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Personality and Emotional Factors in Learning Disabled Children

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PERSONALITY AND EMOTIONAL FACTORS
IN LEARNING DISABLED CHILDREN

by

Richard M. Volden

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
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VITA

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CHAPTER I

INTRODUCTION

Children with learning disabilities face special challenges in their academic endeavors. Whether through the concrete feedback of grades and report cards or through repeated experiences of failure and frustration, these children learn that they are unsuccessful and somehow different from their classmates. With the advent of special education and the increased availability of resource personnel in the schools, many students are now being diagnosed as learning disabled and are being offered remedial academic services. It is less common, however, for the emotional needs of these children to be given equal consideration.

Frustration resulting from difficulty in successfully completing schoolwork may be compounded by the experience of being formally labeled as learning disabled. Chronic frustration, coupled with feelings of differentness or inferiority, is likely to take its emotional toll on these children. Research has been conducted which has been aimed at identifying emotional difficulties which might commonly occur in this population. There is evidence that

suggests that these children may experience greater emotional and interpersonal difficulties than do children without learning disabilities. The data are at times equivocal, however, and the nature of the related literature ranges from controlled research to purely descriptive essays. Further research is necessary to provide a better understanding of the emotional experiences of learning disabled children.

If particular personality and emotional factors could be identified which clearly distinguish learning disabled children from nondisabled children, the benefits would be manifold. Educators working with learning disabled children would be able to take these factors into account when working with their students. In addition, the parents of learning disabled children would gain insight into the feelings and experiences of their children. Finally, mental health professionals would have information which would contribute to the development of programs and therapeutic interventions for this population of children.

Ultimately, it is the children who would benefit as their teachers, parents, and counselors achieved a clearer and more complete understanding of their psychological experiences. It is quite likely that the needs of these children extend beyond the purely academic realm. The present study examined the personality and emotional

factors which may distinguish learning disabled children from nondisabled children by reviewing the relevant literature and conducting psychological assessments of a group of children from each of these two groups.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Substantial economic and personal resources have been committed to the identification and remediation of learning disabilities in children. Recently, greater emphasis has been given to the psycho-emotional needs of children with learning disabilities. A review of the related literature reveals a number of personality and emotional factors which have been identified in these children. The Children's Personality Questionnaire (Porter & Cattell, 1979) has been used to investigate personality characteristics of learning disabled children, as well as to assess their levels of anxiety. Other empirical and clinical reports have discussed the relationships between learning disabilities and depression, interpersonal relationships, locus of control/learned helplessness, aggression, and self-esteem. This chapter will review these psycho-emotional factors as discussed in the literature.

Personality Profiles

The Children's Personality Questionnaire (CPQ) is a paper and pencil test designed to measure a number of bipolar personality characteristics in children ages

eight through twelve. Specifically, the CPQ yields scores on personality characteristics such as emotional stability, adventurousness, conscientiousness, self-assuredness, tension, and others. In all, fourteen subscales are included in the CPQ. In addition, the test yields second-order factors, such as an anxiety factor, which are calculated using the summed weighted scores of selected subtests. The CPQ is a questionnaire which can be administered individually or in group settings, and it is scored objectively using a key provided by the test authors.

The CPQ has been used in research to investigate personality characteristics associated with poor academic achievement. This instrument was used by Rushton (1966) to examine the relationship between personality characteristics and academic success in a group of 11-year-old children. His research sample consisted of 458 boys and girls in Great Britain, and included children across a wide range of academic abilities. Rushton's correlational analysis revealed that the ". . . primary factors of Ego Strength (Factor C), Surgency (Factor F), and Conscientiousness (Factor G) appear to assist all work in the cognitive field" (p. 180). In addition, Rushton found that a second-order factor assessing anxiety was also correlated with the measures of cognitive ability that he used in his study.

Harris and King (1982) used the Children's

Personality Questionnaire to compare four groups of fourth and fifth grade children identified by their teachers as having learning problems, behavior problems, both, or neither. Those students with learning problems were less assertive, more restrained, and less emotionally stable than one or more of the other identified groups, according to the CPQ. This study also included an analysis of social adjustment and thus was a relatively broad-based evaluation of the four groups defined above. The Harris and King study, however, was designed for the purpose of evaluating teachers' abilities in discriminating among the four types of children (learning problem, behavior problem, etc.) and the implications of the relationships between personality variables and learning problems were not addressed in their study.

An earlier study by Werner (1966) used the 1959 version of the Children's Personality Questionnaire to compare talented and underachieving fourth, fifth, and sixth grade children against norms reported by Porter and Cattell (1960). The underachieving students in Werner's study were involved in a remedial summer school program and had been identified for remedial attention because they were functioning at least one grade level below their grade enrollment and had at least one specific area of skills deficit (e.g., language, arithmetic, etc.) according to their teachers' reports. Werner's research compared boys

and girls separately and found that, for boys

(d)ifferences significant on the .05 level or beyond were found on seven of the 14 CPQ personality factors The following personality dimensions differentiated the boys in remedial class in a statistically significant way from the norm group of their own age and sex: A- (Schizothymia), E (Dominance), F (Happy-go-lucky attitude), G- (Lack of Identification with Group Goals), H (Adventuresomeness), I- (Toughmindedness), and N (Shrewdness). There was also a tendency toward significance on the personality dimension Q3- (Weak Self-sentiment) (p. 463).

For underachieving girls in their study, only Factor F (Surgency, Happy-go-lucky attitude) significantly differed from the sex and age norms. A second-order Anxiety factor was also computed for the children in Werner's study. Means were calculated for each of four groups (underachieving girls, talented girls, underachieving boys, and talented boys) which ". . . showed a tendency for higher anxiety among the underachieving girls. . . and boys . . . and more anxiety among the girls in enrichment classes . . . than among the boys" (p. 463).

The three studies which have used the CPQ in investigating personality characteristics and academic achievement (Harris & King, 1982; Rushton, 1966; Werner, 1966) yielded results which indicate that children exhibiting academic difficulties are likely to be less emotionally stable, less conscientious, and less anxious than normal achievers. Each of these relationships was cited in at least two of the three CPQ studies. There are, however,

several apparently contradictory findings in these investigations. Specifically, Rushton (1966) found that a happy-go-lucky attitude was positively correlated with cognitive functioning, while Werner (1966) found that it was the underachieving children in his sample who scored higher than average on this measure of attitude. Harris and King (1982) reported a low level of adventurousness among the children with learning problems, while Werner (1966) reported a high degree of adventurousness among his underachieving boys.

The inconsistencies in these data may reflect differences in the specific populations studied. The criteria used to identify the children varied considerably across studies. Rushton's (1966) correlational study did not specifically include a group of children with learning problems, while Harris and King (1982) and Werner (1966) depended on teacher reports to identify their target populations. None of the studies reported having used standardized assessment instruments, nor were learning disabilities per se discussed as a factor in these results. While these studies clearly contribute to the understanding of the relationships between personality characteristics and academic achievement, they have not directly assessed the nature of these relationships in formally diagnosed learning disabled children.

Anxiety

Rushton (1966) also reviewed research on anxiety and its relationship to academic achievement, and found that in approximately 70% of the studies he reviewed, ". . . stability or adjustment is positively correlated with academic achievement" (p. 178). In his own research, Rushton studied 458 11-year-old boys and girls (not learning disabled) and examined the relationship between several cognitive ability measures and anxiety as assessed by the CPQ. He found anxiety to be negatively correlated with each of six cognitive ability measures (e.g., verbal reasoning, arithmetic, English, etc.). Rushton concluded that ". . . the less anxious better adjusted child is most likely to succeed in school work at this age" (p. 180).

Patten (1983) has investigated the relationships between self-esteem, anxiety, and achievement in learning disabled children in kindergarten through sixth grade. These children had been diagnosed as learning disabled by a psychologist using standardized test instruments, and the students were receiving daily resource help with their academic work. Using a children's version of the Cooper-Smith Self-Esteem Inventory, Patten's investigation yielded results suggesting that anxiety is negatively correlated with achievement while self-esteem is positively correlated with achievement. It was also suggested that the negative relationship between anxiety and achievement may be, at least in part, a function of the impact of reduced self-

esteem in the learning disabled children. Thus, it appears that personality factors and emotional concerns may demonstrate interactive as well as main effects in learning disabled children.

A number of other authors have noted the association of anxiety with learning disabilities in children. Koppitz (1971) conducted clinical assessments of 177 learning disabled children and listed a high level of anxiety as a prevalent characteristic of these children. In non-empirical discussions of learning disabilities, Algozzine (1979) and Lerner (1971) both note the role that anxiety plays, although they differ in their interpretations of causality. Specifically, Algozzine suggests that ". . . poor self-concept, low frustration tolerance, anxiety, and social withdrawal/rejection. . . result from stress (emotional aspects), generated by limited academic performance and success" (p. 304). Lerner posits that disrupted emotional well-being, including anxiety, may be the antecedent to learning difficulties.

Depression

The literature addressing affective concomitants of learning disabilities in children is quite limited. Polce (1982) has discussed the emotional concerns which can be present in these children, emphasizing that both in assessment and in designing and implementing interventions, emotional factors must be taken into account. She

states, "Instruction to improve academic deficits while an emotional deficit exists is ineffective" (p. 226). Polce maintains that a learning disability can be confusing and frightening to a child, and she suggests that direct interventions which address the sadness and frustration they experience must be included in the educational programs of these children. Polce's comments, however, appear in the context of a general discussion, and no empirical data are cited to support her statements.

