

379  
N81d  
NO. 2517

PERCEPTIONS OF TEMPERAMENT CHARACTERISTICS OF CHILDREN  
CLASSIFIED AS LEARNING DISABLED

DISSERTATION

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

For the Degree of

DOCTOR OF PHILOSOPHY

By

Cheryl Dianne Elizabeth Cardell, Dip.C.S.

Denton, Texas

August, 1986

11/11

Cardell, Cheryl Dianne Elizabeth, Perceptions of Temperament Characteristics of Children Classified as Learning Disabled. Doctor of Philosophy (Special Education), August, 1986, 102 pp., 8 tables, references, 57 titles.

This study addresses how the temperament characteristics of seven year old learning disabled students are viewed in relation to those of the normally achieving students. Teacher perceptions, parent perceptions, and teacher versus parent perceptions are examined utilizing the six dimensions (activity, adaptability, approach/withdrawal, intensity, distractibility, and persistence) and the three factors (emotionality, sociability, and persistence) of the Temperament Assessment Battery.

Multivariate one-way analysis of variance determined that an overall group difference occurred between parents of the LD and parents of the normative subjects, teachers of the LD and teachers of the normative subjects. Additionally, a significant difference was found between parents and teachers of the LD. Overall, the LD group consistently evidenced perceptions in the negative direction, as compared to the normal subjects.

It may be concluded that social ability/adjustment (adaptability, and approach/withdrawal) and persistence (persistence and distractibility) are characteristics which

contribute to the definition of the LD child's temperament. These perceptions of characteristics, then, may impact the LD child's social competence status.

Copyright 1986

by

Cheryl Dianne Elizabeth Cardell

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
PERCEPTIONS OF TEMPERAMENT CHARACTERISTICS OF CHILDREN CLASSIFIED AS LEARNING DISABLED	
CHAPTER	
I.	1
Introduction . . . . .	
Statement of the Problem	
Purpose of the Study	
Significance of the Study	
Review of Literature	
Social Competence of the Learning Disabled	
Personality/Temperament Characteristics	
Assessment of Temperament	
Summary	
Hypotheses	
II.	24
Method . . . . .	
Research Design	
Sample Selections	
Instrumentation	
Reliability	
Validity	
Norms	
Scoring	
Instructions	
Procedures for Data Collection	
Data Analysis	
III.	38
Results. . . . .	
Introduction	
Hypothesis One	
Hypothesis Two	
Hypothesis Three	
Hypothesis Four	
Hypothesis Five	
Hypothesis Six	

IV.	Discussion . . . . .	47
	Introduction	
	Hypothesis One	
	Hypothesis Two	
	Hypothesis Three	
	Hypothesis Four	
	Hypothesis Five	
	Hypothesis Six	
	Summary	
	Educational Implications	
	Appendix . . . . .	74
	References . . . . .	95

## LIST OF TABLES

Table	Page
1. Univariate Differences of Teacher Ratings (Dimensions) of Learning Disabled and Normally-Achieving Children . . . . .	39
2. Group Means for Parents and Teachers of the Learning Disabled and Normally-Achieving Children . .	40
3. Univariate Differences of Parent Ratings (Dimensions) of Learning Disabled and Normally-Achieving Children. . . . .	41
4. Univariate Differences of Teacher Ratings (Factors) of Learning Disabled and Normally-Achieving Children. . . . .	42
5. Group Means for Parents and Teachers of the Learning Disabled and Normally-Achieving Children. . . . .	43
6. Univariate Differences of Parent Ratings (Factors) of Learning Disabled and Normally-Achieving Children. . . . .	43
7. Univariate Differences of Teacher and Parent Ratings (Dimensions) of the Learning Disabled . . . .	45
8. Univariate Differences of Teacher and Parent Ratings (Factors) of the Learning Disabled. . . . .	46

## CHAPTER 1

### PERCEPTIONS OF TEMPERAMENT CHARACTERISTICS OF CHILDREN CLASSIFIED AS LEARNING DISABLED

The study of the social emotional development and functioning of learning disabled students is, historically, a relatively new area of focused research. Reid and Hresko (1981) suggest, however, that a review of the research on the social emotional development of learning disabled children documents a high correlation between learning disabilities and emotional problems.

Lack of social competence and social problems appear to be serious and severe problems affecting many learning disabled (LD) children (Greenspan, 1981a; Perlmutter, Crocker, Cordray & Garstecki, 1983). The available literature supports the belief that learning disabled children appear to be susceptible to peer social neglect and/or rejection (Bryan, 1982). Investigations of the relative status of LD children compared with various groups of adults, though few in number, indicate that LD children are also less well-regarded by their parents (Bryan, Pearl, Zimmerman, & Matthews, 1982), teachers (Bryan, Pearl, Zimmerman, & Matthews, 1982; Perlmutter, Crocker, Cordray, & Garstecki, 1983), and by unbiased adult observers (Bryan & Sherman, 1980; Perlmutter & Bryan, 1984).



The appearance of LD students (as a group) as socially incompetent has challenged researchers with questions regarding the reasons for their negative social status (Pullis & Smith, 1981). Research and documentation of the behavioral aspect of social competence is one attempt to link behavioral differences to the negative social status of learning disabled children (Pullis & Smith, 1981).

Reid and Hresko (1981) point out that "one area of emotional development that is just beginning to be investigated is the study of temperament" (p. 103). Perlmutter (in press) states that the social well-being of the learning disabled is an increasing area of concern and specifically, interest in their personality and/or temperament behavior, and the effects these characteristics have on those with whom they associate, has increased. Rothbart (1981) suggests that the concept of temperament provides an integrative approach to the study of the development of individual differences and may allow for the tracing of the relation between children's early characteristics and their social development. Recent research on temperament has demonstrated the stability of this general construct into the school years (Bender, 1985). Potential differences in the temperament characteristics of LD children may contribute to the personal social competence of LD children. The examination of the "how" or temporal

aspect (Martin, 1984) of LD children's behavior (temperament) that others (parents and teachers) ascribe to LD children within various social environments may suggest some characteristics of LD children that apparently keep them from attaining the respect and positive regard which they seek (Perlmutter, in press).

#### Statement of the Problem

Bryan and Bryan (1981) point out that while it is unclear whether emotional and social problems contribute to the academic difficulties of the LD child, or whether they are the result of academic failures, there is increasing evidence that LD children experience problems in social relationships with parents and teachers. Additionally, interpersonal and social problems exist with peers and strangers (Bryan & Bryan, 1981).

Explanations for the LD child's apparent behavioral differences encompass a multitude of possible reasons. One explanation is that LD children have problems in social perception and understanding which results in their "misreading" situations (Pearl, Bryan, & Donahue, 1983). The results of Gerber and Zirkgraf's (1982) study indicated that the LD children scored consistently lower on social perception than their non-handicapped peers. Another area researched implies that LD children behave differently because they do not have the same level of skill available

in their behavioral repertoire as other children, or that they either are not aware that a behavior is considered appropriate in a given situation, or simply choose not to use that behavior (Pearl, Bryan, & Donahue, 1983). Pearl, Bryan, and Donahue (1983) also cite motivation as a possible explanation of behavioral differences. They hypothesize that "LD children's behavior is a reflection not of a lack of interest in social approval but of their reactions to the fact that they are more rejected and in some ways less competent than their classmates" (p. 11).

The fact that learning disabled children are often viewed as having behavioral manifestations different from that of normally achieving students is well documented. Yet, the above explanations of differences often refer to the behavioral manifestations of the children and rarely to the underlying basis of the difference. Important, however, are the perceptions adults have regarding how learning disabled students differ from normally achieving students.

Bryan and Bryan (1981) indicate that investigators have found that parents of LD children describe (perceive) them as having less ability to control their impulses, as showing less consideration for others, and as being less able to receive affection. Additionally, parents' expectations concerning the child's future academic performance are found

to be lower for parents of the learning disabled than the non-learning disabled group (Bryan & Bryan, 1981). Bryan and Bryan (1981) caution that despite agreement about some of the characteristics which describe LD children, little is known concerning family dynamics and parental characteristics. They conclude, however, by stating that it should not come as a surprise "...that parents of LD children view their children with more ambivalence or hostility than do parents of non-disabled children" (p. 50); for according to these researchers, there is evidence which supports the notion that LD children may be difficult children with whom to live.

Teacher judgments based on perceptions of behavior also indicated that LD children are more negatively viewed than non-LD children. Specifically, they are rated by teachers as less desirable to have in the classroom than are non-LD children (Bryan & Bryan, 1981).

On items related to behavior, teachers rated learning disabled children as less cooperative, less attentive, less able to organize themselves, less able to cope with new situations, less socially acceptable to others, less accepting of responsibility, less able to complete assignments, and less tactful than non-disabled youngsters. (Bryan & Bryan, 1981, p. 150).

The premise of this study was that how adults perceive learning disabled students may be a reflection of how adults

interpret the stable personality (temperament) characteristics of learning disabled students. The problem of this study was to address how the temperament characteristics of learning disabled students are viewed in relation to those of normally achieving students.

#### Purpose of the Study

The purpose of this research was to investigate the temperament characteristics of children classified as learning disabled, by comparing responses of the parents and teachers of learning disabled children on the Temperament Assessment Battery (Martin, 1984), to that of the established normative population. This line of research was thought to be especially important since, according to Perlmutter, (in press), "researchers are now asking why they (learning disabled) are not well liked. What is it about the interactional styles and behavioral characteristics (temperament) of this group that causes others to tease or avoid them?"

#### Significance of the Study

The social behavior of learning disabled students has long been of interest. Yet, the elusiveness of a firm basis for understanding and explaining deficits in behavior has been lacking. By examining the possible temperament differences between learning disabled and normally achieving

students, a significant understanding of social behavior differences may occur. With understanding comes an ability to deal more effectively with the behavioral manifestations of children classified as learning disabled.

Of equal importance is the necessity of understanding the differences between the perceptions of parents and teachers of the learning disabled and the parents and teachers of non-learning disabled regarding the behavior of those classified as learning disabled. Such an understanding can lead to reconciliations of differences between individuals intimately involved with the education of learning disabled children, thus leading to a more coherent definition of the problem.

There is one additional area of importance on which this study attempts to shed light. Bryan and Bryan (1981) and Perlmutter and Bryan (1984) in addressing ingratiation research posit that a knowledge of academic status is not a necessary condition for social rejection and negative precepts of social competence. Perlmutter and Bryan (1984) state that negative interpersonal impressions are formed almost immediately, and although observers indicate a lack of conscious awareness of behavioral differences among children, their ratings indicate differences based on as little as ten seconds of observed interactions. The implication is that while we may not know which behaviors (or behavioral styles) distinguish between learning disabled

and non-learning disabled children, some apparent intangible effect is bearing upon audience percept.

Teachers make many decisions about students, and it is quite possible that these teacher decisions are based not upon purely cognitive reasons, but rather on intangible perceptions of what they "feel." These intangible perceptions may be the perceived personality or temperament characteristics of the students whom they teach. Temperament qualities, therefore, may be an important determinate of how teachers react to individual students. With this in mind, Martin (1985) alerts us to what he considers a critical and theoretically important issue: the effects of teacher perception of child temperament as biasing effect in grading, independent of classroom performance.

#### Review of Literature

##### Social Competence

Interest in the learning disabled child's social behavior is due to social competence being acknowledged as being as important as academic achievement in preparing children to deal with life's challenges (Pearl, Bryan, & Donahue, 1983). Children's academic performance is influenced by more than their abilities or disabilities. Interpersonal interaction and feelings of social competence are definite influential factors (Pearl,

Bryan, & Donahue, 1983). Gresham and Reschley (1986) report that learning disabled children's problems are not restricted to deficits in specific areas of academic achievement, but include deficiencies in positive social behavior. Cartledge, Frew, and Zaharias (1985) suggest that, indeed, academic and social competence are reciprocal processes.

Deschler and Schumaker (1983) suggest that social competence can be viewed as a composite of a broad array of skills that facilitate interpersonal functioning. Further, these complex and varied skills must be executed appropriately for positive results to be obtained. McFall (1982) and Gresham (1983) similarly suggest that while social skills are the specific behaviors necessary to perform competently on social tasks, social competence is an evaluative term that reflects the quality of an individual's performance. Greenspan (1981a) likewise views social competence as "...the portion of an individual's perceived effectiveness in interpersonal situations and social roles which is attributable to qualities of temperament, character, and social awareness" (p. 24). Greenspan (1981a) suggests that although non-social competencies such as IQ or coordination are important contributors to successful outcomes, he believes that social competence refers to the behaviors which involve relationships with other people. According to McFall (1982) and Gresham (1983), social



competence may be defined in terms of social validity: the determination of the clinical, applied, and/or social behaviors in particular situations. Greenspan (1981a) insists that the emphasis on the perception of competence implies that social success is relative and sensitive to environmental situations. He posits that "the ultimate outcome criterion for validating content measures of social competence should, therefore, be the judgments of other people in the individual's environment" (p. 25).

