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ABSTRACT

This report describes the Social Ecology Research Project, which assessed the foundations of personal-social competence in children with mental handicaps (MH). Children with mild MH (n=1,200) and their normally achieving peers (n=2,500), all ages 8-14, were studied over 3 years. Students were assessed in resource and regular classrooms, and information was obtained concerning perceptions of the child's competence within the family and other nonschool groups such as scouts. Social competence ratings, which were obtained from the child, teachers, parents, and from observation, covered self-concept, social status among peers, self-attributions, level of social cognition, loneliness, social affiliations, and social interactions. Academic information was also obtained. The following papers are appended: "Learning Disabilities and Social Competence: A Social Ecological Perspective" (J. Michael Coleman and Ann M. Minnett) and "Similarities in the Social Competencies of Learning Disabled and Low-Achieving Elementary School Children" (J. Michael Coleman et. al). A list of 28 papers and dissertations completed by project staff is included, along with questionnaires and survey instruments. (Contains 69 references total.) (SW)

THE SOCIAL ECOLOGY RESEARCH PROJECT

1988-1991

FINAL REPORT

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Introduction

The following narrative and accompanying appendices represent the final report of the Social Ecology Research Project, US Department of Education, Office of Special Education and Rehabilitative Services grant #H023CBD140 which operated from August 1, 1988 to November 30, 1991 within the School of Human Development at the University of Texas at Dallas and the Dallas, Texas, Independent School District. The narrative is structured to provide the reader with a review of the philosophy, purpose, and objectives of the project, a discussion of the structure of the research, the characteristics of the sample studied, the nature of the measures that were administered, and examples of the types of information generated by project staff during the course of the investigation.

Philosophy and Purpose

In the last decade we have witnessed changes in federal law (PL 94-142) and public sentiment that have forced a revolution in educational policy regarding the education of mildly handicapped (MH) children. In the name of equality, and facing scant evidence that their previous tactics were successful, educators chose to bring these children into the mainstream, that is, provide them and education alongside their normal peers within regular classrooms. The justification for this transition was based less on possible academic gains for MH children and more on the potential social benefits for both handicapped and nonhandicapped children that would result from their integration. It was

expected that creating a single social group would enhance the social competence of MH children by providing them more sophisticated models in the form of normal children while providing the average child the opportunity to interact with less capable peers, thus reducing the mystique and stigma associated with disability. Empirical support for mainstreaming as a vehicle for enhancing either academic or social competence in MH children remains elusive. Most studies of academic behavior have been driven by superficial definitions of competence, typically changes in achievement scores, and even these data are equivocal. Investigations of social adjustment have concentrated on social status or self-concept and have generally yielded negative results suggesting poor social acceptance and lower self-concept for MH children placed solely in regular-class peer groups. Research on academic/social adjustment of MH children in general has been poorly conceived, most often limited to single observations using between group analyses of isolated aspects of adjustment. The profiles that emerge reveal only that MH children differ from normals without attending to the variables that contribute to those differences.

The purpose of the Social Ecology Research Project was to extend past research by providing a far more comprehensive analysis of the foundations of personal-social competence in MH children. It was necessarily a developmental study, using a cohort-sequential design to observe normal and MH children from ages eight to fourteen during a three-year period beginning in September, 1988. The study acknowledged the various social ecologies of the child and focuses on both school and nonschool contexts.

It also eliminated the mono-operational bias of research in this area which traditionally used only a single measure to represent each construct under investigation. Multiple exemplars were used for each construct and data were collected through multiple media (e.g., self-descriptions, ratings by others, direct observation). A multitrait-multimethod approach was employed which allowed for the examination of both within-network constructs (e.g., the relationships between various components of self-concept) and between network constructs (i.e., the relationships between academic achievement and social acceptance).

With the cooperation of the Dallas, Texas, Independent School District (DISD) the study followed a group of third through sixth grade MH children for a three-year period along with a sample of their normally achieving peers. The MH sample was highly stratified across a number of dimensions to allow for extensive analysis of within group differences between MH children who vary in personal-social adjustment. Stratification was also employed to view the effects of level of integration into the mainstream and characteristics of other students residing there as they influence the successful assimilation of MH children into regular classrooms. Information collected in the academic domain included objective aspects of performance (i.e., grades, test scores) as well as attitudinal and instructional data provided by teachers and direct observation of task related behavior. From the social domain, measures of self-concept, social status, self-attributions, social cognition, loneliness, social affiliations, and social interactions were collected.

Multiple indices of these constructs were available, some generated by the children themselves while others were derived from the perceptions of peers, regular and special education teachers, parents, and siblings as well as from behavioral observations of social interaction.

Objectives of the Study

Our major objectives in designing this investigation were threefold. First, it was considered absolutely necessary that our field acquire developmental information regarding the social-emotional competence of MH children. Students must be studied over time, focusing on how changing environmental contexts and their own emerging ability influence both their self-perceptions as well as the perceptions of others. Secondly, the varying ecologies in which they develop must be systematically observed, acknowledging that the parameters of social competence vary as a function of the ecological context. Previous research had focused solely on the mainstream environment, ignoring the importance of resource classes, family systems, and neighborhood social groups as equally important contexts for judging personal-social competence. Finally, competence must be viewed within a broader network of meanings, using a larger number of measures and assessing a broader range of social characteristics and dynamics if we are to truly attempt to model the various components of personal-social competence as they are judged by both the child and others relevant to the child.

The longitudinal objective was accomplished through a cohort-sequential design which allowed us to study both normal and MH children ranging in age from eight to fourteen within a three

year study. This age range was selected because it included major maturational (i.e., puberty) and cognitive (i.e., perspective-taking skills) milestones that influence personal-social development. This span was also important in that it included changes in the typical instructional arrangement used by schools to educate MH students (from the intact classes of elementary programs to the departmentalized classes of middle schools). It also represented a period in which the importance of social groups increases and the influence of parents diminishes (Hartup, 1983).

An ecologically valid study of personal-social competence requires analysis of the influences of each of the social environments in which the child develops. This research accomplished this objective by studying children in multiple settings. MH children were studied in both resource and regular classrooms. In addition, information was obtained relating to perceptions of the child's competence within the family system, neighborhood social groups and other social organizations outside the school (e.g., Scouts, church groups, sports clubs). An exhaustive analysis of all aspects of the child's social network was necessary to determine if the demand characteristics of each environment produced differing views of social competence and if children used feedback from these various social contexts differentially to maintain some control of their own perceptions of self-competence.

This study also addressed the issue of ecological validity from a second perspective in that it systematically examined the

characteristics of normal children within the MH child's milieu. The large urban district provided the opportunity to study primarily minority MH children (Black and Hispanic) in some cases integrated within classrooms containing peers primarily from the same racial/ethnic origins and at other times mainstreamed into classes with a majority of Caucasian students. The project also provided an extensive analysis of personal-social competence in both MH and normal minority children.

This research has yielded a richer set of information regarding personal-social competence in MH children as a result of generating a broader set of data from a more varied group of individuals within the child's social network. In contrast to traditional single-focus studies of social competence, this project utilized a multitrait-multimethod approach which enhanced its validity by providing multiple measures of a phenomenon acquired through multiple operations. The child's social competence was studied through information gathered on self-concept, social status, self-attributions, level of social cognition, loneliness, social affiliations, and social interactions. Information was gathered through self-descriptions, ratings from others, and direct observation. Those contributing information included the child, regular and special education teachers and classmates, parents, and siblings.

Sample

Since 1988 the Dallas Independent School District (DISD) has provided the subjects to be studied. The DISD student population numbers 134,000 children from both urban and suburban settings. Anglo children represent 23% of the children in the district

while 49% are African-American and 28% are Hispanic. The cultural-social heterogeneity of DISD was the primary reason for selecting this school district which has allowed us to control for social-cultural-economic influences that likely interact with school contexts to shape children's social-emotional competence. Participating subjects were taken from 33 elementary and 8 middle schools. Eight elementary schools were targeted for studying MH and normal classmates. School selection was made using a stratified sampling procedure to insure the identification of some schools with primarily African-American students, primarily Anglo students, and primarily Hispanic students. Other schools were selected because of their balanced representation of the three groups. School selection was also structured to represent a range of SES levels using the proportion of children participating in the federal free or reduced lunch program as an indicator of the family's economic level (See Appendix A for a summary of the racial/ethnic and SES characteristics of the participating schools.) As a result, all three groups are represented in both middle-SES and low-SES categories.

The research sample was comprised of mildly handicapped children ranging in grade from third through eighth and normal children ranging in grade from third through sixth. (Complexities of middle school class scheduling and academic requirements prohibited comparable assessment of normal middle school classmates.) They have been studied longitudinally for a three year period using a cohort-sequential developmental design (Schaie, 1965) with annual replacement sampling to insure a constant

number of handicapped subjects across the duration of the study.

Handicapped subjects were selected through a stratified sampling procedure to guarantee balanced representation of the following factors: grade, sex, ethnic/racial origins, SES, hours per day in resource room, major academic deficiency (LD), and the number of other handicapped children within the same regular classroom. The regular-class students in the sample were selected from eight targeted schools as intact classes as a function of having a targeted resource student (or students) as a classmate. The particular normal children involved in the study varied from year to year depending on the attrition rate and class placement within the mildly handicapped group. Every effort was made to track MH children from year to year. However, we found them to be a highly transient group, and therefore replaced them annually with additional entering MH students. Each year, targeted MH subjects' regular classmates then became part of the study. This resulted in data on MH and NH children that varied in duration which is the basic rationale for including the broad range of cohorts and multiyear assessments within the project design. The large number of regular-class students allowed for post-hoc stratification to identify normal children of all three ethnic/racial groups with varying profiles of cognitive and academic competence for the purpose of matching between subjects considered normal versus handicapped. The large sample also provided for an ecologically valid analysis of personal, social, family, and context variables that serve to determine social competence within the school ecology of the mildly handicapped child.

Between 400 and 750 MH children and 1,100 and 1,500 normal children were assessed each year. By the end of the project's third year the sample consisted of nearly 1,200 MH subjects, many of whom were seen repeatedly in both resource and regular classrooms, longitudinally in Year One and Year Two, Year Two and Year Three, or in all three years of the project. Over 2,500 of their normal classmates were also assessed, with substantial numbers seen repeatedly.

Instruments

All data described below have been collected, coded, and entered into a computerized data base. Some of the Year One and Year Two data have been analyzed and have resulted in a variety of manuscripts and conference presentations. While including all children without regard to race or cultural background, only one of those papers have addressed the ethnic/racial diversity of the sample, thereby allowing for a fertile source for the study of ethnic/racial similarities and differences both between and within targeted groups.

Instrumentation

Data collected throughout the project remained substantially the same, but not identical, from year to year. As the project evolved we deleted some measures that were either redundant or contributed relatively little to the academic and social domains studied, and we enhanced some of our own measures while including additional measures that addressed issues we encountered once the project began. This section has been divided by the type of data collected. The years in which these data were collected is noted.

Academic. A wide range of school related information was collected on all subjects through school records. Included within this information were most recent academic (reading, math, social studies, science) grades and individual achievement data (Iowa Test of Basic Skills reading, vocabulary, language, math, and composite scores) including both local and national percentiles. These data were collected for all MH and normal subjects in all three years.

Self-Concept. All subjects completed two self-concept questionnaires. The Harter Perceived Competence Scale (Harter, 1982, 1985) contains 28 stimulus items factor analyzed into four factors purporting to assess the following dimensions of self-concept: 1) physical ability, 2) social ability, 3) cognitive ability, and 4) general self-esteem (Appendix B). The second measure of self-concept is the Self-Description Questionnaire (Marsh et al, 1983, 1985), a multidimensional instrument designed to measure seven facets of self-concept hypothesized by Shavelson and Bolus (1982) (Appendix C). The measure contains 66 stimulus items divided into the following areas: 1) Physical abilities, 2) Physical appearance, 3) Relations with peers, 4) Relations with family, 5) Reading abilities, 6) Mathematics abilities, and 7) All School Subjects abilities. The two self-concept measures represent the best instruments currently available in terms of their psychometric properties and their grounding in theoretical models of children's self-perception. Numerous studies have confirmed the integrity and stability of their structure through factor analysis and there exists independent evidence that chil-

dren's performance on the measures is predictable from theoretical models. Wylie (1989) sees these criteria as the most appropriate for determining the utility of self-concept instruments.

Social Status Among Classmates. Sociometric information was gathered through two instruments. A peer nomination procedure was used to assess specific social relationships and address the question "Is the child liked?" Children were given rosters of their classmates and asked to circle the names of "three children you like." A second roster was then distributed and students circled the names of "three children you do not like." This nomination technique is generally given to same sex children in response to evidence suggesting that children are more likely to bestow positive nominations to same sex classmates and negative nominations to opposite sex peers. However, we were interested in the criteria by which children nominate others, both of the same and opposite sex. Therefore, during Year Three only, children are asked to positively and negatively nominate children of both sexes. Same-sex nominations were obtained for all three years. Nominations were then standardized within classroom and sex to form social status groups as described by Coie, Dodge, and Coppotelli (1982). This procedure yields popular (highly liked, not disliked), controversial (both highly liked and highly disliked), rejected (not liked, but highly disliked), neglected (neither liked nor disliked), and average (those not meeting criteria for other group inclusion) groups. Because we have social nomination data from every child in every classroom, we can also use the nominations to determine reciprocal friendships in the classroom, and important source of social support (Parker

& Asher, 1989).

It is evident that the nomination procedure sometimes results in some children (such as the neglected group) receiving few nominations. As is customary in the study of peer relations, we therefore obtained a second source of sociometric data for each subject which was derived from all classmates' ratings of how much they liked each member of their class. Subjects were given a roster on which they circled either "I like this person a lot", "I kind of like this person", "I kind of don't like this person", "I don't like this person at all", or "I don't know this person." This measure yielded information about the social reputation of every child, and was collected for every subject across all three years.

Revised Class Play. The importance of peer perceptions and attitudes towards MH children induced us in Year Three to include an additional measure of classmates' social perceptions. The Revised Class Play (Masten, Morison, & Pellegrini, 1985) asks each child to cast a play using 30 brief character outlines. Each child is to match someone in the class with one of the described characters. This measure provides information as to "what the child is like" by yielding three general factors (sociability -- leadership, aggressive -- disruptive, and sensitive -- isolated) which have been found reliable (reliability coefficients ranged from .81 to .95) and stable at 6 and 17 months (Masten et al., 1985). Due to time constraints in the classroom, the RCP could not be administered in its entirety. Dr. Ann Masten recommended using the four items which loaded highest on each of the three

factors, which we did. The resultant twelve character descriptions were then administered for both boys and girls in all Year Three classrooms. The characteristics attributed by classmates to their peers can be melded with the peer nomination and ratings analysis to organize characteristics of children falling into the various sociometric status levels. (See Appendix D.)

Social Network. The Affiliation Network Questionnaire (Appendix E) was developed for the project and designed to elicit information regarding the child's social network. Items seek information on friendship patterns both in and out of school, and activities primarily away from school. The middle school version of this questionnaire also addressed experiences of early adolescents (i.e., school suspensions, arrests, employment, educational goals).

Sibling Relations. Relationships with siblings are an important mediating influence in children's lives (Minnett, Vandell, & Santrock, 1983; Vandell, Minnett, Santrock, Johnson, & Santrock, 1987). We therefore included an adaptation of Furman and Buhrmester's (1985) Sibling Questionnaire in the Year Two sampling. Although the Sibling Questionnaire assesses many dimensions in sibling relations, we used only the conflictive and prosocial scales (Appendix F), both of which to be moderately to strongly correlated with reports by other family members (Buhrmester & Furman, 1990; Furman & Buhrmester, 1985). Children were asked to complete their questionnaire as it pertained to the sibling closest to their own age.

What Is Important to the Child?. A brief instrument, also

developed by the project, is an exhaustive prioritization procedure which reveals which of three factors in the Harter Self-Competence Scale (school, sports, friends) each subject considers most important. This procedure was included to determine the importance or salience of the dimension of evaluation and its influence on general self-esteem, and was administered in Year One and Year Two.