Colbert, Newman, Ney, and Young (1982) address the relationship between depression and learning disabilities more directly. They acknowledge that depression may result from the frustration encountered by learning disabled children, but they also suggest that depression might often be a causal factor in the learning problems of children. They studied 153 boys and girls, ages six through fourteen, who displayed dysphoria and other symptoms of depression. Colbert et al. reviewed the academic records and standardized test results of these children and found that, among those enrolled in regular classrooms, 71% were "significantly underachieving." However, ". . . relatively few of the 153 children in this study were seen as having specific learning disabilities" (p. 335). The authors found that many children had been labeled as learning disabled by previous teachers, but they found that in most of these cases, there was not sufficient

evidence in support of such a diagnosis. Colbert et al. conducted follow-up investigations which revealed that therapeutic interventions aimed at alleviating the depression in these children often resulted in significantly improved academic performance. They conclude that teachers may often misdiagnose depression as a learning disability, and they urge that teachers be aware of this possibility when evaluating their students.

The emphasis of the study conducted by Colbert et al. (1982) was on the identification of depression in children with learning problems. The related literature does not include controlled research in which the affective states of identified learning disabled children have been assessed directly. The perspectives offered by Polce (1982) and Colbert et al. (1982) raise the possibility, however, that the degree of depression in learning disabled children may be greater than that in the general population of children.

Interpersonal Relationships

Bryan and Bryan (1982) have noted in their review of relevant literature that parents, teachers, and peers tend to judge learning disabled children more negatively than they judge nondisabled children. Specifically, these authors cite studies which suggest that parents may see their learning disabled children as particularly difficult to live with, teachers often find learning disabled

children less desirable than nondisabled children, and peers tend to regard learning disabled children as less socially attractive than other children. Among the adjectives used to differentially describe learning disabled children in the many studies cited by Bryan and Bryan were: "obstinant, . . . negativistic, disobedient, . . . more introverted, less task oriented, less considerate, . . . angry, hostile, . . . anxious and nervous, . . . scared, unhappy, (and) worried" (pp. 148-153).

Classroom observation studies cited by Bryan and Bryan (1981) suggest that, in relating to learning disabled children, classroom teachers may be more likely to ignore older (fourth and fifth grade) learning disabled children, although this does not hold true for younger children (first and second grade). Also, when teachers did attend to these older, learning disabled children, the nature of their interactions tended to be more critical than when the teachers attended to nondisabled children. "In sum, teacher-learning disabled child interactions vary across situation, type of classroom, and academic status of the child" (Bryan & Bryan, 1981, p. 167).

Bryan and Bryan (1981) address the social interaction skills of learning disabled children both within and outside of the classroom by summarizing a number of studies. In classroom situations, learning disabled children tend, in general, to be off-task, and it is suggested that this

may extend to social situations as well as academic situations. This may result in "hovering" in group activities rather than actually participating. However, "In the absence of experimental studies or research involving cross lagged correlational methods, interpretations concerning the links between attention, academic achievement, and peer popularity must be speculative in nature" (p. 165).

A review of studies concerning learning disabled children's interactions with classmates concludes that

. . .the learning disabled child is likely to experience a social life within the classroom which is more hostile and rejecting than that facing his or her nondisabled counterpart. Second, it has been demonstrated that scores on sociometric devices are meaningfully correlated with everyday classroom behaviors of the child. Sociometric scores are associated with such social behaviors as positive and socially considerate communications, ignoring others, making nasty statements, and offering help and consideration" (Bryan & Bryan, 1981, pp. 169-170).

Learning disabled children appear to demonstrate impaired social skills outside the classroom as well as in school, according to Bryan and Bryan's (1981) review. It has been suggested that the subtleties of the emotional states of others are often lost on these children, inhibiting effective interactions in social situations (Bryan & Bryan, 1981). Bryan and Sherman (1980) cite motivational factors in the deficits, noting that direct instructions have been shown to increase learning disabled children's motivation to engage adults in conversations. Finally, language competence has been suggested by Donahue, Pearl,

and Bryan (1979, cited by Bryan & Bryan, 1981) to be associated with social interactions. Because of lower competence or confidence in their language abilities, learning disabled children appear to be less likely to utilize social interactions in seeking clarification of unclear information, and they are less likely to assert themselves if they are confused or uncertain about information. This has the two-fold effect of impairing social interactions and limiting information-gathering skills.

Hummel (1982) suggests that the relationship between interpersonal problems and impaired academic achievement may come from a common problem area. He proposes that negative family patterns may influence both a child's mental health and his or her academic progress. Relationships with peers are also likely to be inadequate, according to Hummel, in that ". . . learning disabled students are less accepted than their normally achieving peers" (p. 469). In their review of the relevant literature, Bryan and Bryan conclude that ". . . learning disabled children are likely to have sustained difficulties in meeting the challenge of their social and academic world, and . . . these difficulties may increase with age if appropriate remedial efforts are not instituted (p. 160).

Locus of Control, Learned Helplessness, and Coping Ability

In regard to learning disabled children's attributions, Bryan and Bryan cite a number of studies which suggest

that learning disabled children tend to externalize responsibility for their achievements and successes. These authors summarize their observations and the research of other authors with the following comments.

The finding that learning disabled children neglect the role of effort in accounting for their failures leads to the prediction that when confronted with a difficult and frustrating task, these children will withdraw. The finding that learning disabled children assume no personal responsibility for their successes leads to the belief that academic and social competence may not serve as potent reinforcers to the child. The rather gloomy picture that emerges is a child who withdraws in the face of difficult tasks, and who derives little pleasure from task mastery (p. 160).

Other authors report similar findings. For example, Pearl (1982) studied formally labeled learning disabled third and fourth graders and found that learning disabled children ". . . do not necessarily interpret successes as reflecting something positive about themselves and failures are not necessarily viewed as something that can be overcome with effort" (p. 167). Pearl utilized an objective, pencil and paper instrument in collecting her data, but she did not include a comparison group in analyzing her results.

Palmer, Drummond, Tollison, and Zinkgraf (1982) report that teachers' ratings described learning disabled elementary school children as more "learned helpless" than children with normal abilities. These authors state that "Cognitive functioning of (learning disabled) pupils

in school and in the community may be impaired not only by their skill deficits but also by perceptions concerning their competence and self-efficacy (Bandura, 1977)" (Palmer et al., 1982, p. 218).

Boersma and Chapman (1981) examined the locus of control of learning disabled children and a comparison group of nondisabled children. These investigators used a short form of the Intellectual Achievement Responsibility Questionnaire (Crandall, Katkovsky, & Crandall, 1965) in conducting their research, and their subject population included boys and girls in grades three through six. They found that the learning disabled children demonstrated ". . . comparatively external attributions of responsibility for successful task outcomes" (p. 355). In comparing their results across the different age groups, Boersma and Chapman found that ". . . these negative affective characteristics in . . . (learning disabled) children were well established at the Grade 3 level, and remained constant through Grade 6" (p. 355).

There is not unanimous agreement, however, that learning disabled children exhibit an external locus of control and greater learned helplessness. Bladow (1982) used the Nowicki-Strickland Locus of Control Scale for Children and found no significant differences between learning disabled and nondisabled children. Swartz, Purdy, and Fullingim (1983) conducted research indicating that

learning disabled children were not more susceptible to induced learned helplessness than nondisabled peers. Swartz et al. have gone on to note common characteristics of learning disabled children which distinguish them from typical learned helpless children. They list ". . .hyperactivity, aggression, (and) emotional lability. . ." (p. 276) among these characteristics. It is these more emotional factors, they suggest, which more commonly typify learning disabled children. Finally, Palmer et al. (1982), in their research, compared learning disabled and normal achieving children and found that there were no differences in the children's assessments of the role that their ability plays in their successes.

Palmer et al. (1982) note the inconsistencies regarding attributions in the learning disabilities literature, and they suggest that the differing findings may reflect the wide variety of instruments used to assess this variable. In addition, in the literature reviewed here, the criteria for identifying learning disabled children vary considerably across studies. While the literature is inconclusive, these discussions of locus of control and learned helplessness have implications for the general coping ability of learning disabled children. That is, while coping ability per se has not been addressed in the literature, the conflicting evidence regarding locus of control and attributions provides a background for the

investigation of this factor. There does appear to be sufficient evidence to suggest that problem solving and dealing with stress may be especially challenging for this group of children.

Aggression

Several authors have noted the tendency toward aggressive behavior and poor impulse control in learning disabled children. Koppitz (1971), based on her clinical assessments of 177 learning disabled children, observed that these children frequently exhibited weak inner controls, restlessness, explosiveness, and aggression. Wallace and McLoughlin (1975) listed physically disruptive behavior among the problems commonly reported by those who work with learning disabled children. Possible sources of this aggression are addressed by McWhirter (1977):

If the learning disabled child is angry, he may express it in hostile and aggressive ways. This creates problems for us because although the child's anger is understandable, we frequently react as if it were not. The child may be angry at the unfair expectations placed upon him. He may be angry at his inability to 'measure up.' He may be angry at adults who act as if something is wrong with him and yet pretend that there is not. He may be angry at the constant burden of improving all his weaknesses (p. 98).

