into the peer group (Hartup, 1970). It is effective
integration that will enable individuals to master the social skills (Hargrave & Hargrave, 1979). As previously discussed, LD children are not well accepted by peers and evidence is abundant that mere mainstreaming does little toward integrating these children affectively. Bryan’s study (1976) indicates that learning disabled children are unable to improve their peer relations even when given a fresh start in a new class.

Though it is a widespread belief that social/interpersonal skills develop naturally as a product of socialization, this is not the case for a significant proportion of LD children. As Goodman and Miller (1980) state, In the classroom social skills are related to peer and teacher acceptance of the handicapped and academic achievement (Cartledge and Milburn, 1978); and yet, the acquisition of social skills is left to chance. Rarely are social skills incorporated into the fabric of the curriculum (p. 48).

Attempts have been made to directly intervene on behalf of socially unpopular children. The interventions generally take one of two approaches. One strategy is to make the environment more hospitable to these children by altering peer behavior or teacher behavior toward them. The second strategy is to help the children alter their behavior. Studies of the latter type can be further subdivided into counseling programs and skills training programs.

Altering the Environment

Gable, Strain and Hendrikson (1979) review research of peer mediated strategies for improving the social status and
behavior of LD children. From a behaviorist strategy of reinforcing appropriate behavior and ignoring inappropriate, they claim that properly selected and trained peers can serve as behavior managers for socially incompetent LD classmates. Strategies include having the selected peers serve as models, administer reinforcements and provide the LD child with feedback. Stress was put on the importance of the teacher being highly adept at selection and training of the peers. These strategies involve external reinforcements for behavior change.

Tyne and Flynn (1979) researched a teacher-centered consultation program as a method of improving low social status. They developed two instructional booklets, one which listed behavior change techniques and another detailing factors contributing to low peer status. Their design included four groups in which teachers were variously given (a) the names of low sociometric status children, (b) the names and the remedial techniques booklet, (c) the names, the remedial techniques booklet and the contributing factors booklet, and (d) a control group. Findings showed a significant improvement in sociometric status on the Ohio Social Acceptance Scale for children in Groups 2 and 3, no change for Group 4 children and a decrease in acceptance for Group 1 children (those whose teachers knew of their status but were given no strategies for helping). Apparently, teachers are likely not to be able to be helpful without some specific instruction.
In examining the effectiveness of commercially available programs for affective education, Hudgins (1979) notes inconsistent findings of the effects produced by these programs. Sometimes self-concept and social adjustment were improved and sometimes not. He goes on to examine the conditions which seem to maximize student gain. Primary among these is the degree of facilitator training. The studies with the strongest results utilized highly trained facilitators. Conversely, the studies that found no student gain employed facilitators with no previous training.

The research on altering the environment to improve social acceptance of handicapped and normal children generally reports weak findings. The reasons most frequently stated are (a) lack of skill on the part of the teacher or peers and (b) inadequate control over dispensing reinforcers to effect the desired change on the target children. Other more direct approaches deal with helping the children themselves become more aware of their behavior and teaching them new behaviors.

Teaching the Children

Several studies have been done to determine the effectiveness of various types of intervention strategies designed to improve the social behavior and/or acceptance of children low in peer status. Only one study of social skills training with learning disabled students could be found. However, a number of studies were found on social skills training with
normal, emotionally disturbed and mentally retarded children low in peer status. These studies are reported to illustrate the types of social skills training programs that are currently being researched.

In a counseling tradition, Huddleston (1973) tried to improve the sociometric status and social behaviour of elementary students. The subjects received reinforcement counseling twice a week for five weeks in an effort to increase their cooperative and rewarding behavior toward peers. No significant gains were made by the experimental group on either social behavior indexes or sociometric status.

A peer group therapy program lasting 14 weeks was introduced in an elementary school to help learning disabled children acquire social skills with peers (Hargrave & Hargrave, 1979). The sessions included a half hour discussion, a half hour of playing sports and a half hour critiquing what occurred during the preceding phases. Results showed that the subjects improved in classroom adjustment but not on the personality factors measured. Hargrave and Hargrave concluded that the improvement in classroom adjustment was not clearly related to improved social skills as the latter was not measurable.

Both these studies attempted behavior change through awareness strategies. That is, neither study involved skills instruction.
Behavior modification principles have been applied to the problem of teaching social skills. This model, by definition, involves external reinforcements to modify and shape the desired behavior. Piersel and Kratochwill (1979) significantly improved the classroom behavior of four elementary students. Leger, Groff, Harris, Finfrock, Weaver and Kratochwill (1979) successfully taught 17 emotionally disturbed adolescents communication behaviors in a classroom setting. The subjects were able to generalize the skills to other settings.

Graubard, Rosenberg and Miller (1974) trained special education children to be behavioral managers of their teachers and peers by teaching them basic behavior modification techniques of reinforcement and extinction. The students learned to reward their teachers for treating them nicely and ignore them when they were being unfair. Graubard et al. report successes that include the teachers' improved treatment toward the special education children and comments from the teachers as to the improvement in the students' behavior. The results with peers were equally dramatic in that the situation changed from total ostracism of the exceptional students to one in which normal children wanted to come to the segregated special education classroom. Thus, the literature suggests that the vicious cycle of social rejection by teachers and peers toward LD children may be broken through social skills training.
The drawbacks to many of these behavior modification programs are twofold. First, a great deal of planning and supervision is required so that the contingencies are always carried out thus insuring the behavior change. In actual practice, teachers report that they abandon the programs once the researchers have left because their management is too cumbersome (Brophy & Putnam, 1979). Secondly, behavior modification programs assume that after the behavior change has been effected, naturally occurring reinforcements in the person's environment will sustain the change (Oden & Asher, 1977). Again, in the natural setting, this phenomenon frequently does not take place. These problems taken together with the literature on causal attributions suggest that unless the new behavior is accompanied by internal changes in belief systems both within the individual concerned and within significant others surrounding the individual, permanent change will not often be achieved.

Several studies have been conducted which incorporate behavioral techniques with perception-changing procedures. Oden and Asher, (1977) examined two strategies for raising the sociometric status of nine year old social isolates. The strategy involved coaching a child through a play session with a more popular peer followed by a review of the session. The skills being taught were (a) participation and attending; (b) cooperating; (c) talking and listening; and (d) validating and supporting. The comparison strategy was peer
pairing for games with no coaching or review. Posttesting of sociometric status showed a significant improvement for the coached children with one year follow-up sociometric status indicating the coached children were still making gains.

LaGreca and Santogrossi (1980) focused their efforts on training children experiencing low peer status. Children selected for this study were normal children in third-through fifth-grade. The training procedure was conducted over four weekly 90 minute meetings during which the children viewed video tapes of peers modeling appropriate social behavior, practiced the skills and had homework assignments. The skills taught included smiling, greeting, joining, inviting, cooperating, conversing, grooming and complimenting. Results were determined via skill assessments, observations, skill knowledge and peer ratings. Positive findings demonstrated that children learned the skills and could use them in structured settings. While positive social behavior did not reflect a significant effect, there was an increase in positive social contacts from the pre-test score. Peer ratings were not affected.

Collingwood, Douds and Williams (1976) studied the effects of interpersonal skills training on indexes of social adjustment among juvenile delinquents. Carkhuff's Human Resource Development model was used (Carkhuff, 1971). Youths were taught the social-interpersonal skills of physical and emotional attentiveness, empathic responsiveness and
intellectual initiating in a group setting through didactic instruction, role play and group critiquing techniques. Their results showed that the youths were able to transfer these skills to home, school and community settings with resultant reductions in recidivism from 60% to 15% and school absences by 35%. These results have been maintained over an eight year period. Schultz (1979), also using the HRD model, studied the effects of social/interpersonal skills training on the social behavior of institutionalized mentally retarded adolescents. He found significant positive shifts in custodial staff attitudes toward the subjects. Carkhuff (1970) notes that training ghetto children in classroom social skills was effective but maximum benefits were obtained when the teachers, too, were trained.

The latter five studies demonstrate that when a deliberate emphasis is placed on self-examination of change and the results of change, more consistently positive and long lasting changes accrue to the subjects. A shift in causal attributions from external to internal sources may be at the core of this improvement (Dweck, 1975).

**The Human Resource Development Model**

The Carkhuff Human Resource Development (HRD) model was developed initially in the field of counseling and psychotherapy. In the early 1960s, Eysenck (1965), Levitt (1963) and Lewis (1965) challenged the helping professions with the
findings that counseling did not make a difference. They reported that two-thirds of hospitalized patients remained out of the hospital one year after treatment whether or not they were seen by professional psychotherapists. Researchers following up these studies attempted to examine the helping process to delineate the skills contributing to constructive therapy. Rogers, Gendlin, Kiesler and Truax (1967) and Truax and Carkhuff (1967) isolated the helper dimensions of empathy, congruence, positive regard, immediacy and confrontation as specific skills whose presence or absence affected the outcome of the helping process.

Based on these early findings Carkhuff (1972) postulated that the helping process parallels the learning process and it can be described as progressing through three phases: exploration of the current situation; understanding the reasons for the situation thereby specifying what needs to be changed; and finally developing a course of action to change the situation and achieve a goal. In the exploration phase, the learner expresses personal feelings, reasons for the feelings, related circumstances and generally expands his or her awareness of self in relation to the situation. During the understanding phase, the learner is helped to recognize how specific behavioral deficits are contributing to his or her problems. This is a narrowing phase in which the learner begins to identify his or her personal responsibilities in the situation in order to assume control over it. The action
phase involves the learner and helper (or teacher) working in concert to develop systematic plans for effecting change in the behavioral areas defined (Carkhuff & Anthony, 1979).

Facilitating the learner's progress through the learning phases of exploration, understanding and action requires helping skills. The helper or teacher promotes exploration by responding empathically to the feelings and ideas expressed by the learner. Likewise, understanding is promoted by the use of personalizing skills which help the learner to see in what way he or she can be responsible for the situation and the improvement of it. The action phase is facilitated by the helper's skill in goal setting, task analysis, program development and program implementation.

The key to successful helping and learning is skills. The HRD model focuses on the development of skills in the learner. The HRD trainer or facilitator employs helping skills to develop the learner's skills. Before effective learning can begin, the learner must be involved in the process. Learner involvement requires that he or she (a) be physically present, (b) be physically oriented to the task and (c) be expressing personally relevant material. Because involvement in the learning process is crucial, the first skills a helper or teacher must employ are the prehelping skills of attending, observing and listening which serve to facilitate learner involvement.

The HRD model was selected for this study for several reasons. First of all, the model seems well suited to
learning disabled children's needs. Learning disabled children are invariably characterized as inattentive. Bryan and Wheeler's initial study in 1972 found LD children to be off-task significantly more than non LD children. Torgesen's (1980) conceptualization of inactive learner, and Dweck and Rapucini's (1973) concept of learned helplessness both point out the inattentive nature of learning disabled children. Brockner and Hulton (1978) placed attentiveness at the core of their self-esteem raising program, noting that low self-esteem people focus attention on themselves rather than the task, to their detriment. When, however, they shift their focus, their performance improves significantly due to their released self-consciousness. Gibson and Rader (1979) define attending as synonymous with perceiving in relation to a goal. Norton and Pettigrew (1979) posit attentiveness as a style of communication. They cite Rogers (1951, p. 349), "without attention there can be no communication". Carkhuff (1969) puts attentiveness forth as the basic process in communication and the first set of skills required by both learners and helpers. With attending physically and psychologically at the core of the HRD model, syndrome-specific deficits of LD children are addressed.