Social Interaction. Every year a subset of mildly handicapped children along with a matched group of normal children were observed in their regular classrooms and in P.E.(n ranged from 180 to 250 per year). Raters were blind to the children's social status or academic placement. Our goal was to render a profile of the social and task related behaviors of MH children in order to identify similarities and differences between normal and disabled children as well as children of varying social statuses. We focused on both the child's behavior with others (peers and teachers) and in isolation. (For a description of targeted behaviors and protocol see Appendix G). Ratings of the individual child were added for Year Two and Year Three observations (Appendix H). Ratings were based in Year Two on twenty minutes' observation, and were based on 90 minutes' observation in year three. As with all aspects of this project, subjects were selected for observation to reflect adequate representation of sex, grade, social status, and racial/ethnic origin.

Loneliness. Measures of the child's loneliness were obtained from the child via Asher, Hymel, and Renshaw's (1984) Loneliness Questionnaire (Appendix I) in all three years of the project.

This is a 24 item questionnaire which yields one total loneliness score, and has produced a reliability coefficient of .90. An additional measure of loneliness was obtained in Year Three only when Buhrmester's (1989) Socioemotional Adjustment Scales (Appendix J) was added to obtain a more fully developed profile of the child's affective development. The SAS additionally provides measures of anxiety/depression, hostility (aggression), and sociability. These factors coincide nicely with information derived from peers on the Revised Class Play, and make it possible to compare self- and other-perceptions of sociability, aggression, and withdrawn behaviors.

Temperament Characteristics. Teachers were asked to complete a 23 item questionnaire for all students in their class. The instrument, a shortened version of Thomas and Chess' Teacher Temperament Questionnaire (1977) yields three supraordinate categories: a) task orientation, b) adaptability, and c) reactivity (Cadwell & Pullis, 1983). These temperament characteristics have been found to be significant factors that influence teachers' perceptions and classroom decisions for both normal (Pullis & Cadwell, 1982) and MH children (Pullis, 1985) (Appendix K). Temperament characteristics were obtained for Year One and Year Two, but dropped in Year Three when teachers were asked to provided more extensive personal attribute data regarding each student (see below).

Teacher Ratings of Student Characteristics. Teachers were asked to rate each student's SES level, ability, motivation, social skills, current academic performance, and general self-esteem in each of the three years. We saw how valuable teacher

perceptions were to our early analyses, and therefore additional questions were added in Year Three that would coincide with data obtained from peers and children about themselves. Briefly, teachers were asked to rate each child's aggressiveness, withdrawal, leadership, and loneliness. A shortened version of Conner's Abbreviated Symptom Questionnaire adapted by Whalen, Henker, and Granger's (1989) measuring factors of acting out/disruption and dysphoria was also added to this questionnaire. (Appendix L shows this expanded version of teacher ratings.)

Family Questionnaire. Family questionnaires were distributed to all subjects to be given to parents for voluntary completion. This measure was developed by the project and yielded demographic information from parents including family structure, parental occupation and education, and number of siblings within the home. (See Appendix M.) One section dealt exclusively with the child's social network outside the home including social activities, level and type of social relations, and frequency of social contacts. Parents were also asked to complete ratings regarding their estimates of the child's social competence within a number of contexts and their relationships with other siblings within the family. Teachers indicated which students required Spanish versions of the questionnaire which we made available. Return rate for all Family questionnaires was 65% in Years One and Two, but dropped to approximately 50% in Year Three.

Teacher Questionnaire. The teacher questionnaire was completed by both regular and resource classroom teachers. It contained a demographic section that focused on personal and

professional characteristics of teachers and provided information on the extent that mainstream teachers have received training to better integrate MH students within their classes. A second section yielded data (in Years One and Two) on mainstreaming practices employed by teachers, their attitudes toward mainstreaming as a useful instructional arrangement, and the amount of experience they have had in mainstreaming.

Teacher Decisions. The first section of this measure was designed to assess teachers' classroom decision-making strategies. Seven items provide brief descriptions of typical classroom contexts or situations including: individual seatwork, whole-class instruction, group activity, small-group instruction, academic transitions, nonacademic transitions, and free-time activity. Teachers are asked to indicate how often they have to closely monitor a given student during each of these situations in anticipation that the child might require assistance or redirection. Teachers rate each of these items on a six-point Likert scale. Three additional items ask teachers how often they have to (a) change the child's seating location, (b) move the student to provide assistance or social direction, and (c) modify their instructional strategies to meet the individual needs of the student. These items are thought to represent typical approaches to dealing with MH students during classroom interactions. Teachers are also asked to specify each child's most significant problem - instructional needs, peer interaction problems, or difficulties in teacher-student interactions (Appendix N).

Appendix O summarizes the type and source of data currently available for analysis in the proposed project.

Procedures

The first six weeks of each school year were used to identify the subject pool and schedule the assessments with school officials and teachers. DISD waived participation consent. Briefly, DISD has deemed research that 1) does not identify any student individually and 2) does not request specific information about the family is not required to secure parental permission for participation.

Subject data were collected between October and May each year. Due to the reactivity of many of the measures, they were administered in two one-hour sessions, with a one-week interval between assessments to prevent contamination. One session was used to administer self-perception measures while the other focused on social-status variables. All measures were group administered within classrooms with the examiner reading each stimulus item aloud. Spanish-speaking students from other classrooms were enlisted to translate items from English to Spanish for participating students who spoke primarily Spanish.

Information collected from teachers was distributed to teachers during the initial classroom assessment and retrieved at their convenience (usually one month later). All teachers were paid an honorarium annually to compensate them for the approximately 16 hours required for them to complete the teacher infor-

mation. While this remains inadequate compensation for their commitment we believe it enhanced the rate, timeliness, and quality of data received. Information gathered from the family (Family Questionnaire) was sent home with each child, collected by the teacher, and retrieved by staff along with teacher data.

Behavioral observations began in March of each calendar year and continued for approximately 6 weeks. During this interval a subset of the handicapped sample and the normal sample were observed.

Data Analysis

The volume of data generated by the project prevents a complete description of all the analytic procedures employed. Instead, it is best to discuss several broad classes of analyses, their value to specific areas of inquiry, and how their results are judged. Obviously, both descriptive and inferential statistics were used and the data base was designed to allow for multivariate analysis of related dependent measures. The sequence of analyses began with an initial evaluation of the data (descriptive statistics) to determine target groups and numbers of subjects available. This was followed by isolating variables important to personal-social competence (discriminant analysis), determining their independent contributions (multiple regression), and modeling their causal ordering (path analysis).

Descriptive statistics play an important role in initial synthesis, and has already begun by isolating and presenting the available MH and normal samples demographically by race/ethnicity, sex, and grade. The project has generated substantial information that is essentially descriptive in nature which could also

be used to create profiles of the specific characteristics of children that vary on particular dimensions. Representative subsamples have been described, but many more potential groupings are possible, such as isolating middle-SES and low-SES African American children in both segregated and racially balanced schools in order to study self-concept, or perhaps studying friendships among MH Anglo, African-American, and Hispanic children in schools where they are the majority and in schools where they are not. The large number of subjects within this data base allows for repeated partitioning of groups while maintaining ample cell sizes. Finally, the large number of subjects within the project also allows for analyses of the structural integrity and stability of many of the measures used. Factor analytic studies are completed to assess the construct validity of highly inferential measures (e.g., self-concept, self-attributions), and we have chosen to interpret some instruments differently as a function of the factor solutions we have obtained from the research sample (e.g., loneliness).

Multiple discriminant analysis, a special application of multivariate analysis of variance, has been used since our groups have been defined a priori (e.g., MH and Normals, Anglos and Hispanics). When a cluster of variables successfully discriminates the groups then the standardized discriminant coefficients are analyzed to determine the relative contribution of various variables to the discriminant function and thus begin the process of isolating those characteristics most important to social-personal competence. Discriminant analysis has been most useful

to date in distinguishing overall ethnic group characteristics from one another on the basis of their score profiles.

Multiple regression, another application of general linear models, is used at the next level of data reduction. Having used discriminant analysis to identify variables important to personal-social competence, the next step is to determine their relative contributions. Multiple regression techniques are well suited for determining the independent contributions of variables to a prediction and may be used to study the interrelationships between variables. Multiple regression is most helpful in analyzing within-group questions of the relationship between academic placement, ability, social status among peers, and teacher perceptions to academic outcome variables or to the child's reported loneliness, for example. Multiple regression techniques also demonstrate the role of moderator variables in mediating relationships as is the case of a child's academic placement predicted from teachers' expectations even after accounting for variance explained by achievement scores and academic performance.

Obviously, other analytic procedures have been necessary. For example, many questions revolve around developmental issues which require repeated measures analyses to judge within subject changes over time. This constitutes a substantial portion of the analytic procedures employed to examine the diverse two- and three-year longitudinal samples.

Project Findings

The following is a list of conference papers, manuscripts

accepted and/or submitted for publication, and dissertations that have been completed by the staff of the project. Since the first year of the project was primarily concerned with data collection, most of this effort has taken place in the last 24 months.

Coleman, J.M. (1990). A first year review of the Social Ecology Project. Paper presented to the annual conference of the Council for Exceptional Children, Toronto, April.

Coleman, J.M. (1990). Studying the self-perceptions and social competencies of Caucasian, Black, and Hispanic children in a large urban school district. Paper presented at the annual conference of the Texas Council for Exceptional Children, Dallas, July.

Coleman, J.M. (1990). Viewing social competence from an ecological perspective: The social world of the mildly handicapped child. Paper presented at the annual conference of the Texas Association of Educational Diagnosticians, Houston, November.

Coleman, J.M. & Minnett, A.M. (1990). Studying mildly handicapped children's adjustment to mainstreaming: A systematic approach. Paper presented to the Texas Association for Children with Learning Disabilities, Corpus Christi, November.

Coleman, J.M. & Minnett, A.M. (in press). Learning disabilities and social competence: A social ecological perspective. Exceptional Children.

Coleman, J.M. & Minnett, A.M. (in press). Self-concept and the learning disabled child. Exceptionality.

Coleman, J.M., McHam, L., & Minnett, A.M. (in press). Similarities in the social competencies of learning disabled and low-achieving elementary school children. Journal of Learning Disabilities.

Kang, E. (1989). Mathematical modeling of children's self-perceptions through covariance structure analysis. Unpublished doctoral dissertation, University of Texas at Dallas.

Kang E. & Coleman, J.M. (1990). Mathematical modeling of children's self-perceptions through covariance structure analysis. Paper presented at the biennial meeting of the Southwest Society for Research in Human Development, New Orleans, March.

Kang, E., & Coleman, J.M. (in press). Studying children's self-concepts through covariance structure analysis. Educational and Psychological Measurement.

Kaye, C. (1991). Do low-accepted children benefit from having

friends: A study of self versus others' perspectives of socioemotional adjustment and quality of friendship. Unpublished doctoral dissertation, University of Texas at Dallas.

Kaye, C. (1991). The self-concept of sociometrically derived controversial children. Paper presented at the biennial meeting of the Society for Research on Child Development, Seattle, March.

McHam, L. & Coleman, J.M. (1991). The key to impaired social relations: Learning disabilities or low achievement. Paper presented to the biennial meeting of the Society for Research on Child Development, Seattle, March.

McHam, L. (1992). Social competency in learning disabled versus low-achieving children. Unpublished doctoral dissertation, University of Texas at Dallas.

McGiboney, K. & Minnett, A.M. (1991). Who is really lonely? Paper presented to the biennial meeting of the Society for Research on Child Development, Seattle, March.

Minnett, A.M. (1990). Behavioral differences of girls who are preferred and nonpreferred by classmates: A developmental study. Paper presented at the biennial meeting of the Southwest Society for Research in Human Development, New Orleans, March.

Minnett, A.M. (1990). Peer status among mildly handicapped elementary school mildly handicapped children. Paper presented at the annual conference of the Council for Exceptional Children, Toronto, April.

Minnett, A.M. (1990). Social behaviors of mildly handicapped and normal children in the mainstreamed setting. Paper presented at the annual meeting of the Texas Council for Exceptional Children, Dallas, July.

Minnett, A.M. & Coleman, J.M. (1990). Mainstreamed elementary school aged children: Social status and behavior in the regular classroom. Paper presented at the biennial meeting of the Southwest Society for Research in Human Development, New Orleans, March.

Minnett, A.M. & Coleman, J.M. (1991). Salient reference groups in the classroom: Do opposite-sex peers influence self-concept? Paper presented at the biennial meeting of the Society for Research on Child Development, Seattle, March.

Minnett, A.M. & Coleman, J.M. (in press). Salient reference groups in the classroom: Social self-concept among same and opposite sex peers. Developmental Psychology.

Minnett, A.M., Coleman, J.M., & McGiboney, K. (under review). The pervasive effects of loneliness on self-concept in middle

childhood. Journal of Applied Developmental Psychology.

Pullis, M.E. (1990). Teacher decisions and perceptions as they relate to social competence in the mildly handicapped. Paper presented at the annual conference of the Council for Exceptional Children. Toronto, April.

Pullis, M.E. (1990). How teachers influence children's perspective on other children. Paper presented at the annual conference of the Texas Association of Educational Diagnosticians, Houston, November.

Pullis, M.E. & Minnett, A.M. (in press). Not quite making it in the mainstream: An analysis of teacher's views and the academic progress of elementary students with learning disabilities. Exceptionality

Tubbs, A. (1990). Setting specific interaction of popular and rejected mildly handicapped children who have been mainstreamed. Unpublished doctoral dissertation, University of Texas at Dallas.

Tubbs, A. (1990). The impact of social rejection on the self-perceptions of mildly handicapped girls. Paper presented at the annual conference of the Texas Council for Exceptional Children. Dallas, July.

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The scope of research conducted by the project precludes any succinct summary. In order to give the reader a flavor of the research, we have included detailed descriptions of two specific studies. The first, soon to be reported in Exceptional Children raises serious doubts as to whether social deficits should be seen as an inherent part of learning disabilities. The discussion focuses on the need to study LD children who are accepted by

their peers as a way to better understand how social competence in mildly handicapped children may be enhanced and a call for special education to use its knowledge of social skills training to help regular educators intervene with the larger group of nonhandicapped children who are not accepted by their peers.

The second study sought to examine distinctions in social competencies between children with learning disabilities and other children who also experience academic difficulties. The results indicate that LD and low-achieving children are comparable on most domains although in several areas the LD children returned higher scores. The data suggest that special education classes may offer some social advantages to mildly handicapped children. This research has been accepted for publication by the Journal of Learning Disabilities

Exceptional Children, in press

Learning Disabilities and Social Competence: [1] A Social Ecological Perspective

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Running Head: LD and Social Competence

Learning Disabilities and Social Competence:
A Social Ecological Perspective

The justification for mainstreaming mildly handicapped (MH) children, particularly those with learning disabilities (LD), into regular classrooms has always been based less on possible academic gains for MH children and more on the potential social benefits for both handicapped and nonhandicapped children that would result from their integration (Dunn, 1968). It was expected that creating a single social group would enhance the social competence of MH children by providing them more sophisticated social models while providing nonhandicapped children opportunities to interact with handicapped youngsters, thus reducing the mystique and stigma associated with disability (Coleman, 1985). Unfortunately, empirical evidence to support mainstreaming as a method of enhancing the social competence of MH children is scarce. Instead, research has suggested that the social interaction skills and social acceptance of LD children remain deficient in comparison to other children (Fox, 1989). This seems true regardless of whether the judgment of the LD child's social competence is based on teachers' perceptions (Bursuck, 1989; McKinney, McClure, & Feagan, 1982); parents's perceptions (Gresham & Reshly, 1986; Sater & French, 1989), peer perceptions (Bryan, 1974; Garrett & Crump, 1980; Kistner & Gatlin, 1989; Vaughn, Hogan, Kouzekanani, & Shapiro, 1990), or the actual behavior of children observed in social interaction (Bryan, 1974; Bryan & Bryan, 1978). In fact, the data have so consistently linked social skills deficits and peer rejection to

mild handicapping conditions that it has been suggested that such difficulties be considered criteria for defining learning disabilities (Interagency Committee on Learning Disabilities, 1987).

Despite the evidence, it is our viewpoint that linking social competence to a definition of learning disabilities is premature for several reasons. Most importantly, it overlooks the fact that sociometric studies comparing the social status of LD children to their peers suggest that many LD children are accepted by their peers. Dudley-Marling and Edmiaston (1985), in their review of research on the social status of learning disabled children, concluded that most such children enjoy relatively neutral social status, and Perlmutter, Crocker, Corday, and Garstecki (1983) reported that a substantial number of children from their handicapped sample were judged popular by their regular classroom peers. Finally, Sater and French (1989) provide some evidence that differences in social competence between accepted and rejected LD children may be comparable to those found between liked and disliked nonhandicapped (NH) children. It is clear that social deficits and peer rejection are not common denominators for learning disabilities and many children experience academic difficulties independent of social acceptance by their peers.