The literature cited here is descriptive and at times speculative in nature. The absence of controlled research on the aggressive tendencies of learning disabled children is noteworthy. More empirical data are required before conclusions can be drawn regarding this association.

Self-concept and Self-esteem

Bryan and Bryan (1981) also address in their review the attitudes which learning disabled children hold toward themselves. They note that most work in this area has focused on the issues of self-concept and attributions (locus of control). Regarding self-concept, it is indicated that, ". . . clinical reports frequently indicate that learning disabled children have low self-concepts" (p. 156), and empirical data are cited which ". . . suggest that learning disabled children feel less worthy than nondisabled children on a number of tasks and personality characteristics. In comparison to achieving children, they apparently believe that they are less like that which they would wish to be" (pp. 157-158).

Larsen, Parker, and Jorjorian (1973) used an assessment technique based on the Coopersmith Self-Concept Inventory and found a wider gap between the conceptualizations of their real and ideal selves for learning disabled children than for nondisabled children. Black (1974) studied a group of teacher-identified underachievers and from this group identified retarded readers and normal readers. His assessment of the self-concepts of these children (using the Piers-Harris Children's Self-Concept Test) found a significant difference in the self-concept scores of the two groups. "As predicted, the mean self-concept of the retarded-reader sample was lower than and

significantly different from the mean of the normal-reader sample" (Black, 1974, p. 1138). Black also calculated correlations between self-concept scores and age and grade which demonstrated negative correlations for both groups. Noting that such correlations have not been consistently demonstrated with normal achieving subjects, Black states that his findings ". . . tend to support the hypothesis that learning disabilities and self-concept are associated in a circular fashion" (p. 1139). Black concludes that remedial interventions should address both the learning problems and the low self-concepts of learning disabled children.

In their literature review and discussion of related literature, Dudley-Marling, Snider, and Tarver (1982) relate low self-esteem in learning disabled children to their sense of powerlessness in influencing the outcome of their academic and interpersonal endeavors. Boersma and Chapman (1981) conducted empirical research which looked specifically at academic self-concept, and found that for both learning disabled and nondisabled children, academic self-concept and school achievement were significantly correlated.

Leviton's (1975) review of the relevant literature ". . . indicates that there has been a consistent, moderate correlation between self-concept and academic achievement" (p. 32). Wallace and McLoughlin (1975) and Houck and Houck (1976) also note that these factors have been cited often

as being highly correlated, although the latter authors maintain that the literature on this subject is equivocal. A wide variety of instruments have been used to assess self-concept and self-esteem, and again, the definitions of learning disabilities are not always consistent in this literature. Algozzine (1979) supports the notion of a strong relationship between self-concept and achievement, however, and his interpretation of the relationship summarizes the themes which emerged in the bulk of the literature:

Rather than learning and developing attitudes about tasks they 'can do,' . . . (learning disabled) youngsters often learn what they 'can't do.' This lack of positive self-regard results in poor self-concept, ego development, and self-esteem" (p. 298).

Summary and Hypotheses

The assessment of identified learning disabled children in an established learning disabilities program is the goal of the present study. An understanding of the emotional and personality factors which are most prevalent in learning disabled children will be useful in both academic and therapeutic interventions. Polce (1982), Palmer et al. (1982), Patten (1983), Raccioppi (1982), and Wink (1982) have all discussed the importance of educational personnel being aware of and attending to the special emotional needs of learning disabled children. On a therapeutic level, Berg and Wages (1982) and Amerikaner and Summerlin (1982) have indicated that group therapy experiences with learning disabled children can have a

positive effect on both the children involved and the overall school setting. Amerikaner and Summerlin (1982) state, ". . . brief interventions can have powerful effects on both the self-perceptions and behavior of. . . (learning disabled) children" (p. 343). The rationale behind the present study is that, before meaningful interventions can be planned and implemented, a full understanding of the psychological make-up of the children in question is necessary. Using the Children's Personality Questionnaire and the Thematic Apperception Test/Michigan Pictures Test, this study is aimed at enhancing our understanding of this population.

In the CPQ personality profiles cited in this review, academic achievement has been related to high emotional stability, high levels of conscientiousness, and substantial precision and control. In addition, high scores on the second-order anxiety factor have been associated with learning problems. A happy-go-lucky attitude was found to be positively correlated with high academic achievement among normal children, but others have found learning disabled children to appear happy-go-lucky as well. Finally, conflicting reports have been cited regarding the relationship between learning disabilities and adventurousness. The inconsistencies in these data may reflect differences in the populations studied (i.e., a general student population vs. teacher-identified underachievers

vs. students in remedial classes). In addition, two of these studies involved correlational analyses (Rushton, 1966) or comparisons of children's scores against published norms (Werner, 1966), while only one included assessments of and comparisons between groups of children (Harris & King, 1982). The present study included the assessment of a group of formally diagnosed learning disabled children and utilized a comparison group of nondisabled children in analyzing the assessment results.

A review of the emotional issues confronting learning disabled children indicates that depressive affect may be prevalent, interpersonal relationships tend to be inadequate or conflictual, there may be a low sense of self-efficacy, aggressive behavior is often reported, and self-concept and self-esteem appear to be lower than average. As with the data regarding CPQ personality profiles, however, the literature related to these emotional factors is at times quite limited and occasionally contradictory. Published reports in this area are often clinically based or descriptive in nature, rather than presenting controlled research and scientific data. Those studies which do present empirical support for their conclusions often address only one emotional or personality factor (e.g., locus of control or self-concept) rather than providing a more comprehensive profile of learning disabled children. These empirical data have been gathered by using pencil

and paper survey-type instruments; the researchers have not utilized projective test techniques in conducting their assessments. In addition, both clinical and empirical reports have often addressed the personality and emotional concerns of learning disabled children without utilizing a comparison group of nondisabled children (e.g., Patten, 1983; Pearl, 1982). Finally, the literature cited here has addressed the personality and emotional factors associated with children with varying types and degrees of academic impairment. The generalizability of the results of some of these studies to formally diagnosed learning disabled children is unknown.

The present study addressed the personality and emotional factors reviewed in this chapter. This study expanded upon existing research in at least four ways: 1) it provided a more comprehensive investigation, yielding a CPQ personality profile and the assessment of a number of emotional factors, 2) it included both objective and projective assessment techniques, 3) it included the assessment of a comparison group of nondisabled children, and 4) the learning disabled children included in this investigation were assessed and formally diagnosed as such by a specialist in the field of learning disabilities.

The hypotheses posited in this study are stated in reference to the overall comparisons made between a group of learning disabled children and a comparison group of

nondisabled children. Each personality and emotional factor was tested as a unipolar hypothesis. The same hypotheses were tested within certain demographic subgroups (e.g., controlling for sex, number of parents, etc.), and the predicted directions of these relationships were the same as in the overall comparison. Sex differences and differences between children from single-parent and two-parent homes were also analyzed. These were bipolar tests, as no hypotheses regarding these groups were generated. The hypotheses tested were as follows:

1. Children's Personality Questionnaire factors:

- a. Factor C: the learning disabled children will be more easily upset than the comparison group children (lower score on Factor C)
- b. Factor D: the learning disabled children will be more excitable, impatient, and demanding (higher score on Factor D)
- c. Factor F: the learning disabled children will be more sober and serious and less happy-go-lucky (lower score on Factor F)
- d. Factor G: the learning disabled children will be less conscientious and more undependable (lower score on Factor G)
- e. Factor H: the learning disabled children will be more threat-sensitive and timid (lower score on Factor H)

- f. Factor O: the learning disabled children will be more apprehensive and prone to feeling guilty (higher score on Factor O)
 - g. Factor Q3: the learning disabled children will be more casual and careless of social rules (lower score on Factor Q3)
 - h. Factor Q4: the learning disabled children will be more tense (higher score on Factor Q4)
 - i. the learning disabled children will show higher scores on the second-order Anxiety factor of the CPQ
2. Thematic Apperception Test/Michigan Pictures Test:
- a. the learning disabled children will display more sad affect in their stories than will the nondisabled children
 - b. the learning disabled children will display fewer positive and more negative interpersonal relationships
 - c. the learning disabled children will demonstrate fewer constructive and more destructive or evasive coping strategies
 - d. the learning disabled children will exhibit more aggressive fantasy in their stories
 - e. the learning disabled children will reveal lower self-esteem in their stories

CHAPTER III

METHOD

Subjects

The subjects in this study included 16 learning disabled children and 16 nondisabled children from a parochial school in Chicago. The learning disabled children had been diagnosed as such by the learning disabilities specialist at their school. Standardized test instruments as well as teacher observations and reports were used in making this diagnosis. The learning disabled children each received individual and/or small group remedial instruction in the form of 30-40 minute sessions with the learning disabilities teacher, two or three times per week.

Subjects for the comparison group were selected by the principal of the school, guided by instructions from the author to match the students on as many demographic factors as possible (i.e., sex, age, family composition, etc.). Eligibility for inclusion in either group was restricted by age--only students ages 8 through 12 were included. There were, in each group, five 8-year-olds, three 10-year-olds, four 11-year-olds and four 12-year-olds. The children in the comparison group were matched,

subject for subject, on sex and age with the learning disabled group. An effort was also made to match the subjects in regard to the number of parents living in the child's home (single-parent vs. two-parent families). The limited size of the subject pool prevented this factor from being matched in five of the sixteen subject pairings. The final research population consisted of ten boys and six girls in each group (learning disabled and non-disabled). Among the learning disabled children, seven were from single-parent homes, while among the non-learning disabled children, four came from single-parent homes.