#### Social Competence of the Learning Disabled

Difficulties in social perception, deficits in requisite behaviors, (i.e., having the same level of skill available in behavioral repertoire as other children), failure to choose behaviors conventionally considered appropriate for different situations, along with motivational problems have all been cited as factors which can be involved with the development of social competence (Pearl, Bryan, & Donahue, 1983). Since learning disabled children appear to experience social competence problems, and peer acceptance and/or rejection patterns begin at an early age (Odom, Jenkin, Speltz, & Deklyn, 1982), determination of which children might be at risk for social competency problems would be useful.

Deschler and Schumaker (1983) point out that one of the factors leading to LD children's referral and subsequent placement in a LD classroom is the perception of the teacher regarding inappropriate social behaviors. Pointedly, Hoge's (1983) study concerning the decision-making process for exceptional children, delineates that teacher judgments weigh heavily in the process. Bender (1985) notes in his study of temperament and behavior in the LD population that teachers rated LD students as acting out more. Pearl, Bryan, and Donahue (1983) state that classroom studies consistently find learning disabled children to be more off-task or distractible than non-learning disabled children. Likewise, Keogh (in press) found that on teacher temperament ratings, LD children are not persistent, tend to be distractible, and evidence a low ability to control activity (low task orientation). Bryan and Bryan (1981) suggest that there are certain behaviors which may be germane in accounting for LD children's emotional and social competence status. Among these are included: time engaged in on-task behavior, attending behaviors, distracting behavior, physical contact, high energy acts, communication behaviors, ingratiation techniques, and pro-social behaviors.

Lerner, Lerner, and Zabski (1985) obtained measures of the expectations/demands teachers held for children in their class and found that all expected low activity, low distractibility, high adaptability and approach, and low

emotional reactivity. Perlmutter, Crocker, Cordray, and Garstecki's (1983) study found that special education teachers view LD children "...as more aggressive and disruptive, withdrawn, anxious and as experiencing more academic difficulty..." (p. 26). Similarly, Pearl and Bryan (1982) report that parents of LD children perceive their children more negatively than do parents of non-disabled children. The areas described as typically producing negative percepts from parents of LD children include the child exhibiting less impulse control, difficulty in communication, and being more anxious. In addition, mothers of LD children hold lower expectations with regard to academic achievement (Pearl & Bryan, 1982).

Peer intolerance is another area of difficulty for the learning disabled. Seemingly, even with the use of different sociometric measures, varying procedures, and different samples of children, the findings indicate that LD children are more likely to be rejected and be unpopular with their peers than are non-learning disabled children (Perlmutter & Bryan, 1984). Although evidence is missing for direct causal links between LD children's behavior and their social status, it is likely that LD children's attention and behavior problems underlie their subsequent rejection (Bryan & Bryan, 1981). Pearl, Bryan, and Donahue (1983) suggest that while "interactions with the teacher and

attentiveness are behaviors that are not specifically directed toward classmates, it is possible that these behaviors contribute to classmates' low regard for LD children" (p. 3). Morrison, MacMillan, and Kavale (1985) imply that patterns reflecting peer tolerance/intolerance for children with behavior or academic problems are determined as a lack of fit. Furthermore, they argue that "the lack of fit between children and their respective social groups may contribute to the likelihood of their referral and subsequent removal from the classroom situation" (p. 4).

Researchers are asking what it is about the interactional styles and behavioral characteristics of LD children that causes them problems (Perlmutter, in press). With the increased interest in the social functioning of this group has come an increased interest in their personality characteristics, and the effects these characteristics have on those with whom they associate (Perlmutter, in press). A renewed interest in temperament (Bender, 1985) is leading several researchers to examine temperament in relation to learning disabilities.

#### Personality/Temperament Characteristics

Inextricably bound to social competence status is the issue of personality characteristics, which Perlmutter (in press) addresses through behavior and interactional styles.

Personality is a broad, inclusive term encompassing, not only the "what" and "why," but also the "how" aspects of behavior. Temperament, however, is more restrictive, referring to the style of expression of a behavior or the how of behavior. "The how or temperamental aspects of the behavior relate to the extent and temporal aspects of the behavior" (Martin, 1984, p. 3). While it is recognized that environments may alter the manifestation of the trait, it is assumed that temperamental traits have transituational and temporal stability (Martin, 1984). According to Rothbart (1981), temperament has a constitutional basis with "...constitutional defined as the relatively enduring biological makeup of the individual" (p. 569).

Greenspan (1981a) defines the concept of temperament from what he terms the content-oriented approach. This approach is "...characterized by the identification of particular behavior traits believed to contribute to socially successful outcomes..." (Greenspan, 1981a, p. 7). Temperament, postulates Greenspan (1981a), is the quality of a child's physiological and autonomic response to social stimuli and situations. In parallel, Martin (1984) suggests that temperament is a manifestation of reactive and self-regulative processes. Rothbart (1981) and Martin (1984) refer to reactivity as the arousability of the

behavioral and physiological systems of the organism. Self-regulation refers to attempts to control the interaction of the organism and environmental stimulation in order to keep it within a comfortable range. Bender (1985) similarly believes temperament refers to the manner in which an individual interacts with the environment. Thomas' (1984) position is that the manifestations of temperamental individuality may be modified and even altered by interaction with specific environmental factors. Korn (1984) concludes "...that the functional significance of difficult temperament cannot be considered in the abstract; it must be considered in its environmental context" (p. 190).

The measurement of the within-the-child characteristic of temperament by parents may also be considered from a social perception viewpoint (Bates, 1983). This perspective does not preclude constitutional contributions to socialization, but rather views "parent 'perceptions' as an integral part of the reality" (p. 94). Bates (1983) posits that "...construct of child behavior problems has an inescapably social and perceptual core" (p. 94), and notes that his recasting of the construct of temperament into social perception terms is restricted to difficult temperament and not the generic concept.

Martin (1984) defines temperament as the foundation on which life experiences develop and form personalities. Likewise, Thomas, Chess, and Birch's (1968) perspective of

temperament indicates no single temperament trait acts alone in influencing the course of a child's development. Rather, combinations of traits, forming patterns and clusters, tend to result in an increased risk for the development of behavioral disorders.

Unacceptable behavior or behavioral patterns often result in negative social competence status for learning disabled children. Temperament or temperament characteristics affect these behaviors, Martin, Nagle, and Paget (1983) reason that

if such variables as activity level, speed of adaptation, emotional intensity, and social approach tendency are related to parent-child interaction and to the manifestation of problem behavior in the home, they should also be related in predictable ways to student behavior in the classroom....(p. 378)

Examining the temperament characteristics that others (i.e., parents and teachers) ascribe to children with learning disabilities within various environments, may produce valuable data regarding the relationship of temperament variables to perceived social competency difficulties. The measurement of such attributes from a multi-setting instrument is biased toward ecological assessment (Martin, 1984), suggesting that an ecological

approach deals with the total environment, not just pieces of a problem (Walker, 1981). Gresham (1981) concurs that comprehensive assessment should utilize an ecological approach.

While the assessment of children's social competence has recently received much attention in psychology and special education (Gresham, 1983), sound measures of social emotional functioning in the age range of three to seven are not bountiful. A review of assessment literature yields a relative absence of measurement dealing with competence (Greenspan, 1981b).

Yet, the implication of research findings on infant temperamental pattern traits (Thomas, Chess, & Birch, 1968) has led Martin, Nagle, and Paget (1983) to state that certain child characteristics create a predictable response in the child's social environment, which in turn may intensify or reinforce further positive and/or negative responses. Certain child characteristics which create a predictable response in a child's social environment (Martin, Nagle, & Paget, 1983) is conceptualized by Korn (1984) as goodness of fit. This idea involves the "...orderly interaction of the developing individual and progressive demands of the environment" (Korn, 1984, p. 191). Lerner (1984) concurs, suggesting that adaptive outcomes will occur in a setting if a person's characteristics of individuality match or fit the particular



demands of the setting. People whose characteristics are incongruent with one or most settings "...should show alternative developmental outcomes" (p. 181). Barclay's (1983) work exemplifies the goodness-of-fit issue within the context of education. An analysis of the educational outcomes for children with varying temperament classifications is reported for six environmental treatments. According to Martin (1985) "the results demonstrate that there are different outcomes for the types of children in the different environments" (p. 27). Lerner (1984) considers the demand "domain" of attitudes, values, and distinct expectations about desired behaviors of teachers and parents. For example, teachers may not want students to be distractible while parents may require moderate levels of distractibility (i.e., moving from TV watching to bed). It is Lerner's (1984) contention that "problems of adaptation to school or to home might thus develop as a consequence of a child's lack of match (or goodness of fit) in either or both settings" (p. 179). Such implications open the way to developing assessment procedures which focus on individual differences in temperament as contributing factors to the social competence status of learning disabled children.

### Assessment of Temperament

In considering the concept of early temperament measurement, Hubert, Wachs, Peters-Martin, and Gandour (1982) state that the common practice is to define temperament operationally, based on the instruments used to assess temperament. Furthermore, these authors reveal that most temperament instruments represent expansions of the theoretical framework proposed by the New York Longitudinal Study Group (NYLS) (Thomas & Chess, 1977, 1980; Thomas, Chess, & Birch, 1968; Thomas, Chess, Birch, Hertzog, & Korn, 1963). A summary of temperament instruments developed for use with children aged three through seven years eleven months is presented in Appendix B.

The element of temperament assessment raises many theoretical issues. Central to this is the interpretation by Thomas and Korn (1982) that temperament reports by parents essentially reflect constitutionally based characteristics. Bates (1983) argues that these reports should be thought of as social perceptions. Bates (1983) suggests that Thomas and Korn (1982) find a negative connotation in perception which he does not acknowledge. Bates (1983) comments

the assumption that parents are in various ways subjective in their reports about their children does not need to be seen as a criticism of parents' shortcomings or as merely a

methodological impediment. It can be seen as affirming the importance of how people see social events. (p. 93)

Thomas and Korn (1982) point to the lack of consistent evidence for measurable biases in parent reports. In a 1984 report, Thomas comments on the work of Bates and Bayles (1984) which "supports the opinion that parental perceptions of children reflect both the objectifiable characteristics of the child and the subjective characteristics of the parent" (p. 106). Thomas (1984), in reflecting upon the state of the study of temperament, insists that "we are all committed to an interactional model in the study of temperament and other intra-extrafamilial environment" (p. 106). Plomin and Daniels (1984) in advocating the interactionist approach posit that "it is impossible to separate the effects of temperament upon behavior from those of the environment and that temperament may be related to behavioral problems only under certain environmental conditions." (p. 150) They cite interactions between temperament and outcome measures, such as behavioral problems or school performance. Plomin and Daniels (1984) encourage studies of the child characteristics such as social competence, implying such studies may yield intriguing results.

Martin (1984), and Pfeffer and Martin (1984) have examined several temperament factors associated with the development of psychopathological symptoms in early childhood. Noting the seminal work of Thomas, Chess, and Birch (1977), Martin (1984) credits these researchers with providing the conceptual foundation for the Temperament Assessment Battery (TAB), (see Appendix C), designed to measure certain factors associated with temperament development in early childhood. While Martin (1984) suggests that "perhaps the most important use of the TAB at present is in giving information to parents about the social-emotional characteristics of their children" (p. 2), the TAB is a useful instrument for the investigation of relations between the variables it measures, and measures in other realms, such as parent-child interaction or student behavior in the classroom (i.e., environment). The TAB, as an extension of the instruments developed by Thomas and Chess (1977), can reasonably be considered as an interactionist model. The test construction statistics for the TAB will be discussed in the subsequent chapter.

#### Summary

The literature regarding the social competence status of the learning disabled reveals that they are somewhat disadvantaged in this capacity as compared to their normally achieving non-learning disabled counterparts. They are

perceived in a more negative manner by teachers, parents, and peers alike. The determination of why learning disabled children's behaviors or characteristics cause them problems has led researchers to an interest in examining temperament as a possible contributing factor.

A review of temperament literature provides differing theoretical views. However, they all alert us to the relative stability over time of temperament characteristics, and that they are a reflection of behavioral style. Additionally, it is important to note the concept of the interactionist model in the treatment of temperament. That is, behavioral style may be affected by the social environment, and the situational context thereby needs to be acknowledged.