A second objection to including social competence within a definition of learning disabilities is the lack of evidence to suggest how they might be linked causally. LD children in the educational mainstream represent only a small proportion of the children who are actively rejected by their peers. Most rejected

children have not been assigned handicapped labels or received special services. However, they do share with LD children the characteristic of low achievement which is predictive of lower social status (Hartup, 1983). It has been argued (Bruck, 1986) that low social status, not handicapping conditions, is linked to school failure. Only a few studies have attempted to compare the social competence of LD and NH students having first matched the groups on achievement. Bursuck (1989) contrasted LD to low achieving students on three dimensions of social competence. While finding differences between the two groups in terms of peer acceptance, they were comparable on both teacher and self-ratings of various facets of social competence. Sater and French (1989) also compared small groups of LD and low-achieving children and reported no between-group differences with regard to sociometric status or the incidence of peer rejection. They argued that there was little evidence to conclude that LD children experience unique social behavioral deficits that differentiate them from other children rejected by their peers. In fact, Coleman, McHam, and Minnett (in press) provide evidence that LD children may even be more skilled than achievement-matched peers in some areas of social competence.

The present study further explored the relationship between social competence and handicapping conditions while addressing a major methodological weakness evident in prior research. The interpretation of past research has been clouded by the fact that socially rejected children are over-represented in the LD population as compared to their representation in nonhandicapped

populations. As such, when differences in the social competence of the two groups were reported, it was difficult to decide whether the effects were due to characteristics unique to LD children or due to over representation of rejected children in LD samples. To separate these issues, subjects in the present investigation included LD and NH children who have been matched on social status as well as grade, sex and racial/ethnic variables. The proportion of children in each of three social status categories studied (popular, rejected, neglected) reflected the makeup of the LD sample. This design allowed us to observe the effects of LD on social competence independent of the child's social status as well as view the competencies of children from different social statuses without regard to handicapping conditions. Finally, the interaction between these factors allowed us to determine if the relationship between social competence and social status was different for LD and NH subjects.

In order to study this issue in as broad a scope as possible, indicators of children's social competence were taken from a wide range of sources including the perceptions of the subjects, their peers and their teachers. In addition, other facets of social competence were assessed through direct observation of the subjects involved in social interactions with their peers and teachers in a school setting. Finally, academic grades were collected from school records in order to study the possible relationships between academic and social competence. The diversity of measures collected reflected an attempt to assess as many facets of the child's social ecology as possible and avoid allowing the interpretation of results to depend too

heavily on a single measure and method of assessment, a common criticism of much of the previous research in this area (Coleman, Pullis, & Minnett, 1987).

Method

Subjects

Subjects for this study were taken from a larger, longitudinal study of social development in LD and NH children conducted in collaboration with the Dallas, Texas, Independent School District, one of the 10 largest school districts in the United States. Participants were selected from 60 classrooms in eight elementary schools. Two schools each contained Black, Anglo, or Hispanic majorities while two schools were balanced with regard to racial/ethnic composition. All testing was conducted under the blanket approval given by parents to the school district's group testing program with the restrictions that 1) all tests were to be group administered, 2) subjects were not required to reveal information about their families, and 3) that all subject's responses would be identified only by their six-digit student code. In addition, teachers and school administrators were not present during classroom sessions in which questionnaires were completed and only aggregated data were available to school district personnel.

Seventy-three LD children were selected from a larger sample of over 300 LD students in regular elementary school classrooms with the only restriction being that the classroom contained more than one LD child. These children were evenly distributed across grades three through six, were 78% male, and contained

41% Anglos, 38% Blacks, and 20% Hispanics. All LD subjects had been certified as learning disabled by the school district, based on a discrepancy between potential and performance, and were receiving one or two hours daily instruction in resource classrooms. The social status of each LD child was determined from data available through peer nomination studies conducted in their regular classrooms (See Procedures section). A comparison sample of nonhandicapped subjects was then selected from a pool of over 1,100 children using a stratified random sampling technique within classroom to match these children to LD students with regard to social status, sex, race, grade and ethnicity. In a few cases within classroom matches were not possible so a child from the same school and grade but a different classroom was selected. The final sample contained equal numbers of LD and NH students, 112 boys and 34 girls, and 46 popular, 70 rejected, and 30 neglected children.

Measures

Social Status. Social status for each child was determined from regular-class peer nominations in which students in each regular classroom were given rosters containing the names of all boys and girls in that class. Boys were then asked to circle the names of three boys they liked to play with while girls were asked to do the same with regard to girls. They were then instructed to place an 'X' beside the names of three same-sex children they did not like to play with. While some have suggested this procedure might sensitize children to disliked classmates, recent studies have shown that the effect is minimal (Bell-Dolan, Foster, & Sikora; 1989; Hayvren & Hymel, 1984).

Social status categories for all subjects were then derived using procedures described initially by Coie, Dodge, and Coppotelli (1982) and redefined by Coie and Dodge (1983) as follows: "Like" and "dislike" nominations were standardized within classroom and sex by converting them to Z scores. Social preference (standardized liked - standardized disliked) and social impact (standardized liked + standardized disliked) scores were then computed and restandardized within sex and classroom. Social status for each child was then determined using the following criteria: Popular - like > 0, dislike < 0, and social preference > 1; Rejected - like < 0, dislike > 0, and social preference < -1; Neglected - like < 0, dislike < 0, and social impact < -1; Controversial - like > 0, dislike > 0, and social impact > 1; and Average - those subjects whose scores did not meet criteria for popular, rejected, neglected, or controversial group inclusion. Controversial children, those who are both highly liked and highly disliked, were excluded from the study because this group is always very small in the sociometric literature, is less stable than other categories (Beck & Collins, 1985; Bukowski & Newcomb, 1984), and has seldom been studied. Children of average social status were also excluded since our research questions targeted children whose social standing among peers possessed either a positive or negative valence, which, by definition, precluded average status subjects. The selected sample of of LD and matched nonhandicapped peers was 47% rejected by their regular-class peers while 30% fell into the popular category and 23% were neglected.

Self-Concept. All subjects completed two self-concept questionnaires. The Harter Perceived Competence Scale (Harter, 1982, 1985) contains 28 stimulus items that children endorse on a four-point scale. The measure has been factor analyzed into four domains assessing self-competence in the following areas: cognitive, physical, and social self-concept, as well as general self-esteem. Each stimulus item is dichotomous, in that the child is provided two alternative descriptions of types of children. For example, "Some kids forget what they learn BUT other kids can remember things easily." Once the child has determined which type of child describes him, then he must further decide if it is "Really true for me" or "Sort of true for me." Reports of subscale reliability in several several samples have ranged from .75 to .83 (Cognitive), .75 to .84 (Social), .77 to .86 (Physical), and .73 to .82 (General) (Harter, 1982; Wylie, 1989).

The second measure of self-concept was the Self-Description Questionnaire (Marsh et al, 1983, 1984), a multidimensional instrument designed to measure seven facets of self-concept hypothesized by Shavelson and Bolus (1982). The measure contains 66 stimulus items divided into the following areas: 1) physical abilities, 2) physical appearance, 3) relations with peers, 4) relations with family, 5) reading abilities, 6) mathematics abilities, and 7) all School Subjects abilities. Children completed the instrument by providing ratings on a six-point Likert scale that ranged from completely false to completely true. Marsh, et al. (1984) reported internal consistency reliabilities for the seven scales in the .80's and .90's, which

have been replicated by other investigators (Wylie, 1989). The two self-concept measures represent the best instruments currently available in terms of their psychometric properties and their grounding in theoretical models of children's self-perception. Numerous studies have confirmed the integrity and stability of their structure through factor analysis and there exists independent evidence that children's performance on the measures is predictable from theoretical models. Wylie (1989) sees these criteria as the most appropriate for determining the utility of self-concept instruments.

Social Relations

Children's social relations were judged using several methods. First, each subject completed the Loneliness Questionnaire (Asher, Hymel, & Renshaw; 1984). The instrument consists of 24 items, 16 of which focus on children's feelings of loneliness, social adequacy or inadequacy, and estimation of peer status. Children repsond on a five-point scale indicating how true each statement is about them and a single total loneliness score is yielded which can take values ranging from 16 to 80. The authors' report an internal consistency reliability of .90 based on Cronbach's Alpha.

Second, all children completed a five-point sociometric rating scale on which they indicated the extent they liked to play with each of their classmates. Descriptors included: I like to play with this person a lot, I kind of like to play with this person, I neither like nor dislike playing with this person, I kind of don't like to play with this person, and I don't like to

play with this person at all. This procedure differed from the peer nomination technique in that each child rated all other children in their classroom including both same-sex and opposite-sex peers.

Finally, the Affiliation Network Questionnaire, developed by the authors for the project and designed to assess peer relations outside of school, was administered. Issues addressed included how many friends the child had in the neighborhood, their ages, how often they played together, and the extent to which they argued and/or fought with their peers. One additional question, asking how many schools the child had attended, was included to judge the child's longevity in the neighborhood.

Teacher Ratings. Teachers were asked to complete a 23 item questionnaire for all students in their class. The instrument, a shortened version of Thomas and Chess' Teacher Temperament Questionnaire (1977) yields three supraordinate categories: a) task orientation, b) adaptability, and c) reactivity (Cadwell & Pullis, 1983). Teacher responses are on a six-point scale ranging from "hardly ever" to "almost always" which indicate how often certain behaviors occur within the classroom. Keogh, Pullis, and Cadwell (1982) reported five week temporal stability reliabilities for the instrument across several samples that averaged .81. They have also reported the following internal consistency reliabilites based on coefficient alpha; task orientation, .94; adaptability, .88; and reactivity, .69. These temperament characteristics have been found to be significant factors that influence teachers' perceptions and classroom decisions for both normal (Pullis & Cadwell, 1982) and MH chil-

dren (Pullis, 1985). Teachers were also asked to use a six-point Likert scale, ranging from significantly below average to significantly above average, to rate students' social skills, current academic performance, classroom motivation and general intelligence.

Academic Data

Children's fall semester grades were obtained in four areas; reading, math, social studies, and science. Social studies and science grades were always assigned by regular-class teachers while math grades for LD subjects were assigned by both regular-class and special education teachers and reading grades for LD subjects were assigned solely by special education teachers.

Behavioral Observations

Positive and negative social behaviors given and received by each child in interaction with peers and teachers were assessed by direct observation. Frequency counts of each class of behavior were segmented into one-minute intervals during ten-minute observations in each of two settings (regular classroom and physical education class). Positive social behavior included verbal praise, affiliative touch, laughing, smiling at another, and helping. Negative behavior included verbal and physical abuse, screaming, taunting, teasing, gestures, rejecting another, and disrupting others' activities.

Five observers were trained on the observation system using videotapes of classroom situations and free-play episodes. At three time invtervals during the actual observations, twenty

percent of the sample was observed concurrently by various pairs of the five observers to determine reliability. The reliability of the data was judged in terms of occurrence or nonoccurrence of the various classes of target behavior in each of the 20, one-minute frames that constituted the observation. Reliability was computed as the number of frames in which observers' agreed a target behavior occurred, expressed as a proportion of the total number of observation frames (agreements and disagreements). Frames in which observers agreed on the nonoccurrence of behavior were not included. Reliability varied by behavioral category as follows: positive behavior to peers, 76%; positive behavior from peers, 76%; negative behavior to peers, 78%; negative behavior from peer, 88%; positive behavior to teacher, 80%; positive behavior from teacher, 100%; negative behavior to teacher, 100%; and negative behavior from teacher, 88%.

Procedures

Self-report, peer nominations, and peer ratings were collected during the Spring semester of the school year to assure that all children were familiar with members of the class. Teachers were not present during the sessions, and all children in every classroom participated. Each item of each questionnaire was read aloud to the entire class by members of the research staff as the children completed the measures individually. Teachers completed their ratings for each member of the class during the Spring semester and were told only that the research project was studying the social development of LD children who are mainstreamed into regular classrooms. Semester

grades were taken from the Fall semester prior to the other assessments..

Behavioral observations were made during the last two months of the school year following the collection of descriptive information. Subjects were observed for 10 minutes in their regular classroom and 10 minutes in physical education classes (PE) by five doctoral students who did not know either the child's academic placement or social status. Teachers were unaware of which children were the targets for observation, and students were told that the observer was simply a visitor to the classroom who was studying to be a teacher.

Collecting such an extensive set of information on a large sample necessarily required a fairly long period of time. Inevitably, data were lost for some subjects on some variables as a result of the student moving or being absent on the day a particular measure was administered. For this reason, the sample size varies somewhat across the various analyses presented in the next section. However, this attrition does not appear to have seriously affected the balance of the samples across the characteristics on which they were matched.

Results

A series of six multivariate analyses of variance (MANOVAS) were conducted using group membership (mildly handicapped or not handicapped) and social status (Popular, Rejected, Neglected) as independent variables. The grouping of dependent variables for each analysis were as follows: 1) Academic Ability, which

included numeric semester grades in reading, math, social studies, and science; 2) Teacher Academic, which included regular-class teachers' perceptions of the child's classroom motivation, academic performance, task orientation, and general ability; 3) Teacher Social, which included the regular-class teachers ratings of the child's adaptability and social skills as well as direct observational data as to the frequency of positive and negative behavior in interactions between teacher and child; 4) Social Contact, which included number of neighborhood friends and how often they played together, the incidence of arguing and fighting with friends, the number of schools attended (to reflect mobility), the child's ratings of loneliness, and average classmates' ratings of the child's social desirability; 5) Social Self-Concept, which consisted of the social factors from the Harter and the SDQ; and 6) Peer Interaction, which included both positive and negative behaviors initiated by the child and received by the child from peers.

Behavioral observations were taken in two contexts (classroom and PE class). In a preliminary analysis differences in behavioral frequencies across the two settings were compared. The results suggested that peer interactions occurred more often in PE classes while teacher interactions were more frequent in classroom settings. However, setting did not interact with either group membership or social status to produce differential outcomes. For this reason, the behavioral data were collapsed across setting.

When an analysis yielded a significant multivariate effect,

the various univariate variables comprising the effect were examined. When appropriate, significant univariate effects were further decomposed through post hoc testing using the Scheffe procedure. Alpha was set at .05 for all analyses.

Academic Ability

The 2 X 3 MANOVA on academic variables yielded only a significant multivariate effect for group membership ($F(4,124) = 2.86$, $p = .025$). Subsequent analysis of individual variables revealed that NH children scored higher than LD children in two academic areas, social studies and science (See Table 1). While math and reading scores failed to differentiate the two groups this must be considered in light of the fact that most LD children received their grades in these academic areas from special education teachers. It is possible that these grades reflect different grading policies on the part of resource teachers or differences in the difficulty of curriculum within each of the two academic settings. While not surprising, these results provide a clear indication of the academic difficulties encountered by LD children independent of their social status.

Insert Table 1 About Here

Teacher Academic

The academic distinctions between LD and NH subjects was further emphasized by the significant multivariate effect for group membership in this analysis ($F(4,114) = 12.45$, $p = .0001$). Significant group effects were evident for all dependent varia-

bles included (See Table 1). Teachers rated NH children higher than LD children in motivation, task orientation, general intelligence, and academic performance but made no distinctions between children based on social status nor did the two factors interact.

Teacher Social

The only significant multivariate effect in this analysis was again for group membership ($F(6,114) = 3.32$, $p = .005$). Teachers made distinctions between the two groups in terms of their social skills, reporting NH children as more skilled (See Table 1). In addition, regular-class teachers displayed more negative behavior to LD than to NH children. While only a marginal effect ($F(12,228) = 1.60$ $p = .09$), the interaction between independent variables details the relationship between teacher interactions, group membership, and social status (See Figure 1). Univariate interactions indicated trends for the amount of positive behavior directed toward teachers ($F(2,119) = 2.90$ $p < .06$) and amount of negative behavior received from teachers ($F(2,119) = 2.66$ $p < .07$). Across all groups, LD popular children were more likely to initiate positive behavior toward teachers and receive negative behavior from teachers while NH popular children initiated the fewest positive behaviors and received the fewest positive behaviors from regular-class teachers. It appears that teacher interactions with popular students varies substantially as a function of the child's group membership.