Another characteristic of LD children is their external locus of control orientation. When tested for academic or general locus of control, LD children score as significantly more external in their causal attributions for success than
do normal children (Chapman & Boersma, 1979; Hallahan, et al., 1978; Pearl, et al., 1980). The constructs of learned helplessness and inactive learner both describe LD children as passive due to an externally oriented view of cause and consequence. The HRD model, again, seems well suited to this characteristic of learning disabilities as its understanding phase specifically addresses the learner's personal responsibility for circumstances and outcomes.

Secondly, the HRD model was selected for its focus on skill development in the learner. Of the studies cited in the previous section on social skills training, those which attempted to improve the children's social skills were more successful than those which attempted to alter the environment. Likewise, of the studies attempting to improve children's social skills, those which taught skills were more successful than those which taught awareness. The HRD model teaches skills through exploration (awareness), understanding (personal responsibility) and action (skill acquisition).

Third and finally, the HRD model was chosen for this study because of the level of expertise required of the facilitator/trainer. The studies of affective education noted that success depended on facilitator skill (Hudgins, 1979). Since the HRD model defines both the learning process and the helper skills necessary to effect this process, HRD trainers are instructed in a mastery-based curriculum to insure skill attainment.
CHAPTER BIBLIOGRAPHY


Bruininks, V. L. Actual and perceived peer status of learning disabled students in mainstream programs. Journal of Special Education, 1978, 12, 51-58. (b)


Dworkin, N. & Dworkin, Y. The legacy of pygmalion in the classroom. Phi Delta Kappan, 1979, 60, 712-715.


Tyne, T. F. & Flynn, J. T. The remediation of elementary students' low social status through a teacher-centered consultation program. *Journal of School Psychology*, 1979, 17, 244-254.


CHAPTER III

RESEARCH METHODOLOGY

Design

The experimental design used in this study was a pre-test-posttest control group design. According to Campbell and Stanley (1963), this is a true experimental design which controls for such confounding variables as testing effects, maturation, history, instrumentation, statistical regression, selection biases, and experimental mortality. It is based on the equivalence of the experimental and control groups before the differential treatment. Consequently, random selection was used to assign subjects to groups.

This study compared the treatment (experimental) group to the no-treatment (control) group. The treatment consisted of the Human Resource Development (HRD) model of social skills training. The dependent variables were the scores derived from the measuring instruments used.

Subjects

The subjects for this study were Learning Assistance (LA) pupils drawn from the urban elementary schools in School District #57, Prince George, British Columbia. School District #57 serves a small urban center and its surrounding rural area with a population of approximately 124,000 and a student population of 21,000. There are 40 elementary
schools within the city limits. Only these 40 schools were used as a population pool in order to obtain a homogeneously urban sample. The School District draws from all socio-economic levels and includes East Indian, Oriental and North American Indian minorities.

The District's approach to special education services is noncategorical and almost all mildly handicapped children are mainstreamed. Approximately 10% of the elementary school population receives Learning Assistance. Learning Assistance is intended for

Those students whose needs, in the main, can be met through local regular classroom placement but who are having significant difficulty in one or more areas of expected potential for learning and achievement,... including children whose problems are related to hearing, vision or mild to moderate learning disabilities. Learning Assistance is not designed for students whose learning difficulties stem primarily from social adjustment or behavior problems or from learning handicaps related to such exceptionalities as mild mental retardation and severe learning disabilities. (British Columbia Ministry of Education, 1978, p. 46).

Three schools were randomly selected for inclusion in this study from among those elementary schools whose principals volunteered to participate. In the selected schools, all fourth-, fifth-, and sixth-grade classrooms were given the Peer Acceptance Scale (PAS). Subjects were selected for inclusion in the study from LA pupils identified as in the bottom one-quarter of students on the PAS. Names of the pupils were placed in a container, selected randomly and alternately placed in the experimental or control group until each group had 25 subjects stratified with respect to sex.
Ten subjects did not complete the study. Eight subjects moved out of the schools' enrollment areas, one was absent from three days of the training, and one control group subject was absent too often to get complete observation data. Thus pretest and posttest scores were obtained for 20 subjects in each group for statistical analysis. The study was conducted during the spring semester of the 1980-1981 school year.

All subjects met the discrepancy definition of learning disabilities (Federal Register, 1976) and none were hearing or visually impaired, or behavior disordered. The subjects ranged in age from 10 to 14 years. There were 12 females and eight males in each group for a total of 24 females and 16 males. The mean age of the control and experimental groups was 11 years and 6 months.

Experimental Conditions

The study was conducted in three phases allowing for pretesting, treatment and posttesting segments. The phases were as follows.

Phase I—Pretest

The Peer Acceptance Scale (PAS) pretest measurement was also the selection instrument. The PAS was administered to all fourth-, fifth-, and sixth-grade classrooms in the study schools. While the pupils were filling out the PAS, their teachers were filling out the Projected Academic Performance
Scale - Teacher Version for every pupil in their class. Each classroom was tested as a unit and all participating classrooms within each school were administered these instruments between 9 a.m. and 10:30 a.m. of the same morning. Prior to implementation of the treatment program, each subject was evaluated on the Criterion Referenced Measures (CRM) Basic Skills Test (CRM-T), the Nowicki-Strickland Locus of Control Scale and was observed by a trained observer using the CRM Behavior Rating Scale (CRM-B) and Brophy-Good Dyadic Interaction Coding System. Additionally, the teachers of the study subjects were rated using Carkhuff's Scale of Empathy. The latter ratings were made on audio tape recordings of one-hour samples of the teachers' interactions with the control and experimental subjects. Phase I lasted three weeks due to the time necessary to observe each classroom with the pupil and teacher observation instruments. All subjects were observed in their classrooms for one full morning (9 a.m. until 12 p.m. excluding 15 minutes for recess) and one full afternoon (1 p.m. until 3 p.m.).

The Brophy-Good instrument codes all interactive behavior between a teacher and pupil in such a way that both teacher and pupil behavior can be analyzed. The CRM Behavior Rating Scale was employed by the same observer and rated the extent to which the subjects used in the classroom the five social skills comprizing the treatment. The Nowicki-Strickland Locus of Control Scale was administered to all
control and experimental subjects together in groups of 10 by the experimenter. The CRM Basic Skills Test was individually administered to the study subjects by the trainer for the study. All subjects in a school were tested on the same day. Students, teachers, the trainer and the observer/experimenter were unaware of group assignment at this point.

Phase II--Treatment

Following completion of Phase I, the experimental group took part in the HRD model of classroom social skills training as the independent treatment variable. The social skills training sessions were conducted over a six day period with each session one hour long. During and following training, the experimental group pupils were instructed to practice the skills every day and monitor their performance on a form given to them (see Appendix K). Each skill could be rated on a five-point scale, and the pupils rated themselves for one week.

In addition to this follow-up monitoring procedure, the experimental group pupils were observed in their classrooms once by the trainer and met once individually with him to review their forms. Following the skills training sessions, the experimental group met for a debriefing session focusing on review and pointing out the children's own control over situations. The experimental group received the HRD social skills training in lieu of Learning Assistance for the one week, whereas the control group continued to go to LA as usual.
Attendance was taken daily. Three of the 20 subjects missed one day. Because each session reviewed and incorporated the previous session's skills, one "cut" was allowed.

All training sessions were held in the morning when reading and mathematics were taught. It was the practice in the study schools to have students go to Learning Assistance during the time allotted to the subject requiring assistance. Consequently, while the experimental group was receiving the training, the control group was usually receiving Learning Assistance.

Phase III—Posttest

Two weeks after the completion of training, all the pretreatment measures were re-administered. Classroom observations using the CRM-B scale and the Broph-Good instrument were repeated over a three-week period. At the end of this time, the control and experimental groups filled out the locus of control scale and the Peer Acceptance Scale and were evaluated on the CRM-T. Their classmates also filled out the Peer Acceptance Scale. The teachers again filled out the Projected Academic Performance Scale.

Description of the Treatment

The HRD intervention procedure was introduced to a select number of pupils to break the self-perpetuating cycle of socially inappropriate behavior and rejection by teachers and peers. Carkhuff's Human Resource Development model of
social skills was selected for this research study because (a) it has been used successfully with other exceptional student populations, (b) it emphasizes the development of attending skills, and (c) it explicitly teaches personal control over interactions with others (Carkhuff, 1972; Collingwood, Douds & Williams, 1976; Schultz, 1979).

The HRD model incorporates responsive (humanistic, Rogerian) practices with initiative (action, goal directed, behavioristic) practices in an effort to take an individual through the whole learning cycle of exploration, understanding and action.

The classroom social skills training program included subskills of the interpersonal domain of Carkhuff's HRD model. The specific skills taught were (a) physically attending to people and things, (b) psychologically attending to people including observing feeling states and accurate listening, (c) greeting, (d) making polite requests and (e) complying with requests.

The training program consisted of five lessons, one on each of the five skills. The students met in groups of six to eight with the trainer. Each lesson followed the same instructional format with the explicit theme being that the pupils demonstrate to themselves the causal relationship between their behavior and the reactions of teachers and peers to them. An example of the lesson format follows.

1. Review--

(a) the purpose for being in the group,
(b) any previous skills learned,
(c) results of the homework.

2. Learning Experience—usually a role play/demonstration during which:

(a) the pupils instruct the trainer how to perform the skill until all subskills are mentioned,
(b) the trainer demonstrates the skill accurately,
(c) the trainer demonstrates what is not the skill,
(d) a pupil role plays the teacher and chooses which pupil he or she would rather work with,
(e) the pupil must explain the choice,
(f) the pupils role play a "friend" situation in the same way as above.

3. Overview—The trainer now formally presents the skill touching the following points:

(a) what the skill is called,
(b) why it is important,
(c) when to use it—different contexts,
(d) how to do it—step by step.

At each step, (a) through (d), as much input as possible is obtained from the pupils. The step is extremely important for the
"whys" because the reasons for doing the skill must come from the pupils' frames of reference.

4. Practice--
   (a) Each pupil practices the steps with the trainer coaching and the other pupils rating the performance. This step serves the dual function of multiple presentations and specific feedback.
   (b) Pupils practice in pairs.

5. Applications--At least four different situations with a teacher or peer are role played using the skill. Examples are
   (a) while being disciplined,
   (b) while receiving instructions,
   (c) when sharing personal thoughts with friends.

6. Homework--
   (a) Pupils carry an index card with the skill steps written on it,
   (b) they practice the skill in interaction with a teacher and a friend,
   (c) they record reactions or results.