The TAB (Martin, 1984) approaches the study of temperament from this context and is subsequently biased toward an ecological perspective. The TAB in this study was used to examine if a relationship existed between certain temperament dimensions and factors (profiles) and the diagnosis of a learning disability. Also, any parent and teacher rating differences are noted.

#### Hypotheses

1. There will be a significant difference between teachers of the LD and those of the norm group on the temperament dimensions at  $\alpha = .05$ .

2. There will be a significant difference between parents of the LD and those of the norm group on the temperament dimensions at  $\alpha = .05$ .
3. There will be a significant difference between teachers of the LD and those of the norm group on the factors at  $\alpha = .05$ .
4. There will be a significant difference between parents of the LD and those of the norm group on the factors, at  $\alpha = .05$ .
5. There will be a significant difference between teachers of the LD and parents of the LD on the dimensions at  $\alpha = .05$ .
6. There will be a significant difference between the teachers of the LD and parents of the LD on the factors at  $\alpha = .05$ .

## CHAPTER II

### Method

As mentioned in the preceding chapters, several temperament measures are available (see Appendix B). However, the Temperament Assessment Battery (TAB) (Martin, 1984) has by far the greatest normative sample ( $n = 1,183$ ) as compared to the other instruments. Standardization of this number of subjects is one of the primary determinants for using the TAB. Additionally, not all of the instruments contain both teacher and parent questionnaires, and for this reason also, the TAB was the instrument of choice.

The TAB approaches the study of temperament from an interactionist context and is subsequently biased toward an ecological perspective. The TAB was used to probe for a relationship between certain temperament dimensions and factors and the diagnosis of a learning disability. Also, any parent and teacher rating differences are noted.

### Research Design

Given that learning disabilities and temperament are not something that can be experimentally manipulated, the causal-comparative method was utilized to test the hypotheses of this study. According to Borg and Gall (1979), the causal-comparative method involves comparing samples that are different on a critical variable but otherwise comparable, or it can also be used in the

"...search for effects of an observed difference between groups" (p. 447). In using this design, one cannot infer cause, but can conclude only that a relationship between variables exists.

The application of this method for the present study resides in the existence of a learning disability with concomitant social competence problems. The causal-comparative method was used in the search for the effects of an observed difference in temperament between learning disabled children and the normative group.

#### Sample Selections

Of the schools and/or school districts who consented to participate, learning disabled subjects were randomly selected from the overall list of parents who indicated a willingness to participate. The process of selecting every other subject was enacted until the sample number was achieved. This technique of systematic sampling is used if all members in a defined population have already been placed on a list in random order (Borg & Gall, 1979).

Data were collected on 80 learning disabled children from ages seven years to seven years eleven months for a total of 277 response forms (see Appendix D for biographical information). Approximately 38% of the respondents were mothers, 21% fathers, and 39% teachers, leaving the final 2% in the category "other." Biographical data indicated 80% of



the subjects were Caucasian, 14% Black, 5% Hispanic, and approximately 1% fell into the category of "other."

The population was composed of 68% male and 32% female students from both private schools and public schools in the Dallas-Fort Worth and suburban Houston areas. Specifically, urban areas accounted for 62%, suburban 37%, and rural 1%.

The subjects used in this study are classified learning disabled under Texas State Law. Learning disabled students are identified by state law (Texas Education Agency, 1983) as those students

(A) who demonstrate a significant discrepancy between academic achievement and intellectual abilities in one or more of the areas of oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematics calculation, mathematics reasoning, or spelling;

(B) for whom it is determined that the discrepancy is not primarily the result of visual handicap, hearing impairment, mental retardation, emotional disturbance, or environmental, cultural, or economic disadvantages; and

(C) for whom the inherent disability exists to a degree such that they cannot be adequately serviced in the regular classes of the public schools without the provision of

special services (p. 5).

Of the age-appropriate children in the normative sample, 35 children were selected by Martin for use in this study. The selection was based on geographical and socio-economic status comparability to the sample in the study.

### Instrumentation

The Temperament Assessment Battery (Martin, 1984) is a device developed from an ecological perspective. The TAB consists of three instruments: the Parent Form, the Teacher Form, and the Clinician Form. For this study only the Parent and Teacher Forms were used. The Parent and Teacher Forms are modifications of the Thomas, Chess, and Korn Parent and Teacher Temperament Questionnaires (Thomas & Chess, 1977). The TAB is designed to measure basic personality-behavioral dimensions (temperaments) in children three through seven years of age. The TAB design measures six temperament variables: activity, adaptability, approach/withdrawal, emotional intensity, distractibility, and persistence. It provides a measure of individual differences on the above temperament variables as well as factor cluster scores. The three factors isolated from the TAB Teacher Form are labeled (a) "Emotionality," consisting of the two variables of activity and emotional intensity; (b) "Persistence," consisting of the two variables of distractibility (negative direction) and persistence; and

(c) "Sociability," consisting of the two variables of adaptability and approach/withdrawal. The factor structure for the Parent Form is similar to that of the Teacher Form. Emotionality consists of the variable emotional intensity, but instead of activity loading highly on this factor, ease-of-management-through-distraction (EMTD) is substantially loaded. Factor two is labeled "Persistence" and the two variables representing this factor are persistence and activity. The final factor for the Parent Form is Sociability, consisting of adaptability and approach/withdrawal variables (Martin, 1984).

Reliability. Reliability was established for the TAB in several ways. Alpha coefficients were computed for both individual variables and factor scores. For the individual variables, the alphas range from .60 to .75 while the alphas for the factors range from .75 to .90.

Internal consistency data for the Parent Form ranged from .60 to .82 on the dimensions, and from .75 to .83 on the factors. For the Teacher Form, the range was from .73 to .87 on the dimensions, and from .87 to .91 on the factors. On the Clinician Form, the internal consistency ranges were from .54 to .81 for the dimensions. Data was not available for the factor scales (Martin, 1984).

Interrater reliability data were reported for the Parent and Teacher Forms for the dimensions. On the Parent Form, the data show that for the 'normal sample' the

interrater reliability ranged from .30 to .58, and for the 'referred sample' (children referred for psychological evaluation) from .21 to .35. The Teacher Form data shows interrater reliability ranged from .06 to .60 (Martin, 1984).

Test-retest reliability has been established only for the Teacher Form. After a six-month interval, test-retest coefficients were .71 for activity, .53 for adaptability, .76 for approach/withdrawal, .70 for distractibility, and .81 for persistence. All except adaptability exceed suggested reliabilities for measures used in research. The stability of teacher temperament ratings over 6 and 12 months was undertaken by Martin, Wisenbaker, Matthews-Morgan, Holbrook, Hooper, and Spalding (1986). Cross-rank, within-person, absolute score, and factorial stability were investigated. The authors report that

perhaps the most basic data supporting stability were provided by the factor structure equivalence analyses. These data demonstrated that the correlational structure among variables was stable regardless of time interval and regardless of what combination of raters was used. (p. 176)

Cross-rank, within-person, and absolute score indices of stability over six months were moderate to high. Six-month stability was significantly higher than the twelve-month

stability. Martin, Wisenbaker, Matthews-Morgan, Holbrook, Hooper, and Spalding (1986) conclude that their stability data "...are supportive of the notion of 6-month to 1-year stability of temperament rating made by teachers" (p. 178).

Validity. Validity, a measure of the underlying theory and constructs of a test, has been established for the TAB in several ways. First, Martin, Nagle, and Paget (1983) investigated the relationship of the TAB factors with observed behavior. They concluded that all variables were significantly related to observed behavior. Martin (1984) states

Specifically, the activity scale correlated  $-.50$  with constructive self-directed activity, and  $.55$  with gross motor inappropriate behavior.

Distractibility correlated  $-.55$  with observed constructive self-directed activity and  $.40$  with observed distractibility. The persistence factor scale correlated  $.46$  with observed constructive self-directed activity and  $-.60$  with gross motor inappropriate behavior. (p. 24)

At first glance these coefficients appear to be, at best, moderate and not supportive of the temperament concept. However, Pullis and Cadwell (1982) in their study on the influence of children's temperament characteristics on teachers' decision strategies, point out that they made no attempt to obtain "objective" measures of temperament,

since their transactional (interactional model) suggests that it was the teachers' perceptions (influenced by their cognitions) that were crucial. As Pullis (1985) notes, there is often a degree of reservation or concern about studies that rely solely on subjective information without objective measures of behavior performance (i.e., tests of observation). Ratings were not isolated, however, but are representative of the salient factors that predict patterns in teachers' and parents' thinking or information processing (Pullis, 1985). Pullis (1985) further notes that while some types of studies will generate data concerning the frequency of discrete behaviors exhibited by students, "...observational studies cannot isolate cognitions or motivation that underlie these observed behaviors" (p. 3). Gresham and Reschly (1986) conclude that perceptions constitute an important source of information about exceptional children.

Second, several samples taken from the normative data reveal no sex differences on the Parent Form (with the gender of the child being the independent variable). Third, Matthews-Morgan (cited in Martin, 1984) investigated the relationship of intelligence to the TAB scores and evidenced a significant correlation between measures of cognitive aptitude and attention span and task persistence. Fourth,

TAB scores have been correlated with classroom achievement. Martin, Nagle, and Paget (1983) evidenced significant multiple correlations with reading (.76) and mathematics (.65) for the entire temperament set. The variable contributing the most in terms of unique contribution was adaptability. In addition, Martin (1985) notes that persistence and distractibility are also variables that are commonly related to achievement. Fifth, Martin, Nagle, and Paget (1983) have investigated the relationship of the TAB scores with teacher attitudes. They noted that groups designated as being "attachment group," "indifference group," and "rejection group" evidenced unique profiles among the TAB variables. Finally, several authors (Conner & Martin, 1983; Matthews-Morgan (cited in Martin 1984); Pfeffer & Martin, 1984) have demonstrated group differentiation on the TAB for children diagnosed as having social-emotional disturbance, conduct problems, personality problems, and general maladjustment.

Norms. Normative data are based upon 1,183 responses for children from three U.S. regions: Southeastern, Northeastern, and Rocky Mountain. The age of the children is from three years to seven years eleven months, with 54% of them being male and the other 46% being female. Approximately 12% of the total normative sample is black, and approximately 7% is Hispanic. The remaining 81% is white. The urban, suburban, rural breakdown is relatively

evenly distributed across locale. Socioeconomic status consists primarily of lower-middle, middle, and upper-middle class with approximately equal representation of each (Martin, 1984).

Scoring. For the teacher and parent forms a scoring sheet is provided. On this sheet each scale or factor-scale is indicated followed by the items which measure that variable. Below some of the item numbers is an "R" indicating that item is scored in the reverse direction (i.e., 1=7, 2=6, 3=5, 4=4, 5=3, 6=2, 7=1). The user goes through each item on the questionnaire (beginning with item 1 and proceeding sequentially), finding the variable on which the item is located, then recording the score above the item number, adjusting the score for direction if necessary.

When all items have been scored, the test user calculates the sum of the item scores for each variable and records it on the line marked "sum." This becomes the score for each temperament variable. After each temperament variable is scored, the factor scale scores are calculated using the formulae listed at the bottom of the scoring sheet.

In cases in which there is missing data (i.e., an item was left blank) the test user should calculate a prorated score. This is done by (a) calculating the sum of the items



present, (b) adding the mean to the sum of the scores if one item were missing, adding two times the mean if two items were missing, etc., and (c) rounding the score to the nearest whole number. If three or more items are missing, the variable should not be scored.

For scales in which there are missing items, the prorated score is used to calculate factor scores and for comparisons to norms. If a scale cannot be scored due to three or more items missing, then for the factor scale in which that scale appears, no factor score should be calculated (Martin, 1984).

#### Instructions

Instruction for completing of the TAB insured the accuracy of the rating obtained. The main points contained in the instructions adopted from Martin (1984) are as follows:

1. Each form of the TAB should be completed in an environment in which the rater is free to concentrate on the behavioral statements presented.
2. When multiple raters are used in a setting, the raters should complete the questionnaire independently.
3. Ratings on the Parent and Teacher Forms should be based on the behavior of the child during the last three months. Teachers who have known the child less than two months will not be asked for a rating.
4. If raters find a question confusing, or irrelevant

to the child being rated, skipping the item is encouraged.

5. Please make sure to read the directions carefully before beginning to make the ratings.

A complete set of instructions are given in Appendix E.