Insert Figure 1 About Here

Peer Contact

The MANOVA conducted on items dealing with the peer network produced a significant overall effect for social status ($F(14,238) = 3.54$, $p = .0001$), but not for group membership or the interaction between the two factors (See Table 2). Popular children reported that they played with friends in the neighborhood more often than did rejected or neglected children. This may have been influenced by the fact that popular children are more stable within the neighborhood, moving less often than rejected children. Popular children, both LD and NH, also returned lower scores on the loneliness measure than did rejected children. Classmates of both sexes also indicated that they preferred playing with both popular and neglected children more than with rejected children.

Insert Table 2 About Here

Social Self-Concept

Significant overall main effects were found for both academic placement ($F(2,116) = 4.64$, $p = .01$) and social status ($F(4,232) = 4.251$, $p = .002$) in the 2 X 3 MANOVA. Table 1 contains significant univariate analyses for the main effect for placement on social self-concept. Scores from the SDQ peer factor were higher for LD than for NH children. A similar pattern was evident on the Harter but the group differences were much smaller. Significant univariate analyses for the main

effect of social status can be found in Table 2, which shows that both the SDQ peer relations and Harter social self-concept scores varied between the status groups. Scheffe comparisons revealed that popular children reported more positive relations with peers (SDQ) than did rejected children, and that both popular and neglected children had higher social self-concepts (Harter) than did rejected children. The overall interaction effect was non-significant. These differences in self-reported social competence parallel those reflected in children's reports of loneliness and contact with peers outside of school as well as classmates' ratings of the child's likability.

Observed Behavior

Results of the 2 X 3 MANOVA conducted on observed behaviors with peers revealed a significant overall main effect for social status ($F(8,274) = 2.51$, $p<.01$) and a trend for the interaction of academic placement and social status ($F(8,274) = 1.72$, $p<.09$). Table 2 lists the significant univariates for the effect of academic placement which included giving positive behavior to peers and receiving positive behavior from peers. Post-hoc comparisons found that popular children were more likely to direct positive behavior to peers than were rejected children, and that popular children were more likely to receive positive behavior from peers than were rejected children.

The two-way interaction for displaying positive behavior toward peers approached significance ($F(2,140) = 2.84$. $p = .06$) while the same effect for receiving positive behavior from peers was significant ($F(2,140) = 3.42$, $p = .03$) (See Figure 1).

Exchange of positive behavior was far more variable for LD than for NH children. The interaction effects seem primarily due to the fact that popular LD children were far more likely to both give and receive positive social behavior from peers. This held true regardless of academic placement. This closely parallels the finding that popular LD children were also more likely than other groups to initiate positive behavior with teachers.

Discussion

This investigation was designed to study differences in the social competencies of LD and NH children while equating the samples on peer social status. Matching the two groups on social status and other demographic characteristics was useful in separating the effects of social status from those of handicapping condition, but it necessarily created a NH sample that inadequately represented the population of NH children from which they were selected. These subjects were taken from a larger pool of over 1,100 elementary school children in which 15% of non-handicapped and 28% of the LD children were rejected by classmates in mainstreamed classrooms. Therefore, in matching the NH sample to the social status of the LD sample the proportion of NH rejected children was substantially raised. At the same time, the proportion of nonhandicapped popular children was lowered. Given the systematic differences in social competence associated with popular versus rejected social status revealed in this investigation, it seems likely that the large proportion of rejected children in the NH sample resulted in the scores of the NH sample being lower on many variables than would be the case if a more representative group of NH children were studied.

For this reason, the reader is cautioned not to generalize from this NH sample to the larger population of nonhandicapped children.

It is clear that academic differences between LD and NH children exist independent of the child's social status. Grades given by regular-class teachers in science and social studies favored NH students. While grades in math and reading did not discriminate the two groups, this finding must be tempered by the fact some math grades and all reading grades were given by resource-class teachers. It is possible that the comparable grades given to the two groups in these academic areas may reflect a positive bias in the grading of special education teachers rather than indicating similar levels of academic success. Equally plausible is the possibility that the curriculum in the resource classroom is tailored to the child's current competencies and better grades should be expected. Academic distinctions between LD and NH children were also evident in the ratings provided by regular-class teachers. In addition to making better grades and being considered smarter, NH children were also seen as being more task oriented and having higher motivation than LD children.

These teachers also considered LD children less skilled socially and engaged in more negative interactions with these students than with NH children. However, both these outcomes must be viewed cautiously. Analysis of teacher ratings of social skills yielded a larger effect for social status than for group membership although this outcome was not reported earlier

since the multivariate effect for group membership was not significant. Univariate analysis of negative teacher behavior toward the child produced a significant interaction between academic placement and social status. As Figure 1 demonstrates, popular LD subjects received more negative behavior from teachers than any other group while there were no instances of such teacher behavior for popular NH children. These behavioral data are also somewhat suspect due to the low base rate of the target behavior and the possibility that such a short observation period might not adequately capture the true rate of the behaviors targeted.

With regard to ratings provided by peers or the subjects themselves, the only multivariate effect for academic placement was for social self-concept. LD children scored higher as a group than NH children on the Peer Relations factor of the SDQ. To demonstrate the magnitude of these differences, effect sizes (Glass, 1977) were computed for each social status group using the standard deviation of the appropriate NH sample as the denominator. Rejected LD children scored .8 of a standard deviation higher than NH subjects from the same social status while this difference fell to .45 for popular LD children and .27 for neglected NH children. Higher scores for LD subjects were also evident on the Harter social factor although the differences were much smaller.

A number of investigations have suggested that the self-concepts of LD children may be comparable to those of NH children (Chapman, 1988; Coleman, 1983; Strang, Smith, & Rogers, 1978;) The basis for these findings seems couched in social

comparison theory, which suggests that children use others in their immediate social comparison group (classmates) as the basis for making judgments as to their own competence. In addition, the tendency to use specific peers as the basis for referential evaluation is a function of perceived similarities, that is, children seem more likely to chose peers of comparable ability as the basis for comparison (Smith, Zingale, & Coleman, 1978). If this is true, then the resource classroom provides many LD children with a reference group in which they may perceive their own capabilities within a more favorable light. This would seem particularly true for rejected LD children who represent the largest social group within such settings. While rejected children seem less competent socially than others, using other rejected children as the basis for making decisions about their own social competence might yield more favorable results than if their social comparisons were limited solely to regular-class peers. This contention seems buttressed by the extremely low self-concept scores for rejected NH subjects, who like LD rejected children have limited social competence, but unlike their LD peers have no second reference group within which to make self-concept relevant social comparisons. To some extent, this may hold true for all LD subjects, regardless of social status.

Self-concept differences as a function of social status were even larger than those that resulted from group membership. On the Harter, popular and neglected children were systematically higher than rejected children while on the SDQ popular and

rejected children were significantly different with neglected children falling intermediate. This pattern was consistent regardless of academic placement and parallels the outcomes of other studies with NH subjects suggesting a positive relationship between social status and perceived social self-competence (Boivin & Begin, 1989) with popular children viewing themselves as more competent than children from other status groups (Minnett & Coleman, 1991).

Social status differences were also evident with regard to children's social networks. Peers rated popular children as more socially desirable than neglected or rejected children. It is important to note that these ratings were from both same sex and opposite sex peers whereas the social nominations used to construct the status groups were based only on same sex nominations. Popular children also spent more time playing with peers in their neighborhoods than did rejected children, who, in turn, reported having fewer contacts with peers and being lonelier than popular children. One partial explanation for the difficulties encountered by rejected children in their peer network is the fact that their families appear to be more transient than those of children from other social statuses. Rejected children have attended a greater number of schools than popular children. It seems likely that difficulties in social competence would necessarily be exacerbated by frequent moving and having to establish new social networks.

The effects of social status were clearly evident in the behavioral observations of children engaged in social interactions but there was no main effect for academic placement.

Popular children both gave and received more positive social behavior than rejected children with neglected children falling intermediate between the other two groups. Moreover, the interaction between academic placement and social status approached significance suggesting that for LD children to be considered popular by NH peers requires an even higher level of prosocial behavior than for NH popular children.

Once social status differences between LD and NH children are equated it seems clear that the distinctions between the two groups reside more in the academic than in the social domain. In fact the major findings of this investigation indicate that differences in children's social competence are related to the child's social status and not handicapping conditions. Children considered popular by same sex peers are viewed as more competent than rejected children. This pattern is evident in teacher ratings, the child's self-perceptions, ratings provided by peers, the child's social contacts outside of school, and at the level of overt behavior. It is consistent for both LD and NH children.

Two points must be made. One, while LD children are often rejected by their peers this outcome is not inevitable. Some LD children are considered popular. As such, they share many of the social characteristics of NH popular children. We must learn more about these children who, in spite of their academic difficulties, appear capable of succeeding in the social mainstream of public elementary education. Since it seems unlikely that we will be able to completely eliminate the academic

difficulties encountered by LD children, studying children who are successful socially despite limited academic success seems a profitable avenue for identifying social skills that may be useful to other LD children.

Even more important, we must realize that LD children who are viewed unfavorably by their regular-class peers represent a small subset of a larger group of socially rejected children who, while not considered handicapped, encounter many of the same problems faced by the unpopular LD child. The knowledge special education has developed with regard to social skills training must be shared with regular education. It would seem desirable to supplement social skills training in special education with comparable training in the educational mainstream targeted on all children who have social difficulties without

distinction between the presence or absence of learning disabilities.

We are led to the conclusion that including social skills deficits as a defining characteristic of learning disabilities is unwarranted. We must guard against allowing the disproportionately high rate of social rejection among LD children to lure us into the generalization that learning disabilities and social deficits are linked causally. Such a generalization diverts our attention from studying those LD children who prosper socially in the educational mainstream and it unduly singles out rejected LD children from the larger group of rejected children in which they reside.

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Table 1

Main Effect for Group Membership
Significant Univariate ANOVA's

	LD M/SD	NH M/SD	F	p
Grades:				
Social Studies	71.81 10.42	77.55 9.60	7.13	.009
Science	74.55 8.68	79.43 8.56	8.38	.005
Teacher/Academic:				
Motivation	2.94 1.20	3.63 1.07	13.02	.0005
Task Orientation	3.20 1.16	3.74 1.24	7.97	.006
Academic Performance	2.39 0.95	3.59 1.22	40.05	.0001
Intelligence Estimate	2.19 0.97	3.52 1.22	40.85	.0001
Teacher/Social:				
Social Skills	3.56 0.94	3.89 0.98	5.89	.02
Receive Negative Behavior from Teacher	0.59 0.89	0.14 0.61	5.89	.02
Social Self-Concept:				
SDQ Peer Relations	4.93 0.83	4.32 1.21	6.31	.01

Table 2

Main Effect for Social Status
Significant Univariate ANOVA's

	Popular M/SD	Rejected M/SD	Neglected M/SD	F	p
Social Network:					
Social Rating	2.57[a] 0.49	3.19[b] 0.60	2.57 0.58	19.11	.0001
Play w/ Friends	4.47[a] 1.06	3.53[b] 1.57	3.70[b] 1.15	6.71	.002
Loneliness	31.43[a] 14.20	38.83[b] 12.77	33.65 10.58	4.18	.02
Number of Schools	2.29[a] 1.33	3.10[b] 1.50	2.73 1.40	3.73	.03
Social Self-Concept:					
Social Self-Concept	3.11[a] 0.58	2.65[b] 0.59	2.99[a] 0.61	7.22	.001
SDQ Peer Relations	5.01[a] 0.91	4.30[b] 1.21	4.63 0.90	4.83	.009
Behavior with Peers:					
Directs Positive Behavior to Peer	6.93[a] 3.06	5.00[b] 2.86	6.06 3.99	5.43	.005
Receives Positive Behavior from Peer	6.11[a] 2.95	4.19[b] 2.73	4.74 3.68	6.01	.003

Group means with different superscripts were significantly different on post hoc tests using the Scheffe procedure with alpha set at .05.

Table 3

Group Membership X Social Status Interaction
Significant Univariate Analyses

	Learning Disabled			Non-Handicapped				
	Pop	Rej	Neg	Pop	Rej	Neg	F	p
	M/SD	M/SD	M/SD	M/SD	M/SD	M/SD		
Behavior with Teachers:								
Gives Positive Behavior to Teacher	0.86	0.20	0.29	0.22	0.50	0.55	2.90	.06
	1.74	0.55	0.59	0.43	1.11	0.69		
Receive Negative Behavior from Teacher	0.76	0.57	0.24	0.0	0.14	0.36	2.66	.07
	1.09	0.86	0.56	0.0	0.45	1.21		
Behavior with Peers:								
Gives Positive Behavior to Peer	7.82	4.41	6.12	6.09	5.56	6.00	2.84	.06
	3.33	2.76	3.55	2.56	2.87	4.61		
Receives Positive Behavior from Peer	7.27	3.85	4.71	5.00	4.50	4.79	3.42	.04
	3.19	2.72	3.00	2.24	2.73	4.49		

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Similarities in the Social Competencies of Learning[1] Disabled and Low-Achieving Elementary School Children

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Running Head: Similarities in LD and LA Children

Similarities in the Social Competencies of Learning Disabled and Low-Achieving Elementary School Children

Numerous studies have indicated that the social interaction skills and social acceptance of children with learning disabilities (LD) are deficient in comparison to nonhandicapped children. This seems true regardless of whether the judgment of social competence of the child with LD is based on teachers' perceptions (Bursuck, 1989; McKinney, McClure, & Feagans, 1982), parents' perceptions (Gresham & Reschly, 1986; Sater & French, 1989), peer perceptions (Bryan, 1974; Garrett & Crump, 1980), the child's self-perceptions (Kistner & Osborne, 1987), or the actual behavior of children observed in social interaction (Bryan, 1974; Bryan & Bryan, 1978). In fact, the data have so consistently linked social skills deficits and peer rejection to mild handicapping conditions that it has been suggested that such difficulties be considered criteria for defining learning disabilities (Interagency Committee on Learning Disabilities, 1987).

Despite the consensus of these descriptive studies, there is little evidence to link social skill deficits causally to children's learning disabilities. In fact, most children who are inadequate socially are not learning disabled (Hartup, 1983). However, these socially inept children share with the LD population the common feature of academic deficits. Such deficits have been shown repeatedly to be linked to children's social status in the eyes of their peers (Gottman, Gonso, & Rasmussen, 1975; Green, Forehand, Beck, & Vosk, 1980). It seems possible that academic deficiency, not learning disabilities, is the common denominator for children's social difficulties. The logical test

of this proposition would be to compare various facets of social competence in children with LD with other children equated on academic ability. However, few studies have followed this design and the data from these investigations are deficient on several fronts.

To date, we can find only five studies comparing the social skills of children with learning disabilities to academically comparable nonhandicapped children. Bursuck (1983) reported that 12 boys with LD were comparable to academically matched nonhandicapped classmates with regard to peer acceptance and positive friendship nominations. Likewise, Bender, Wyne, Stuck, and Bailey (1984) reported that a small sample of sixth grade boys with LD (n = 13) were no different than other low-achieving (LA) students on ratings of peer acceptance.

Three more recent studies yield somewhat mixed results. Bursuck (1989) compared students with LD (n = 8) and LA students on three dimensions of social competence. Though differences between the two groups were found in terms of peer acceptance, the two groups were comparable on both teacher and self-ratings of social competence. In the largest study currently reported, Sater and French (1989) compared groups of LD and LA students. They found no between group differences with regard to sociometric status or the incidence of peer rejection. Moreover, they reported that approximately 70% of the LD sample (n = 101) did not experience social rejection.

In the most recent study reported, LaGreca and Stone (1990) compared children with learning disabilities (n = 32) to both average and LA children. They found that students with learning

disabilities were less accepted and less well-liked than children in the other two groups, and that they also perceived their self-worth and social acceptance to be lower. However, LD children were no more actively rejected by peers than their LA counterparts. In addition, the authors provided some marginal evidence that a subgroup of girls with LD (n = 11) experienced more social difficulties than boys with LD.

The studies reviewed above suffer from several limitations, the most obvious of which relate to sample characteristics. Three studies (Bender et al., 1984; Bursuck, 1983, 1989) contained fewer than 15 subjects, which severely limits the generality of the results. LaGreca and Stone (1990) began with a sample of 57 subjects with learning disabilities but dropped nearly half the sample because they could not be matched academically to children in the regular classroom. Moreover, the children with LD who could not be matched to LA classmates were also significantly lower academically than the children with LD who participated in the study. Only the Sater and French (1989) study utilized a sufficiently large sample to warrant generalizing the results to other subjects. Samples from these studies were also restrictive with regard to racial/ethnic composition. Bursuck studied Anglo children exclusively. LaGreca and Stone's sample contained only three minority LD students and Sater and French's results included only four minority LD students. Clearly, the size and characteristics of these LD samples restrict the external validity of the studies reviewed.