Materials

Bladow (1982) has cautioned that learning disabled children have at times been assessed with instruments which were too difficult for them to understand or complete. In addition, the attention span of all of the children, and especially the learning disabled children, has been presented as a limiting factor in psychological assessment (Komm, 1982). Bearing in mind these considerations, instruments were chosen which would assess a relatively large number of psychological factors while remaining appropriate for this particular population.

Children's Personality Questionnaire. Eight of fourteen scales of the Children's Personality Questionnaire (CPQ) (Porter & Cattell, 1979) were administered. This is an objective, forced-choice questionnaire designed for use

with children ages 8 to 12. Form A of the CPQ was used, divided into two parts as designed by the test authors to allow for a break halfway through the testing session. Each personality factor is represented by ten items in the test, resulting in a total of 80 questions, with a break built in after the first 40 items.

The following scales from the CPQ were included in this assessment:

- Factor C: affected by feelings, easily upset vs. emotionally stable
- Factor D: phlegmatic, deliberate vs. excitable, impatient, demanding
- Factor F: sober, serious, taciturn vs. happy-go-lucky, enthusiastic
- Factor G: expedient, disregards rules, undependable vs. conscientious
- Factor H: shy, restrained, threat-sensitive, timid vs. venturesome
- Factor O: self-assured vs. apprehensive, prone to feeling guilty, worrying
- Factor Q3: casual, careless of social rules vs. controlled, socially precise
- Factor Q4: relaxed vs. tense

In addition, a second order factor, calculated using the scores on these subtests and designed to assess anxiety, was derived for each subject.

Projective techniques. Six pictures, three from the Thematic Apperception Test (TAT) and three from the Michigan Pictures Test (MPT) were administered to all children. This projective assessment technique was included in order to provide information regarding the children's emotional and interpersonal experiences. The test items included pictures depicting family, peer, and school situations in an effort to elicit psycho-emotional concerns specific to these areas of functioning. Specifically, the following stimulus cards were used: TAT #1, MPT #1, MPT #6, TAT #8BM, MPT #3, and TAT #16 (the blank card).

Procedures

Subject recruitment and test administration. The parents of the children identified as eligible for this study were contacted by the author via a letter explaining the nature and purpose of the proposed research (see Appendix A). Written permission for the children to participate was requested from these parents (as well as from any child at least 12 years of age). Several children originally identified as comparison group subjects were not granted parental permission to participate, and they were replaced by children with similar demographic compositions when possible. Informed consent was received from the parents of all children who ultimately participated.

Before any testing was undertaken, the participants met as a group with the principal of the school, at which

time the general purpose of the testing was introduced. In addition, the author, who served as the examiner, discussed the testing procedure with the children before beginning the assessments, and assured them that their specific responses to test items would be treated confidentially. The children were informed that more general feedback would be available to their parents after the testing had been completed. Protocols were labeled with numerical codes representing demographic variables and the children's names did not appear on the test materials. Each child had a unique numerical code, allowing for the future identification of specific children's protocols at the time of feedback to parents.

Children were tested during the school day in an unused classroom in their school. Each student was seen by the examiner twice, once for each test instrument used. The CPQ was administered before the TAT/MAT testing was conducted. The CPQ was given in small groups (three to five children), with the subjects situated so they could not see one another's test forms or be otherwise distracting to each other. Because not all scales of the CPQ were used, a modified test format was constructed by the author, excluding six of the original scales. The children were given the printed questions and responded by selecting one of two possible responses for each test item. The testing procedure also included an audio tape presentation of each

question as the children proceeded through the test. This was included in order to minimize any effects of the differing levels of reading ability among the students.

The TAT and MPT items were administered in individual testing sessions. The children's responses were audiotaped and subsequently transcribed from the tapes, which were then erased. A standard introduction to the test was given to each child as follows:

I am going to show you some. . . pictures. I'd like you to make up a story about each picture. . . . Just tell me what has happened in the picture and how it is going to turn out, just as if you were making up a whole story. . . . Tell me how the people in the story feel and what they are doing" (Andrew, Hartwell, Hutt, & Walton, 1953, cited in Eron, 1965).

The use of further prompts or inquiries by the examiner was limited to two types of questions: "How are the people in your story feeling?" and "How does your story turn out?"

Scoring procedures. The CPQ, an objective assessment instrument, was scored by the author, using the scoring key provided by the test authors. Raw scores for each scale were converted to standard scores (n-stens) from norm tables provided in the Handbook for the Children's Personality Questionnaire (Porter & Cattell, 1979). In addition, the second order factor assessing anxiety was calculated for each subject, using the formula provided by Porter and Cattell (summing weighted scores from the eight scales

given). The subjects' protocols thus yielded standard scores on nine factors.

The story-telling tasks were included in this study as a means of assessing the following emotional factors: depression (emotional tone), aggressive fantasy, interpersonal relations (with peers and family), coping ability, and self-esteem. The children's stories were assessed in blind analyses by graduate students in clinical psychology. These individuals were asked to evaluate the children's responses according to scoring systems which have been used in past research with thematic projective techniques (or adaptations of these scoring systems). The scoring system used is included in Appendix B.

Eron (1965) has described a method for rating the "emotional tone" of TAT stories on a five-point scale ranging from sad to happy. Numerical ratings are assigned to each story across a range from -2 to +2. Based on the ratings of his or her six stories, each subject was then classified as presenting a basically sad, neutral, or basically happy protocol. Specifically, the emotional tone of a given child's responses was considered to be sad if three or more stories were rated as -2 or -1. The child was rated as happy if three or more of his or her stories were rated as +1 or +2. If neither of these conditions were met, or if both of these conditions were met (i.e., three happy stories and three sad stories), then the

emotional tone for that subject was considered to be neutral.¹

Davids (1973) incorporated a number of features from several scoring systems to construct what he refers to as a "sign scoring system" for aggression in TAT stories. He describes this system as follows:

Only manifest aggression is considered. There is a two-way classification scheme in terms of (a) nature of the aggression and (b) age of the participants. Subdivisions within the aggression category are (i) physical aggression (fighting, killing, destroying); (ii) aggressive thoughts, feelings, or desires (hate, anger, aggressive dreams); (iii) verbal aggression (insults, negativism). Within the age category are (a) child-child interactions; (b) adult-adult interactions; and (c) adult-child interactions. These assume that the aggression occurs in an interpersonal context (e.g., mother hitting the child). Aggression that cannot be placed in these categories is placed in a miscellaneous subdivision labeled X, which includes aggression expressed toward the self, toward animals, toward institutions, or in a generalized form directed toward no object. Each story is scored for presence or absence of each class of aggression. Maximum score per story would thus be 12 points (i.e., three forms of aggression and four categories of participants). Scorable aggression may be expressed by anyone, not only the hero (p. 324).

This system was used as described. Each child thus was given a total, ranging from zero to six, for the occurrence for each of the twelve types of aggression (each type could be scored once in any given story and each child provided six stories).

Interpersonal relations were assessed using mutually exclusive categories for rating the interactions in each story as positive, negative, both, or "none." This system

has been used with children's TAT stories by Worland, Lander, & Hesselbrock (1979). In the present study, two types of interactions were assessed: peer relationships and family relationships. For these two categories, overall assessments of each child's relationships were derived from the ratings of each of the six stories. Specifically, interpersonal relations were considered to be positive if, out of those stories in which interpersonal relations were evident, at least half were rated as positive. Relationships were considered to be negative if at least half of the evident relationships were rated as negative. The "both" category was used if at least half of the stories were rated as both, or if there was an equal occurrence of positive and negative ratings across stories within a given subject. Finally, if 50% of the stories in which there were interpersonal relations were labeled positive and 50% were labeled "both," then the subject's interpersonal relations were considered to be positive. If 50% were negative and 50% were "both," the relationships were considered to be negative.²

The assessment of coping ability was also taken from Worland et al. (1979). Coping ability was judged for each story as constructive, destructive, evasive, or "no problem." A child's overall coping ability was then considered constructive if, out of those stories in which a problem was present, a constructive rating was given in

more than 50% of the cases. A destructive rating was given if more than 50% of the problems presented were resolved in a destructive manner, and an evasive rating was likewise assigned. A category called "mixed approach or no problems present" was used for subjects with whom none of the above criteria was met.³

Finally, the raters were asked to assess the children's stories in regard to self-esteem. A review of relevant literature did not reveal a quantitative scoring system for assessing children's self-esteem in thematic stories. Therefore, an adaptation of Eron's (1965) system for scoring emotional tone was used, rating each story from -2 (very low self-esteem) to +2 (very high self-esteem). While, for emotional tone, sample criteria for making their judgments were presented to the raters, the ratings of self-esteem were left to the subjective impressions of the judges. They were instructed as follows: "This is a more global rating of self-esteem in which the rater may consider the specific factors already evaluated, as well as arriving at a more clinical and subjective assessment of the subject's self-esteem as revealed in his or her stories." Overall self-esteem for a given subject was considered high if three or more stories were rated as +1 or +2, low if three or more stories were rated as -1 or -2, and neutral if neither of these conditions were met or if both were met.