#### Procedures for Data Collection

Procedures for the collection of data began with a telephone call to Special Education directors/supervisors and/or school principals. Following the initial contact, a cover letter giving biographical data (see Appendix F) and an explanation of the purpose and significance of the proposed research was sent via mail, along with a copy of the TAB Teacher and Parent Forms. Additionally, other pertinent material (i.e., permission form, Master List, examiner scoring sheets) accompanied the cover letter (see Appendices G and H). Necessary follow-up (i.e., submission of forms, application proposals, visits) was then conducted. Once permission was granted by the district, the following procedures were affected.

1. Information regarding subjects by age and handicapping condition was requested. The author searched the available documentation and made a Master List of eligible students.

2. A Master List of subjects by school was made giving each student an ID number. All subjects were identified by a code number to insure anonymity. The ID

number was placed on the Parent Permission Form and the Parent Response Form.

3. The Parent Permission Form was stapled to an envelope that contained an Instruction Sheet and two Parent Response Forms (one for each parent). All return envelopes were marked with the name of the researcher and addressed in care of the district.

4. The packets were arranged in alphabetical order by school. Only the student ID numbers were visible. A Master List identifying the ID number with each child's name was compiled for teacher usage.

5. The packets were distributed to the appropriate personnel to be given to the identified subjects.

6. When the Parent Response Form was returned and consent to participate was given, the Teacher Response Forms were coded and given to the district liaison person for distribution to the teachers of those children participating.

7. A measure of cognitive ability was requested for each child in the study. This was entered on the Master List opposite the student's name by either the subject's teacher or the school diagnostician.

8. Completed Teacher Response Forms were collected from the district.

### Data Analysis

A series of multivariate analyses of variance was employed to test the hypotheses (Dillion & Goldstein, 1984; Pedhazur, 1982). First, for hypotheses one through four, a one-way multivariate analysis of variance was employed with the person completing the TAB (parent or teacher) scales and the appropriate normal population parameters, as compared to the six dimensions or the three factors of the TAB.

Second, for hypotheses five and six, a one-way multivariate analysis of variance was employed with the classification factor being the person completing the TAB (parent and teacher) scales. This analysis was done for the learning disabled population.

All statistical analyses were generated using the SAS (1985) statistical package.

## CHAPTER III

### Results

The results of the multivariate analyses of variance used to test the six hypotheses are reported in this chapter. As previously indicated, hypotheses one through four were analyzed using a one-way multivariate analysis of variance comparing the person completing the TAB scales (parent or teacher of the learning disabled) to either the six dimensions or the three factors of the TAB. For hypothesis five and six, a one-way multivariate analysis of variance was employed with the classification factor being the person completing the TAB (parent and teacher) scales.

The results of this investigation are reported by hypothesis. For each hypothesis in this study, the results of the MANOVA are listed along with the appropriate univariate analyses. Group means were examined when the univariate analyses were significant. Tables 2 and 5 report the group means for all TAB dimensions and factors.

#### Hypothesis One

Hypothesis one stated that there would be a significant difference between teachers of the LD and those of the norm group on the temperament dimensions at  $\alpha = .05$ . The overall Hotelling-Lawley (SAS, 1985) multivariate  $F$  was significant, indicating differences between normally achieving and learning disabled children on the six

temperament dimensions,  $F(1,106) = 5.78, p < .05$ . An examination of the univariate  $F$ 's (see Table 1) for this hypothesis indicated that significant differences occurred with the dimension of adaptability, approach/withdrawal, distractibility and persistence.

Table 1

Univariate Differences of Teacher Ratings (Dimensions) of Learning Disabled and Normally Achieving Children

<u>Source of Variation</u>	<u>df</u>	<u>F</u>	<u>Significance</u>
Activity	1,106	1.68	.1977
Adaptability	1,106	12.58	.0006
Approach/Withdrawal	1,106	13.20	.0004
Intensity	1,106	1.14	.2890
Distractibility	1,106	5.34	.0228
Persistence	1,106	17.97	.0001

An examination of the group means (see Table 2) for distractibility indicated that teachers of the LD group perceive them as being more distractible ( $\bar{X} = 37.53$ ) than the normally-achieving group ( $\bar{X} = 32.29$ ). Means for the variables adaptability ( $\bar{X} = 36.11$ ) and approach/withdrawal ( $\bar{X} = 34.32$ ) reflect lower ratings for the LD group. The mean of persistence for the LD group is considerably lower than that of the normally-achieving group ( $\bar{X} = 31.33$  and  $39.58$ , respectively).

Table 2

Group Means for Parents and Teachers of the Learning Disabled and Normally Achieving Children

Group	<u>Dimensions</u>					
	<u>Activity</u>	<u>Adapt-ability</u>	<u>Approach/Withdrawal</u>	<u>Intensity</u>	<u>Distract-ibility</u>	<u>Persis-tence</u>
TN	26.64	42.77	41.12	35.00	32.29	39.58
PN	24.31	48.05	42.44	22.09	42.76	40.91
TLD	29.87	36.11	34.32	32.85	37.53	31.33
PLD	31.18	42.54	38.57	25.99	39.42	34.44

Note: TN = teachers of normally-achieving children, PN = parents of normally-achieving children, TLD - teachers of learning disabled children, PLD - parents of learning disabled children.

### Hypothesis Two

Hypothesis two stated that there would be a significant difference between parents of the LD and those of the norm group on the temperament dimensions at alpha = .05. The overall Hotelling-Lawley multivariate  $F$  was significant for hypothesis two. This significant statistic denotes a difference between learning disabled and normally-achieving children on the six dimensions,  $F(1,169) = 10.28, p < .05$ , as perceived by parents of the learning disabled and parents of the normally-achieving. Univariate analyses (see Table 3) revealed that a significant difference exists with all of the dimensions: activity, adaptability, approach/withdrawal, intensity, distractibility, and persistence.

Table 3

Univariate Differences of Parent Ratings (Dimensions) of  
Learning Disabled and Normally-Achieving Children

<u>Source of Variation</u>	<u>df</u>	<u>F</u>	<u>Significance</u>
Activity	1,169	31.67	.0001
Adaptability	1,169	21.74	.0001
Approach/ Withdrawal	1,169	6.29	.0131
Intensity	1,169	10.40	.0015
Distractibility (EMTD)	1,169	7.44	.0071
Persistence	1,169	41.59	.0001

With regard to hypothesis two, the group means (see Table 2) of the parents of the LD and the parents of the normally-achieving children suggest that the LD group was rated as engaging in a higher level of activity ( $\bar{X} = 31.18$ ) than their normally-achieving counterparts ( $\bar{X} = 24.31$ ) and as being less adaptable ( $\bar{X} = 42.54$ ) than the normally achieving group ( $\bar{X} = 48.05$ ). Approach/withdrawal and persistence means were lower for the LD group ( $\bar{X} = 38.57$ ; 34.44, respectively) than the normally-achieving group ( $\bar{X} = 42.44$ ; 40.91, respectively). Both intensity and distractibility were higher for the LD group ( $\bar{X} = 25.99$ ; 39.42, respectively) than those evidenced by the normally achieving group ( $\bar{X} = 22.09$ ; 42.76, respectively).

### Hypothesis Three

Hypothesis three stated that there would be a significant difference between teachers of the LD and those of the norm group on the factors at  $\alpha = .05$ . The



overall Hotelling-Lawley multivariate  $F$  showed significance, indicating differences between normally-achieving and learning disabled children on the three factors of the TAB:  $F(1,106) = 6.47, p < .05$ . A review of the univariate  $F$ 's (see Table 4) for hypothesis three indicated that significant differences were obtained for the factors persistence and sociability.

Table 4

Univariate Differences of Teacher Ratings (Factors) of Learning Disabled and Normally-Achieving Children

<u>Source of Variation</u>	<u>df</u>	<u>F</u>	<u>Significance</u>
Emotionality	1,106	.04	.8418
Persistence	1,106	11.13	.0012
Sociability	1,106	14.97	.0002

Table 5 presents the data for the factor group means. The persistence factor mean score for teachers of the learning disabled ( $\bar{X} = 57.53$ ) sharply contrasted to that of the mean for teachers of the normally-achieving group ( $\bar{X} = 77.44$ ). Teachers of the learning disabled also rated the LD children lower on the sociability factor ( $\bar{X} = 70.71$ ); teachers of the normally-achieving group showed a mean of 83.67 on the sociability factor.

Table 5

Group Means for Parents and Teachers of the Learning  
Disabled and Normally-Achieving Children

<u>Group</u>	<u>Emotionality</u>	<u>Factors</u>	
		<u>Persistence</u>	<u>Sociability</u>
TN	60.90	77.74	83.67
PN	47.25	80.38	90.43
TLD	61.75	57.53	70.71
PLD	52.76	67.05	82.99

Hypothesis Four

Hypothesis four stated that there would be a significant difference between parents of the LD and those of the norm group on the factors at  $\alpha = .05$ . The Hotelling-Lawley multivariate  $F$  showed an overall group effect for this hypothesis, signifying a difference between learning disabled and normally-achieving children on the three parent factors of the TAB,  $F(3,167) = 17.94, p < .05$ . An examination of the univariate  $F$ 's (see Table 6) for this hypothesis discloses that a significant difference exists for the factors persistence and sociability.

Table 6

Univariate Differences of Parent Ratings (Factors) of  
Learning Disabled and Normally-Achieving Children

<u>Source of Variation</u>	<u>df</u>	<u>F</u>	<u>Significance</u>
Emotionality	1,169	1.66	.2000
Persistence	1,169	53.98	.0001
Distractibility	1,169	4.69	.0317

The persistence factor mean (see Table 5) for parents of the normally-achieving subjects ( $\bar{X} = 80.38$ ) is scored considerably higher than the mean for the learning disabled children ( $\bar{X} = 67.05$ ). Sociability means reflect a similar rating pattern, with the mean for the normally-achieving children being 90.43 and the LD children's mean being 82.99.

#### Hypothesis Five

Hypothesis five stated that there would be a significant difference between teachers of the LD and parents of the LD on the dimensions at alpha = .05. For hypothesis five, the overall Hotelling-Lawley multivariate  $F$  was significant,  $F(6,169) = 10.42, p < .05$ . This value evidences an overall group difference between teachers and parents of the learning disabled children on the six dimensions of the TAB. The univariate  $F$ 's (see Table 7) indicated a significant difference for the variables adaptability, approach/withdrawal, intensity, and persistence.

Table 7

Univariate Differences of Teacher and Parent Ratings  
(Dimensions) of the Learning Disabled

<u>Source of Variation</u>	<u>df</u>	<u>F</u>	<u>Significance</u>
Activity	1,174	.66	.4185
Adaptability	1,174	24.16	.0001
Approach/ Withdrawal	1,174	8.62	.0038
Intensity	1,174	26.34	.0001
Distractibility	1,174	1.92	.1676
Persistence	1,174	8.51	.0040

In examining the means with reference to hypothesis five, the difference between means (see Table 2) is greatest for the variable intensity with the teacher mean ( $\bar{X} = 32.85$ ) approximately seven points higher than the parent mean ( $\bar{X} = 25.99$ ). Conversely, adaptability mean difference is higher for parents ( $\bar{X} = 42.54$ ) than for teachers ( $\bar{X} = 36.11$ ). For the variables approach/withdrawal and persistence the same observation is evident. Parents of the LD children display higher mean scores for both the dimensions of approach/withdrawal ( $\bar{X} = 38.57$ ) and persistence ( $\bar{X} = 34.44$ ) than do the parents of normally-achieving children with means of 34.32 and 31.33, respectively.

#### Hypothesis Six

Hypothesis six stated that there would be significant difference between teachers of the LD and parents of the LD on the factors at alpha = .05. The Hotelling-Lawley

multivariate  $F$  presents significant difference between teachers and parents of the learning disabled on the factors under study;  $F(3,172) = 8.57, p < .05$ . An examination of the univariate  $F$ 's (see Table 8) for this hypothesis indicated that the three factors of emotionality, persistence, and sociability showed significant differences between the teachers and parents of the learning disabled children.

Table 8

Univariate Differences of Teacher and Parent Ratings  
(Factors) of the Learning Disabled

<u>Source of Variation</u>	<u>df</u>	<u>F</u>	<u>Significance</u>
Emotionality	1,174	6.09	.0145
Persistence	1,174	17.73	.0001
Sociability	1,174	13.44	.0003

In considering hypothesis six, the mean for sociability (see Table 5) displays the greatest difference; 12 points, with the parent mean ( $\bar{X} = 82.99$ ) higher than the teacher mean ( $\bar{X} = 70.71$ ). Persistence follows in step with a mean of 67.05 for parents and 57.53 for teachers. Emotionality also evidences mean differences between parents and teachers with the teacher mean of 61.75 higher than the parent mean of 57.76.