A second concern with these studies is whether the matching

strategies they employed resulted in LD and LA samples that were, in fact, comparable academically. Sater and French's (1989) strategy was to rely on teacher's indications of whether the subjects belonged in high, middle, or low achievement groups, a very crude index of children's academic competence. Bursuck (1989) matched LD to LA subjects using the results of a one-minute oral reading probe from the student's grade level basal reader. While LaGreca and Stone (1990) did rely on nationally standardized achievement test scores as the basis for sample selection they considered a pair of subjects matched if the LA child's reading achievement score was within one stanine of the LD child's score. Converting their stanine data back to percentiles reveals an average score for the LD sample of 33.71% versus 41.8% for the low-achieving sample, a substantial difference. All three matching strategies seem questionable in their ability to produce samples of LD and LA children of equivalent academic ability.

The present study sought to compare the social competencies of LD children in comparison to other low-achieving children while improving on previous research in several ways. First, a more exacting matching procedure, utilizing composite percentile scores from a nationally standardized achievement test, was used to insure that LD and LA children were comparable academically. Second, the sample was sufficiently large to enable matching children on grade, sex, race, and achievement while including a substantial number of black and Hispanic children as well as Anglo children. Finally, a wider range of measures of social competence were utilized. Data were collected that assessed the

child's social competence from the child's own perspective, peers' perspectives, and teachers' perspectives. In addition, the child's social relations were assessed as they related to classmates, friends outside of school, and parents.

Method

Subjects

The sample of third- through sixth-grade subjects for this investigation were taken from a larger, longitudinal study of social development in LD and nonhandicapped children conducted in the Dallas, Texas, Independent School District, one of the ten largest school districts in the United States. The 85 students with learning disabilities were selected randomly from the enrollments of 60 classrooms in eight elementary schools, having first stratified class rosters by sex, grade, and race. Two schools contained black, Anglo, and Hispanic majorities while the remaining two schools were balanced with regard to racial/ethnic composition. All subjects with LD had been certified as learning disabled by the school district, based on a state adopted discrepancy between potential and performance, and were receiving either one or two hours' daily instruction in resource classrooms.

Eighty-five LA children were selected to serve as the comparison group. The matching criteria included sex, grade, race/ethnicity, and composite national percentile scores on the Iowa Test of Basic Skills (administered by school district per-

sonnel). LD and LA children were considered academic matches if their achievement scores differed by no more than five percentile points. The average composite percentile score was 14.94 for the LD sample and 14.25 for the LA sample. A single classification analysis of variance (ANOVA) using LD/LA as the independent variable demonstrated the comparability of the achievement scores of the two groups, F (1,169) = .45, p = .503. In consideration of the fact that percentile scores do not meet all the assumptions of interval level data required for the ANOVA, the same analysis was conducted using a less powerful median test for ordinal data which produced similar results, X^2 (1) = .213, p = .644. Table 1 contains composite percentile scores for the sample partitioned by sex, racial/ethnic membership, and the presence of a diagnosed learning disability. Reflecting the typical preponderance of males in special education, the sample contained 108 males and 62 females. Seventy-two subjects were black, 66 were Hispanic, and 32 were Anglo.

Insert Table 1 about here

Instruments

Self-Concept

Children's perceptions of their own social competence and social relations were measured by the Social and General factors of the Harter Perceived Competence scale for Children (Harter, 1982) and the Peer Relations and Parent Relations factors of the Self-Description Questionnaire (SDQ) (Marsh & Parker, 1984). The Harter Social Factor contains seven items endorsed by the child

on a four-point scale. Each stimulus item is dichotomous, in that the child is provided two alternative descriptions of children. For example, "Some kids forget what they learn BUT other kids can remember things easily." Once the child has determined what type of child describes him or her, then he or she must further decide if it is "Really true for me" or "Sort of true for me". The SDQ Peer Relations Factor contains seven stimulus items that children rate on a six-point Likert scale ranging from completely false to completely true. These measures have been judged to have the best psychometric properties of all children's self-assessment measures and are anchored in theoretical models of children's self-identity development (Wylie, 1989). Wylie reported average internal consistency reliabilities (collapsed across four samples) of .78 for the Harter Social factor and of .80 for the General self-worth factor. She reported internal consistency reliabilities (collapsed across five samples) of .84 for the SDQ Peer Relations factor and of .85 for the Parent Relations factor.

Loneliness

Asher, Hymel, and Renshaw's (1984) Loneliness Questionnaire was also completed by all subjects. The instrument consists of 24 items, 16 of which focus on children's feelings of loneliness, social adequacy or inadequacy, and estimation of peer status. Children respond on a five-point scale indicating how true each statement is about them and a single total loneliness score is yielded. The authors report an internal consistency reliability of .90 based on Cronbach's Alpha.

Social Ratings

Using a five point scale, all children in each of the 60 participating classrooms comprising the larger study were asked to complete a peer rating for all peers in their classrooms (cf. Oden & Asher, 1977). All children in the classroom were asked to judge how much they liked or disliked each of their classmates. Lower scores on the peer rating scale indicated greater liking. This point is made to highlight the fact that the peer ratings for the subjects in this study were summarized from the perceptions of all classmates, not just the other children participating in the study. Subjects also completed an outside-of-school questionnaire designed for the study. Stimulus items inquired about their social relations outside of school including items that assessed the number of neighborhood friends they had, how often they argued and/or fought with neighborhood peers, and how often they got into trouble at home and at school.

Teacher Ratings

Teachers completed two measures. One was a simple six-point rating scale designed for the study that asked them to assess the subject child's social skills in relationship to other children in the same classroom. The second measure was a shortened version of Thomas and Chess' (1977) Teacher Temperament Questionnaire which yields three supraordinate categories: (a) task orientation, (b) adaptability, and (c) reactivity (Cadwell & Pullis, 1983). These temperament characteristics have been found to be significant factors that influence teacher's perceptions and classroom decisions for both nondisabled children (Pullis & Cadwell, 1982) and children with LD (Pullis, 1985). For the

present investigation only the Adaptability factor, an eight-item measure of the child's sociability with peers, was analyzed.

Procedures

Self-report measures and peer ratings were collected during the spring semester of the academic year to assure that all children and teachers were familiar with each other. All children in all participating classrooms completed all of the measures. Each item of each questionnaire was read aloud to the entire class by members of the research staff as the children completed the questionnaires individually. Teachers completed their ratings for each member of the class during the spring semester and were told only that the research project was studying the social development of children with learning disabilities who were mainstreamed into regular classrooms. The Iowa Test of Basic Skills was administered by school personnel as part of the district-wide testing program conducted during the spring semester.

Results

The reader should keep in mind two limitations while reviewing the following results. First, as with all nonexperiemental research, the groupings LA and LD are purely descriptive. Since subjects cannot be selected randomly into these levels of the independent variable we cannot assume that handicapped labels are the only factors that separate these groups. Second, the sample for this study is multicultural, multiracial, and drawn largely from lower and lower-middle class families. While we believe it adequately reflects the composition of most large urban school

districts, it has limited population validity for schools with other demographic characteristics, as might be found in suburban, rural, or small-town environments.

Due to the intercorrelations between dependent measures, data were analyzed using both multivariate and univariate techniques. Self-concept data were analyzed using a multivariate analysis of variance with status, sex, and race as independent variables. The Harter Social and General factors and the SDQ Peer Relations and Parent Relations factors served as dependent variables. Social network data were analyzed through the same multivariate procedure using the same independent variables but including the Loneliness Questionnaire and items from the Outside-of-School Questionnaire as dependent measures. The same design was used for teacher data with the social skills ratings and the Pullis Adaptability score serving as the dependent variables. Statistically significant multivariate effects were decomposed into univariate effects and post hoc comparisons were conducted using the Scheffe procedure. Finally, the peer ratings were analyzed using a univariate analysis of variance with status, sex, and race as independent variables. Alpha was set at .05 for all comparisons.

Self-Concept

The multivariate analysis of self-concept data did not yield a significant main effect for any independent variable nor were there any higher order interactions. The groups did not differ based on the sex or race of the child nor the presence or absence of handicapping conditions. As can be seen from Table 1, self-concept data were mixed, with LD children scoring somewhat

higher than LA children on the SDQ measure of social self-concept while just the opposite effect was evident on the Harter Social factor. Scores on the SDQ Parent Relations factor and the Harter General Self-Esteem factor both favored LA children although the differences between groups were minimal.

Social Network

Analysis of social network data yielded a significant multivariate main effect for sex, F (6,153) = 3.36, p = .0039, and handicapped status, F (6,153) = 5.98, p = .0001. No other main effects or interactions approached significance.

LD subjects scored significantly better on the Loneliness Questionnaire, F (1,158) = 30.36, $p < .0001$, where lower scores indicate lower levels of loneliness (see Table 1). They also reported arguing less with friends in their neighborhood, F (1,153) = 3.68, p = .05. To better judge the magnitude of these effects, the differences between groups on each of the two variables were converted to effect sizes (Glass, 1981) by dividing the difference between group means by the standard deviation of the LA group distribution. For the loneliness variable, LD subjects' average score was .947 standard deviations lower than the LA average score. Expressed differently, the average LD child had a loneliness score at the 17th percentile of the LA distribution. For arguing with neighborhood friends, the average LD score was at the 37th percentile of the LA sample.

The significant multivariate effect for sex was a result of lower scores for girls than boys, independent of race or handicapped status, on three variables. Girls reported themselves

less likely than boys to argue with friends in the neighborhood, F (1,158) 8.22, p = .0047, less likely than boys to fight with friends in the neighborhood, F (1,158) = 11.14, p =.0011, and less likely than boys to get in trouble at school, F (1,158) = 11.60, p = .0008.

Teacher Ratings

The MANOVA for teachers' ratings of the children's social skills and the adaptability scores from the Teacher Temperament Questionnaire did not yield any significant main effects or interactions. Table 1 contains the scores for LD and LA samples on the two dependent variables. While teacher ratings on both variables favored LA students, the differences were minimal.

Peer Ratings

Since only one source of information was available from peers, their social ratings were analyzed using a factorial analysis of variance with the same independent variables as in previous analyses. Only the main effect for handicapped status was significant, F (1,158) = 10.99, $p < .01$, with peers reporting LD subjects as better liked than LA subjects. See Table 1 for group means. The effect size was .502 with the average LD child scoring at the 31st percentile of the LA sample, remembering that lower scores indicate that children are better liked by their peers.

Discussion

The results of this investigation suggest that there are few differences between the social competencies of children with learning disabilities and other children who have comparable academic difficulties, but who have not been diagnosed as learn-

ing disabled. This seems true for blacks and Hispanics as well as for Anglos and for girls as well as for boys. It also appears true regardless of whether the source of information regarding social competence originates with the child's own self-perceptions, the perception of peers, or the teacher's perceptions. In fact, performance on two variables, loneliness and peer acceptance, favored children with learning disabilities. This investigation also demonstrates several differences in the social competencies of boys versus girls that seemingly exist independent of racial/ethnic issues or handicapping conditions.

Children with LD in this study considered themselves comparable to other low-achieving children in terms of social self-concept while reporting themselves to be far less lonely than their regular-class counterparts. One explanation for this outcome may be their placement in resource classrooms. As stated elsewhere (Coleman & Minnett, in press), the resource classroom provides children with a second reference group in which to initiate and maintain social relations. Moreover, the range of social skills in resource classrooms is restricted in comparison to regular classrooms. The resource classroom thus provides a simpler social climate in which children less skilled socially may interact with comparable peers. This environment may well foster social affiliations between such children and, as a result, diminish feelings of loneliness. On the other hand, the low-achieving child in the regular classroom is restricted to interactions with peers who, for the most part, are more skilled socially, and more likely to reject their overtures. As a re-

sult, he or she may feel more social isolation from peers and return higher loneliness scores.

LD children in this study were also viewed as being better liked by regular class peers than were LA children. The basis for this distinction is unclear. Placement in the resource classroom may give LD children an understandable explanation for their academic difficulties. It also gives them class work suited to their academic abilities so failure is reduced. In these circumstances, the heightened self-respect gained may change the nature of their social interactions. Another possible explanation is that the LD child's social deficits are less obvious than those of the low-achieving child since he or she spends less time in the regular class. In addition, if children with LD utilize the resource classroom as a second social network, they may spend less time in social interaction with peers even when they are in the regular classroom. Equally plausible is the supposition that the learning disabled label may offer regular-class peers an explanation for the LD child's social and academic difficulties that buffers their negative feelings toward the child. No such explanation is available, however, for the social difficulties of the low-achieving child.

Incorporating these results into the previous literature on similarities and differences in social competencies of LD versus low-achieving children is somewhat difficult since this study differs from those that came before it in several important ways. First, it utilizes more subjects than has most previous research. Second, these subjects are primarily black and Hispanic whereas previous research has been limited primarily to Anglo children.

Third, these children are primarily from inner city schools in a large urban area and are from low to low-middle SES levels. Fourth, the LD and low-achieving samples are better matched than in previous research; that is, they are closer to each other in ability. Fifth, they are of lower ability than samples used previously. LaGreca and Stone (1990), who used standardized achievement scores as the basis for group matching, reported achievement levels in their sample in the 30th to 45th percentile while the children in this sample were at the 14th percentile.

With these caveats in mind, we see little evidence to suggest that the social difficulties encountered by this sample of LD children are distinguishable from similar problems encountered by other low-achieving children. Indeed, with regard to peer acceptance and loneliness, two areas where children with learning disabilities scored better than the low-achieving sample, differences between the groups are likely based not in the characteristics of the children but rather in differences in their instructional arrangements. The partial segregation of LD children in resource classrooms may be advantageous socially to these children by providing them an environment that is more homogeneous socially. In this restricted social climate their limited social repertoire is better received by peers who are closer to them in ability.

This study underscores the complexity of teasing out the factors responsible for the social difficulties of many children with learning disabilities. We must guard against the generalization that learning disabilities and social deficits are linked

causally since the term learning disabled remains a label that is more descriptive than explanatory. As our data suggest, on a level playing field there are few differences between the social competencies of learning disabled children and their low-achieving peers.

Table 1

Means and Standard Deviations for Dependent Variables Partitioned by Levels of Independent Variables

		Levels of Independent Variables						
		Anglo n=32	Black n=72	Hispanic n=66	Male n=108	Female n=62	LD n=85	LA n=85
Measures								
ITBS composite	M	20.65	13.13	13.24	13.87	15.85	14.24	14.94
	SD	10.37	8.89	8.79	8.69	10.86	9.61	9.54
Harter social	M	2.74	2.74	2.66	2.71	2.71	2.65	2.77
	SD	.52	.59	.57	.58	.52	.56	.57
Harter general	M	2.56	2.61	2.69	2.70	2.52	2.60	2.66
	SD	.55	.62	.52	.59	.51	.58	.55
SDQ peer	M	4.38	4.63	4.36	4.48	4.48	4.58	4.38
	SD	1.01	1.17	1.03	1.14	1.02	1.02	1.17
SDQ parent	M	4.95	5.07	5.01	5.05	4.99	4.97	5.08
	SD	.97	.86	.96	.88	.97	.93	.91
Loneliness[a]	M	46.67	44.58	45.94	45.52	45.45	40.46	50.54
	SD	10.45	11.87	9.87	11.48	9.56	11.74	9.82
Neighbor Friends	M	3.41	3.38	3.28	3.42	3.23	3.37	3.33
	SD	.77	.91	1.01	.85	.99	.83	.98
Argue with friends	M	2.42	2.97	2.50	2.93	2.27	2.46	2.91
	SD	1.36	1.23	1.29	1.32	1.11	1.23	1.27
Fight with friends	M	2.30	2.56	2.28	2.68	1.92	2.37	2.43
	SD	1.39	1.36	1.30	1.38	1.13	1.26	1.31
Trouble at school	M	1.83	1.93	1.95	2.10	1.60	1.88	1.96
	SD	.93	.98	.92	1.01	.71	.86	.94
Trouble at home	M	2.15	2.03	2.39	2.22	2.16	2.24	2.15
	SD	.95	1.01	1.12	1.08	1.01	1.10	1.00
Teacher rating	M	3.85	3.79	3.90	3.73	4.04	3.83	3.87
	SD	1.13	1.07	.81	1.03	.94	.92	1.09
Adapt	M	4.39	4.36	4.21	4.26	4.39	4.22	4.40
	SD	.78	.91	.55	.80	.71	.68	.84
Peer rating[a]	M	2.91	2.75	2.78	2.77	2.85	2.62	2.98
	SD	.69	.74	.66	.75	.60	.70	.69

[a]Lower scores indicate more positive attributes

Note: ITBS = Iowa Test of Basic Skills; SDQ = Self-Description Questionnaire

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Conclusions

It seems likely that the work of the Social Ecology Project is having a substantial impact on how the field of special education views social development and social adjustment within mildly handicapped children. We feel that we have made substantial inroads into helping the field understand the complexities of the issues involved and the often beneficial impact of special education services to the social well being of mildly handicapped children. We expect the work from the project database to continue for several more years. There are currently two additional dissertations being prepared from project data and both Professors Coleman and Minnett have additional manuscripts at various stages of preparation.