Before the research data were distributed to the volunteer raters for scoring, three identical TAT/MPA protocols were distributed to all judges for the purpose of assessing interrater reliability. These three protocols consisted of stories given by children who had been excluded from the research study per se because of age or the lack of a corresponding matched subject in the learning disabled or comparison group. These data were gathered in an identical manner to the data collected from those children who were eligible for the study.

Interrater reliability was evaluated by making comparisons between the degree of agreement which would be achieved by random assignment to categories and the agreement which was actually achieved. For example, each reliability protocol could be evaluated on emotional tone as sad, neutral, or happy. Five of six raters agreed on a rating of emotional tone on two of the protocols, while four of six agreed on the third. The cumulative probability of five or more raters agreeing when there are three possible category assignments is .053. The cumulative probability of four or more raters agreeing on the assignment of a subject to a given category while the other two raters assign him or her to the same alternative category is .177.

The author determined that the reliability levels for the emotional tone, peer and family relationships, and

coping ability scales were acceptable. There was significant agreement on at least two out of three protocols on each of these scales. The incidence of aggressive fantasy was very low, precluding statistical analysis of interrater reliability. However, a perusal of the raw data revealed that when aggressive fantasy was identified by one rater, the agreement of the other raters in noting the aggressive content was high. Specifically, seven stories were cited as having aggressive content, and six of these incidents of aggression were identified by four or more judges. Five of these incidents were agreed upon by five or more judges. This descriptive analysis suggested that the reliability of the aggressive fantasy scale was satisfactory. Finally, the judges' ratings of self-esteem were not reliable--agreement was not significantly greater than that which would be expected by chance. Self-esteem was excluded from further analyses in this study.

Once reliability had been established on all scales but self-esteem, the actual TAT/MPT data were randomly distributed to the six judges. Upon completion of the rating scales by all raters, the appropriate statistical analyses were conducted.

CHAPTER IV

RESULTS

Children's Personality Questionnaire

t-tests were conducted to evaluate group differences on the CPQ scales, including the second-order anxiety factor. For these analyses, and for all analyses in this study, $p < .05$ was the criterion for statistical significance. The results of the comparisons between all learning disabled children and all comparison group children are presented in Table 1. With one-tailed hypotheses proposed for each CPQ factor, no significant differences were found between the two groups. A tendency was present on CPQ Factor C, with the learning disabled children tending to be more easily upset while the comparison group appeared to be more emotionally stable, $t(30) = -1.36$, $p < .10$. Thus, the hypotheses related to differences between the learning disabled and the nondisabled children were not supported. There was no evidence that learning disabled children as a group were more excitable, more sober, less conscientious, more threat-sensitive, more apprehensive, more careless of social rules, more tense, or more anxious than the comparison group children. There was limited support for the hypothesis that the learning disabled children were more

Table 1

Comparisons of Group Means on Children's Personality
Questionnaire for Learning Disabled and Comparison Group
Children

Subscale	Group				t-values
	Learning Disabled ^a		Non-Disabled ^a		
	\bar{X}	SD	\bar{X}	SD	
C	4.94	1.95	5.75	1.39	-1.36*
D	5.06	1.98	4.94	1.39	0.21
F	4.56	2.13	5.13	2.06	-0.76
G	5.13	2.00	4.62	2.03	0.70
H	4.38	2.39	5.19	1.94	-1.06
O	5.44	1.83	5.19	1.17	0.46
Q ₃	4.75	1.48	5.50	1.75	-1.31
Q ₄	5.00	1.67	5.56	1.59	-0.97
Anxiety	5.71	0.96	5.45	0.71	0.85

Note. n-stens (normal standard scores) used in calculating means. See Porter & Cattell, 1979, pp. 17-18.

Note. Differences between group means in the predicted directions on the following subscales: C,D,F,H,O,Q₃, and Anxiety.

^a \bar{n} = 16

* p < .10

easily upset than their nondisabled counterparts.

It is noteworthy that, although there was not statistical support for the hypotheses regarding the overall group comparisons, seven of the nine CPQ personality factors yielded differences between group means which were in the predicted directions. A post hoc analysis of this datum utilized the sign test, as described by Siegel (1956). This statistic yields information regarding the probability of the intergroup comparisons being in the hypothesized directions, assigning a plus to each comparison which was consistent with the hypotheses and a minus to those which were not. The probability of seven of the nine comparisons supporting the hypotheses, using the sign test, was .090. Using a probability level of .05 as the criterion for statistical significance, this analysis can only be considered a statistical tendency in support of intergroup differences. It does not, however, lend direct support to the specific hypotheses advanced in this study.

One-tailed t -tests were conducted in making comparisons between learning disabled and nondisabled children within a number of demographic subgroups. Specifically, analyses were conducted at each age level and within each sex (i.e., comparing learning disabled boys to nondisabled boys and comparing learning disabled girls to nondisabled girls). In addition, analyses were conducted comparing learning disabled children from single-parent homes to

nondisabled children from single-parent homes. Finally, one-tailed t-tests compared learning disabled children from two-parent homes to their nondisabled counterparts. The hypothesized relationships were in the same directions within these subgroups as they were for the overall comparisons. The significant results and tendencies revealed in these comparisons are listed in Table 2.

In addition to the one-tailed t-tests relating to the hypotheses posited in this study, several two-tailed analyses were conducted, comparing groups about whom no hypotheses had been generated. Specifically, boys were compared to girls, both within and across the learning disabled and nondisabled groups, and children from single-parent homes were compared to children from two-parent homes, both within and across groups. Significant results from these analyses appear in Table 3.

Learning disabled girls demonstrated a significant difference in the direction of being more easily upset (Factor C) when compared to non-learning disabled girls, $t(10) = -2.11, p < .05$. No other CPQ factors revealed significant differences between these two groups.

In comparing learning disabled boys to the non-disabled boys, no significant differences were apparent. Factor Q3 did reveal a tendency for the learning disabled boys to be more careless of social rules and less controlled and socially precise than their male comparison group

Table 2

Significant Differences and Tendencies on CPQ Factors for Learning Disabled and Comparison Group Children Within Demographic Subgroups

Subscale	Group				t-value
	Learning Disabled Girls ^a		Comparison Group Girls ^a		
	\bar{X}	SD	\bar{X}	SD	
C	4.50	1.64	6.50	1.64	-2.11**

Subscale	Group				t-value
	Learning Disabled Boys ^b		Comparison Group Boys ^b		
	\bar{X}	SD	\bar{X}	SD	
Q ₃	4.40	1.35	5.60	2.01	-1.57*

Subscale	Group				t-value
	Learning Disabled, Single-Parent ^c		Comparison Group, Single-Parent ^d		
	\bar{X}	SD	\bar{X}	SD	
G	3.57	1.51	5.25	1.50	-1.78*
H	3.57	2.57	5.75	1.71	-1.68*
O	6.14	1.57	5.00	0.82	1.58*
Anxiety	6.13	0.90	5.20	0.60	2.08**

Subscale	Group				t-value
	Learning Disabled, Two-Parent ^e		Comparison Group, Two-Parent ^f		
	\bar{X}	SD	\bar{X}	SD	
G	6.33	1.41	4.42	2.19	2.43**

(continued)

Table 2 (continued)

Note. n-stens (normal standard scores) used in calculating means. See Porter & Cattell, 1979, pp. 17-18.

$$a_n = 6$$

$$b_n = 10$$

$$c_n = 7$$

$$d_n = 4$$

$$e_n = 9$$

$$f_n = 12$$

$$*p < .10$$

$$**p < .05$$

Table 3

Significant Differences on CPQ Factors Between Demographic Subgroups

Subscale	Group				t-value
	All Boys ^a		All Girls ^b		
	\bar{X}	SD	\bar{X}	SD	
F	5.45	1.76	3.83	2.25	2.13**

Subscale	Group				t-value
	Learning Disabled, Single-Parent ^c		Learning Disabled, Two-Parent ^d		
	\bar{X}	SD	\bar{X}	SD	
G	3.57	1.51	6.33	1.41	-3.73***

Note. n-stens (normal standard scores) used in calculating means. See Porter & Cattell, 1979, pp. 17-18.

^a \underline{n} = 20

^b \underline{n} = 12

^c \underline{n} = 7

^d \underline{n} = 9

** p < .05

*** p < .01

counterparts, $t(18) = -1.57$, $p < .10$.

For the t -tests described above, a pooled estimate of variance was used, as the comparisons were being made between groups of equal size. The remaining t -tests used separate variance estimates, as recommended by Hays (1981) for groups which are both small and unequal in size.

When compared to non-disabled children from single-parent homes, the learning disabled subjects living with one parent demonstrated a significantly higher mean score on the Anxiety Factor, $t(8) = 2.08$, $p < .05$. In addition, several tendencies were evident. The learning disabled children from single-parent homes tended toward less conscientiousness (Factor G) and greater guilt proneness (Factor O), $p < .10$. In addition, Factor H revealed a tendency for the learning disabled children with single parents to be more shy, restrained, and threat sensitive than the more venturesome comparison group children from single parent homes. Among children from two-parent homes, the learning disabled children were significantly more conscientious (Factor G), $t(18) = 2.43$, $p < .05$ (two-tailed t -test). This relationship was in the opposite direction of that predicted in the original hypotheses. No other significant differences or tendencies were evident in comparisons between these groups.