## CHAPTER IV

### Discussion

The objective of this research has been to determine perceived differences in temperament between children classified as learning disabled and the normative population parameters. By comparing responses of the parents and teachers of learning disabled to the responses of the parents and teachers of the normative group, it was established that there is an overall significant difference of perception of temperament characteristics among groups. The discussion of results will proceed on a hypothesis basis for easier clarification. The direction (positive or negative) that the scores reflect are given, where required, for a more concise interpretation.

#### Hypothesis One

In considering hypothesis one, the results indicate that a difference exists between the teachers of the learning disabled and the teachers of the norm group when looking at the six temperament dimensions as a unit. This would tend to support the notion posited by Bryan and Bryan (1981) that teacher judgments based on perceptions of behavior are more negative for the learning disabled than for non-learning disabled children. Specifically, the LD are seen as less attentive, less able to organize

themselves, less able to cope with new situations, and less able to complete assignments. Additionally, Pearl, Bryan, and Donahue's (1983) classroom studies found LD children to be more off-task or distractible than non-LD.

Significant differences occurred with the dimensions of approach/withdrawal, distractibility, persistence, and adaptability on the TAB, all of which parallel Bryan and Bryan's (1981) findings. The lower (negative) approach/withdrawal mean score for the LD group would suggest that they reflect a lower tendency to be socially outgoing than the normative group. In addition, the teacher form covers items relating to enjoyment of novel experiences (Martin, 1984). Therefore, the LD group may not enjoy or plunge into new school activities as readily as the norm group. This is undeniably aligned with being less able to cope with new situations. The ability or inability to complete assignments and be attentive is closely related to the temperament dimension of persistence. "This scale was designed to measure two related sets of behaviors, attention span and the tendency to continue attempting to solve a difficult learning or performance problem" (Martin, 1984, p. 14). The lower (negative) mean score of the LD group indicates a perceived shorter attention span and less of a tendency of continuance in working at difficult tasks.

Distractibility is another area in which significant differences occurred. The mean of the normally-achieving group was lower by five points, implying that the LD group with a higher score (negative) evidences a tendency to be easily distracted. That is, their attention can be interrupted by low-level environmental stimuli. It is clear that in a classroom situation the following characteristics, exhibition of a higher (negative) than normal level of distractibility, a lower (negative) level of persistence and a lower (negative) level of approach/withdrawal are not desirable characteristics from a teacher's perspective. Indeed, according to Lerner, Lerner, and Zabski, (1985) teacher expectations were for low distractibility and high approach/withdrawal tendencies. These specific temperament qualities, therefore, may be important determinates of how teachers react to individual students. Teacher reaction to perceived inappropriate social behavior is one of the factors leading to LD children's referral and subsequent placement in a LD classroom (Deschler & Schumaker, 1983).

The dimension of adaptability (the ease and speed with which a child adjusts to a new social situation) is rated lower (negative) by the teachers of the LD than by the teachers of the norm group. This is consistent with Lerner, Lerner, and Zabski (1985) who list high adaptability as one of the expectations/demands of the teachers in their study. The lowered (negative) rating suggests that the learning



disabled children experience a more difficult adjustment to changes in rules or adult behavioral expectations. Given that school is generally a structured environment with rules and regimented expectations of adaptive behavior, children who do not meet the requirements probably do not incur favor. Negative teacher perceptions, as a consequence of LD children's maladaptive behavioral tendencies, very likely result in referral. Certain child characteristics create a predictable response in the child's social environment, which in turn may intensify or reinforce further positive and/or negative responses (Martin, Nagle, & Paget, 1983). Adaptive outcomes will occur in a setting if a person's characteristics of individuality fit the demands of the setting (Lerner, 1984). Barclay's (1983) work within the context of education demonstrates that there are different outcomes for different types of children in different environments. Since LD children appear to have different temperament characteristics (as conceptualized by the TAB) than those demanded by teachers (as expressed by Lerner, Lerner, & Zabski, 1985), it is possible that problems relating to their adaptation may develop as a result of their lack of match or goodness of fit to that system.

Significance does not occur for the dimensions of activity or intensity. The mean scores for activity for the LD and normal groups reflect only a three-point range and

are both considered within the average rating continuum. While activity measures the tendency to engage in vigorous, fast, gross-motor movement that occurs indoors, it also measures in part, motor control or impulse control (Martin, 1984). Since indoor activity must necessarily be controlled by teachers, the score may relate to management issues. Activity, then, may not be viewed as a problem by the teachers since LD teachers have good management skills. That is, their differential training and everyday demands may cause them to respond to LD students behavioral styles in differential ways (Pullis, 1985). Additionally, learning disabled children do not exhibit the supposed high degree of activity or low impulse control. Reid and Hresko (1981) point out that contrary to the popular literature, the majority of learning disabled are not hyperactive.

Intensity mean scores for parents of the LD and parents of the normal group reveal a range of approximately two points. Both groups are indicative of the average score (T-score mean of 50) on the intensity continuum. The intensity scales were designed to measure the tendency to express emotions, particularly negative, and a high score indicates intense emotional expression (Martin, 1984). However, the Teacher Form, while weighted heavily with this aspect, also contains items which tap vigor of excitement or enthusiasm, such as relating a story about vacation or weekend activities. The LD children were perceived as exhibiting

only slightly less intensity and/or vigorous excitement than a normal group. The fact that the two group means were close together and yet no significant difference was evidenced may reflect the age of the children in this study. Is it likely that seven year olds respond heartily to storytime about "what happened on their vacation?"

#### Hypothesis Two

The  $F$  ratio was significant for hypothesis two, indicating a difference exists between the parents of the LD and parents of the normative population on each of the six dimensions of the TAB.

Parents of the LD children view their children as being more active (i.e., engaging in vigorous, fast, gross-motor movement) than parents of the non-learning disabled, as indicated by the mean scores for each group. As previously mentioned, the variable activity also, in part, measures control of impulsivity. In these terms parents of the LD group may perceive their offspring as less easy to manage. This lends credence to Bryan and Bryan (1981) and Pearl and Bryan's (1982) reports that parents of LD children perceive their children more negatively than do parents of non-LD children. Exhibiting less impulse control was specifically cited as one of the areas that typically produces negative precepts from parents.

Adaptability mean scores suggest that parents of the LD children perceive them as being less at ease with new social situations. The higher (positive) score for the non-LD group indicates that the parents of this group perceive them as adjusting to a new social situation with greater ease and speed. Subsequently, the normative group would adjust more easily to changes in rules or adult behavioral expectations (Martin, 1984). Speed of adaptation is a variable which Martin, Nagle, and Paget (1983) believe contribute to parent-child interaction and the manifestation of problem behavior in the home.

The lower (negative) approach/withdrawal mean score for the LD group implies that the parents of the LD view their children's tendency to withdraw from new social situations as greater than did the parents of the norm group. The higher (positive) score of the norm group is indicative of a stronger approach or out-going tendency. The Parent Form focuses exclusively on the socially out going versus shy aspect of this tendency (Martin, 1984). Martin, Nagle, and Paget (1983) support the concept that social-approach tendency is related to parent-child interaction and to the manifestation of problem behavior in the home.

A significant difference was also found to exist for the dimension intensity. The Parent Form taps only negative emotional expression, as in crying or anger (Teacher Form is heavily weighted in the negative direction, but also

contains items tapping excitement or enthusiasm). The higher (negative) mean score for the LD children reflects parental perceptions of their LD children as having a higher tendency to react with emotions such as anger and/or frustration than the normative group parental perceptions did. Perhaps academic failure and the ensuing aftermath affects a tendency to exhibit frustration and anger more readily. Emotional intensity, like adaptation and approach/withdrawal, is a variable which is related to parent-child interaction and to the manifestations of problem behavior in the home (Martin, Nagle, & Paget, 1983).

Distractibility was a dimension which the statistical analysis showed to be significant. For this variable, the LD group showed a lower (positive) mean score than did the normal group. On the parent scale of the TAB emphasis is placed on the concept of distractibility in terms of being able to turn the child from inappropriate to appropriate behavior. The scale, subsequently, is named ease-of-management-through-distraction (EMTD) (Martin, 1984). The more traditional concept of attention being disrupted by environmental stimuli is measured by the Teacher Form. In light of the fact that the variable measures ease-of-management-through-distraction, one must evaluate the relevance of a lower mean for the LD group. In examining

this, it would seem that parents of LD children perceive their children's tendency to be distractible within a positive framework. The negative connotation of the traditional aspect is removed; and a management issue takes its place. In the context of the home, turning the child from inappropriate to appropriate behavior is perceived as important.

As expected, the persistence variable was significant between the parents of the LD and parents of the normally achieving subjects. Persistence was perceived as being higher (positive) for the norm group than for the LD group, indicating that parents of the LD children see them as having a shorter attention span. Additionally, the LD subjects are perceived by their parents as having less of a tendency to continue attempting to solve a difficult learning or performance problem than those of the normative group.

### Hypothesis Three

Examination of the multivariate  $F$  for hypothesis three showed significance, with the univariate  $F$ 's indicating that significant differences were found for the factors persistence and sociability. No significant difference was obtained for the factor emotionality. According to Martin (1984), this factor was labeled emotionality since the dimension intensity had a high loading on the factor and because motoric vigor may be a manifestation of

emotionality in the motor restricted atmosphere of the classroom. Since neither of the dimensions (activity and intensity) that make up the factor were found to be significantly different between the teachers of the LD and teachers of the normal group, it is reasonable to anticipate that the factor would not reflect any differences.

The two variables of the persistence factor consist of distractibility (negative direction) and persistence. On a single dimension distractibility may be thought of as being on the opposite pole from persistence (Martin, 1984). The persistence mean score for the teachers of the LD was considerable lower (negative) than the non-LD group mean. This indicates that, generally, the teachers of the LD children see them as exhibiting the characteristics of a shorter attention span, a tendency to be more easily distracted and less able or desirous to continue working at difficult tasks. The findings reflected by the persistence score support Bryan and Bryan's (1981) suggestion that there are certain behaviors germane in accounting for LD children's social competence status. Included in their description is time engaged in on-task behavior, attending behaviors, and distracting behaviors, all of which make up the factor persistence on the TAB.

The factor of sociability was so named by Martin (1984)

because (a) the items making up the scales focus on social phenomenon, and (b) sociability is in part thought of as the desire to approach a new social group or person and the tendency to adapt to these groups or persons quickly. (p. 15)

Sociability was significantly different between teachers of the LD and teachers of the normative group. Lerner, Lerner, and Zabski (1985) point out that since both variables within this factor are related to parent-child relationships and to the illustration of behavioral problems in the home, they should also be related in predictable ways to student behavior in the classroom. The LD group is seen as not being as able as the norm group, due to a lower tendency to be socially outgoing, to cope with new situations. Further, they do not appear as able to make a speedy adjustment to the new situation. As Lerner, Lerner, and Zabski (1985) maintain that both high adaptability and high approach tendencies are among the expectation/demands of teachers, low levels in both would negatively affect teacher perceptions. A low (negative) sociability score would tend to support the appearance of LD students (as a group) as socially incompetent. Gresham and Reschly (1986) suggest that learning disabled children's problems are not restricted to specific areas of academic achievement, but



include deficiencies in positive social behaviors. Moreover, their social behaviors may be perceived as negative social behaviors. Lerner (1984) suggests that adaptive outcomes will occur in a setting if a person's characteristics of individuality match or fit the particular demands of the settings. Those whose characteristics are incongruent (i.e., low adaptability, low sociability) may show alternative outcomes and, as Lerner (1984) contends, problems of adaptation to school might develop as a consequence of a child's lack of match (or goodness of fit).

#### Hypothesis Four

Hypothesis four stated that there would be a significant difference between parents of the LD and parents of the norm group on the factors and, indeed, there was an overall group effect. As with the teacher factor scale, there was no significance evidenced for the factor emotionality, but there was for the factors persistence and sociability.

Emotionality on the Parent Form consists of a different makeup than the one presented on the Teacher Form. The dimensions that make up the factor on the Parent Form are intensity (as with the Teacher Form) and ease-of-management-through-distracton (EMTD) rather than activity. Emotionality is considered to be measuring constructs similar to that on the Teacher Form because the dimensions are made

up of many items reflecting emotional responsiveness and because the expression of emotion in the home involves parental discipline reactions (Martin, 1984). Perusal of the factor group mean indicates that parents of the LD children perceive their children only slightly higher (negative) than the parents of the normally-achieving perceive their children. Examination of the individual dimension composing emotionality indicates that intensity was only slightly higher (negative) for the LD group, while distractibility was slightly lower. Recalling that distractibility is considered in terms of the ease with which a child could be distracted away from inappropriate toward appropriate behavior, rather than the traditional concept of interruption of attention, this difference occurs in the direction one would anticipate.