We expect to submit another field-initiated proposal to OSERS in 1993 to follow-up the children first studied in this project while they are high school students. The comprehensive data we collected during elementary and middle school should allow us to better understand what aspects of mildly handicapped children's social and cognitive abilities in during middle childhood are the best predictors for subsequent success during high school.

Appendix A

Appendix A
Ethnicity of Targeted DISD Elementary Schools

SCHOOL	STATUS	N	SES	%Anglo	%African American	%Hispanic
John Q. Adams	ELEM	460	38.0	57.6	18.3	23.3
(101)	SPED	20	45.0	65.0	10.0	25.0
Birdie Alexander*	ELEM	354	29.7	1.4	96.0	2.5
(235)	SPED	23	34.8	4.3	95.7	0.0
Annie Webb Blanton	ELEM	357	35.3	56.3	24.9	18.2
(110)	SPED	20	65.0	55.0	25.0	20.0
John Neely Bryan	ELEM	464	74.4	0.0	97.0	3.0
(114)	SPED	20	95.0	0.0	85.0	15.0
Rufus C. Burleson	ELEM	499	72.7	30.3	34.7	35.1
(117)	SPED	27	66.7	70.4	7.4	22.2
William L. Cabell	ELEM	178	23.0	57.9	15.2	21.3
(119)	SPED	17	29.4	52.9	17.6	29.4
F. P. Caillet	ELEM	443	64.6	25.5	17.8	52.1
(120)	SPED	22	63.6	22.7	18.2	59.1
Casa View*	ELEM	267	46.8	62.5	8.2	22.5
(125)	SPED	23	56.5	82.6	8.7	8.7
Julius Dorsey	ELEM	346	45.4	32.7	50.6	16.2
(137)	SPED	25	76.0	48.0	36.0	16.0
Tom C. Gooch	ELEM	146	13.0	58.9	21.9	14.4
(148)	SPED	14	42.9	64.3	28.6	7.1
Henderson	ELEM	463	63.3	13.0	44.7	40.8
(152)	SPED	24	66.7	4.2	66.7	29.2
Lida Hooe*	ELEM	472	53.6	27.8	2.3	68.2
(158)	SPED	20	60.0	35.0	0.0	65.0
John Ireland	ELEM	331	52.6	23.6	48.0	28.4
(161)	SPED	23	56.5	26.1	47.8	26.1
A. S. Johnston	ELEM	510	89.8	0.2	89.6	10.2
(163)	SPED	23	100	0.0	100	0.0
Anson Jones	ELEM	478	82.6	12.8	4.0	79.9
(164)	SPED	24	95.8	25.0	4.2	79.2
Obadiah Knight	ELEM	362	76.8	6.6	2.5	90.1
(168)	SPED	18	100	0.0	22.2	77.8
Lakewood	ELEM	436	58.0	40.1	10.8	36.9
(171)	SPED	14	64.3	50.0	28.6	21.4

Appendix A (con'd)
Ethnicity of Targeted DISD Elementary Schools

SCHOOL	STATUS	N	SES	%Anglo	%African American	%Hispanic
Sidney Lanier*	ELEM	503	80.3	8.5	11.5	79.1
(173)	SPED	22	95.5	9.1	45.5	45.5
Umphrey Lee	ELEM	516	47.1	7.8	79.7	1.9
(175)	SPED	24	70.8	29.2	70.8	0.0
Lisbon*	ELEM	304	82.2	0.7	94.1	4.3
(178)	SPED	31	80.6	0.0	100	0.0
Nancy Moseley*	ELEM	279	56.6	36.6	27.2	34.4
(187)	SPED	20	45.0	45.0	10.0	45.0
Mount Auburn	ELEM	448	80.6	6.0	16.5	76.8
(188)	SPED	16	93.8	0.0	25.0	75.0
John H. Reagan	ELEM	295	91.9	10.2	4.1	85.1
(197)	SPED	22	86.4	13.6	22.7	63.6
Martha T. Reilly*	ELEM	295	18.3	76.6	9.5	12.9
(198)	SPED	46	26.1	65.2	17.4	17.4
Reinhardt	ELEM	497	63.8	35.8	6.8	54.7
(199)	SPED	32	50.0	40.6	0.0	55.4
Rosemont	ELEM	370	55.4	33.5	23.2	41.9
(204)	SPED	20	75.0	35.0	15.0	50.0
John W. Runyon	ELEM	442	46.2	32.1	52.3	12.4
(237)	SPED	26	65.4	30.8	61.5	7.7
Leslie A. Stemmons*	ELEM	395	50.4	26.1	27.8	31.9
(210)	SPED	25	60.0	44.0	32.0	24.0
Stevens Park	ELEM	369	66.4	12.7	33.9	50.7
(211)	SPED	20	75.0	15.0	20.0	65.0
Robert L. Thornton	ELEM	379	36.9	0.0	100	0.0
(215)	SPED	19	73.7	0.0	100	0.0
Edward Titche	ELEM	490	42.2	30.0	50.4	14.9
(216)	SPED	30	43.3	43.3	40.0	16.7
William B. Travis	ELEM	353	92.1	4.5	24.1	63.5
(217)	SPED	24	87.5	4.2	25.0	70.8
Walnut Hill	ELEM	227	17.6	61.7	16.3	19.8
(224)	SPED	18	0.0	88.9	5.6	5.6

*Non-handicapped children participated from these schools.

Appendix B

(Harter)
HPS TIME 2

Teacher Name_____ Student Name _____

School Name _____ Grade _____

REALLY TRUE	SORT OF TRUE				SORT OF TRUE	REALLY TRUE
		(A) Some kids would rather play outdoors in their spare time	BUT	Other kids would rather watch TV.		
		(B) Some kids never worry about anything	BUT	Other kids sometimes worry about certain things.		
		(1) Some kids feel they are very good at their school work	BUT	Other kids worry about whether they can do the school work assigned to them.		
		(2) Some kids find it hard to make friends	BUT	For other kids it's pretty easy		
		(3) Some kids do very well at sports	BUT	Other kids don't feel that they are very good when it comes to sports.		
		(4) Some kids feel that there are a lot of things about themselves that they would change if they could.	BUT	Other kids would like to stay pretty much the same.		
		(5) Some kids feel like they are just as smart as other kids their age	BUT	Other kids aren't so sure and wonder if they are as smart.		
		(6) Some kids have a lot of friends	BUT	Other kids don't have many friends.		
		(7) Some kids wish they could be a lot better at sports	BUT	Other kids feel they are good enough.		
		(8) Some kids are pretty sure of themselves	BUT	Other kids are not very sure of themselves.		
		(9) Some kids are pretty slow in finishing their school work	BUT	Other kids can do their school work quickly.		
		(10) Some kids don't think they are a very important member of their class	BUT	Other kids think they are pretty important to their classmates.		
		(11) Some kids think they could do well at just about any new outdoor activity they haven't tried before	BUT	Other kids think they might not do well at outdoor things they haven't ever tried.		
		(12) Some kids feel good about the way they act.	BUT	Other kids wish they acted differently.		

_____	(13) _____ Some kids often forget what they learn	BUT	Other kids can remember things easily.	_____	_____
_____	(14) _____ Some kids are always doing things with a lot of kids	BUT	Other kids usually do things by themselves.	_____	_____
_____	(15) _____ Some kids feel that they are better than others their age at sports.	BUT	Other kids don't feel they can play as well.	_____	_____
_____	(16) _____ Some kids think that maybe they are not a very good person	BUT	Other kids are pretty sure that they are a good person.	_____	_____
_____	(17) _____ Some kids like school because they do well in school	BUT	Other kids don't like school because they aren't doing very well.	_____	_____
_____	(18) _____ Some kids wish that more kids liked them	BUT	Other kids feel that most kids do like them.	_____	_____
_____	(19) _____ In games and sports some kids usually watch instead of play	BUT	Other kids usually play rather than just watch.	_____	_____
_____	(20) _____ Some kids are very happy being the way they are	BUT	Other kids wish they were different.	_____	_____
_____	(21) _____ Some kids wish it was easier to understand what they read	BUT	Other kids don't have trouble understanding what they read.	_____	_____
_____	(22) _____ Some kids ar popular with others their age	BUT	Other kids are not very popular.	_____	_____
_____	(23) _____ Some kids don't do well at new outdoor games	BUT	Other kids are good at new games right away.	_____	_____
_____	(24) _____ Some kids aren't very happy with the way they do a lot of things	BUT	Other kids think the way they do things is fine.	_____	_____
_____	(25) _____ Some kids have trouble figuring out the answers in school	BUT	Other kids almost always can figure out the answers.	_____	_____
_____	(26) _____ Some kids are really easy to like	BUT	Other kids are kind of hard to like.	_____	_____
_____	(27) _____ Some kids are among the last to be chosen for games	BUT	Other kids are usually picked first.	_____	_____
_____	(28) _____ Some kids are usually sure that what they are doing is the right thing	BUT	Other kids aren't so sure whether or not they are doing the right thing.	_____	_____

Appendix C

SDQ TIME 2

Teacher Name_____ Student Name _____

School _____ Grade _____

Circle the number that best explains how you feel each item describes you.

	FALSE	MOSTLY FALSE	SOMETIMES FALSE	SOMETIMES TRUE	MOSTLY TRUE	TRUE
A. I have good handwriting.	1	2	3	4	5	6
B. I hate to dance.	1	2	3	4	5	6
1. I am good looking.	1	2	3	4	5	6
2. I'm good at all school subjects.	1	2	3	4	5	6
3. I can run fast.	1	2	3	4	5	6
4. I can get good grades in reading.	1	2	3	4	5	6
5. My parents understand me.	1	2	3	4	5	6
6. I hate math.	1	2	3	4	5	6
7. I have lots of friends.	1	2	3	4	5	6
8. I like the way I look.	1	2	3	4	5	6
9. I enjoy working on all school subjects.	1	2	3	4	5	6
10. I like to run and play hard.	1	2	3	4	5	6
11. I like reading.	1	2	3	4	5	6
12. I enjoy doing work for math.	1	2	3	4	5	6
13. I make friends easily.	1	2	3	4	5	6
14. I have a nice looking face.	1	2	3	4	5	6
15. I get good grades in all subjects.	1	2	3	4	5	6
16. I look forward to reading.	1	2	3	4	5	6
17. I like my parents.	1	2	3	4	5	6
18. I look forward to math.	1	2	3	4	5	6
19. Most kids have more friends than I do.	1	2	3	4	5	6
20. I am an attractive person.	1	2	3	4	5	6
21. I am dumb in all school subjects.	1	2	3	4	5	6
22. I enjoy sports and games.	1	2	3	4	5	6
23. I am interested in reading.	1	2	3	4	5	6
24. My parents like me.	1	2	3	4	5	6
25. I get good grades in math.	1	2	3	4	5	6
26. I get along with other kids easily.	1	2	3	4	5	6
27. I learn quickly in all school subjects.	1	2	3	4	5	6
28. My body is strong and powerful.	1	2	3	4	5	6
29. I am dumb in reading.	1	2	3	4	5	6

	FALSE	MOSTLY FALSE	SOMETIMES FALSE	SOMETIMES TRUE	MOSTLY TRUE	TRUE
30. I want to raise my children like my parents are raising me.	1	2	3	4	5	6
31. I am interested in math.	1	2	3	4	5	6
32. I am easy to like.	1	2	3	4	5	6
33. Other kids think I am good looking.	1	2	3	4	5	6
34. Work in all school subjects is easy for me.	1	2	3	4	5	6
35. I am good at sports.	1	2	3	4	5	6
36. I enjoy doing work for reading.	1	2	3	4	5	6
37. My parents and I spend a lot of time together.	1	2	3	4	5	6
38. I learn things quickly in math.	1	2	3	4	5	6
39. Other kids want me to be their friend.	1	2	3	4	5	6
40. I have a good looking body.	1	2	3	4	5	6
41. I hate all school subjects.	1	2	3	4	5	6
42. I'm good at aiming at targets.	1	2	3	4	5	6
43. Work in reading is easy for me.	1	2	3	4	5	6
44. My parents are easy to talk to.	1	2	3	4	5	6
45. I like math.	1	2	3	4	5	6
46. I'm better looking than most of my friends.	1	2	3	4	5	6
47. I'm interested in all school subjects.	1	2	3	4	5	6
48. I am a good athlete.	1	2	3	4	5	6
49. I am good at reading.	1	2	3	4	5	6
50. I get along well with my parents.	1	2	3	4	5	6
51. I am good at math.	1	2	3	4	5	6
52. I am popular with kids my own age.	1	2	3	4	5	6
53. I have nice features.	1	2	3	4	5	6
54. I look forward to all school subjects.	1	2	3	4	5	6
55. I'm good at throwing a ball.	1	2	3	4	5	6
56. I hate reading.	1	2	3	4	5	6
57. My parents and I have a lot of fun together.	1	2	3	4	5	6
58. Work in math is easy for me.	1	2	3	4	5	6
59. Most other kids like me.	1	2	3	4	5	6
60. I like all school subjects.	1	2	3	4	5	6
61. I learn things quickly in reading.	1	2	3	4	5	6
62. I am dumb in math.	1	2	3	4	5	6

Appendix D

YOUR NAME_____ Birdie A. 235

REVISED CLASS PLAY
Time 3 - Girls

1. Phyllis
2. Quilla
3. Diahann
4. Lakisha
5. Shameko
6. Demetra
7. Shondra
8. Shaunte'
9. Janell
10.
11.
12.
13.
14.
15.

Pick which girl would be the best to play this part and then put her number in the space beside the description.