In a two-tailed t -test comparing all male subjects to all female subjects, one significant difference

appeared. Factor F revealed the boys to be more happy-go-lucky and enthusiastic than the girls, who were more serious and sober, $t(19) = 2.13$, $p < .05$. Looking only at the learning disabled children, however, there were sex differences on none of the CPQ Factors. No sex differences were apparent among the comparison group subjects.

When all children from one-parent homes were compared to all children from two-parent homes, no significant differences were found. Again, these were two-tailed t -tests, as no hypotheses regarding these groups had been posed. Also, the number of parents in the home yielded no significant differences among the nondisabled group. However, when learning disabled children from single parent homes were compared to learning disabled children from single parent homes, a significant difference was present on Factor G. The learning disabled children from single-parent homes revealed lower levels of dependability and conscientiousness than their two parent learning disabled counterparts, $t(12) = -3.73$, $p < .01$ (two-tailed test).

Summarizing the analyses conducted on the CPQ data, there were no significant differences between the learning disabled and nondisabled children in the overall comparisons between these groups. In tests comparing learning disabled girls to nondisabled girls, there was statistical support for the hypothesis that the learning disabled girls would be more easily upset than the girls from the comparison

group. Within the subgroup of children from single-parent homes, four of the nine hypotheses were supported by tendencies or statistically significant differences. The learning disabled children from single-parent homes appeared to be less conscientious, more threat-sensitive, more prone to guilt feelings, and more anxious than the nondisabled, single-parent peers.

Thematic Apperception Test/Michigan Pictures Test.

The children's responses to the thematic story-telling tasks were analyzed using the Chi-Square statistic for group comparisons of categorical data. In addition to comparing all learning disabled children to all nondisabled children, analyses were conducted holding constant the variables of sex, number of parents, and age. The hypotheses within these subgroups were the same as for the overall comparisons: the learning disabled children were predicted to display more sad emotional tone, more negative interpersonal relations, less constructive coping abilities, and more aggressive fantasies. Each of these factors was analyzed with the Chi-Square statistic, with the exception of Aggressive Fantasy, which was analyzed separately. In addition, each of the six stimulus cards was analyzed with the Chi-Square, factor by factor. This was done in order to evaluate possible group differences in the responses to different types of stimuli (e.g., MPT #3, a school-related stimulus; MPT #6, a family scene, etc.).

In comparing the learning disabled group to the non-disabled group, no significant differences were found in emotional tone, peer relations, family relations, or coping ability. These data appear in Table 4. There was a tendency for the learning disabled children to display fewer positive and more negative family relationships, $\chi^2(2) = 4.75$, $p < .10$. No other tendencies were present in the comparisons between these groups.

Table 5 summarizes the data from the subgroup analyses which yielded significant group differences or tendencies.

Chi-square analyses were conducted to compare learning disabled boys to nondisabled boys and learning disabled girls to nondisabled girls. No significant differences or tendencies were present in these analyses.

Among children from single parent homes, the learning disabled children revealed a tendency toward more negative peer and family relationships than their nondisabled counterparts, $\chi^2(2) = 5.24$, $p < .1$ for peer relationships and for family relationships. No differences were evident, however, in comparisons between the learning disabled and nondisabled children from two-parent homes.

Chi-square analyses were conducted comparing the learning disabled and comparison group children at various age levels. Only among the 11-year-old children were differences evident. Learning disabled children displayed significantly more negative peer relations, $\chi^2(2) = 6.00$,

Table 4

Chi Square Analyses for TAT/MPT Stories for Learning
Disabled and Comparison Group Children

Emotional Tone			
	Learning Disabled	Comparison Group	Totals
sad	8	8	16
neutral	3	6	9
happy	5	2	7
Totals	16	16	32

Chi Square (2) = 2.29, $p > .10$

Peer Relationships			
	Learning Disabled	Comparison Group	Totals
positive	5	9	14
negative	6	4	10
both	5	3	8
Totals	16	16	32

Chi Square (2) = 2.04, $p > .10$

Family Relationships			
	Learning Disabled	Comparison Group	Totals
positive	5	11	16
negative	6	2	8
both	5	3	8
Totals	16	16	32

Chi Square (2) = 4.75, $p < .10$

(continued)

Table 4 (continued)

Coping Ability			
	Learning Disabled	Comparison Group	Totals
constructive	2	6	8
destructive	5	1	6
evasive	4	6	10
mixed	5	3	8
Totals	16	16	32
Chi Square (3) = 5.57, p > .10			

Table 5

Significant Results and Tendencies in Chi Square Tests on
TAT/MPT Responses, Comparing Learning Disabled and
Comparison Group Children Controlling for Sex, Number of
Parents, Age, and Stimulus Card

<u>Peer Relationships, Single Parent Children</u>			
	<u>Learning Disabled Single Parent</u>	<u>Comparison Group Single Parent</u>	<u>Totals</u>
positive	2	4	6
negative	4	0	4
both	1	0	1
Totals	7	4	11

Chi Square (2) = 5.24, $p < .10$

<u>Family Relationships, Single Parent Children</u>			
	<u>Learning Disabled Single Parent</u>	<u>Comparison Group Single Parent</u>	<u>Totals</u>
positive	2	4	6
negative	3	0	3
both	2	0	2
Totals	7	4	11

Chi Square (2) = 5.24, $p < .10$

<u>Peer Relationships, 11-year-old children</u>			
	<u>Learning Disabled 11-year-olds</u>	<u>Comparison Group 11-year-olds</u>	<u>Totals</u>
positive	0	3	3
negative	3	0	3
both	1	1	2
Totals	4	4	8

Chi Square (2) = 6.00, $p < .05$

(continued)

Table 5 (continued)

Family Relationships, 11-year-old children			
	Learning Disabled 11-year-olds	Comparison Group 11-year-olds	Totals
positive	0	3	3
negative	2	1	3
both	2	0	2
Totals	4	4	8

Chi Square (2) = 5.33, $p < .10$

Coping Ability, TAT Card #16			
	All Learning Disabled	All Comparison Group	Totals
constructive	6	6	12
destructive	5	1	6
evasive	4	3	7
mixed	1	6	7
Totals	16	16	32

Chi Square (3) = 6.38, $p < .10$

$p < .05$, and a tendency toward more negative family relations, $\chi^2(2) = 5.33$, $p < .10$.

All learning disabled and all nondisabled children were compared in their responses to each of the six TAT/MPT cards. No individual stimulus card prompted significantly different responses from the two groups. TAT card #16 did reveal a tendency to elicit more destructive coping strategies among learning disabled children, but no other differences between groups were revealed in the Chi-Square analyses of the individual test items.

Because the Aggressive Fantasy scores yielded continuous rather than categorical data, analysis of variance was used for this factor. No significant differences between the learning disabled and nondisabled children were evident. Analyses within demographic subgroups (e.g., controlling for sex, age, etc.) were not conducted for the Aggressive Fantasy scores.

Summarizing the analyses of the TAT/MPT test data, there were no significant differences between the learning disabled and nondisabled children on the emotional factors which were assessed. A statistical tendency suggested that the learning disabled children may experience more negative family relationships than their nondisabled peers. The results also suggested that learning disabled children from single-parent homes may experience difficulties in both peer and family relationships. Again, these results

reflected statistical tendencies rather than statistically conclusive intergroup differences. With the exception of intergroup differences among 11-year-old subjects, the remaining analyses holding age, sex, and number of parents constant did not yield significant differences between learning disabled and nondisabled children.

CHAPTER V

DISCUSSION

The purpose of this research was to identify personality constructs and/or emotional concerns which may be associated with learning disabilities in elementary school children. Sixteen learning disabled children and sixteen nondisabled children were administered eight subscales of the Children's Personality Questionnaire and selected items from the Thematic Apperception Test and the Michigan Pictures Test. The CPQ was scored for eight personality factors and Anxiety. The TAT/MPT items were scored for Emotional Tone, Peer and Family Relationships, Coping Ability, Aggressive Fantasy, and Self-esteem. Self-esteem was not included in the statistical analyses because of poor interrater reliability on that measure.

This study was designed to contribute to the more complete understanding of learning disabled children. It was the author's intention that the results of this research would be useful in a number of ways: 1) educators would be able to utilize this information in planning and implementing remediation programs, 2) parents would gain insight into the psycho-emotional issues confronting their learning disabled children, and 3) mental health

professionals working in consultation with educators and/or parents would have access to psychological information which would aid in the development of effective intervention strategies. While previous research had addressed most of these personality and emotional factors in isolation, the present study sought to be more comprehensive in the assessment of a wide range of psycho-emotional concerns.

Children's Personality Questionnaire Profiles

Overall comparisons. The overall comparisons between the learning disabled and nondisabled children yielded no significant differences between the two groups, although there was a tendency for the learning disabled children to be more easily upset and less emotionally stable (Factor C). This tendency is consistent with the results of two of the three previous studies which used the CPQ to examine the relationship between personality characteristics and academic achievement (Harris & King, 1982; Rushton, 1966; Werner, 1966).