The above format includes the teaching methods of modeling, demonstration, role playing, didactic instruction, feedback, experiencing directly and self-monitoring. The
rationale behind the inclusion of each skill and a brief overview of the content of each skill follows.

**Physically Attending**

One of the most frequently cited characteristics of learning disabled children is their inattention to task (Bryan, 1978; Hallahan, Marshall & Lloyd, 1981), yet attending has been identified as a prerequisite to learning (Carkhuff, 1972; Gibson & Rader, 1979; Rogers, 1969). Learners must expose themselves to sensory information before perception can begin. For the above two reasons, physical attending was singled out and taught as a skill before the other skills and information were addressed.

**What is it?**— Physically attending is using your body to show you are paying attention.

**Why do it?** — If you physically attend, you are more likely to see and hear what you need to in order to learn and get along.

(a) It shows friends you are interested in what they are saying.

(b) It makes the teacher want to help you more/criticize you less.

**When do it?**— When being disciplined, being taught, receiving instructions, you should attend physically.

**How do it?** — (a) Square your shoulders to the other person.
(b) Face the other person.
(c) Look at him or her.
(d) Lean forward.

Psychologically Attending

The abilities to anticipate other peoples' reactions and read their moods are important aspects of interpersonal relationships. Descriptions of learning disabled childrens' social behavior cite an apparent nonresponsiveness on their part to these aspects of others' reactions to them. For this reason it was decided to include instruction in this area. Psychological attending addresses the observation of feeling states in other people along with strict attention to their verbal message.

What is it? -- Psychologically attending is tuning in to the person or thing you are supposed to be learning from or being with.

Why do it? -- It helps you
(a) to understand whether the teacher is in a good mood or not,
(b) to understand if a friend is in a good mood or not,
(c) to get the work done,
(d) to show consideration.

When do it? -- During seat work, lessons, conversations with friends, or watching others, you should attend psychologically.
How do it?--
(a) Physically attend.
(b) Avoid distractions.
(c) Observe feeling states of the other person.
(d) Listen to the words spoken.

Greeting
A simple act which tells others you notice them and are willing to extend yourself to them is that of greetings.
Learning disabled children have been characterized as inactive, passive and nonassertive in their interpersonal relationships (Bryan, 1978; Wong & Wong, 1980). The inclusion of greeting as a skill in the classroom social skills program gave the children a simple initiative skill. In this way, the children had a more assertive mental set toward social interactions than they had previously.

What is it?—Greeting is communicating respect, interest and attentiveness to another person by acknowledging their presence.

Why do it?—(a) It makes others feel welcome and comfortable.
(b) It shows others you are self-confident.
(c) It helps you make friends.
(d) It makes the teacher notice you.

When do it?—When you first see the teacher or a friend each day, you should greet them.
How do it?—
(a) Make eye contact.
(b) Maintain eye contact.
(c) Say hello or good morning.
(d) Use the person's name.
(e) Smile if it is appropriate.

Making Polite Requests

In Bryan (1978), it was noted that learning disabled children's communications were abrupt and often said with a lack of regard for the other person's feelings. One common context for social interaction in classrooms is requesting objects (pencils), information or permission. Because this situation occurs frequently with both teachers and peers, it was included in the training program.

What is it?—Making polite requests is asking goal-related questions.

Why do it?—(a) It helps you find out what you need to know.
(b) It shows interest.
(c) It keeps you from making mistakes.
(d) It keeps you from having to do things over.

When do it?—You should make polite requests
(a) any time you need permission,
(b) any time you need more information,
(c) any time you want to borrow something.
How do it?— (a) Pay attention. (Attend physically and psychologically).
(b) Wait for the teacher or other pupil to notice you.
(c) Maintain eye contact.
(d) State clearly what you want.
(e) Say please and thank you.

Complying with Requests

Teachers ask children to do many things ranging from getting materials necessary for the lesson to ceasing disruptive behavior. Control over classroom behavior is highly valued by many teachers (Cooper & Baron, 1980). Consequently, compliance by learning disabled children may be important in helping teachers see them more favorably. Compliance with requests is important in peer interactions, too. One of Bryan's findings indicated that learning disabled children did not seem to know when to stop teasing, for example, and carried on too long making other children angry (Bryan, Wheeler, Felcan & Henek, 1976). Therefore, complying with requests was included in the training program.

What is it?— Complying with requests is correctly carrying out instructions given by another person.

Why do it? — (a) It helps you stay out of trouble.
(b) It shows others you are responsible.
(c) It keeps others from bugging you.
(d) It helps others form a positive attitude toward you.
(e) It shows you are cooperative.

When do it? — You should comply with requests
(a) when the teacher asks you to stop doing something,
(b) when a friend asks you to stop bugging him or her,
(c) when the teacher gives directions.

How do it? — (a) Stop what you are doing.
(b) Pay attention.
(c) Listen to the instructions.
(d) Follow instructions.
(e) Verbally acknowledge by saying o.k.

The Trainer

The trainer for the experimental group has been a practicing trainer in the HRD model of interpersonal and social skills for 10 years. He holds a master's degree in Human Relations and Community Affairs and received his training under the direction of Robert R. Carkhuff, Ph.D., Director, Carkhuff Institutes of Technology, Amherst, Massachusetts.

The Observer and Raters

The classroom observer for the study was the researcher. This individual has established intra- and interrater
reliability coefficients of $r = .95$ with expert raters using the CRM Behavior Rating Scale. The observer was trained at the University of Alberta's Center for the Study of Teaching in the Brophy-Good Dyadic Interaction Coding System and established levels of interrater reliability above $r = .85$ prior to the beginning of the data collection. A team of two raters was employed to rate the audio tapes of the teachers on the Carkhuff empathy scale. The two raters had intra- and interrater reliability coefficients of $r = .92$.

To control for bias of the behavioral ratings during both the pretest and the posttest phases, the observer was kept uninformed as to which subjects were in the control or experimental groups. The observer did not attend nor participate in any of the sessions during the treatment phase.

Measuring Instruments

Following are descriptions of the measuring instruments used in this study. The scores of these instruments served as the nine dependent variables.

The instruments used to evaluate study subjects' social competence were the CRM Basic Skills Test (CRM-T) and CRM Behavior Rating Scales (CRM-B) developed by Carkhuff Associates for the Texas Youth Council (1977). They were developed as a set of practical measures with which to diagnose youth, set treatment goals, and evaluate the success of the treatment program. The CRM Basic Skills Test is designed to be
individually administered and yields a skill profile reflecting pass or fail status on each skill. The skills are broken down into skill steps and each of these steps is rated 0 for fail and 1 for pass. The numbers are then totalled for the CRM-T score. The CRM Behavior Rating Scales were designed as observation tools for evaluating the extent to which pupils are applying the skills in specified settings. Ratings of each skill are made on a five-point scale from 1 = not able to do this at all, to 5 = able to do this extremely well with 3 = able to do this at a minimal level.

A frequently used sociometric test is the Peer Acceptance Scale which was developed as a modified version of the Rucker adaptation of the Ohio Social Acceptance Scale. It is a forced-choice instrument on which every member of the group rates every other member by circling the appropriate number (1, 2 or 3) on a line adjacent to the name of each child in the group. This instrument was initially used in a study on 1,234 nonretarded and 65 retarded students in urban and suburban schools. No test-retest reliability is reported; however, the stability of sociometric scores over time has been well documented (Hartup, 1970; Miller & Maruyama, 1976). Pepinsky has stated that "validity is intrinsic to sociometric data because the test results are the choice behavior purported to be measured" (Pepinski, 1949, p.40). The authors, citing Gronlund (1959) and Hartup (1970), suggest that only same sex ratings be used in analyzing peer
popularity because studies indicate that children prefer the same sex to the opposite sex throughout childhood and into adolescence (Bruininks, Rynders & Gross, 1974).

The Brophy-Good Dyadic Interaction Coding System was used in this study to examine the expectancy phenomenon. It is a multi-category, low inference observation tool designed to record behaviors of students and teachers in interaction with each other (Brophy & Good, 1969). The instrument is used as a point sampling technique for recording shifts in speaker and message. Categories include (a) response opportunities afforded students, (b) level of question posed, (c) student's response, (d) teacher's feedback reaction and (e) behavior related contacts. Each of these categories is further subdivided (see Appendix F).

The score for teacher-initiated contacts in the present research was comprised of the total number of teacher to pupil contacts made publicly (e.g. calling on a pupil to answer a question) and privately (e.g. stopping at a pupil's desk during seatwork). The score reflecting quality of teacher contacts (QTC) was derived from specific category frequency totals according to the following formula:

\[
QTC = \frac{\text{(incorrect answer + "no response" followed by sustaining feedback) + (correct answers followed by affirmation or praise)}}{\text{(total incorrect answers + "no response") + (total correct answers)}}
\]
Reliability of this instrument is determined by calculating interrater reliability coefficients according to the following formula:

\[ r = \frac{\text{# of agreements} - \text{# of disagreements}}{\text{total # of agreements and disagreements}} \]

Reliability coefficients between \( r = .85 \) and \( .97 \) are reported for a variety of studies using the instrument. The scale can be used live and by one rater.

The *Projected Academic Performance Scale* was developed by Chapman, Boersma and Maguire (1979) to study elementary school children's self-expectations for academic success. To get at interrelations of adult expectancy effects on children's learning, the authors developed companion instruments for teachers and parents.

The *Projected Academic Performance Scale - Teacher Version* requires teachers to rate their expectations for children's future academic performance in six subject areas (reading, spelling, writing, science, social studies and math) on a four point scale ranging from no future to definite success. The teachers rate the children twice, once reflecting their expectations for one year hence and once reflecting their expectations for several years in the future. These two sets of ratings are then summed and averaged to yield the full scale score.
The Nowicki-Strickland Locus of Control Scale for children provides a measure of generalized locus of control for elementary school children (Nowicki & Strickland, 1973). Means and standard deviations are provided by grade level for grades three through twelve. Test-retest reliabilities sampled six weeks apart for third-, seventh- and tenth-grades were $r = .63$, $r = .66$ and $r = .71$ respectively.

The Scale for the Communication of Empathy has been used extensively by Aspy in educational research (Aspy & Roebuck, 1974) to provide a measure of the level of facilitative interpersonal skills offered by the teacher. The scale can be used live or with audio tape recordings with equal reliability across methods. Interrater and intrarater reliability coefficients can be calculated. Pearson's correlation coefficients for longitudinal rate-rerate reliability across experienced rater crews yielded an $r = .91$, $p < .01$ (Roebuck, Aspy, Sadler and Willson, 1974).