As already mentioned, factor two, persistence, showed significance. This factor on the Parent Form is also composed of differing variables than those of the same factor on the Teacher Form. The dimension of persistence remains the same, while activity replaces distractibility. The rationale for this label is, according to Martin (1984), that

(a) persistence (the scale) is the variable loading highest on the factor on the Parent Form, and,

(b) lack of persistence in the home is seen primarily through moving from place to place (activity), whereas the more structured environment of the school where activity is restricted, the opposite extreme of persistence is distractibility. (p. 16)

The group means for the factor persistence indicates that the parents of the normally-achieving perceive their offspring to have a longer attention span toward task orientation and have greater persistence in terms of remaining in place (activity). The latter may be seen as paralleling task orientation. The non-restrictive environment of home is an outlet of activity (moving from place to place) for the LD child, which is apparently not congruent with the demands of the setting, thereby creating perceptions of maladaptive behaviors. While the normally-achieving child also encounters this non-restrictive environment, his/her characteristics seemingly match or fit better to the demands of the environment as evidenced by parental perceived adaptive outcomes.

Sociability, which consists of the same variables (approach/withdrawal and adaptability) on the Parent Form as the Teacher Form, was significant, as was the case with the teachers. The group means for this factor reveal that parents of the LD perceive their children as being less able

to adjust to a new social situation as well as being less socially outgoing. The Parent Form focuses exclusively on the socially outgoing versus shy aspect of approach, whereas the Teacher Form also includes the tendency to enjoy and/or plunge into new activities (Martin, 1984). A review of the variable means for this factor indicates an even distribution of approximately six points for each dimension between parents of the LD group and parents of the norm group. Parents of the normally-achieving subjects see their children as having a strong approach tendency and a tendency to make easy adjustments to new social situations.

The findings of this factor, along with the findings of the persistence factor, lend credence to investigations of the relative status of LD children. Such studies indicated that LD children are less well regarded by their parents than are non-LD children (Bryan, Pearl, Zimmerman, & Matthews, 1982).

#### Hypothesis Five

Hypothesis five addresses differences between teachers and parents of the LD on the six dimensions of the TAB. The overall multivariate  $F$  reveals there was a significant difference, and the univariate  $F$ 's indicated a significant difference for the variables adaptability, approach/withdrawal, intensity, and persistence. Significance was not found for the variables activity and distractibility.

Activity mean scores indicate that parents of the LD did find their children to engage in more gross-motor activity that occurs indoors than did the teachers of the LD. This may be in part due to the more restrictive, structured setting of a classroom where this type of activity is constantly monitored, and where rules are consistently enforced. However, despite the higher (negative) scores for the LD group, as stated, it was not a significant difference, suggesting that neither the teachers nor parents view the LD children as engaging in levels of fast, vigorous gross-motor movement any higher than what could be considered normal (i.e.,  $T$  score  $\bar{X}=50$ , teacher=49, parent=51). Activity level by itself then, cannot be considered an aspect of temperament that might contribute to negative social status.

Distractibility, as previously mentioned, did not show a significant difference between parents and teachers of the learning disabled. Examination of the group means suggests that the parents perceive their offspring as being only slightly more distractible than the LD children's teachers see them. This may be rationalized by considering that the Parent Form emphasizes the concept of ease-of-management through distraction, while the Teacher Form measures the concept of diverted attention toward an environmental stimuli. Regardless, both teachers and parents perceptions of distractibility are considered within the average rating

of this dimension (T-score  $\bar{X}$ =50, teachers=53, parents=50), and are not indicative of a single temperament characteristic that could contribute to the perception of negative social competence.

Adaptability did evidence a significant difference between the teachers and parents of the LD. The group means reveal that parents perceive their children as being more adaptable, that is, more able to easily and quickly adjust to a new social situation than do the teachers of the LD. Some items, however, refer to adjustment to changes in rules or adult behavioral expectations; it is likely that the LD child encounters this type of adaptability requirement more frequently in the classroom situation (with teacher, resource teacher, diagnostician, etc.) than they do in their home environments. The home setting is a more flexible ecosystem. This brings forward an interesting position which Thomas (1984) espouses that states that the manifestations of temperament may be modified by interaction with specific environmental factors.

Approach/withdrawal also evidences a significant difference between parents and teachers with the group means reflecting a similar pattern to that of adaptability; the parents rated their LD children as having a greater tendency to be out-going (strong approach) than did their teachers. It must be noted, however, that the Parent Form focuses on

the socially outgoing versus shy aspect of this tendency, while the Teacher Form also taps items relating to the enjoyment of novel experiences (Martin, 1984). This aspect of the variable then may account for the perception differences. Once again, Thomas' (1984) idea of environments possibly altering the manifestations of a trait is worth considering.

The intensity scale was designed to measure the tendency to express emotion (particularly negative) that the parent scale exclusively deals with. The Teacher Form also contains items dealing with vigor of excitement or enthusiasm (Martin, 1984). A significant difference does exist. It is not surprising that the group means show that teachers perceive the LD as vigorously expressing more intense emotion than do the parents of the LD. Perhaps the higher (negative) teacher mean is a reflection of the positive emoting of excitement or enthusiasm in relation to the school environment. This is clearly supportive of Greenspan's (1981a) position that the "ultimate outcome criterion for validating content measures of social competence should...be the judgments of others, people in the individual's environment" (p. 25).

The persistence dimension univariate  $F$  showed a significant difference occurred between parents and teachers of the LD children. Examination of the group means revealed that the parents of the LD children perceived their children

to have a longer attention span and to exhibit the tendency to continue attempting to solve a difficult learning or performance problem (Martin, 1984). The content of this variable does not pointedly underscore the academic nature of persistence. Reason would tend to delineate that the classroom situation would more logically produce opportunities for failure, that is, opportunities to display shorter attention spans along with abortive efforts at continuing to solve difficult learning or performance problems. To reiterate, environmental situations must be considered in relation to temperament individuality.

#### Hypothesis Six

Significant difference was found for hypothesis six which deals with parents and teachers on the TAB factors. Univariate analysis revealed that differences existed for all three of the factors, emotionality, persistence, and sociability.

Emotionality must be considered carefully when analyzing differences between parents and teachers since the factor on each form is composed of differing variables. As presented earlier, the Teacher Form is made up of activity and emotional intensity, while the Parent Form consists of intensity and ease-of-management-through distraction. Dissemination of the group means for the factor indicates that the teachers view the LD children as displaying this



characteristic more than the parents do. The EMTD aspect of emotionality on the Parent Form, along with the vigorous, positive expression of excitement or enthusiasm on the Teacher Form, are likely contenders for explaining the difference between groups.

Factor two, persistence, like factor one was significantly different between parents and teachers. Also like factor one, given its composition, it must be carefully scrutinized. The persistence factor on the Teacher Form is composed of the dimensions persistence and distractibility in the negative direction (i.e., attention diverted by low-level stimuli). The Parent Form, however, taps persistence and activity instead of distractibility. Activity, according to Martin (1984), takes its place here because lack of persistence in the home is seen primarily through moving from place to place. In the school environment where activity is restricted, distractibility is seen as the opposite extreme of persistence. Group means enlighten us to the fact that parents of the LD children see their children as rating more positively on the factor persistence than the teachers of the LD children. In reasoning through this finding, one must consider the educational context of persistence. Attention span and continued task orientation (i.e., continued attempting to solve learning or performance problems) are, according to Lerner, Lerner, and Zabski (1985), among the expectations/demands of teachers. Teacher

demand/expectations of performance are unlikely to be considered in the same context as parental demands. This may be interpolated from the literature by Bryan and Bryan (1981) who document that LD parental expectations concerning future academic performance is low. Additionally, the interruption of attention by low-level stimuli is a characteristic which, along with a lowered (negative) ability to complete assignments (persistence), is not desirable in the classroom (Bryan & Bryan, 1981). Bryan and Bryan's (1981) study cite both temperament dimensions as being among the reasons LD children may be more negatively viewed by teachers than are the non-LD children.

Sociability, composed of the variables adaptability and approach/withdrawal, was significantly different between the parents and teachers of the LD. Examination of the group means shows that parents of the LD children perceive them as exhibiting greater ease and speed of adjustment to new social situations, along with a higher (positive) level of approach (outgoing versus shy aspect) than do the teachers. While the variables that compose the factor are the same for both teachers and parents for this factor, one must inspect the item focus of the variables in order to possibly explain why differences occurred between groups. With adaptability some items refer to adjustment to changes in rules or adult

behavioral expectations. School rules and expectations may be less easily adjusted to by the LD in view of their propensity to have problems in social perceptions and understanding, which results in their "misreading" situations (Pearl, Bryan, & Donahue, 1983). Unlike the Teacher Form, the Parent Form focuses solely on the socially outgoing versus shy aspect of approach/withdrawal. The school form covers this aspect but also has items relating to novel experiences. Partial explanation for the considerably lower sociability score for the LD group may also include the proposition that LD students are seen by their teachers as not having the tendency to enjoy and/or plunge into new school activities. Parents do not address this issue, and it may be a major contributing aspect for the teachers.

#### Summary

To summarize the discussion by hypotheses, an overall significant difference of perceived temperament characteristics occurred between parents of the LD and parents of the normative subjects, as well as teachers of the LD and teachers of the normative group. In addition, a significant difference was found between parents and teachers of the learning disabled.

In considering the dimensions, some are documented as evidencing significance more frequently (i.e., adaptability,

approach/withdrawal, persistence) than others. Further examination delineates that the frequencies occur for the learning disabled in a consistently negative direction as compared to the normal subjects.

Inspection of the factors indicates that persistence and emotionality evidence a greater frequency of significant occurrence than does emotionality. This must, however, be heeded in terms of the perceived negative and positive connotations for both the Teacher and Parent Forms. Generally, however, it may be concluded that social ability/adjustment and continued task orientation (persistence) are important characteristics defining the LD child's temperament.

#### Educational Implications

Given that the demand characteristics of traditional classroom-based teaching/learning situations favor those children who are highly persistent and adaptable (Martin, 1985), the negative recurrence of these variables in this study is not considered opportune with regard to the LD children's classroom situation. Consistent with Pullis and Cadwell's (1982) data, the study indicates that LD students have significant problems in the area of task-related and social-interaction behaviors. Specifically, they are perceived as having lower persistence, lower adaptability, lower approach/withdrawal

tendencies, and higher levels of distractibility. What are the effects that these characteristics have upon a learning disabled child's school situation? Following Pullis and Cadwell's (1982) research, it is assumed that the characteristics may significantly influence a variety of classroom processes, specifically instructional and social. Since Lerner, Lerner, and Zabski (1985) alert us to teacher preference for high adaptability, high approaching, and low distractibility, it is reasonable to assume that LD children with problems in these areas will create dissonance within the system.

Research by Keogh, Pullis, and Cadwell (1982), and Pullis and Cadwell (1982) reveal that temperament does have an effect on teacher decision making involving classroom management and special classroom placement. The task-orientation factor was singled out as having a major contributing role. This is understandable given the insistence on sustained attention to difficult learning task as a dominant feature of school life (Martin, 1985). More specifically, Pullis and Cadwell (1982) imply that the effect of children's temperament on teachers' decisions may be controlling for the traditional measures of children's characteristics of ability, motivation, social interaction competence, academic performance, and potential. Indeed, their study indicated that teachers used information regarding student temperament characteristics more than any

other type of information when making classroom management decisions. Temperament characteristics then are powerful predictors of variations in teacher decisions and/or strategies.

Further, and in regard to Martin's (1985) inference about temperament perceptions as effecting a bias in grading, Holbrook (cited in Martin, 1985), and Gordon and Thomas' (1967) results show that teachers tend to overestimate the intellectual capabilities of children they see as adaptable and approaching. It is, therefore, possible that LD children who are not perceived as highly adaptable and approaching might be at a disadvantage in the teaching/learning environment. Different instructional interactions between teacher and the student perceived as less capable may occur. In addition, Reid and Hresko (1981), in referring to teacher expectations, posit "...that teachers form negative preexpectations of learning disabled children even before instruction takes place" (p. 105). Differential treatment is the result, it seems, of simply labeling a child as learning disabled. If one adds the negative preexpectations due to labeling to the perceived temperament characteristics which do not meet teacher demands, school adaptation is not presented within a positive framework for the learning disabled child.