The absence of statistical support for the other hypotheses relating to the CPQ comparisons of the two groups may be due to one or more factors. First, the sample size in this research was small. With standard scores of each personality factor ranging from 1 to 10, the mean scores for each group of sixteen children would have to be widely divergent to yield significant t-test values. Second, only one form (Form A) of the CPQ was used in this research.

The decision to use only one form was based primarily on the desire to minimize the out-of-class time required of the participating children. A statistical ramification of this decision was a small number (10) of test items contributing to each subscale score. With so few items, the distributions of scores, and thus the standard deviations were quite broad. With large standard deviations, statistical significance is difficult to achieve. Although there were not statistically significant results, the relationships between group means on seven of the nine CPQ factors (including Anxiety) were in the predicted directions.

Finally, the lack of statistical significance may in fact reflect basic similarities in the personality characteristics of these two groups. The use of a single school with a relatively homogeneous student population may have presented a research population within which few psycho-emotional differences exist. Alternatively, the learning disabled population assessed in this study may have already benefited psychologically from the services provided for them in their school. The children in the learning disabled group all received either individual or small-group remedial services from a full-time, certified learning disabilities specialist. It is possible, for example, that the higher levels of tension or anxiety predicted for the learning disabled children were not manifested in this group of children who were receiving ongoing individualized

resource services.

Subgroup analyses. Factor C (easily upset vs. emotionally stable) yielded a statistically significant difference between learning disabled girls and comparison group girls, while the scores of this factor demonstrated only a tendency in the overall analysis. This result may be an indication of a stronger personal, emotional reaction to the experiences of being learning disabled for girls than for boys. Higher emotional reactivity might alternatively be interpreted as a causal factor in its relationship to learning disabilities. That is, difficulty dealing with emotions may impinge upon learning abilities more severely among girls than among boys. The relationship between learning disabilities and general emotional stability in girls warrants further exploration.

The tendency of learning disabled boys to be less socially precise and controlled in comparison to nondisabled boys (Factor Q3) is consistent with Werner's (1966) study using the CPQ, in which a tendency in the same direction was reported. Other literature cites impulsivity and weak inner controls as being characteristic of learning disabled children in general (Koppitz, 1971). The learning disabled boys' scores on Factor Q3, coupled with the learning disabled girls' scores on Factor C (see above) may suggest a general tendency for boys to act out in adverse circumstances while girls may tend to turn their

frustration inward. Being a learning disabled student certainly can be viewed as a major stressor for the elementary school age child (Algozzine, 1979), and sex differences in dealing with this stress should be examined more fully.

Perhaps the most interesting subgroup analyses were within the single-parent group, comparing the learning disabled to the nondisabled children. With four of the nine CPQ factors yielding significant differences or tendencies in the predicted directions, it appears that the learning disabled children from single-parent homes are less conscientious, more timid and threat-sensitive, more apprehensive and prone to feeling guilty, and more anxious than their nondisabled counterparts. As discussed above, being learning disabled may be considered a major stressor for children. The results presented here suggest that children from single-parent families may have fewer personal resources for dealing with their academic frustrations. Timidness, guilt feelings, and anxiety seem likely to exacerbate learning problems, working in a reciprocal manner as described by Patten (1983).

An overall comparison of all children from single-parents vs. two-parent families did not yield any significant results. Furthermore, among two-parent children, the learning disabled students displayed a higher degree of conscientiousness than the nondisabled students. Finally,

comparing single-parent learning disabled children to two-parent learning disabled children, the single-parent subjects score lower on conscientiousness at a .001 significance level. It appears, then, that it is the combination of being learning disabled and from a single-parent home that relates to the personality characteristics described here. Previous research on learning disabled children has not presented data on the single-parent vs. two-parent variable. The population of single-parent learning disabled children may require special attention by educators and mental health professionals, and further research with this group of children is certainly warranted.

Thematic Apperception Test/Michigan Pictures Test

Hypotheses were tested relating to Emotional Tone, Peer and Family Relationships, Coping Ability, and Aggressive Fantasy. In the overall comparisons between learning disabled and nondisabled children, no significant differences were revealed on these factors. There was a tendency for the learning disabled children to have fewer positive and more negative family relationships. An analysis of the children from single-parent homes yielded tendencies for both peer and family relationships to be less positive for the learning disabled children. These results are consistent with the relevant literature, which has often cited disrupted or inadequate interpersonal relationships among the problems commonly experienced by learning disabled

children. Again, the population of learning disabled children from single-parent homes has not been studied in the past. The findings of the present study suggest that these children may experience particular difficulties in their interpersonal lives.

Comparisons among the 11-year-old children revealed more negative peer relationships in the learning disabled subjects, as well as a tendency toward more negative family relationships. Each group in this comparison consisted of only four children, making interpretations of these results difficult. These differences were not evident among the other age groups, including 10-year-old children and 12-year-old children, and there is not intuitive or empirical support for the notion of unique interpersonal difficulties specifically among 11-year-old children. Certainly future research should continue to examine age differences in assessing the psycho-emotional concerns of learning disabled children, but the impact of the present study's finding in this regard is limited.

Integration of CPQ and TAT/MPT Results

Integrating the data from the two test instruments used in this study, there is little support for the hypotheses predicting greater personality and emotional difficulties among learning disabled children as a group. The relevant literature often presents descriptions of these children as anxious, depressed, interpersonally inadequate,

etc. The results of this study, however, suggest that, in comparison to nondisabled children with similar demographic backgrounds, the learning disabled children are not more anxious, depressed, etc. These results raise questions about whether learning disabled children can reasonably be considered to be a homogeneous group in whom global personality constructs and emotional concerns can be identified.

In future research, it might be more fruitful to examine factors which may mediate adjustment or emotional response to a learning disability. The results of this study indicate, for example, that a child's family composition (i.e., single-parent vs. two-parent) is related to certain aspects of psychological functioning in learning disabled children. The Children's Personality Questionnaire identified the single-parent learning disabled children as less conscientious, more guilt-prone, more threat-sensitive, and more anxious than their nondisabled single-parent peers. The impaired interpersonal relationships displayed in the TAT/MPT test items add to the evidence that mediating factors such as family composition may contribute significantly to the ability of a child to cope with and adapt to a learning disability. An emphasis on these mediating factors in future research may yield more meaningful information regarding the psycho-emotional concerns of these children.

Methodological Issues

Subjects. A research population consisting of two groups of sixteen subjects is relatively small in size. With groups this size, using t-tests and the Chi Square statistic for the bulk of the statistical analyses, the likelihood of Type II errors is high. That is, there is a strong possibility that true differences between the two groups were not revealed in the statistical analyses. Future research should, if at all possible, utilize a larger population in order to alleviate this problem. Given the small sample size in the present study, the significant results and tendencies identify personality characteristics or areas of conflict which surely warrant further investigation.

In addition to increasing the sample size, it is recommended that more girls be included in future research and that the number of children from single-parent homes be equal in each group being compared. The former recommendation stems from the limited number of females in the present study, as well as the tendency for most of the relevant literature to neglect possible sex differences in learning disabled children's psychological characteristics. As discussed above, mediating factors within the population of learning disabled children may be critical in arriving at an understanding of these children--sex differences may be among these important mediating factors. The latter

recommendation (equal numbers of single-parent children in each group) reflects a statistical issue, in that groups of equal size can generally be analyzed with greater statistical power than can unequal groups. The greater the demographic similarity between groups, the more likely it is that intergroup differences will be due to the learning disabled vs. nondisabled variable. The present study did not have equal numbers in the learning disabled and nondisabled single-parent groups.

Materials. Eight of fourteen subscales of the Children's Personality Questionnaire were administered. A primary consideration in not using the entire test was the amount of time children would require to complete all fourteen subscales. The author's observation, however, was that the questionnaire was generally completed very quickly by the children. The inclusion of all subscales would not have substantially increased the time requirement for the participating students. In addition, the results of the present study illustrated the limited utility of using only one form of the CPQ. The author would support Porter and Cattell's (1979) recommendation that at least two of the four available forms of the questionnaire be used to increase the likelihood of identifying real intergroup differences.

A measure of self-esteem or self-concept should be included in future research with the learning disabled

population. The literature strongly supports the hypothesis that these children have generally lower self-esteem than nondisabled children, but the use of the TAT/MPT items to assess this was unreliable in the present study. The lack of sample criteria on which to base their judgments made the assessment of self-esteem difficult on these items, according to judges who scored the data. The use of thematic story telling tasks to measure this variable would be meaningful only if reliable criteria were established. Otherwise, an independent measure of self-esteem should be used in future assessments. In addition, care should be taken to define clearly the construct of self-esteem in any such assessment. The vague and inconsistent definitions of self-concept and self-esteem have contributed to the equivocal nature of the related literature. There is enough empirical and clinical support for the proposition that learning disabled children may suffer low self-esteem, however, to justify further research in this area.

Finally, future research in this field should continue to refine the emotional factors being measured. For example, in the present study, fairly broad categories were used to describe the coping ability of the children (constructive, destructive, evasive, or "no problem"). As assessments of these children become more detailed and complete, more meaningful descriptions may emerge. Behavioral measures, further projective techniques, parent

questionnaires, etc., may all add to our understanding of this population. As in all research, the goal of comprehensive assessment must be balanced with the limitations on the demands which can be placed upon the research subjects. The potential directions which future research with this population may take are plentiful and varied.