Validity, the extent to which a test measures that which it purports to measure, has been established for the Carkhuff empathy scale through 15 years of research with the instrument (Carkhuff, 1972). In educational studies, teachers with higher ratings on the scale of empathy have students who achieve more, express greater satisfaction with school, are absent less often, pose fewer behavior problems and have higher self-concepts (Aspy & Roebuck, 1974). These researched relationships are a measure of construct validity.
Statistical Analysis of the Data

Data from the measuring instruments were tabulated to provide nine pretest and nine posttest scores on each subject. These scores were used to test Hypotheses 1 through 9. A one-way multivariate analysis of covariance was computed to statistically assess differences between groups with the pretest scores serving as the covariates. The analysis included two sets of three contrast: (a) race, group and race x group, and (b) SES, group and SES x group to determine the effects of race and socio-economic status on the dependent variables. A discriminant function analysis was carried out as a follow-up test to the MANCOVA to identify which of the dependent variables contributed to the significant multivariate F.

Hypotheses 10 and 11 were subjected to multiple regression analyses to determine if subject locus of control and teacher empathy were significant predictors of student social skills acquisition and application.
CHAPTER BIBLIOGRAPHY

Aspy, D. N. & Roebuck, F. N. Research summary: Effects of training in interpersonal skills. Interim Report No. 4, National Institutes of Health, Grant No. 5 PO1 MH 19871, 1974.


Pepinsky, P. N. The meaning of validity and reliability as applied to sociometric tests. Educational and Psychological Measurement, 1949, 9, 39-49.

Roebuck, F. N., Aspy, D. N., Sadler, L. L. & Willson, M. A. Maintaining reliability in a longitudinal study. Interim Report No. 1, National Institutes of Health, Grant No. 5 PO1 MH 19871, 1974.


CHAPTER IV

RESULTS

Analyses were performed to (a) assess treatment effects and (b) determine the predictive value of locus of control and teacher empathy on the acquisition and transfer of the treatment variables. A multivariate analysis of covariance and two multiple regression analyses were used respectively to perform these analyses. The hypotheses were tested in the null form.

Treatment group composition

Table 1 summarizes the demographic characteristics of the experimental and control groups. As can be seen from the table, the mean grade and mean age of both groups was the same, and the experimental and control groups contained the same ratio of males to females (2:3). The characteristics of race and socio-economic status were not matched when the group assignments were made and are in imbalance. A statistical procedure was used to determine the influence of these two characteristics on the treatment effect (see Tables 5 and 6).

Treatment Effects

A single factor multivariate analysis of covariance with nine dependent variables and nine covariates was performed on
Table 1
Summary of Demographic Characteristics of Treatment Groups

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Nonwhite</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>SES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Middle</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>X</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>11-6</td>
<td>11-6</td>
</tr>
</tbody>
</table>

The multivariate procedure was selected over nine separate univariate F tests as the more correct procedure for two reasons. First, there exists a high probability that the correlations among the dependent variables are other than
zero thus increasing the probability of Type I error. The second reason for performing a multivariate analysis relates to the probability of finding a significant difference by chance alone due to the number of dependent variables. The multivariate analysis of covariance permits a test of the possible interactions among the dependent variables that cannot be evaluated testing each variable one at a time. The covariance procedure was chosen to control statistically any initial differences in the pretest means which might confound posttest differences between the two groups.

The nine dependent variables in this study were the posttest scores derived from (a) the Criterion Referenced Measures Basic Skills Test (CRM-T); the Criterion Referenced Measures Behavior Rating Scales (CRM-B) subscales (b) positive peer contacts (+PEER), (c) social skills to peers (SSP), and (d) social skills to teachers (SST); (e) the Peer Acceptance Scale (PAS); the Brophy-Good Dyadic Interaction Coding System categories measuring (f) teacher initiated contacts (TIC) and (g) quality of teacher-student contacts (QTC); (h) the Projected Academic Performance Scale - Teacher Version (PAPS); and (i) the Nowicki-Strickland Locus of Control Scale (LOC). The pretest measures served as the covariates. Table 2 summarizes the pretest data for the experimental and control groups, reporting means and standard deviations for the nine dependent variables.

The multivariate analysis of covariance is based on the assumption of equal dispersion matrices. Because of the
Table 2

Group Means and Standard Deviations for Pretest Measures on the Nine Dependent Variables

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Range</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>CRM-T</td>
<td>0-15</td>
<td>6.95</td>
<td>2.78</td>
</tr>
<tr>
<td>CRM-B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+PEER</td>
<td>freq.</td>
<td>.50</td>
<td>.47</td>
</tr>
<tr>
<td>SSP</td>
<td>1.0-5.0</td>
<td>2.62</td>
<td>.45</td>
</tr>
<tr>
<td>SST</td>
<td>1.0-5.0</td>
<td>1.89</td>
<td>.24</td>
</tr>
<tr>
<td>PAS</td>
<td>1.0-3.0</td>
<td>1.83</td>
<td>.40</td>
</tr>
<tr>
<td>Brophy-Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIC</td>
<td>freq.</td>
<td>7.55</td>
<td>4.63</td>
</tr>
<tr>
<td>QTC</td>
<td>%</td>
<td>.41</td>
<td>.38</td>
</tr>
<tr>
<td>PAPS</td>
<td>1.0-4.0</td>
<td>2.22</td>
<td>.63</td>
</tr>
<tr>
<td>LOC</td>
<td>0-40</td>
<td>21.05</td>
<td>3.63</td>
</tr>
</tbody>
</table>

relatively small sample size in this study, this assumption was tested. The hypothesis of homogeneous dispersions was supported by the data ($F = 1.244$, $df = 171/4432$, $p = .02$).

Using the Wilks' Lambda criterion, results of the multivariate ANCOVA indicate that there is a significant multivariate effect attributable to the treatment ($F = 10.062$, $df = 9/21$, $p < .001$). Table 3 displays the posttest means and adjusted posttest means for the experimental and control groups on the nine dependent variables.
Table 3

Posttest Means and Adjusted Posttest Means of the Nine Dependent Variables

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Posttest $\bar{X}$</th>
<th>Adjusted Posttest $\bar{X}$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exper.</td>
<td>Control</td>
</tr>
<tr>
<td>CRM-T</td>
<td>12.65</td>
<td>7.35</td>
</tr>
<tr>
<td>CRM-B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+PEER</td>
<td>1.60</td>
<td>.75</td>
</tr>
<tr>
<td>SSP</td>
<td>2.97</td>
<td>2.77</td>
</tr>
<tr>
<td>SST</td>
<td>2.40</td>
<td>2.02</td>
</tr>
<tr>
<td>PAS</td>
<td>1.88</td>
<td>1.90</td>
</tr>
<tr>
<td>Brophy-Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIC</td>
<td>7.75</td>
<td>9.30</td>
</tr>
<tr>
<td>QTC</td>
<td>.49</td>
<td>.45</td>
</tr>
<tr>
<td>PAPS</td>
<td>2.20</td>
<td>2.17</td>
</tr>
<tr>
<td>LOC</td>
<td>19.40</td>
<td>19.05</td>
</tr>
</tbody>
</table>

To determine which dependent variables contributed to the rejection of the null hypothesis, a discriminant function analysis was applied to the data. Standard discriminant function coefficients are listed in Table 4. To identify the significant variables, several authoritative texts indicate the research simply compare the relative sizes of the standard discriminant function coefficients disregarding the plus or minus signs (Huck, Cormier & Bounds, 1974). Because of the order of entry into the statistical model, all standard
discriminant function coefficients representing the experimental group contribution to the formula are preceded by a minus sign. The standardized discriminant function coefficients listed in Table 4 indicate five large contributors to the significant multivariate F: Criterion Referenced Measures test (CRM-T); Criterion Referenced Measures behavior rating subscales (CRM-B) (a) positive peer contacts (+PEER), (b) positive social contacts (SSP), (c) social status (SST), (d) peer approval (PAS), (e) and Banker's Good Behavior Scale (Brophy-Good).

Table 4
Multivariate Analysis of Covariance with Nine Dependent Variables

<table>
<thead>
<tr>
<th>Source</th>
<th>Variable</th>
<th>MS Between groups</th>
<th>Uni-</th>
<th>p</th>
<th>SDFC*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exper. vs.</td>
<td>CRM-T</td>
<td>217.590</td>
<td>76.859</td>
<td>.001</td>
<td>-.929</td>
</tr>
<tr>
<td>Control</td>
<td>CRM-B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+PEER</td>
<td>2.535</td>
<td>1.028</td>
<td>.32</td>
<td>-.385</td>
</tr>
<tr>
<td></td>
<td>SSP</td>
<td>.245</td>
<td>4.150</td>
<td>.05</td>
<td>-.425</td>
</tr>
<tr>
<td></td>
<td>SST</td>
<td>1.160</td>
<td>15.702</td>
<td>.001</td>
<td>-.388</td>
</tr>
<tr>
<td></td>
<td>PAS</td>
<td>.040</td>
<td>.648</td>
<td>.43</td>
<td>.214</td>
</tr>
<tr>
<td>Brophy-Good</td>
<td>TIC</td>
<td>81.256</td>
<td>3.615</td>
<td>.07</td>
<td>.459</td>
</tr>
<tr>
<td></td>
<td>QTC</td>
<td>.004</td>
<td>.038</td>
<td>.85</td>
<td>-.247</td>
</tr>
<tr>
<td></td>
<td>PAPS</td>
<td>.135</td>
<td>.561</td>
<td>.46</td>
<td>-.085</td>
</tr>
<tr>
<td></td>
<td>LOC</td>
<td>.707</td>
<td>.069</td>
<td>.79</td>
<td>-.326</td>
</tr>
</tbody>
</table>

*SDFC: Standardized Discriminant Function Coefficients.
Multivariate F = 10.062, df = 9/21, p < .001.
social skills to peers (SSP) and (c) social skills to teachers (SST); and Brophy-Good teacher-initiated contacts (TIC). Clearly, the CRM-T is the greatest contributor to the significant multivariate ANCOVA finding (SDFC = -.929). The remaining four dependent variables, (peer acceptance, Brophy-Good quality of teacher contacts, projected academic performance and locus of control), have standardized discriminant function coefficients reflecting minimal relative contributions to the significant main effect.

An examination of the posttest and adjusted posttest means is required to clarify one of the relationships identified by the standardized discriminant function coefficients. As can be seen from Table 3, the control group made the larger gain on the Brophy-Good teacher-initiated contacts variable with an adjusted posttest mean of -15.36 as compared to the experimental group's adjusted posttest mean of -18.45. So, while this variable makes a relatively large contribution to the discrimination of the control and experimental groups (TIC = .459 as compared to PAS = .214, QTC = -.247, PAPS = -.085, and LOC = -.326), it does so in a direction opposite to that which was hypothesized.

Finn (1974) cautions that care must be exercised in interpreting the standardized discriminant function coefficients as they reflect not merely the relative contribution of the dependent variables to between-group discrimination, but also their interdependence. He goes on to state that
"...either the univariate or step-down test statistics should be used for locating the sources of group discrimination" (p. 361). Table 4 presents the univariate F tests for each dependent variable adjusted for the nine covariates. Examination of the significance of these tests reveals the CRM-T to be significant at $p < .001$; and the CRM-B subscales of (1) social skills to peers (SSP) to be significant at $p = .05$ and (2) social skills to teachers (SST) to be significant at $p < .001$. Evaluation of Hypotheses 1 through 9 takes both these follow-up tests into account.