Examination of the contrast of the home environment (parent perceptions) to the school environment (teacher perceptions) allows for the consideration of Thomas' (1984) position that temperament may be modified by interaction with specific environmental factors. Thomas, Chess, and Birch (1968) illustrated that the "lack of fit" (mismatch with environmental demands) between child characteristics and parenting strategies can be attenuated when parents understand their child's temperament and respond appropriately. Assuming that LD children's temperament has a similar negative impact on their teachers (i.e. lack of fit), modification of teacher response (decision making and strategies) may be effective in reducing incongruent expectations, thereby allowing for a better fit.

Along with teacher awareness, a clearer understanding of the characteristics of students who exhibit a "lack of fit" may result in the development of techniques that allow teachers to develop attitudes more consonant with LD children's behavioral styles. This does not imply a call for changing teacher perceptual set; that is, what may be accurate perceptions, but rather that teachers become aware of their perceptions and the impact of those perceptions on their LD students. A method of accommodating this can be found with Pullis' (1985) suggestion that pre- and in-service training programs might expand their coverage of non-cognitive factors and approaches to dealing with these

kinds of characteristics. Additionally, Pullis (1985) argues that findings regarding the critical importance of the task orientation of LD students may have implications for curriculum changes. His suggestions, along with further research examining the interaction between child temperament characteristics and teaching approaches (decision making, strategies, etc.), could, produce a range of educational practices (teacher preparation, assessment, instructional approach, management, IEP development, etc.) that reflect the complex needs of the learning disabled student (Pullis, 1985).

The results of the present study leave little doubt that the behavioral style of learning disabled students is viewed negatively. The importance of this finding is enhanced since the perceptions were based on an evaluation of seemingly long term stable personality characteristics (temperament). Learning disabilities has often been defined solely in terms of academic performance. Clearly, however, such an orientation omits significant factors. As this study suggests, academic abilities are only one aspect of defining the learning disabled. Perhaps in the future a more comprehensive, multidimensional view of learning disabilities will emerge.



## Appendix A

Definition of Terms

- Activity. The tendency to engage in gross-motor movement, particularly vigorous, fast movement (Martin, 1984).
- Adaptability. Ease and speed of adjustment to new social circumstances (Martin, 1984).
- Approach/withdrawal. The tendency to approach or withdraw from new social situations (Martin, 1984).
- Constitutional. The enduring biological makeup of an individual (Rothbart, 1981).
- Distractibility. The tendency to have one's attention disrupted by minor environmental events (Martin, 1984).
- Ecological. Complex interrelationships of the organism-behavior-environment system (Scott, 1980).
- Emotional intensity. The vigor of expression of affect, particularly negative affect (Martin, 1984).
- Factor cluster. The reduction of the six temperament scales (variables) to a smaller set, compiling those scales that are related into three clusters (Martin, 1984).
- Ingratiation. The act of purposefully eliciting positive response (Perlmutter & Bryan, 1984).
- Interactionist approach. Centers on the behavior of an individual and interactions with the environment (Plomin & Daniels, 1984).
- Learning disabled. Individuals who are classified as having

a disorder in which there is an educationally significant discrepancy between estimated intellectual potential and actual level of performance (Texas Education Agency, 1983).

Persistence. Attention span and tendency to stick with learning or performance situations (Martin, 1984).

Social competence. A term that reflects the quality of an individual's performance (social skills) on a given social task (McFall, 1982; Gresham, 1983).

Social perceptions. The concept that evaluation of temperament characteristics reflects both the role of objectifiable qualities (constitutionally based characteristics) and the role of cognitive processes (subjective) (Bates, 1983).

Social validity. The measurement of behavioral performance as it reflects important social outcomes (i.e., judgment by others of whether or not behavior is socially important) (Gresham, 1983).

Sociometric measures. Measures which are typically presented in peer nomination and/or peer rating formats (Gresham, 1981).

Temperament. A specific term which is generally thought to include the following elements:

(a) individual difference concept of the trait variety, (b) assumed to have transituational and temporal stability, (c) genetic or constitutional origins, (d) refers to the style

of expression of a behavior, and (e) is a manifestation of reactive and self-regulative processes (Martin, 1984).

Temporal stability. Behaviors (temperament characteristics) which occur in the same manner from one time to the next time in the same setting (R. Martin, personal communication, May 9, 1985).

Test/retest reliability. A measure is administered to a sample, and then after a delay, the same measure is again administered to the same sample to determine its stability over time (called coefficient of stability) (Borg & Gall, 1979).

Transituational. Behavior (temperament characteristics) which occurs across different environments within relatively the same time fram (R. Martin, personal communication, May 9, 1985).

Validity. The degree to which a measure actually measures the characteristic or phenomenon it claims to measure (Borg & Gall, 1979).

## Appendix B

Description of Available Instruments for Measuring Temperament  
in Children Aged 3 years to 7 years 11 months

<u>Instrument</u>	<u>Content</u>	<u>Format &amp; Response Mode</u>	<u>Standardization Sample</u>
Parent Temperament Questionnaire (PTQ) (Thomas & Chess, 1977)	9 NYLS categories: activity level, rhythmicity, approach/withdrawal, adaptability, intensity, sensory threshold, mood, distractibility, attention span/persistence	72-item questionnaire; 7-point parent ratings based on frequency of behavior	3-7 years, N=148
Teacher Temperament Questionnaire (TTQ) (Thomas & Chess, 1977)	8 NYLS categories (excludes rhythmicity)	64-item questionnaire; 7-point teacher ratings based on frequency of behavior	3-7 years, N=60
Behavioral Style Questionnaire (BSQ) (McDevitt & Carey, 1978)	9 NYLS categories	100-item questionnaire; 6-point parent ratings indicating frequency of behavior	3-7 years, N=350
A Short Form of the Teacher Temperament Questionnaire (TTQ) (Keogh, Pullis & Cadwell, 1980)	8 NYLS categories (excludes rhythmicity)	23-item scale; 6-point teacher ratings based on frequency of behavior	3-6 years, N=300
The Temperament Assessment Battery (TAB) (Martin, 1984)	6 categories: activity; adaptability, approach/withdrawal, emotional intensity, distractibility, persistence	48-item parent and teacher questionnaires; 7-point ratings based on frequency of behavior; clinicians scale consists of 4 to 5 questions per category.	3-7 years, N=1183

Note: The citations regarding Thomas and Chess (1977) and McDevitt and Carey (1978) are adapted from Hubert, Wachs, Peters-Martin and Candour (1982).

## Appendix C

## Parent Temperament Form

(for children 3-7 years of age)

Student ID # \_\_\_\_\_ Age (in months) \_\_\_\_\_ Date \_\_\_\_\_

Sex: M F Ethnicity: Caucasian, Black, Hispanic, Oriental,  
(circle) Other \_\_\_\_\_  
(circle one)

Name of student's teacher \_\_\_\_\_ Relation: Father, Mother,  
Other \_\_\_\_\_  
(circle one)

This questionnaire is designed to gather information on the way your child behaves in different situations. Each statement asks you to judge whether that behavior occurs hardly ever, infrequently, once in a while, sometimes, often, very often, or almost always. Please circle the number "1" if the behavior hardly ever occurs, the number "2" if it occurs infrequently, etc. Please try to make this judgment to the best of your ability, based on how you think your child compares to other children about the same age. Also, please make these judgments based on your child's behavior during the last three months.

1	2	3	4	5	6	7
hardly ever	infrequently	once in a while	sometimes	often	very often	almost always
1.	My child is shy with adults he/she does not know.					1 2 3 4 5 6 7
2.	When my child starts a project such as a model, puzzle, painting, he/she works at it without stopping until completed, even if it takes a long time.					1 2 3 4 5 6 7
3.	My child can sit quietly through a family meal without fidgeting in his/her chair or getting out of his/her chair.					1 2 3 4 5 6 7
4.	When a new family rule is made for my child, he/she adjusts to it fairly quickly.					1 2 3 4 5 6 7
5.	My child cries and screams so hard he/she gets red in the face and short of breath.					1 2 3 4 5 6 7
6.	If my child is in a bad mood, he/she can easily be joked out of it.					1 2 3 4 5 6 7
7.	When first meeting new children, my child is bashful.					1 2 3 4 5 6 7
8.	When my child is read a story, he/she becomes bored or distracted in a half hour or less.					1 2 3 4 5 6 7

1	2	3	4	5	6	7					
hardly ever	infrequently	once in a while	sometimes	often	very often	almost always					
9.	My child is uncomfortable showing off or performing in front of new visitors to the home.				1	2	3	4	5	6	7
10.	My child is at ease within a few visits when visiting at someone else's home.				1	2	3	4	5	6	7
11.	When upset or annoyed with a task, my child whines briefly rather than yelling or crying.				1	2	3	4	5	6	7
12.	If my child wants a toy or candy (while shopping), he/she will easily accept something else offered instead.				1	2	3	4	5	6	7
13.	When my child moves about in the house or outdoors, he/she runs rather than walks.				1	2	3	4	5	6	7
14.	If desired outdoor activity must be postponed due to bad weather, my child stays disappointed for most of the day.				1	2	3	4	5	6	7
15.	My child prefers active games involving running and jumping, etc. rather than games in which he/she must sit.				1	2	3	4	5	6	7
16.	If my child resists some procedure, such as having hair cut, brushed or washed, he/she will continue to resist it for at least several months.				1	2	3	4	5	6	7
17.	When taken away from an activity my child enjoys, he/she tends to protest strongly, by intense fussing.				1	2	3	4	5	6	7
18.	When my child is promised something in the future, he/she keeps reminding parents constantly.				1	2	3	4	5	6	7
19.	When in the park, at a party or visiting, my child will go up to strange children and join in their play.				1	2	3	4	5	6	7
20.	If my child is shy with a strange adult he/she quickly (within a half-hour or so) gets over this.				1	2	3	4	5	6	7
21.	My child sits still to have a story told or read, or a song sung.				1	2	3	4	5	6	7
22.	When scolded or reprimanded by parents, my child reacts mildly, such as whining or complaining rather than strongly with crying or screaming.				1	2	3	4	5	6	7
23.	When my child becomes angry about something, it is difficult to sidetrack him/her.				1	2	3	4	5	6	7

	1 hardly ever	2 infrequently	3 once in a while	4 sometimes	5 often	6 very often	7 almost always
24. When learning a new physical activity (such as hopping, skating, bike riding), my child will spend long periods of time practicing.						1 2 3 4 5 6 7	
25. When my child and a playmate are together, the other child gets more upset about things (sharing toys, taking turns, etc.) than my child.						1 2 3 4 5 6 7	
26. When the family takes a trip, my child immediately makes himself/herself at home in the new surroundings.						1 2 3 4 5 6 7	
27. When shopping together and mother does not buy candy, toys or clothing that child wants, he/she cries and yells.						1 2 3 4 5 6 7	
28. If my child is upset, it is hard to comfort him/her.						1 2 3 4 5 6 7	
29. When the weather is bad and my child is confined to the house, he/she runs around and cannot be entertained by quiet activities.						1 2 3 4 5 6 7	
30. My child is immediately friendly with and approaches unknown adults who visit our home.						1 2 3 4 5 6 7	
31. When in the doctor's office for some uncomfortable procedure, my child is difficult to manage despite reassurance or promises of rewards for good behavior.						1 2 3 4 5 6 7	
32. When a toy or game is difficult, my child will turn quickly to another activity.						1 2 3 4 5 6 7	
33. In a new situation such as a nursery school, my child is still uncomfortable even after a few days.						1 2 3 4 5 6 7	
34. Although my child dislikes some procedures (such as nail cutting or hair brushing), he/she will easily allow it if watching television or being entertained while it is done.						1 2 3 4 5 6 7	
35. My child can sit quietly through an entire children's movie, baseball game, or a long TV program.						1 2 3 4 5 6 7	
36. When my child objects to wearing certain clothing, he/she argues loudly, yells, cries.						1 2 3 4 5 6 7	