1. A person who is a good leader._____

2. A person who gets into a lot of fights._____

3. Someone who would rather play alone._____

4. Someone who has many friends._____

5. Someone whose feelings get hurt easily._____

6. Someone who has a good sense of humor._____

7. A person who is too bossy._____

8. Someone who is often left out._____

9. Someone who is usually sad._____

10. A person everyone likes to be with._____

11. Someone who teases other children too much._____

12. Somebody who picks on other kids._____

Appendix E

OUTSIDE OF SCHOOL ACTIVITIES
Time 3 - Elementary School

Teacher Name_____ Student Name _____

School _____ Grade _____

1. How many afternoons per week do you play with friends after school?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5

2. How many good friends do you have in your neighborhood?
   a. none
   b. one
   c. two or three
   d. four or more good friends in your neighborhood

3. If you have friends in your neighborhood, would you say they are mostly:
   a. older than you
   b. about the same age
   c. younger than you
   d. a mixture of ages

4. How often do you argue or fight with friends in your neighborhood?
   a. never
   b. rarely
   c. sometimes
   d. usually
   e. always

5. How often are you the leader when playing with kids in your neighborhood?
   a. never
   b. rarely
   c. sometimes
   d. usually
   e. always

6. How often would you rather do something alone than play with kids in your neighborhood?
   a. never
   b. rarely
   c. sometimes
   d. usually
   e. always

7. Do most of your friends in your neighborhood go to your school?
   a. yes
   b. no

8. How many good friends do you have in your school?
   a. none
   b. one
   c. two or three
   d. four or more good friends in your school

9. How many schools have you attended from kindergarten to your present grade?
   a. 1
   b. 2
   c. 3
   d. 4
   e. 5 or more

10. How often do you get in trouble at school?
   a. almost never
   b. once in a while
   c. maybe once a week
   d. a lot, almost daily

11. How often do you get in trouble at home?
   a. almost never
   b. once in a while
   c. maybe once a week
   d. a lot, almost daily

12. Does your best friend go to this school?
   a. yes
   b. no
   c. I don't have a best friend

13. Is your best friend in this classroom?
   a. yes
   b. no
   c. I don't have a best friend

14. If you have a best friend, how long has he or she been your best friend?
   a. for a couple of days
   b. a few weeks
   c. a few months
   d. about a year
   e. a few years

15. How important is it to you to graduate from high school?
   a. not important at all
   b. just a little important
   c. kind of important
   d. very important to me

OUTSIDE OF SCHOOL ACTIVITIES
Time 3 - Middle School

Teacher Name_____ Student Name _____

School _____ Grade _____

1. How many afternoons per week do you see your friends after school?
   a. 0 c. 2 e. 4
   b. 1 d. 3 f. 5

2. How many good friends do you have in your neighborhood?
   a. none c. two or three
   b. one d. four or more friends in your neighborhood

3. If you have friends in your neighborhood, would you say they are mostly:
   a. older than you c. younger than you are
   b. about the same age d. a mixture of ages

4. How often do you argue with friends in your neighborhood?
   a. never c. sometimes e. always
   b. rarely d. usually

5. How often do you fight with friends in your neighborhood?
   a. never c. sometimes e. always
   b. rarely d. usually

6. Do most of your friends in your neighborhood go to your school?
   a. yes b. no

7. How many schools have you attended from kindergarten to your present grade?
   a. 2 c. 4 e. 6 or more
   b. 3 d. 5

8. How often do you get in trouble at school?
   a. almost never c. maybe once a week
   b. once in a while d. a lot, almost daily

9. How often do you get in trouble at home?
   a. almost never c. maybe once a week
   b. once in a while d. a lot, almost daily

10. How often do you get in trouble with the police?
    a. never c. once in a while e. a lot, almost daily
    b. almost never d. maybe once a week

11. How often do you skip school?
    a. never c. once in a while e. a lot, almost daily
    b. almost never d. maybe once a week

12. Have you ever been suspended from school?
    a. yes b. no

13. Do you have a best friend at this school?
    a. yes b. no

14. Do you have a best friend in this class?
    a. yes b. no

15. Is your best friend of all in this class?
    a. yes b. no

16. How important is it to you to graduate from high school?
    a. not important at all
    b. just a little important
    c. kind of important
    d. fairly important
    e. very important to me

17. How far do you plan to go in school? (Circle the highest level you think you will complete.)
    a. 8th grade
    b. some high school
    c. graduate high school
    d. some college
    e. graduate collage

18. What do you plan to do when high school is over?
    a. military
    b. get a job
    c. college
    d. training school
    e. raise a family and not work outside home

19. What grade were you in when you started taking resource classes?
    a. third grade or before
    b. fourth grade
    c. fifth grade
    d. sixth grade
    e. seventh grade

20. What was your placement in sixth grade?
    a. regular classroom only
    b. regular classroom with some resource instruction
    c. self-contained special education classroom

21. If you are an eighth grader, what was your placement in seventh grade?
    a. regular classroom only
    b. regular classroom with some resource instruction
    c. self-contained special education classroom only

Appendix F

Your Name_____ Age_____ Grade_____Time 2

Sibling Questionnaire

1. Do you have any brothers or sisters? YES NO

2. How many **older brothers** do you have?_____

3. How many **younger brothers** do you have?_____

4. How many **older sisters** do you have?_____

5. How many **younger sisters** do you have?_____

---

6. Which brother or sister is the **closest to your age**?

First Name_____ Age_____ Brother or Sister_____

Answer the following questions about your relationship with the brother or sister you have written in above. Circle the BEST answer.

7. How much do you two insult and call each other names?

Hardly at all	Not too much	Somewhat	Very much	Extremely much

8. How much do both you and your sibling share with each other?

Hardly at all	Not too much	Somewhat	Very much	Extremely much

9. How much do you and your sibling bug and pick on each other in mean ways?

Hardly at all	Not too much	Somewhat	Very much	Extremely much

10. How much do both you and your sibling do nice things for each other?

Hardly at all	Not too much	Somewhat	Very much	Extremely much

11. Some kids are real mean to their sibling, while others aren't so mean. How much are you and your sibling mean to each other?

Hardly at all	Not too much	Somewhat	Very much	Extremely much

12. How much do you and your sibling cooperate with each other?

Hardly at all	Not too much	Somewhat	Very much	Extremely much

Appendix G

Behavioral Observation

Interactive Behavior with Peers

1. **demonstrates positive behavior**
   - affiliative touch
     - includes arm around shoulder, hand on arm, kiss, hug
     - also friendly jostling, bumps with shoulder, ie:rough+tumble
   - smile or laugh directed at another
   - friendly conversation (social, not task-oriented)
     - warm, inviting
     - talking about family or events on the playground, or clothes or friends -- casual conversation
   - requests help or assistance (asked directly to peer)
     - assertive, not whining nor is it a command
   - helps another child (voluntarily or in response to request)

2. **demonstrates neutral behavior**
   - includes all task related conversation or behavior
     - example of exception = "let me see you paper because you always get good grades" (code as positive-compliment)
   - requests information (what time is it, which problems were we supposed to do) -- task-related
   - discussion of task or current activity (move your desk, this belongs to you, can I borrow a pencil)
   - **will include any behavior or communication that cannot be classified as positive or negative

3. **demonstrates negative behavior**
   - whines, complains to another
   - verbal abuse/aggression
     - criticizes other, badgers
     - makes fun of another, puts down another
     - laughs at another's mistakes
     - interrupts, disrupts another's activity <u>intentionally</u>
     - excludes another (ex: "you can't play with us)
   - physical abuse/aggression
     - hits, slaps, kicks, bites, throws object at another
   - gestures = stick out tongue, "drop-dead" look, shooting the bird

4. **receives positive behavior**
   - affiliative touch (includes rough and tumble play)
   - smile, laugh
   - another shows interest in subject's work or activity
   - friendly conversation (not task oriented)
   - receives help or assistance

5. **receives neutral behavior**
   - includes all task related conversation or behavior
     - example of exception = "let me see you paper because you always get good grades" (code as positive-compliment)
   - request for information (situation related)
   - discussion of task or current activity

6. receives negative behavior
   verbal abuse/aggression
      is made fun of
      is laughed at derisively
      is interrupted or activity is disrupted intentionally
      is excluded by another (ex: "you can't play with us")
   physical abuse/aggression
      hits, kicks, slaps, spit on, objects are thrown at child
   gestures = sticks out tongue, flips finger
   child's bid for attention is ignored by another

Interactive behavior with Teacher

1. **demonstrates positive behavior**
   affiliative touch
   smile, laugh
   shows interest in teacher's work or activity
   friendly conversation
   requests help or assistance
   volunteers to help teacher

2. **demonstrates neutral behavior**
   requests information
   discussion of task or current activity
   answers question posed to class

3. **demonstrates negative behavior**
   verbal abuse/aggression
      makes fun of teacher, puts her down
      laughs at teacher's mistake or directive
      interrupts, disrupts
      threatens teacher
   physical abuse/aggression
      hits, slaps, kicks, spits on, etc
   ignores teacher's direct request or bid for attention

4. **receives positive behavior**
   affiliative touch
   smile, laugh
   teacher shows interest in subject's work or activity
   friendly conversation
   receives individual help or assistance from teacher
   praise from teacher

5. **receives neutral behavior**
   request for information
   discussion of task or current activity
   is called on by teacher

6. receives negative behavior
   verbal abuse/aggression
      is made fun of
      is laughed at derisively
      is interrupted or activity is disrupted
      is criticized by teacher
   physical abuse/aggression
      hits, kicks, slaps, spit on
   is ignored by teacher
   is threatened with discipline or punishment
   receives punishment for behavior

Solitary Behavior (behavior that is not directed to another)

1. demonstrates positive, self- or non-directed behavior
   smiles, chuckles to self

2. demonstrates neutral focused behavior
   the child is doing his seat work

3. demonstrates neutral unfocused behavior
   gazing out the window
   "zoned out"
   twirling pencil

3. demonstrates negative, self-directed behavior
   "I'm so stupid"
   hits self
   grimace
   crying
   anxiety indicators (twirling hair, rocking, thumb sucking)
   picks nose, masturbates, slobbers, etc

Directions for Coding:

1. Ask teacher to identify target subject(s) for you.

2. You will observe each subject for two five-minute episodes in each of the three contexts. That is, a total of ten minutes of observation for classroom, for P.E., and for lunch. Mark your time and record frequencies of occurrence for each of the listed behaviors for five minutes per subject as they occur. Switch to next subject for five minutes, and then back to first subject, and finally back to the second subject, etc. As you become more adept at coding, you may be able to score two subjects at one time. After you have completed coding of all subjects, then go back and place frequency totals in the appropriate boxes.

3. A behavior can receive only one count. For example, if a child turns to his neighbor and says "you're a fast runner," this can only be coded as **demonstrates a positive behavior** once. It is (1) a compliment and (2) friendly conversation, but should receive only one count. If a child says this and gently scruffs the other's hair or pats his arm, then this becomes two **demonstrates positive behavior**, and would receive two counts.

4. Re: receiving vs. performing behaviors

Count behaviors each time they occur. For example, in a conversation, each time the subject speaks (takes a turn at speaking), there may be a count -- depending on whether his remark is positive, negative, or neutral. Therefore, if the subject is engaged in a lengthy conversation, we will have an indication of the duration of the interaction.

5. Record the number of **different** peers with whom this child has had contact during the coded session in the column headed by "#". That is, separate totals for each row should be recorded.

6. In coding other-directed (that is, peer-directed or teacher-directed) behavior, there should be some intention implicit in each behavior, and this should influence your coding of that behavior. Use affect displayed by the child and by those who are acting "on" the child to help determine its positive, neutral, or negative nature. This is especially the case with any type of physical contact. Good natured nudging, even punching someone's arm, would be considered positive, but the same arm punching while gritting teeth or screaming would be considered negative.

Another example might be answering questions in class. If the child raises her hand and answers a question posed by the teacher, this is a neutral response. If the child answers the teachers question in a surly or disrespectful manner, it would instead be coded as a negative response.

Appendix H

ID_____ NAME_____

School Code_____ Teacher_____

Behavioral Ratings - Time 3

1. Self Control

very low 1 2 3 4 5 6 7 very high

2. Positive Affect with Peers

very low 1 2 3 4 5 6 7 very high

3. Positive Affect with Teacher

very low 1 2 3 4 5 6 7 very high

4. Negative Emotional Tones with Peers

very low 1 2 3 4 5 6 7 very high

5. Negative Emotional Tones with Teacher

very low 1 2 3 4 5 6 7 very high

6. Social Skills with Peers

very low 1 2 3 4 5 6 7 very high

7. Social Skills with Teacher

very low 1 2 3 4 5 6 7 very high

8. Physical Attractiveness

very low 1 2 3 4 5 6 7 very high

9. Task Orientation

very low 1 2 3 4 5 6 7 very high

Appendix I

(Loneliness)

HOW I FEEL QUESTIONNAIRE
TIME 3

Teacher Name _____ Student Name _____

School Name _____ Grade_____

Circle the number that best explains how you feel each item describes you.

	Not at all True 1	Hardly ever True 2	Sometimes True 3	Most of the time True 4	Always True 5
1. It is easy for me to make new friends.	1	2	3	4	5
2. I like to read.	1	2	3	4	5
3. I have nobody to talk to.	1	2	3	4	5
4. I'm good at working with other children.	1	2	3	4	5
5. I watch T.V. a lot.	1	2	3	4	5
6. It's hard for me to make friends.	1	2	3	4	5
7. I like school.	1	2	3	4	5
8. I have lots of friends.	1	2	3	4	5
9. I feel alone.	1	2	3	4	5
10. I can find a friend when I need one.	1	2	3	4	5
11. I play sports a lot.	1	2	3	4	5
12. It's hard to get other kids to like me.	1	2	3	4	5
13. I like science.	1	2	3	4	5
14. I don't have anyone to play with.	1	2	3	4	5
15. I like music.	1	2	3	4	5
16. I get along with other kids.	1	2	3	4	5
17. I feel left out of things.	1	2	3	4	5
18. There's nobody I can go to when I need help.	1	2	3	4	5
19. I like to paint and draw.	1	2	3	4	5
20. I don't get along with other children.	1	2	3	4	5
21. I'm lonely.	1	2	3	4	5
22. I am well-liked by the kids in my class.	1	2	3	4	5
23. I like playing board games a lot.	1	2	3	4	5
24. I don't have any friends.	1	2	3	4	5

Appendix J

(Socioemotional Adjustment)

Student's Name_____Teacher_____Grade____

STUDENT'S SURVEY
Time 3

Instructions: Below are statements about what you might be like. Rate how well each statement describes you. On each blank line write the number from 1 to 5 that best describes you.

1 = NEVER OR NOT AT ALL
2 = SELDOM OR A LITTLE
3 = SOMETIMES OR SOMEWHAT
4 = FAIRLY OFTEN OR QUITE A BIT
5 = VERY OFTEN OR VERY MUCH

_____ 1. How often do you go out of your way to help others?

_____ 2. How often do you get into arguments?

_____ 3. How often do you feel afraid?

_____ 4. How often do you feel lonely?

_____ 5. How much do other people like to be with you?

_____ 6. How often do other people treat you unfairly?

_____ 7. How often do you have difficulty making up your mind?

_____ 8. How often do you find yourself uninterested in things?

_____ 9. How well do you work with other people?

_____10. How often are you more outspoken and louder than other people?

_____11. How often do you feel tense and uneasy?

_____12. How often do you blame yourself for things going wrong?

_____13. How often are you especially nice to other people?

_____14. How often are you stubborn?

_____15. How much do you worry about things?

_____16. How often do you feel sad?

_____17. How popular are you?

_____18. How often do you quarrel or fight with other people?

_____19. How often do you have trouble concentrating on schoolwork?

_____20. How often do you feel unhappy or down?

1 = NEVER OR NOT AT ALL
2 = SELDOM OR A LITTLE
3 = SOMETIMES OR SOMEWHAT
4 = FAIRLY OFTEN OR QUITE A BIT
5 = VERY OFTEN OR VERY MUCH

_____21. How much fun do other people have when they are with you?

_____22. How often do you act without stopping to think?

_____23. How often do you feel nervous and uncomfortable?

_____24. How often are you <u>not</u> interested in eating?

_____25. How much do you enjoy getting involved with other people?

_____26. How often do you lose your temper?

_____27. How often do you bite your fingernails?

_____28. How often do you feel like you are <u>not</u> having fun?

_____29. How often do you tell jokes or make other people laugh?

_____30. How often does it seem that you can't trust other people?

_____31. How much do you worry about what other people think of you?

_____32. How often do you feel tired and lack energy?

_____33. How often do other people invite you to do things with them?

_____34. How often do you feel like other people <u>don't</u> like you?

_____35. How often do other people hurt your feelings?

_____36. How often do you feel like things don't work out well for you?

_____37. How often do other people say things to let you know they like you?

_____38. How often do other people say harsh or mean things to you?

_____39. How often do you feel self-conscious (think that everyone is looking at you)?

_____40. How often do you feel alone and left out of activities with others?

Appendix K

Teacher Name_____ School_____

Student Name_____ Student ID#_____

Grade_____ Sex: M F Age_____ Race: W B H A Other

TEMPERAMENT QUESTIONNAIRE

These questions are designed to gather information on the way children behave in different situations of everyday school life. Some statements may seem similar to each other because they ask about the same situation. However, each one looks at a different aspect of a child's behavior. For each statement, please circle the number from 1 to 6 that best describes this child's behavior. Please try to make these ratings based on how you think this child compares to other average children of about the same age.