**Criterion Referenced Measures Basic Skills Test**

Hypothesis 1 states: The experimental group will demonstrate a significantly higher adjusted posttest mean on the Criterion Referenced Measures Basic Skills Test than will the control group. The discriminant function analysis follow-up test to the multivariate ANCOVA resulted in a standardized discriminant function coefficient (SDFC) of -.929 suggesting that this variable was the major contributor to the significant main effect. The univariate F test revealed an F value of 76.859, significant at $p < .001$. This result indicates that the experimental group scored significantly higher than the control group on the CRM-T posttest. Thus the research hypothesis is supported and the conclusion drawn is that the social skills training did increase the pupils' social skills under the test conditions of the Criterion Referenced Measures test.
Criterion Referenced Measures Behavior Rating Scales

Hypothesis 2 states: The experimental group will demonstrate a significantly higher adjusted posttest mean number of positive peer contacts measured by the CRM Behavior Rating Scale than will the control group. The discriminant function analysis resulted in a SDFC of -.385 indicating that this variable made a relatively large contribution to the significant main effect. However, the univariate F test revealed an F value of 1.028, significant at p = .32. This result indicates that the experimental group did not make significantly more positive peer contacts than did the control group. These discrepant findings may be a function of the method of calculating relationships in the different statistical techniques. An examination of Table 2 reveals that the standard deviation of positive peer contacts (+PEER) is as great as the mean. Since the F statistic is a ratio of squared standard deviations, the large standard deviation on this variable would necessitate a greater difference in means than would be the case with a normal distribution in order to reach statistical significance. Taking both statistical findings into consideration, the research hypothesis is tenuously supported and the conclusion drawn is that the social skills training may have increased the frequency of positive peer contacts made by the experimental group pupils. Future research will be necessary to confirm or deny the relationship.
Hypothesis 3 states: The experimental group will demonstrate a significantly higher adjusted posttest mean social skill level during in-class interactions with peers as measured by the CRM Behavior Rating Scale than will the control group. A standard discriminant function coefficient of -.425 was obtained for the experimental group indicating a significantly higher score than the control group ($F = 4.150$, $p = .05$). The research hypothesis is supported and the conclusion drawn is that the social skills training did increase experimental pupils' use of social skills during classroom interactions with peers.

Hypothesis 4 states: The experimental group will demonstrate a significantly higher adjusted posttest mean social skill level during in-class interactions with teachers as measured by the CRM Behavior Rating Scale than will the control group. For this variable the SDFC was -.388 and the univariate $F$ was significant at $p < .001$. This result supports the research hypothesis and indicates that the treatment was effective in developing social skills in the experimental group pupils which were then applied to classroom interactions with teachers.

Peer Acceptance

Hypothesis 5 states: The experimental group will demonstrate higher adjusted posttest mean scores on the Peer Acceptance Scale than will the control group. The discriminant function analysis yielded a SDFC of .214 ($F = .648$, $p = .42$).
Examination of Table 3 shows a slightly greater adjusted posttest mean for the control than for the experimental group but to a nonsignificant degree. Thus the research hypothesis is not supported with the conclusion that the social skills training did not significantly increase peer acceptance as measured on the Peer Acceptance Scale.

Brophy-Good Dyadic Interaction Coding System

Hypothesis 6 states: The experimental group will demonstrate significantly higher adjusted posttest mean scores reflecting the quantity of teacher-initiated contacts measured by the Brophy-Good Dyadic Interaction Coding System than will the control group. A standard discriminant function coefficient of .459, and a univariate $F$ of 3.605, $p < .07$, was obtained for the control group. The research hypothesis is not supported and the conclusion drawn is that the social skills training did not influence teachers to make more academically related contacts to the experimental group pupils.

Hypothesis 7 states: The experimental group will demonstrate significantly higher adjusted posttest mean scores reflecting the quality of teacher-student interactions measured by the Brophy-Good Dyadic Interaction Coding System than will the control group. A SDFC of -.249 ($F = .038$, $p = .85$) was obtained for the experimental group. The research hypothesis was not supported and the conclusion drawn is that
the social skills training did not increase the quality of teacher-student interactions greater than did no training.

Projected Academic Performance

Hypothesis 8 states: The experimental group will demonstrate significantly higher adjusted posttest mean scores on the Projected Academic Performance Scale – Teacher Version than will the control group. The discriminant function analysis resulted in a SDFC of -.085 (F = .561, p = .46). This result indicates that teachers did not make more positive projections for the future academic performance of the experimental group pupils as compared to the control group pupils. Thus, the research hypothesis was not supported.

Locus of Control

Hypothesis 9 states: The experimental group will demonstrate significantly lower adjusted posttest mean scores reflecting more internal orientation on the Nowicki-Strickland Locus of Control Scale than will the control group. The discriminant function analysis resulted in a SDFC of -.326. The univariate F test resulted in an F of .069, significant at p = .79. The research hypothesis was not supported by this finding and the conclusion drawn is that the experimental group did not demonstrate a more internal orientation as a result of the social skills training than did the control group.

In summary, the results of the statistical analyses supported three of the nine research hypotheses. A fourth
hypothesis appears to be tenuously supported. It may be con-
clued that as a result of the social skills training, pupils
were able to learn the social skills (CRM-T, p < .001) and
apply the skills during classroom interactions with teachers
(SST, p < .001) and peers (SSP, p = .05) to a significant
degree. It may also be concluded that the social skills
training had a major effect on the pupils' positive contacts
to their peers. The certainty of this effect cannot be
ascertained from the data.

Of the remaining five hypotheses, it may be concluded
that the social skills training did not demonstrate a signi-
ficant effect. Specifically, the experimental group did not
develop a more internal locus of control orientation, nor
improve their sociometric status in the classroom. Teachers'
expectations for these pupils were also not significantly
affected in terms of quantity or quality of teacher-student
interactions or projected academic performance. On one vari-
able, quantity of teacher contacts, the posttest and adjusted
posttest means indicated greater improvement for the control
group, although the significance did not reach the .05 level.

Effects of race and socio-economic status

The demographic characteristics presented in Table 1
show that the control and experimental groups were not bal-
anced with respect to race or socio-economic status (SES).
Consequently, the effects of these two characteristics on the
data was analyzed. Race and SES were not entered into the multivariate ANCOVA as covariates, but rather were tested as contrasts. The latter procedure was selected for two reasons: (a) Race and SES data were nominal whereas all other data were interval. Combining these two types of data is not permissible within the same statistical calculation (Harley, 1981); and (b) the inclusion of the race and SES variables as covariates would have extended the allowable number of variables for the N of the study to its limit and this was deemed unwise.

The multivariate ANCOVA procedure allows contrasts to specify particular combinations of group means to be compared. A one-way MANCOVA with three contrasts was run twice; once for race, group and race by group and once for SES, group and SES by group. Results of the analysis are presented in Tables 5 and 6 respectively.

Table 5 reports that when the variable of race was the group determinant, group-mean differences reached a .08 level of significance ($F = 1.965, p = .08$). When treatment condition was the group determinant, a .001 level of significance was obtained. This is, of course, the original MANCOVA main effect. When the race by group interaction was tested, the results yielded were $F = 1.132, p = .37$. It can be concluded from this data that the variable race did not influence the main effects group-mean differences to any appreciable degree.
Table 5

Summary of One-way MANCOVA Split to
Three Contrasts: Race, Group,
and Race by Group

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>9/28</td>
<td>1.965</td>
<td>.08</td>
</tr>
<tr>
<td>Group</td>
<td>9/28</td>
<td>9.923</td>
<td>.001</td>
</tr>
<tr>
<td>Race x Group</td>
<td>9/28</td>
<td>1.132</td>
<td>.37</td>
</tr>
</tbody>
</table>

Table 6 reports that when the variable of SES was contrasted as the group determinant, the $F$ was 1.116, $p = .38$. This result indicates no significant differences in dependent variable scores on the basis of socio-economic status. Group, once again, was the significant discriminator ($p < .001$). The SES by group interaction contrast resulted in $F = 1.934$, $p = .09$. This effect cannot be considered significant since SES alone only reached $p = .38$.

Table 6

Summary of One-way MANCOVA Split to
Three Contrasts: SES, Group,
and SES by Group

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>9/28</td>
<td>1.116</td>
<td>.38</td>
</tr>
<tr>
<td>Group</td>
<td>9/28</td>
<td>8.578</td>
<td>.001</td>
</tr>
<tr>
<td>SES x Group</td>
<td>9/28</td>
<td>1.934</td>
<td>.09</td>
</tr>
</tbody>
</table>
In summary, the data analysis shows that neither race nor SES was a variable on which the dependent variables could be discriminated. It was therefore concluded not to enter race or SES as a covariate into the multivariate model.

Prediction of Success by Pupil Locus of Control and Teacher Empathy

Two multiple regression analyses were computed to determine the relationship between (a) pupil pretest locus of control and posttest measures of social skills functioning, and (b) teacher empathy and posttest measures of social skill functioning. Each regression equation included the five posttest mean scores for the (a) CRM-T; CRM-B subscales of (b) positive peer contacts (+PEER), (c) social skills with peers (SSP) and (d) social skills with teachers (SST); and (e) peer acceptance.

Locus of Control

Results of the regression analysis for locus of control are presented in Table 7. The multiple $R$ for the total equation was .532 which accounted for about 28% of the variance in the criterion variable. Examination of the beta weights shows CRM-T and CRM-B social skills to teachers (SST) to be the best relative predictors. Only SST reached a .05 level of significance on the $F$ test.

Hypothesis 10 states: There will be a significant positive relationship between scores reflecting locus of control
Table 7

Multiple Correlation, Beta Weights, F Ratios and Significance for Five Predictors of Pretest Locus of Control

<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R Square</th>
<th>Beta</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM-T</td>
<td>.266</td>
<td>.071</td>
<td>.417</td>
<td>2.091</td>
<td>NS</td>
</tr>
<tr>
<td>CRM-B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+PEER</td>
<td>.270</td>
<td>.073</td>
<td>.060</td>
<td>.048</td>
<td>NS</td>
</tr>
<tr>
<td>SSP</td>
<td>.343</td>
<td>.117</td>
<td>-.192</td>
<td>.333</td>
<td>NS</td>
</tr>
<tr>
<td>SST</td>
<td>.532</td>
<td>.283</td>
<td>-.404</td>
<td>3.087</td>
<td>.05</td>
</tr>
<tr>
<td>PAS</td>
<td>.354</td>
<td>.125</td>
<td>-.130</td>
<td>.306</td>
<td>NS</td>
</tr>
</tbody>
</table>

DF = 5/14; Multiple R = .532 for the total equation.

and posttest mean level of functioning on the CRM-B for the experimental group. Table 7 reveals the beta weights and F ratios for the three subscales of the CRM-B scales. Social skills toward the teacher (SST) did show a significant positive relationship with locus of control (p = .05). Neither social skills to peers (SSP) nor positive peer contacts (+PEER) demonstrated a significant relationship to locus of control. Therefore, the research hypothesis is only partially supported. The conclusion drawn is that locus of control is highly positively correlated with using learned social skills with teachers.