Summary

Of the fourteen hypotheses tested in this study comparing all learning disabled children to all nondisabled children (including separate tests of peer relationships and family relationships), none was supported at a statistically significant level ($p < .05$) and two were supported as tendencies ($p < .10$). The two tendencies supported the hypothesis that learning disabled children would be more easily emotionally upset and the hypothesis that learning disabled children would reveal more negative family relationships.

Both assessment instruments used in this study yielded results suggesting that learning disabled children from single-parent homes may display personality characteristics and experience interpersonal difficulties which distinguish them both from nondisabled children and from learning disabled children from two-parent homes. The multiple stressors of being learning disabled and from a single-parent home may establish this group of children as a group which merits special attention. Specifically, these

children may be well-served by both the increased sensitivity of educational personnel and, especially, the availability of supportive and relevant therapeutic programs. The tendency toward negative interpersonal relationships is especially relevant to mental health professionals concerned with meeting the special needs of these children. With further research to clarify and expand upon our understanding of this population, educators, parents, and mental health professionals alike will be able to design and implement interventions which will help these children achieve and adapt to their fullest potential in their schools, their homes, and their communities.

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APPENDIX A

LOYOLA UNIVERSITY OF CHICAGO



DOYLE CENTER & DAY SCHOOL

6525 North Sheridan Road, Chicago, Illinois 60626 • (312) 274-3000

February, 1984

Dear Parent,

I am a graduate student pursuing a doctorate degree in Clinical Psychology at Loyola University. At this time, I am developing a project aimed at arriving at a better understanding of learning disabled children. The goals of this project are two-fold: 1) I hope to identify some of the emotional concerns which may be especially meaningful for learning disabled children as a group, and 2) I will gather information which will be incorporated by the Doyle Guidance Center of Loyola University into that agency's service plan for St. Jerome. In other words, it is hoped that the services provided to learning disabled children can be better tailored to meet both the academic and emotional needs of these children.

In order to identify which emotional factors are most relevant for the children in St. Jerome's Learning Disabilities Program, I will need to administer psychological tests to these children, as well as to a group of children not in the LD program. I am seeking your permission to include your child in my study. The main test I will administer will involve answering a questionnaire especially designed to be easily understood by children. The questions should not be upsetting for your child in any way, and he or she will be assured that this is not an academic test - there are no right or wrong answers. In addition, the children will be asked to tell me several stories in response to a series of pictures. This story-telling is an activity that most children seem to enjoy. The testing should take approximately one hour, and will take place during school hours. The testing will take place in small groups and individually, and every effort will be made to avoid unduly singling out any children. The testing will be coordinated with St. Jerome staff in order to minimize any disruption to the regular school routine.

In addition to the testing information, I seek your permission to gather limited demographic information about your child as relevant to this project (e.g., LD or non-LD, length of time in LD program, family composition, etc.).

Be assured that the information gathered will be coded and your child's name will not appear on any of my materials. Your child's confidentiality will be protected. A list of participating children's names and their corresponding code numbers will be kept at the Doyle Guidance Center, separate from my own records. Parents seeking information about their child's test results may contact the Doyle Center to arrange for such feedback when the project has been concluded.

- 2 -

I have discussed this project with the principal of St. Jerome School, and she agrees that there will be no risks involved for the children. I would appreciate your cooperation. I believe that this research could yield information which will be of general interest in the fields of psychology and education and will be useful for the students, staff, and parents of St. Jerome in particular. If you are willing to include your child in this project, please fill out the attached form and return it to your child's teacher. Please note that if your child is twelve years old or older, he or she must sign the permission form as well. Thank you very much.

Sincerely,

Richard M. Volden

Richard M. Volden

(please print child's name)

PERMISSION FORM

I have read the attached letter explaining the project to be undertaken by Richard Volden of Loyola University of Chicago. I understand the general purpose of the project and am assured that any information collected by Mr. Volden will be treated confidentially. I also understand that test results will be available to me upon request, through the Doyle Guidance Center of Loyola University, after completion of the study. I agree to the inclusion of my child in this project.

Signed,

(parent's signature)

(child's signature if child is 12 or older)

(date)

Please return this form to your child's teacher on Monday, March 5.

APPENDIX B

THEMATIC APPERCEPTION TEST

Subject Code # _____

Card # _____

Emotional Tone

The emotional tone of each story is to be rated according to the following scale:

- 2 very sad
- 1 sad
- 0 neutral
- +1 happy
- +2 very happy
- ? can't make up a story

Base your ratings on the sample criteria presented below. Do not give your ratings in fractions (e.g., $-1\frac{1}{2}$). Use integer ratings only, or the "?" when appropriate.

Sample criteria for rating emotional tone:

- 2 Complete failure, submission to fate, death, murder, suicide, revenge, hostility, severe guilt, complete hopelessness.
- 1 Conflict with attempt at adjustment, rebellion, fear, worry, departure, regret, illness, physical exhaustion, resignation toward death, loneliness.
- 0 Description, lack of affect, balance of positive and negative feelings, routine activities, impersonal reflection.
- +1 Aspiration, desire for success and doubt about outcome, compensation for limited endowment. Description with cheerful feeling, reunion with friends, contentment with world, feeling of security.
- +2 Justifiably high aspiration. Complete satisfaction and happiness. Reunion with loved ones.
- ? Can't make up a story

Emotional Tone Rating for this card _____

Interpersonal Relations

For each story, score both categories of interpersonal relationships (peer and family relationships). Circle one rating for each category. Circle "none" if peer or family relationships are not evident.

Peer Relationships: positive negative both none

Family Relationships: positive negative both none

Coping Ability

For each story, assess the problem resolution skills and general coping ability displayed in the story, and rate accordingly.

Circle one: constructive destructive evasive no problem

THEMATIC APPERCEPTION TEST
(page 2)

Subject Code # _____

Card # _____

Aggressive Fantasy

For each story, look for the presence of any or all of the possible combinations of aggression described below. The grid allows for three different types of aggressive activity in four different interaction patterns (child-child, adult-adult, etc.), for a maximum of 12 possible incidents of aggression. Mark with an "X" the appropriate box(es) in the grid for each type. Examples, and an explanation of the "other" category are given below.

Examples: physical aggression: fighting, killing, destroying
aggressive thoughts, feelings, and desires: hate, anger, aggressive dreams
verbal aggression: insults, negativism

the "other" category: aggression occurring in a non-interpersonal context. e.g., aggression toward self, toward animals, toward institutions, or in a generalized form directed toward no object.

	CHILD-CHILD	ADULT-ADULT	ADULT-CHILD	OTHER
PHYSICAL AGGRESSION				
AGGRESSIVE THOUGHTS, FEELINGS, DESIRES				
VERBAL AGGRESSION				

Self-Esteem

This is a more global rating of self-esteem in which the rater may consider the specific factors already evaluated, as well as arriving at a more clinical and subjective assessment of the subject's self-esteem as revealed in his or her stories.

Using integer ratings only, rate the self-esteem for each story according to the following scale:

- 2 very low self-esteem
- 1 low self-esteem
- 0 neutral self-esteem
- +1 high self-esteem
- +2 very high self-esteem

Self-esteem rating for this card _____

Please note very briefly the criteria you used to arrive at this rating for this card:

FOOTNOTES

¹The author acknowledges that neutral emotional content and a mixture of very happy and very sad content are not one and the same. In the data collected in this study, however, none of the subjects met the criterion of three happy stories and three sad stories. Thus, those children rated as conveying neutral emotional tone did, in fact, create stories in which the emotional tone was scored as neutral. If a number of children had produced test protocols containing an equal balance of sad and happy stories, a "mixed" category for emotional tone may appropriately have been included.

²The use of percentages in summarizing each individual's test data presents a potential for misinterpreting the test results. For example, a six-story protocol including only one instance of peer relationships could be rated as positive, as could a protocol with six positive examples of peer relationships. In reality, however, these two protocols would not reflect equally well-developed and effective peer interaction skills. The raw data in this study were reviewed in an effort to check for discrepancies of this type. The learning disabled children and nondisabled children alike displayed an average of about

three instances of peer relationships and three instances of family relationships in each test protocol. Thus, the assessment of each child's interpersonal relationships in this study does appear to reflect the quality of those relationships in a consistent manner, allowing for the analysis of the data as described.

³As with the assessment of interpersonal relationships, the assessment of coping ability utilizes percentages to evaluate the ratings given to the TAT/MPT stories in order to arrive at an overall rating for each child's protocol. The potential for misinterpreting these data regarding the quality of each child's coping strategies is likewise present if the frequency of conflict or problem situations varies greatly between the two groups of children. The average frequency of problem situations, per protocol, was about $4\frac{1}{2}$ instances for the learning disabled children and about 5 for the nondisabled children. Thus, the rating system used appears to reflect the quality of the coping strategies rather than representing a frequency-of-conflict artifact.

APPROVAL FORM

The thesis submitted by Richard M. Volden has been read and approved by the following Committee:

Dr. J. Clifford Kaspar, Director
Clinical Associate Professor, Psychology and
Director, Charles I. Doyle, S.J. Guidance
Center and Day School, Loyola

Dr. Patricia A. Rupert
Associate Professor, Psychology and
Director of Clinical Training, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

Nov 28, 1984
Date

J. Clifford Kaspar
Director's Signature