1 HARDLY EVER	2 ONCE IN A WHILE	3 SOMETIMES	4 OFTEN	5 VERY OFTEN	6 ALMOST ALWAYS

1.	Child seems to have difficulty sitting still, may wriggle a lot or get out of seat.	hardly ever	1 2 3 4 5 6	almost always
2.	If child's activity is interrupted, he/she tries to go back to the activity.	hardly ever	1 2 3 4 5 6	almost always
3.	Child is easily drawn away from his/her work by noises, something outside the window, another child's whispering, etc.	hardly ever	1 2 3 4 5 6	almost always
4.	Child will initially avoid new games and activities, prefering to sit on the side and watch.	hardly ever	1 2 3 4 5 6	almost always
5.	If initially hesitant about entering into new games and activities, child gets over this quickly.	hardly ever	1 2 3 4 5 6	almost always
6.	When with other children, this child seems to be having a good time.	hardly ever	1 2 3 4 5 6	almost always
7.	Child is sensitive to temperature and likely to comment on classroom being hot or cold.	hardly ever	1 2 3 4 5 6	almost always

1 HARDLY EVER	2 ONCE IN A WHILE	3 SOMETIMES	4 OFTEN	5 VERY OFTEN	6 ALMOST ALWAYS

8.	Child is calm and will show little or no reaction when another child takes his/her toy or possession away.	hardly ever	1 2 3 4 5 6	almost always
9.	Child is able to sit quietly for a reasonable amount of time (as compared to normal peers).	hardly ever	1 2 3 4 5 6	almost always
10.	Child can continue at the same activity for an hour (or a reasonable amount of time for his/her age).	hardly ever	1 2 3 4 5 6	almost always
11.	Child cannot be distracted when he/she is working (seems to be able to concentrate in the midst of noise and activity).	hardly ever	1 2 3 4 5 6	almost always
12.	Child plunges into new activities and situations without hesitation.	hardly ever	1 2 3 4 5 6	almost always
13.	Child takes a long time to become comfortable in a new physical location (different class, new seat, etc.).	hardly ever	1 2 3 4 5 6	almost always
14.	When playing or interacting with other children, he/she argues with them.	hardly ever	1 2 3 4 5 6	almost always
15.	Child is highly sensitive to changes in the brightness or dimness of light.	hardly ever	1 2 3 4 5 6	almost always
16.	Child overreacts (becomes very upset in a stressful situation).	hardly ever	1 2 3 4 5 6	almost always
17.	Child sits still when a story is being told or read, or when he/she is listening to teacher lectures or instructions.	hardly ever	1 2 3 4 5 6	almost always
18.	Child starts an activity and does not finish it.	hardly ever	1 2 3 4 5 6	almost always

1 HARDLY EVER	2 ONCE IN A WHILE	3 SOMETIMES	4 OFTEN	5 VERY OFTEN	6 ALMOST ALWAYS

19.	If other children are talking or making noise while the teacher is explaining a lesson, this child remains attentive to the teacher.	hardly ever	1 2 3 4 5 6	almost always
20.	Child is bashful when meeting new children.	hardly ever	1 2 3 4 5 6	almost always
21.	Child takes a long time to become comfortable in a situation.	hardly ever	1 2 3 4 5 6	almost always
22.	When the child cannot have or do something he/she wants, child becomes annoyed or upset.	hardly ever	1 2 3 4 5 6	almost always
23.	Child seems to enjoy interacting with the teacher.	hardly ever	1 2 3 4 5 6	almost always

Appendix L

INDIVIDUAL STUDENT INFORMATION - TIME 3

Student Name_____Student ID#_____Grade_____Sex_____

Resource Student: Yes No Race: White Black Hispanic Asian Am. Indian Other

1. Please rate the socioeconomic status of this child's home. Think about factors like: parents' level of education, occupations, or status within the community.

1. Very low class
2. Lower class
3. Lower middle class
4. Middle class
5. Upper middle class
6. Upper class

2. Please circle your estimate of this child's intelligence or general ability.

1. Significantly below average
2. Below average
3. Slightly below average
4. Slightly above average
5. Above average
6. Significantly above average

3. Please describe how lonely you think this child is.

1. Not at all
2. Rarely lonely
2. Somewhat lonely
3. Usually lonely
4. Always lonely

4. Please estimate how motivated this child is during most classroom activities.

1. Extremely unmotivated
2. Very unmotivated
3. Somewhat unmotivated
4. Somewhat motivated
5. Very motivated
6. Extremely motivated

5. Please rate this child's social interaction skills. Think about the child's behavior in social situations with both adults and peers.

1. Very poor skills
2. Poor social skills
3. Somewhat poor skills
4. Somewhat good skills
5. Good social skills
6. Very good social skills

6. Please rate this child's academic performance. Consider things like test performance, grades, daily assignments, etc.

1. Very poor performance
2. Poor academic performance
3. Somewhat poor performance
4. Somewhat good performance
5. Good academic performance
6. Very good academic performance

7. Please describe how aggressive this child is toward peers.

1. Not at all aggressive
2. Rarely aggressive
3. Somewhat aggressive
4. Often aggressive
5. Always aggressive (handles most social situations aggressively)

8. Please describe how much peers isolate this child.

1. Not at all
2. Rarely
3. Sometimes
4. Often
5. Always

9. Which of the following best descibes this child?

1. highly liked by peers and not at all disliked by peers
2. highly liked by some peers and highly disliked by some peers
3. not at all liked by peers and is highly disliked by peers
4. not highly liked by peers but is not highly disliked either
5. child does not fit into one of the above groups (child is average)

10. Please estimate this child's overall self-esteem in your classroom.

1. Very low self-esteem
2. Low self-esteem
3. Somewhat low self-esteem
4. Somewhat positive self-esteem
5. High self-esteem
6. Very high self-esteem

11. Describe how much this child withdraws from peers.

1. Not at all
2. Rarely
3. Sometimes
4. Often
5. Always

12. At the end of this school year, what placement recommendation would you make for this child?

1. Full time special education
2. Retention (repeat the same grade), with resource assistance
3. Retention (repeat the same grade in full time regular classroom)
4. Promotion to next regular grade with resource assistance
5. Regular promotion with no resource help

13. Each student presents unique challenges or problems for teachers to respond to. Please place an "x" next to the option below that represents the area of classroom performance or behavior where this student is most challenging to you. Please mark only one option.

1. Classroom behavior (problems with you--following rules or cooperating with your requests)
2. Social interactions (i.e. problems with other students, such as withdrawing and failing to interact)
3. Social interactions (i.e. problems with other students, such as fighting)
4. Academic progress or difficulties
5. No significant problems

==========

Presented below are six brief descriptions of classroom situations. Consider the child's behavior in each situation. Please circle the number corresponding to the statement that most accurately reflects how often you have to "keep an eye on" this child or monitor his/her behavior due to the possibility of inappropriate or disruptive behavior.

1	2	3	4	5	6
HARDLY EVER	ONCE IN A WHILE	SOMETIMES	OFTEN	VERY OFTEN	ALMOST ALWAYS

1. You have given the children an academic assignment to work on in class. The students are expected to work on the task independently. How often do you have to monitor this child's behavior?

hardly ever 1 2 3 4 5 6 almost always

1	2	3	4	5	6
HARDLY EVER	ONCE IN A WHILE	SOMETIMES	OFTEN	VERY OFTEN	ALMOST ALWAYS

2. You are presenting a lesson or some information to the entire class. The students are expected to focus their attention on you and the information. They should not be working on any other task, or interacting with any other students. How often do you have to "keep an eye on" this child in this situation?

hardly ever 1 2 3 4 5 6 almost always

3. The child has just ended an activity that took place outside the classroom (such as P.E., lunch, or working in another class). The students are asked to come into the classroom, go to their seats, and begin getting ready for the next activity. How often do you have to watch this child?

hardly ever 1 2 3 4 5 6 almost always

4. How often do you have to change this child's seating or location to stop or prevent him/her from disrupting other students?

hardly ever 1 2 3 4 5 6 almost always

5. How often do you have to move the child nearer to you because he/she needs extra help or direction during activities?

hardly ever 1 2 3 4 5 6 almost always

6. How often do you have to modify what or how you teach in order to meet the needs of this child? (For example, shorter assignments, giving him/her longer to finish, having other students help him/her, etc.)

hardly ever 1 2 3 4 5 6 almost always

==========

Please give your general impression of this child by selecting the numbered answer that best describes him or her.

	Not at all	Just a little	Pretty much	Very much
1. Persists with task for reasonable amount of time.	1	2	3	4
2. Follows simple directions accurately.	1	2	3	4
3. Extremely overactive (out of seat, on the go).	1	2	3	4
4. Restless in the "squirmy" sense.	1	2	3	4
5. Overreacts.	1	2	3	4
6. Impulsive (acts or talks without thinking).	1	2	3	4
7. Noncompliant with adults.	1	2	3	4
8. Withdrawn, hanging back.	1	2	3	4
9. Gets along well with other children.	1	2	3	4
10. Mean or picks on others.	1	2	3	4
11. Quarrels or fights.	1	2	3	4
12. Disruptive, disturbs other children.	1	2	3	4
13. Sad or unhappy.	1	2	3	4
14. Flat, unemotional.	1	2	3	4

Appendix M

(Family Questionnaire)

1. Child's name_____ 2. Child's birthdate_____

3. Child's school_____Child's teacher_____

4. Child's race (circle one):

White Black Hispanic Asian American Indian Other

5. Child's sex (circle one): Male Female

6. Parent's are (circle one): Married Separated Divorced Remarried Widowed Single

7. If divorced or separated, how long ago did the separation happen?

years_____months_____

8. What is the father's education (highest grade or degree)?_____

9. What is the mother's education (highest grade or degree)?_____

10. Is the father currently employed? (Circle one.) YES NO

If yes, what is his job or occupation?_____

11. Is the mother currently employed? (Circle one.) YES NO

If yes, what is her job or occupation?_____

Please circle only one answer for each of the following questions.

12. How many afternoons per week does your child play with or spend time with friends after school?

a. 0 c. 2 e. 4
b. 1 d. 3 f. 5

13. How many afternoons per week does your child play with brothers and sisters after school?

a. 0 c. 2 e. 4
b. 1 d. 3 f. 5

14. How often is your child a leader around other kids in the neighborhood?

a. never c. sometimes e. always
b. rarely d. usually

15. How well does your child get along with other children?

a. my child does not get along well at all with other children
b. my child has some difficulty with other children
c. my child gets along fairly well with other children
d. my child gets along very well with other children

16. How often does your child act bossy or tease and pick on other kids in the neighborhood?

a. never
b. rarely
c. sometimes
d. usually
e. always

17. How often would your child rather do something alone than play with or spend time with other kids in the neighborhood?

a. never
b. rarely
c. sometimes
d. usually
e. always

18. How many good friends does your child have in the neighborhood?

a. none
b. one good friend in the neighborhood
c. two or three
d. four or more good friends in the neighborhood

19. If your child has friends in the neighborhood, would you say they are mostly:

a. older than your child
b. about the same age
c. younger than your child
d. a mixture of ages

20. How often does your child argue with friends?

a. never
b. rarely
c. sometimes
d. usually
e. always

21. How friendly is your child with other children?

a. not friendly at all, does not want to be with other children
b. not too friendly
c. fairly friendly
d. very friendly to other children

22. How often does your child fight with friends?

a. never
b. rarely
c. sometimes
d. usually
e. always

23. How cooperative is your child with other children?

a. not at all cooperative
b. sometimes cooperative
c. usually is cooperative
d. always cooperative

24. How many homes has your child lived in since birth?

a. 1
b. 2
c. 3
d. 4
e. 5 or more

25. How many schools has your child attended from kindergarten to present?

a. 1
b. 2
c. 3
d. 4
e. 5 or more

26. How often does your child get in trouble at school?

a. almost never
b. once in a while
c. maybe once a week
d. a lot, almost daily

27. How often does your child get in trouble at home?

a. almost never
b. once in a while
c. maybe once a week
d. a lot, almost daily

28. How do you (the parent) and your child get along?

a. we do not get along well at all with each other
b. we have some trouble getting along
c. we get along fairly well
d. we get along very well

29. Which of the following best describes your child?

1. highly liked by peers and not at all disliked by peers
2. highly liked by some peers and highly disliked by some peers
3. not at all liked by peers and is highly disliked by peers
4. not highly liked by peers but is not highly disliked either
5. child does not fit into one of the above groups (child is average)

Appendix N

CLASSROOM SITUATIONS AND DECISIONS
Time 2

Presented below are seven brief descriptions of classroom situations. Consider the child's behavior in each situation. Please circle the number corresponding to the statement that most accurately reflects how often you have to "keep an eye on" this child or monitor his/her behavior due to the possibility of inappropriate or disruptive behavior.

1	2	3	4	5	6
HARDLY EVER	ONCE IN A WHILE	SOMETIMES	OFTEN	VERY OFTEN	ALMOST ALWAYS

1. You have given the children an academic assignment to work on in class. The students are expected to work on the task independently. How often do you have to monitor this child's behavior?

   hardly ever 1 2 3 4 5 6 almost always

2. You are presenting a lesson or some information to the entire class. The students are expected to focus their attention on you and the information. They should not be working on any other task, or interacting with any other students. How ofter do you have to "keep an eye on" this child in this situation?

   hardly ever 1 2 3 4 5 6 almost always

3. A few children are working on an activity in the same area of the classroom, perhaps at the same table. They are working independently, but are required to share some of the same materials to complete their project. How often do you have to monitor this child?

   hardly ever 1 2 3 4 5 6 almost always

4. You are working with 2-4 students (including this child) on a small-group lesson. The students are expected to attend to you as well as participate in the lesson. How often do you have to monitor this child to keep him/her involved?

   hardly ever 1 2 3 4 5 6 almost always

5. You have just ended a period during which the children were working individually on an assignment. You instruct the students to stop working, put away their materials, and take out another set of materials for the next activity. How often do you have to monitor this child during the time of changing from one activity to the next?

   hardly ever 1 2 3 4 5 6 almost always

6. The child has just ended an activity that took place outside the classroom (such as P.E., lunch, or working in another class). The students are asked to come into the classroom, go to their seats, and begin getting ready for the next activity. How often do you have to watch this child?

hardly ever 1 2 3 4 5 6 almost always

7. This is a "free time" activity. The child has either completed his/her work or there are just a few minutes left to the period. The child is allowed to choose an activity but is instructed not to interact with other students. How often do you have to "keep an eye on" this child?

hardly ever 1 2 3 4 5 6 almost always

8. How often do you have to change this child's seating or location to stop or prevent him/her from disrupting other students?

hardly ever 1 2 3 4 5 6 almost always

9. How often do you have to move the child or move the child nearer to you because he/she needs extra help or direction during activities?

hardly ever 1 2 3 4 5 6 almost always

10. How often do you have to modify what or how you teach in order to meet the needs of this child? (For example, shorter assignments, giving him/her longer to finish, having other students help him/her, etc.)

hardly ever 1 2 3 4 5 6 almost always

11. Following is a list of reinforcers that teachers sometimes use to motivate their students. Please place an "x" next to the type of reinforcer that you have found most effective for this student. Please check only one of the options.

1. Edibles
2. Tangible Rewards (small rewards such as toys, magazines, etc.)
3. Awards (stars, stamps, citations for appropriate work or behavior)
4. Tokens (points, check marks, or chips that can be traded)
5. Free choice time
6. Teacher praise and attention
7. No reinforcer has been effective

Other: Please specify

12. At the end of this school year, what placement recommendation would you make for this child?

1. Full time special education
2. Retention (repeat the same grade), with resource placement
3. Retention (repeat the same grade in full time regular classroom)
4. Promotion to next regular grade with continuing resource help
5. Regular promotion with no resource help.

13. For this question we are trying to find out how you have to respond to this student when there are classroom problems. Following is a list of discipline or classroom management options. First, please place a "T" next to the option that you "Typically" use when there are routine or minor problems with this child. Second, please place an "S" next to the option which indicates the most "Serious" option that you had to use with this child. Remember, you are to make only two choices for this question.

1.___Ignore the behavior
2.___Nonverbal technique (eye contact, touching, move closer)
3.___Indirect questioning (asking the class or child what they are supposed to be doing)
4.___Request (simply talking with the child and asking him/her to change the behavior)
5.___Isolate (moving the child to another part of the room or out of the room)
6.___Penalize (take away privileges, stay after school, miss lunch or recess)
7.___Reprimand (make some statement that conveys that the child's behavior is wrong or inappropriate and that you do not like it)
8.___Refer (send the child to another adult such as the principal or counselor)
9.___Removal (have the child suspended from school for a period of time)
10.___Corporal punishment

14. Each student presents unique challenges or problems for teachers to respond to. Please place an "x" next to the option below that represents the area of classroom performance or behavior where this student is most challenging to you. Please mark only one option. (Even if this child seldom presents major problems, please mark the area that is of most concern to you.)

    1. Academic progress or difficulties

    2. Social interactions or getting along with other students

    3. Classroom behavior (problems with you--following rules or cooperating with your requests)

    4. Other: Please specify_____

15. Consider the causes and the reasons why this child continues to have school adjustmenmt problems. In general, how much control does this child have over the behavior problems that he\she is presenting in school?

    1. Child has no control

    2. Child has small degree of control

    3. Child has moderate amount of control

    4. Child has a great degree of control