Teacher empathy

Results of the regression analysis for teacher empathy are presented in Table 8. The multiple R for the total equation
Table 8

Multiple Correlation, Beta Weights, F Ratios and Significance for Five Predictors of Teacher Empathy

<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R Square</th>
<th>Beta</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM-T</td>
<td>.046</td>
<td>.002</td>
<td>-.035</td>
<td>.011</td>
<td>NS</td>
</tr>
<tr>
<td>CRM-B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+PEER</td>
<td>.107</td>
<td>.011</td>
<td>-.153</td>
<td>.231</td>
<td>NS</td>
</tr>
<tr>
<td>SSP</td>
<td>.118</td>
<td>.014</td>
<td>.103</td>
<td>.072</td>
<td>NS</td>
</tr>
<tr>
<td>SST</td>
<td>.238</td>
<td>.056</td>
<td>.131</td>
<td>.246</td>
<td>NS</td>
</tr>
<tr>
<td>PAS</td>
<td>.200</td>
<td>.040</td>
<td>-.154</td>
<td>.324</td>
<td>NS</td>
</tr>
</tbody>
</table>

\(DF = 5/14; \text{ Multiple } R = .238 \text{ for the total equation.}\)

was .238 which accounted for 5% of the variance in the criterion variable. Examination of the beta weights shows positive peer contacts and peer acceptance to be the best relative predictors in relation to teacher empathy. It should be noted, however, that none of the F ratios reached the .05 level of significance.

Hypothesis 11 states: There will be a significant positive relationship between teachers' mean empathy level as measured by Carkhuff's Scale for the Communication of Empathy and posttest mean level of functioning on the CRM Behavior Rating Scale for the experimental group. Table 8 shows the beta weights and F ratios for the three subscales of the CRM-B. None of the three measures demonstrated a
significant relationship with teacher empathy. The research hypothesis is not supported and the conclusion drawn is that the measures of empathy of the teachers in this study was not highly correlated with the use of learned social skills.
CHAPTER BIBLIOGRAPHY


Harley, D. Personal communication, August 17, 1981.

CHAPTER V

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Educators and personality theorists recognize that the development of a repertoire of interpersonal skills enabling one to interact successfully with others is critically important. Yet, research in the last five years has supported the observation that children with learning disabilities demonstrate poor social relationships with both teachers and peers. Previous research has been primarily descriptive focusing on the language and social characteristics of LD children and teacher and peer reactions to them. Little research has been directed toward determining whether social skills training procedures could be effective in improving LD children's social relationships. This possibility was the primary focus of the present study. A pretest-posttest control group design comparing the Human Resource Development (HRD) model of classroom social skills training to no treatment was employed.

The results of the study indicate that the HRD social skills training led to significant increases in selected measures of social skill functioning. The data demonstrate that at the conclusion of the study the experimental group showed significant improvements on three of the four component measures of social skill functioning (performance on
the test of skills, level of skill used in classroom interactions with peers and level of skill used in classroom interactions with teachers). Positive peer contacts, the fourth component of social skill functioning, made a large contribution to the significant multivariate finding but the multivariate level of significance of the relationship could not be determined. These four measures comprized the primary indexes of the treatment effect.

Of the five measures used to assess secondary effects (i.e., effects on teachers and peers), one expectancy measure, teacher-initiated contacts, showed an improvement for the control group significant at \( p < .07 \). Peer status, two expectation measures (quality of teacher-student interactions and projected academic performance) and pupil locus of control were not significantly affected.

Specifically, the results of the statistical analyses for the 11 hypotheses are as follows.

1. HRD classroom social skills training resulted in a significant gain for the experimental group in the acquisition of social skills.
2. The analysis of group data on positive peer contacts resulted in a gain for the experimental group.
3. The analysis of group data on social skills used in interaction with peers resulted in a significant gain for the experimental group.
4. The analysis of group data on social skills used in interaction with teachers resulted in a significant gain for the experimental group.

5. The analysis of group data on peer status resulted in no significant difference between the groups.

6. The analysis of the group data on teacher-initiated contacts resulted in a gain at the .07 level of significance for the control group.

7. The analysis of group data on quality of teacher-student interactions resulted in no significant difference between the groups.

8. The analysis of group data on projected academic performance resulted in no significant difference between the groups.

9. The analysis of group data on internal locus of control resulted in no significant difference between the groups.

10. The analysis of the group data revealed no significant relationship between locus of control and measures of applied social skills.

11. The analysis of the group data revealed no significant relationship between teacher empathy and measures of applied social skills.

These results provide support for the use of the HRD model of classroom social skills training with low peer status LA children. The findings are especially encouraging since
the treatment was of short duration (one hour per day for six
days) and can easily be carried out in the resource room
situation with groups of eight to ten children. Thus, the
program appears to be effective in terms of time and energy
expenditure.

Conclusions

In regard to Hypotheses 1, 2, 3 and 4, the data analysis
revealed that LA children could learn the social skills in
the six hours allotted and transfer the skills to the class-
room significantly improving their interactions with teachers
and peers. Neither teachers nor peers were instructed in any
way as to (a) specifically what the subjects were learning or
(b) how to be supportive. In other words, the demonstrated
improvements rested entirely on the initiative of the sub-
ject pupils. In light of the research findings on LD chil-
dren's learned helplessness, passivity and external locus of
control, these results are impressive.

The foundation of the HRD social skills training program
resting on attending skills is thought by the researcher to
be critical to the successful results. The simplicity of
Carl Rogers' statement "Without attention there can be no
communication", or more specifically, no learning, does not
diminish its profundity. The pupils increased their eye
contact while speaking and being spoken to; used more polite
syntactical constructions such as May I; stayed on task for
longer periods of time; and complied with requests more
promptly and cooperatively. By and large the pupils were unable to make greetings to their teachers, although this may have been partly a result of lack of opportunity since the teachers were frequently unavailable to the pupils before the beginning of class. These changed behaviors attest to the effectiveness of the HRD model in teaching attending skills to LD children.

The learning and transfer of the skills by the LA pupils is not only statistically significant but practically meaningful as well. At the pretest, in addition to receiving low peer status scores, most of the children in the study displayed very low levels of social skills. They tended to sneer and snap nasty remarks both to teachers and peers; they habitually looked down or away when speaking and being spoken to; and they tended to laugh at other pupils' embarrassments. This was not the type of behavior exhibited by the socially popular pupils. The consequent improvement in the subjects' social interactions demonstrates a meaningful shift in a positive direction. This behavior change after the relatively short treatment and with no external support system to the child has encouraging implications for remedial practices with LD children in both social and academic areas.

The analysis of the data regarding Hypothesis 5 revealed that peer acceptance was not significantly affected by the HRD training. Peer status is frequently reported as a highly stable measure. Given the stability of this factor, it
is not surprising that a study of short duration did not reflect a change in peer status. The lack of improved peer acceptance could also be a reflection of the lack of change in teacher behavior toward the experimental group students. Several studies suggest that peer likes and dislikes are influenced by teacher likes and dislikes (Garrett & Crump, 1980). They conclude that the teacher is the mediating influence of LD children's peer status. They believe that it is not the label that influences a child's peer acceptance, but rather the teacher who is influenced by the label and she or he, in turn, influences the other children by such techniques as group punishment and using well-behaved and high achieving pupils as models thereby teaching the whole class who is acceptable and who is not. Likewise, Withall and Lewis (1963) conclude from their sociometric studies that students' relationships with each other seem determined by teacher behavior factors.

The secondary measures of teacher expectation and locus of control were not significantly affected. Hypotheses 6, 7 and 8 dealt with the relationships between improved social skill functioning and its possible affect on teacher behavior toward LD pupils. Although the research literature suggests that teachers' expectations for pupils' academic performance is bidirectional, and that affective and cognitive factors influence each other, this study was unable to demonstrate an effect on the teachers' expectations for the pupils. The
anticipated relationship was based on the studies that indicate that teachers and other adults have a generalized dislike for learning disabled students; that learning disabled students receive low projected academic performance scores; and that teachers interact with LD children so as to communicate low expectations for them (Bryan, 1978; Chapman, 1979; Chapman, Larsen & Parker, 1979). Because social behavior influences teacher and peer acceptance of a child, it was hypothesized that an improvement in a pupil's social functioning might trigger a more favorable attitude toward the child and consequently alter the teachers' expectations for him or her in academic matters. This relationship was not borne out by the data during the five week period of the study. It should be emphasized, however, that the length of the study was short for the aforementioned types of attitude and behavior changes to occur, especially in light of the discouragingly low levels of empathy exhibited by the study teachers.

The increase in teacher-initiated contacts to the control pupils, significant at $p < .07$, suggests that the teachers in the study may have been making an effort to spend more time teaching these pupils than had previously been the case. The teacher behaviors reflected by this measure are (a) calling on pupils to give answers in public classroom interactions and (b) giving aid to pupils in private interactions (e.g., stopping by desks during seatwork). This
finding may be due to the extreme variability of the scores and/or to the high number of zero scores for many of the pupils (see Table 2). It is also possible that the finding is spurious.

Projected academic performance failed to shift significantly, indicating that teachers' expectations for the future academic performance of the study pupils were unaffected. The Brophy-Good dyadic interaction coding results for quality of teacher-student interaction also failed to show significant gains for the experimental group. Thus, as a result of the training, teachers did not ask higher level thinking questions or sustain question and answer interactions by rephrasing, clueing or asking another question to any significant degree with pupils in the experimental group.

There are several possible reasons why the expectancy measures were not significantly influenced. First, it may be that the change in the pupils' social behavior toward the teachers was not potent enough to induce them to alter their interaction patterns with the children or their expectations for them. The time span of the study may have been too short for this sort of change or the frequency and intensity of the improved social skill interactions may simply not have had an impressive affect on the teachers.

A second possible explanation for the lack of significant improvement is that the teachers may not see a connection between behavior and academics. That is, the fact that
a child could improve socially may not have suggested that he
or she would be any more able to learn academic skills.

A third possible reason for the lack of significant
change in expectancy measures may be that the teachers did
not know how to be supportive of study pupils’ fledgeling
efforts at positive social interactions. Tyne and Flynn’s
study (1979) supports this possibility. In their research
of a teacher-centered consultation program for improving so-
cial status, they found that teachers who knew of children's
low social status but who were not given strategies for
helping the situation, actually had a negative effect on the
children’s social status scores.

This explanation may have considerable merit. The tea-
chers in this study were rated on their communicated empathy.
The mean level of empathy of the study teachers was 1.5 with
a standard deviation of .32. Only one teacher was rated as
high as level 2.0. Carkhuff's scale defines level 1.0 as a
total absence of empathic understanding for another indivi-
dual’s feelings or situation. At level 3.0 on the scale, a
helper or teacher communicates a minimally effective level of
empathy. None of the teachers in the current study could be
rated as minimally effective on this dimension. Aspy's re-
search into the effective ingredients of teaching has repeat-
edly and clearly found a significant positive relationship
between student gains on academic and social-emotional in-
dexes, and teacher-offered empathy (Aspy & Roebuck, 1973;
Aspy & Roebuck, 1977). The very low levels of empathy exhibited by the study teachers may account for the lack of improvement in the expectancy measures.

The findings with regard to Hypothesis 9 revealed that the experimental group's locus of control did not shift significantly to an internal orientation. It would seem that the HRD social skills training program did not demonstrate to the students their own power over external events. This may be true due to (a) the lack of improved peer acceptance and teacher interaction measures, (b) the time period being insufficient for a major shift of personal control orientation to take place, or (c) the measuring instrument not being sensitive to changes only in social locus of control. (The instrument measures academic, personal and athletic situations as well as social.)

The hypothesized relationship between teacher empathy and measures of social skill functioning was not demonstrated in the regression analysis. It can be concluded that the pupils learned and applied the social skills independent of teacher-offered empathy. The lack of relationship may be due to the extremely low levels of empathy demonstrated by the study teachers. There is no reason to believe that a 1.5 level of empathy would have any relationship to the success of the treatment. Because all the teachers' empathy levels were clustered at the low end of the scale, the differential effects of this variable on the posttest scores could not be analyzed.
The hypothesized relationship between locus of control and posttest social skill functioning was not demonstrated by the data either. In fact, none of the hypothesized relationships concerning locus of control were found. It did not become more internal as a result of the training despite the emphasis placed on personal responsibility and control during the training. Nevertheless, the subjects were able to sustain improved social behavior with peers and teachers for five weeks with no external support for the final three weeks. The possibility exists that a generalized belief about one's powerlessness requires a much more intensive treatment to alter. Again, it may be that the instrument was not sensitive to shifts in social locus of control. In either case, no relationship whatever was observed between locus of control and social skill functioning.

Implications

The present findings seem to have implications for the remediation plans of intermediate LA pupils. First of all, nearly 65% of the children nominated for Learning Assistance fell into the bottom one-fourth of their class in peer status. This finding suggests that these children have a range of problems which go beyond academic difficulties and extend into their social-interpersonal lives. On this point, research clearly shows that social rejection and emotional instability are highly correlated. Likewise, emotional problems and low achievement are highly correlated. These
relationships set up a vicious circle of negative self-reinforcement which requires an intervention to short circuit.

The high percentage of socially unpopular children among the low achieving coupled with their lack of skills leads to the conclusion that this facet of behavior should be addressed in remedial plans for LD children. The current study, while it did not demonstrate improved peer status, did demonstrate that with relatively little time invested, these children can improve the way they handle themselves with others. It appears that the resource room situation could be offering a valuable service to LD pupils by taking time away from academic skill remediation for social-interpersonal skill instruction. With a longer time of follow-up and more support from the classroom teacher, it may be that peer status and/or teacher interaction patterns would improve too.

The implications here are that by reducing social rejection as a complicating, anxiety-producing factor, LD children could be emotionally freed to get on with learning.

Overall, the results from this study appear to have implications for a growing body of research on the social characteristics and learning potential of LD children. Pre-test data from the present study are consistent with data from other studies which describe LD children's behavior in social and academic settings. These studies have found LD children to be unpopular with peers, significantly off-task, receiving few teacher contacts, and being rude and inept in
social interchanges (Bruininks, 1978; Bryan, Pearl & Donahue, 1981a; Thomas, 1979). A number of investigators have explained these findings as due to LD children's passivity and external locus of control orientation (Torgesen, 1980; Wong & Wong, 1980). These characteristics are being defined as inherent (Hammill, James, McNutt & Larsen, 1981). They have not been termed learned behavior. Yet in the present study, the subjects were able to learn and transfer to real social situations five social skills after six hours of instruction. Thus, the results of the present study do not support the contention that these behavior patterns are inherent.

Torgesen's developmental lag theory seems applicable (Torgesen, 1980). He describes LD children as lacking organizational strategies for learning rather than as having an ability deficit. Their academic and social behavior is immature reflecting natural though delayed developmental stages as opposed to a distortion of behavior (Campbell & Paulauskas, 1979; McCracken, 1982). Whether the inactive learner characteristic is the result or the cause of failure experiences and/or immaturity has not been determined.

Taking into consideration the research on the effects of teacher expectation on pupil performance, it seems likely that effects of children's immaturity or developmental lags are exacerbated by teachers' negative expectations for their academic and social behavior. Brophy and Good's model of the underlying process of the expectancy phenomenon bears
repetition here (Brophy & Good, 1970). They assert that based on information about, or the performance of pupils, teachers form expectations. These expectations may be grossly inaccurate. The teachers then treat the pupils differently and the pupils, in turn, respond differently as a result. Each child tends to act in a way that complements and reinforces the teachers' original expectation. The resulting situation is one in which immature or developmentally delayed children assume a helpless and passive approach to learning because they have been treated that way. Unfortunately, over time, other behavior patterns become less likely to emerge and the child falls further and further behind academically. The repeated failures lead to anxiety, lack of confidence and low self-concept for many children, and this could, in turn, render the child more passive in learning situations.

The social situation likely unfolds the same way for immature children. The teacher, in attempts to socialize them, holds up their more mature peers as models thus communicating to the class what his or her preference is. Many researchers point out how very influential teachers are with young children in setting up their likes and dislikes.

Once the pattern has been established in kindergarten or first-grade, there is reason to believe the situation will not change for the better. Social skills are not an integral part of the curriculum in most classrooms and so opportunities to learn more appropriate social behavior are, by and large, unavailable. So the vicious circle continues.
The present study was successful in intervening in this cycle by introducing new social behaviors to the pupils. This research, therefore, does not support the position that the social characteristics of LD children are inherent, but rather lends credence to the developmental delay theory in that the skills taught were readily learned and applied.

Overall, this study presents data which extend current knowledge of LD children's social characteristics. Yet, several inadequacies exist which limit the findings. Foremost is the lack of follow-up data. The present study only reports pre- to posttreatment effects occurring over an approximate nine week period. Reasonable stability of change can be judged only after a minimum of six months. Consequently, conclusions regarding the long term effects of the observed changes cannot be made.

Another inadequacy of the present study is the lack of a formal diagnosis of learning disability for the study subjects. While the Prince George School District adheres to the definition of LD given in the Federal Register (1976), no formal diagnosis is required for identifying children for Learning Assistance, and so it is possible that some of the subjects may not qualify as learning disabled. As a result, the findings of this study may not generalize to other LD populations.

Finally, though the design of the study should have precluded the teachers from knowing which pupils were
experimental subjects and which were control, it was not always possible to have both groups of pupils out of a classroom simultaneously. While the author appreciates this methodological weakness, the data does not seem to reflect biased performance by the teachers. Specifically, none of the teacher expectation measures reached statistical significance. It may be assumed, then, that knowledge of the subjects' group status was unable to influence the teachers to behave differently toward one group or the other. It is the author's belief that the teachers' low empathy levels were more potent in this regard. That is, if the teachers did not know how to interact more constructively with the pupils, they could not do so simply from a desire to. Nevertheless, this weakness is a limitation to the study.

In conclusion, the results of this study provide strong support for the use of HRD classroom social skills training for intermediate elementary LA pupils who are low in peer status. It is hoped that this particular investigation will serve as a stimulus for further refinements and improvements in research and practice in the treatment of social skills among LD children.

Recommendations

The results of this study, as in many research projects, are limited in the number and kind of generalizations possible. However, the results do suggest some recommendations
for future research related to the present study. Such recommendations are as follows.

1. There is a need to conduct similar studies with a larger number of subjects per group and a more formal diagnosis of LD. This would serve to replicate the present study and improve the generalizability of the results to other LD populations.

2. There is a need to investigate the impact of training of various time periods. A study to examine the effects of longer follow-up seems appropriate. The questions of the effects of improved social skill functioning on the secondary measures could then be clarified.

3. There is a need to investigate the effects of HRD social skills training delivered by the resource room teacher as a part of the regular remedial program. Such a study would counteract any novelty effect that can occur when the trainer is not indigenous to the school.

4. There is a need to investigate the effects of training students and teachers. In this study, teachers' expectations and interpersonal skills were examined and found to be nonsupportive of the LA pupils. A study teaching teachers how to be supportive is suggested.

5. There is a need to investigate the effects of HRD social skills training on academic measures.
Anecdotal evidence in the present study suggests a possible relationship in that two teachers noted a dramatic improvement in academic performance for two of the subjects. A study to examine this relationship would make a valuable contribution to the literature on the influence of affective variables on academic performance.
CHAPTER BIBLIOGRAPHY


Tyne, T. F. & Flynn, J. T. The remediation of elementary students' low social status through a teacher-centered consultation program. Journal of School Psychology, 1979, 17, 244-254.


APPENDIX A

PROPOSAL TO CONDUCT RESEARCH
IN THE PRINCE GEORGE SCHOOL SYSTEM

Title of the Study

THE EFFECTS OF A CLASSROOM SOCIAL SKILLS TRAINING
PROGRAM ON SOCIALLY MALADAPTIVE LEARNING
DISABLED ELEMENTARY STUDENTS

Submitted by

Victoria Williams, M.Ed.

2436 Moss Avenue
Prince George, B.C.

564-6401
Appendix A—Continued

The purpose of the study is to help children with learning problems overcome their social inadequacies in order to remove these problems as confounding in their remediation programs. In order to carry out the study the following information, activities, people and time will be required.

1. Children who are low in peer acceptance and are receiving learning assistance or who are eligible for LA but are not currently being served will be selected for inclusion in the study.

2. Half the children selected will receive instruction in classroom social skills including attending, greeting, politeness, and asking and answering questions. The other half will serve as control subjects and receive no special treatment.

3. The instruction will require one hour per day for one week (approximately).

4. The study will examine how the social skills influence LA children's peer acceptance, behavior toward teachers and peers and the way teachers expect them to perform academically.

5. The study will require:
   (a) classroom observation (to be performed by the experimenter)
   (b) testing on the following groups:
      (1) all fourth-, fifth- and sixth grade classroom pupils - 30 minutes total
Appendix A—Continued

(2) teachers - 40 minutes total
(3) experimental and control children - 60 minutes total
(4) experimental children - five to seven hours out of class (or after school if preferred)

6. The tests include:
   (a) sociometric status
   (b) social skills
   (c) locus of control
   (d) teacher projected academic performance for children

The proposed skills curriculum combines humanistic and behavioristic teaching techniques to optimize learning and retention. It has been used with delinquent children experiencing learning problems with impressive results. The instructor for the skills program will be Hadley Williams, who has had many years experience teaching these skills.

While the regular classroom teacher will not be taught anything via this study, the skills curriculum could be learned by Learning Assistance teachers and could become an on-going part of Learning Assistance remedial programs if it is found to be successful.
APPENDIX B

LETTER OF APPROVAL FOR RESEARCH PROJECT

MEMORANDUM

To: Mr. Alvin Myhre,
Superintendent of Schools.

From: David Vawter,
Coordinator of Special Services.

c.c.: Mr. Larry Koyanagi, Assistant Coordinator of Special Services;
Ms. Vicky Williams, Doctoral Student - North Texas State University.

Re: RESEARCH PROPOSAL -
"The effects of a classroom social skills training program for mildly handicapped elementary school students on their social status and interactive patterns in the mainstream classroom."

The above research proposal has been suggested for possible field testing in the immediate area of the Prince George School District. Vicky Williams has met with us and it would appear that there would be some specific beneficial outcomes if this study were undertaken. The population to be assessed would be those students enrolled in our Elementary Learning Assistance Programs, with the possible involvement of our Special Needs Programs. This would be planned for the Spring of 1981.

On behalf of Vicky, we would like to request your permission to conduct this research and also permission for Special Services to request principals' participation.

Your attention to this matter would be appreciated.

DV/da

Attachment: Copy of submission by V.R. Williams, B.A., M.Ed.
Physically attending

Instructions to the student:

Pretend that I am one of your teachers. If I came up to talk to you, what would you do to show me, without talking, that you are paying attention to me. Do what you would do.

Rate the child pass or fail on the following subskills:

<table>
<thead>
<tr>
<th>Subskills</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squared shoulders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaned toward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faced</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looked at eyes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Greeting

Instructions to the student:

I want you to go out of the room. When you come back in, imagine that you are seeing me for the first time today. When you come in, show me what you would do to greet me.

Rate the child pass or fail on the following subskills:

<table>
<thead>
<tr>
<th>Subskills</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains eye contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Says hello, hi, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses my name</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C—Continued

Polite requests

Instructions to the student:

If I gave you something to read that was very hard, and you wanted to ask me to help you read it, what would you say to me?

Rate the child pass or fail on the following subskills:

<table>
<thead>
<tr>
<th>Subskill</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waits until you look up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains eye contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Says please or may I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Says thank you</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Psychologically attending

Ratings were made on the child's behavior throughout the testing period on the following subskills:

<table>
<thead>
<tr>
<th>Subskill</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>No distractions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doing what was expected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked clarifying questions when appropriate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complying with requests

Ratings were made on the child's behavior throughout the testing period on the following subskills:

<table>
<thead>
<tr>
<th>Subskill</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stopped disruptive behavior when asked</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbally acknowledged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did what was asked</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D

PEER ACCEPTANCE SCALE

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18.
APPENDIX E

CRITERION REFERENCED MEASURES
BEHAVIOR RATING SCALES

Physically Attending

Level 1.0  No eye contact; slumped, facing away.
Level 2.0  Makes eye contact occasionally; slumped.
Level 3.0  Makes eye contact; sits or stands erect; faces squarely.
Level 4.0  All the above behaviors plus leans forward.
Level 5.0  All the above behaviors plus really leans forward.

Psychologically Attending

Level 1.0  Disruptive; off-task continually; doesn't know what is happening around him/her.
Level 2.0  Easily distracted; may be aware of what is happening but is not taking notice; must ask for directions again.
Level 3.0  Doing what is expected; is fully aware of classroom happenings.
Level 4.0  Is considerate; initiates by asking questions or raising hand.
Level 5.0  All the above plus seems able to anticipate expected behavior.

Greeting

Level 1.0  Ignores those around him/her.
Level 2.0  Looks but doesn't maintain eye contact when greeting; or talks about self.
Level 3.0  Makes and maintains eye contact; says "Hello."
Appendix E—Continued

Greeting—Continued

Level 4.0 Maintains eye contact; says Hello, etc; uses name.

Level 5.0 All the above plus makes relevant-to-other chit-chat.

Making Polite Requests

Level 1.0 Asks at a bad time; is rude; makes inappropriate requests.

Level 2.0 Doesn't wait to be acknowledged; uses no polite words; is appropriate.

Level 3.0 Waits to acknowledged; says please or may I.

Level 4.0 All the above plus maintains eye contact.

Level 5.0 All the above plus says thank you.

Complying with Requests

Level 1.0 Verbally refuses to comply; is rude.

Level 2.0 Ignores request; continues without acknowledgement.

Level 3.0 Stops disruptive behavior or complies with request in a reasonable amount of time.

Level 4.0 Is quick to comply; verbally acknowledges.

Level 5.0 Complies enthusiastically.
APPENDIX F

CATEGORIES FOR THE BROPHY-GOOD DYADIC
INTERACTION CODING SYSTEM

Types of dyadic contacts
- Public response opportunities
  - open questions
  - direct questions
  - call outs
- Reading turns
- Private work-related contacts
- Private procedural interactions
- Behavioral evaluations

Initiator of contact
- Teacher initiated
- Student initiated

Level of question
- Process questions
- Product questions
- Choice questions
- Opinion questions
- Self-reference questions

Quality of students' response
- Correct
- Part correct
- Incorrect
- No response

Teacher feedback reaction
- Praise
- Affirmation
- Negation of incorrect answers
- Criticism
- Process feedback
- Gives answer
- Asks other
- Call out
- Repeats question
- Rephrases or clues
- New question
APPENDIX G
RATING FORMS
# General Class Activities

1. Class  
2. Date  
3. Start  
4. Stop  
5. Elapsed  
6. Activity  
7. Attendance  
8. Observer  
9. Page

<table>
<thead>
<tr>
<th>STOP TIME</th>
<th>CHILD</th>
<th>QUESTION</th>
<th>ANSWER</th>
<th>TERMINAL FEEDBACK GUES</th>
<th>WORK</th>
<th>PROCNT</th>
<th>AFFORD</th>
<th>CLSRN SOC SKILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Expectation:**

**Remarks:**
APPENDIX H

NOWICKI-STRICKLAND LOCUS OF CONTROL SCALE

1. Do you believe that most problems will solve themselves if you just don't fool with them?

2. Do you believe that you can stop yourself from catching a cold?

3. Are some kids just born lucky?

4. Most of the time do you feel that getting good grades means a great deal to you?

5. Are you often blamed for things that just aren't your fault?

6. Do you believe that if somebody studies hard enough he or she can pass any subject?

7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?

8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?

9. Do you feel that most of the time parents listen to what their children have to say?

10. Do you believe that wishing can make good things happen?

11. When you get punished does it usually seem its for no good reason at all?

12. Most of the time do you find it hard to change a friend's mind?

13. Do you think that cheering more than luck helps a team to win?

14. Do you feel that it's nearly impossible to change your parent's mind about anything?

15. Do you believe that your parents should allow you to make most of your own decisions?

16. Do you feel that when you do something wrong there's very little you can do to make it right?
Appendix H—Continued

17. Do you believe that most kids are just born good at sports?

18. Are most of the other kids your age stronger than you are?

19. Do you feel that one of the best ways to handle most problems is just not to think about them?

20. Do you feel that you have a lot of choice in deciding who your friends are?

21. If you find a four leaf clover do you believe that it might bring you good luck?

22. Do you often feel that whether you do your homework has much to do with what kind of grades you get?

23. Do you feel that when a kid your age decides to hit you, there's little you can do to stop him or her?

24. Have you ever had a good luck charm?

25. Do you believe that whether or not people like you depends on how you act?

26. Will your parents usually help you if you ask them to?

27. Have you felt that when people were mean to you it was usually for no reason at all?

28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?

29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?

30. Do you think kids can get their own way if they just keep trying?

31. Most of the time do you find it useless to try to get your own way at home?

32. Do you feel that when good things happen they happen because of hard work?

33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?
34. Do you feel that it's easy to get friends to do what you want them to?

35. Do you usually feel that you have little to say about what you get to eat at home?

36. Do you feel that when someone doesn't like you there's little you can do about it?

37. Do you usually feel that it's almost useless to try in school because most other children are just plain smarter than you are?

38. Are you the kind of person who believes that planning ahead makes things turn out better?

39. Most of the time, do you feel that you have little to say about what your family decides to do?

40. Do you think it's better to be smart than to be lucky?
APPENDIX I

PROJECTED ACADEMIC PERFORMANCE SCALE

In terms of the academic areas that are listed, please mark in the appropriate column the number of the statement that best describes for each child your response to the following question: Do you think he/she will be good at _______ (subject) when he/she is older?

1) yes, definitely
2) probably
3) not likely
4) no

<table>
<thead>
<tr>
<th></th>
<th>READING</th>
<th>SPELLING</th>
<th>MATH</th>
<th>LANGUAGE</th>
<th>ARTS</th>
<th>SOCIAL</th>
<th>STUDIES</th>
<th>SCIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX J

CARKHUFF SCALE: COMMUNICATION OF EMPATHY

IN INTERPERSONAL PROCESSES

Level 1.0 The verbal and behavioral expressions of the teacher either do not attend to or significantly detract from the verbal and behavioral expressions of the student(s) in that they communicate significantly less of the student's feelings than the student has expressed himself or herself.

Level 2.0 While the teacher responds to the expressed feelings of the student(s), he or she does so in such a way as to subtract noticeable affect from the communications of the student.

Level 3.0 The expressions of the teacher in response to the expressed feelings of the student(s) are essentially interchangeable with the latter in that they express essentially the same affect and meaning. This is the minimal level of facilitative conditions.

Level 4.0 The responses of the teacher add noticeably to the expressions of the student(s) in such a way as to express feelings a level deeper than the student was able to express himself or herself.

Level 5.0 The responses of the teacher add significantly to the feeling and meaning of the expressions of the student(s) in such a way as to (a) accurately express levels of feeling below what the student was able to express or (b) in the event of ongoing deep self-exploration on the student's part, be fully with the student in his or her deepest moments.
APPENDIX K

HOW DO I MEASURE UP?

1. Read this paper each morning before class starts.
2. Practice the skills you learned in my class each day.
3. At the end of each day write YES if you did the skill and NO if you didn't do the skill.

<table>
<thead>
<tr>
<th>Mon Mon</th>
<th>Tue Tue</th>
<th>Wed Wed</th>
<th>Thu Thu</th>
<th>Fri Fri</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DID I GREET THE TEACHER?

DID I ASK POLITELY?

DID I DO WHAT WAS ASKED?

DID I PAY ATTENTION IN

SOCIALS?

MATH?

T W T W T W T W T W

DON'T LOSE THIS SHEET! I WILL ASK YOU FOR IT ON FRIDAY.
BIBLIOGRAPHY


Aspy, D. N. & Roebuck, F. N. Research summary; Effects of training in interpersonal skills, Interim Report No. 4, National Institutes of Health, Grant No. 5 PO1 MH 19871


Bruininks, V. L. Actual and perceived peer status of learning disabled students in mainstream programs. *Journal of Special Education*, 1978, 12, 51-58. (b)


Dworkin, N. & Dworkin, Y. The legacy of pygmalion in the classroom. Phi Delta Kappan, 1979, 60, 712-715.


Harley, D. Personal communication, August 17, 1982.


Pepinsky, P. N. The meaning of validity and reliability as applied to sociometric tests. Educational and Psychological Measurement, 1949, 9, 39-49.


Tyne, T. F. & Flynn, J. T. The remediation of elementary students' low social status through a teacher-centered consultation program. Journal of School Psychology, 1979, 17, 244-254.