Parent Form

Page 4

	1 hardly ever	2 infrequently	3 once in a while	4 sometimes	5 often	6 very often	7 almost always
37. My child tends to give up when faced with a puzzle or a block structure which is difficult.						1	2 3 4 5 6 7
38. When there is a change in daily routine, such as not being able to go to school, change of usual daily activities, etc., my child goes along with the new routine easily.						1	2 3 4 5 6 7
39. When sitting, my child swings his legs, fidgets, or generally has his hands in constant motion.						1	2 3 4 5 6 7
40. The first time my child is left in a new situation without mother (such as school, nursery), he/she gets upset.						1	2 3 4 5 6 7
41. If my child starts to play with something and I want him to stop, it is hard to turn his attention to something else.						1	2 3 4 5 6 7
42. My child gets involved in quiet activities such as crafts, watching television, reading or looking at picture books.						1	2 3 4 5 6 7
43. My child feels free to smile and laugh when around people for the first time.						1	2 3 4 5 6 7
44. When away from home (for example, on vacation), my child has difficulty in adjusting to routines and schedules that are different from those at home.						1	2 3 4 5 6 7
45. My child seems to take things matter of factly, accepts events in stride without getting very excited.						1	2 3 4 5 6 7
46. When playing with a friend, my child gets bored with one activity sooner than the other child.						1	2 3 4 5 6 7
47. My child can be stopped from pestering if he/she is given something else to do.						1	2 3 4 5 6 7
48. My child can be happy for a car ride of an hour or more if he/she has a favorite toy or game to play with.						1	2 3 4 5 6 7

Thank You



Temperament Scoring Sheet

Parent Form

ID # \_\_\_\_\_ Age (in months) \_\_\_\_\_ Date \_\_\_\_\_

Sex M F Ethnicity Caucasian, Black, Hispanic, Oriental, Other  
(Circle) (Circle one)

Teacher Name \_\_\_\_\_ Relation Father, Mother, Other  
(Circle one)

Temperament Scale	Item	Sum	Prorated Sum	T Score	Normative Description						
Activity	<u>3</u>	<u>13</u>	<u>15</u>	<u>21</u>	<u>29</u>	<u>35</u>	<u>39</u>	<u>42</u>	_____	_____	_____
	(R)		(R)	(R)	(R)	(R)					
Adapt.	<u>4</u>	<u>10</u>	<u>14</u>	<u>16</u>	<u>20</u>	<u>33</u>	<u>38</u>	<u>44</u>	_____	_____	_____
			(R)	(R)		(R)		(R)			
Approach/ Withdrawal	<u>1</u>	<u>7</u>	<u>9</u>	<u>19</u>	<u>26</u>	<u>30</u>	<u>40</u>	<u>43</u>	_____	_____	_____
	(R)	(R)	(R)				(R)				
Emotional Intensity	<u>5</u>	<u>11</u>	<u>17</u>	<u>22</u>	<u>25</u>	<u>27</u>	<u>36</u>	<u>45</u>	_____	_____	_____
	(R)		(R)	(R)			(R)	(R)			
Ease of Mgmt. Through Dis- traction	<u>6</u>	<u>12</u>	<u>23</u>	<u>28</u>	<u>31</u>	<u>34</u>	<u>41</u>	<u>47</u>	_____	_____	_____
			(R)	(R)	(R)		(R)				
Persistence	<u>2</u>	<u>8</u>	<u>18</u>	<u>24</u>	<u>32</u>	<u>37</u>	<u>46</u>	<u>48</u>	_____	_____	_____
	(R)			(R)	(R)	(R)					

Factor Scale	Formula	Calculations	Score	T Score	Normative Description
Emotionality	= Intens. + (64 - EMTD)	= _____ + (64 - _____)	= _____	_____	_____
Persistence	= Persist. + (64 - Act.)	= _____ + (64 - _____)	= _____	_____	_____
Sociability	= Adapt. + Appr./With.	= _____ + _____	= _____	_____	_____

Cluster Cell Number \_\_\_\_\_

Teacher Temperament Form  
(for children 3 - 7 years of age)

Student ID # \_\_\_\_\_ Age (in months) \_\_\_\_\_ Date \_\_\_\_\_

Sex: M F Ethnicity: Caucasian, Black, Hispanic, Oriental,  
(circle) Other

Respondent's Name \_\_\_\_\_ Teacher, Aide,  
Other \_\_\_\_\_  
(circle one)

School or Setting \_\_\_\_\_

This questionnaire is designed to gather information on the way a child behaves in different situations of every day school life. Each statement asks you to judge whether that behavior occurs "hardly ever, infrequently, once in a while, sometimes, often, very often, or almost always". Please circle the number "1" if the behavior hardly ever occurs, the number "2" if it occurs infrequently, etc. Please try to make these judgments to the best of your ability, based on how you think the child compares to others of the same age. Please make these judgments based on the child's behavior during the last three months.

1	2	3	4	5	6	7
hardly ever	infrequently	once in a while	sometimes	often	very often	almost always

1. Child seems to have difficulty sitting still, may wiggle a lot or get out of seat. 1 2 3 4 5 6 7
2. Child is shy with adults he/she doesn't know. 1 2 3 4 5 6 7
3. If child's activity is interrupted, he/she tries to go back to the activity. 1 2 3 4 5 6 7
4. Child seems to take things matter-of-factly (such as a visitor to class, trips or other special events), without getting very excited. 1 2 3 4 5 6 7
5. When teacher establishes safety rules (such as behavior during fire drill), child learns to obey quickly. 1 2 3 4 5 6 7

	1	2	3	4	5	6	7
	hardly ever	infrequently	once in a while	sometimes	often	very often	almost always
6. When telling a story, such as what happened on the weekend or during a vacation, the child talks about it loudly, with enthusiasm and excitement.	1	2	3	4	5	6	7
7. Child is easily drawn away from his/her work by noises, something outside the window, another child's whispering, etc.	1	2	3	4	5	6	7
8. Child will initially avoid new games and activities, preferring to sit on the side and watch.	1	2	3	4	5	6	7
9. Child quickly becomes impatient with a task he/she cannot grasp, and goes on to something else.	1	2	3	4	5	6	7
10. Child is among the first to notice if a messenger, parent, or another teacher comes into the room.	1	2	3	4	5	6	7
11. If initially hesitant about entering into new games and activities, child gets over this quickly.	1	2	3	4	5	6	7
12. Child's responses are loud.	1	2	3	4	5	6	7
13. Child is distracted by other children's movement or talk when teacher is reading a story.	1	2	3	4	5	6	7
14. Child runs rather than walks.	1	2	3	4	5	6	7
15. After an absence of many days or after a long holiday, it takes time for this child to readjust to school routine.	1	2	3	4	5	6	7
16. Child gets involved immediately in new learning situations.	1	2	3	4	5	6	7
17. Child's attention to teacher reading stories is shorter than other children.	1	2	3	4	5	6	7
18. In outdoor play, child is active and energetic, rough and tumble, compared to other children.	1	2	3	4	5	6	7
19. Child takes a long time to become comfortable in a new physical location (e.g., different classroom, new seat, etc.).	1	2	3	4	5	6	7
20. If another child tries to interrupt when this child is engaged in an activity, he/she will ignore them.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	hardly ever	infrequently	once in a while	sometimes	often	very often	almost always
21. Child will show little or no reaction when another child takes his/her toy or possession away.	1	2	3	4	5	6	7
22. Child practices new skills over and over.	1	2	3	4	5	6	7
23. Child plunges into new activities and situations without hesitation.	1	2	3	4	5	6	7
24. Child can continue at the same activity for an hour.	1	2	3	4	5	6	7
25. If he/she initially does not get along well with another child, this child's relationship with them improves quickly.	1	2	3	4	5	6	7
26. Child is able to sit quietly for a reasonable amount of time (as compared to classmates).	1	2	3	4	5	6	7
27. It is hard to tell what this child is feeling (either positive or negative) as there is little change in facial expression.	1	2	3	4	5	6	7
28. Child cannot be distracted when he/she is working (seems able to concentrate in the midst of bedlam).	1	2	3	4	5	6	7
29. When assistance is offered in doing a task, child prefers to do it on his/her own.	1	2	3	4	5	6	7
30. Child takes a long time to become comfortable in a new situation.	1	2	3	4	5	6	7
31. Child will get up and perform before the class (sing, recite, etc.) with no hesitation, even the first time.	1	2	3	4	5	6	7
32. Child over-reacts (becomes very upset) in a stressful situation.	1	2	3	4	5	6	7
33. If other children are talking or making noise while teacher is explaining a lesson, this child remains attentive to the teacher.	1	2	3	4	5	6	7
34. If recess must be skipped so child doesn't have usual physical outlet, he/she becomes restless.	1	2	3	4	5	6	7
35. When given a new school assignment, child responds with immediate interest.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	hardly ever	infrequently	once in a while	sometimes	often	very often	almost always
36. Child is bashful when meeting new children.	1	2	3	4	5	6	7
37. Child starts an activity and does not finish it.	1	2	3	4	5	6	7
38. Child adjusts to changes in school routine, rules or procedures, only after a long time.	1	2	3	4	5	6	7
39. This child is easily sidetracked.	1	2	3	4	5	6	7
40. Child's movements are slow.	1	2	3	4	5	6	7
41. Child lets other children know when he/she does not like something by yelling or fighting.	1	2	3	4	5	6	7
42. During free play, child will stick to any one activity for only a short time.	1	2	3	4	5	6	7
43. Child will adjust quickly to a game if others want to play in a different way.	1	2	3	4	5	6	7
44. During free play time, child prefers quiet activities (such as reading or coloring) over play involving more movement (such as ball, jump-rope, tag, etc.).	1	2	3	4	5	6	7
45. When child loses a game, he/she takes it lightly.	1	2	3	4	5	6	7
46. Child prefers familiar toys and games to new play equipment.	1	2	3	4	5	6	7
47. If child is engaged in a task, he/she does not notice teacher walk by.	1	2	3	4	5	6	7
48. Child sits still when a story is being told or read.	1	2	3	4	5	6	7

Thank You

Temperament Scoring Sheet

Teacher Form

ID # \_\_\_\_\_ Age (in months) \_\_\_\_\_ Date \_\_\_\_\_  
 Sex M F Ethnicity Caucasian, Black, Hispanic, Oriental, Other  
 (Circle)  
 Respondent's Name \_\_\_\_\_ Teacher, Aide, Other \_\_\_\_\_  
 (circle one)  
 School or Setting \_\_\_\_\_

Temperament Scale	Item	Sum	Prorated Sum	T Score	Normative Description
Activity	T 14 18 26 34 40 44 48	_____	_____	_____	_____
	(R) (R) (R) (R)				
Adapt.	5 11 15 19 25 30 38 43	_____	_____	_____	_____
	(R) (R) (R) (R)				
Approach/ Withdrawal	2 8 16 23 31 35 36 48	_____	_____	_____	_____
	(R) (R) (R) (R)				
Emotional Intensity	4 6 12 21 27 32 41 45	_____	_____	_____	_____
	(R) (R) (R) (R)				
Distracti- bility	7 10 13 20 28 33 39 47	_____	_____	_____	_____
	(R) (R) (R) (R)				
PERSISTENCE	3 9 17 22 24 29 37 42	_____	_____	_____	_____
	(R) (R) (R) (R)				

Factor Scale	Formula	Calculations	Score	T Score	Normative Description
Emotionality =	Inten. + Activity = _____ + _____ = _____				
Persistence =	Persis. + (64 - Dist.) = _____ + (64 - _____) = _____				
Sociability =	Adapt. + App/With = _____ + _____ = _____				
Cell Cluster Number	_____				

Appendix D  
Biographical Data

<u>Sex</u>	<u>Frequency</u>	<u>Percent</u>
Male	187	67.6
Female	90	32.4

<u>Ethnic</u>	<u>Frequency</u>	<u>Percent</u>
Caucasian	222	80.2
Black	38	20.9
Hispanic	15	5.4
Other	2	0.7

<u>Respondent</u>	<u>Frequency</u>	<u>Percent</u>
Mother	106	38.1
Father	58	20.9
Teacher	107	38.5
Other	6	2.5

<u>Location</u>	<u>Frequency</u>	<u>Percent</u>
Urban	171	61.5
Suburban	104	37.4
Rural	2	1.1

	<u>Mean Age</u>	<u>Mean IQ</u>
LD	89.5	94.8
Norm	84.4	unable to obtain from norming population

<u>Respondent</u>	<u># of Responses per Child</u>	<u>Percentage of Children</u>	<u>Percentage of Responses</u>
Teacher	1	98	96
Teacher	2	2	4
Parent/Other	1	55	38
Parent/Other	2	45	62

## Appendix E

INSTRUCTIONS FOR COMPLETION OF THE  
TEMPERAMENT ASSESSMENT BATTERY

The Temperament Assessment Battery (TAB) is to be completed by each parent if possible. If not possible, then the subject's mother, father, grandparent or guardian is asked to complete one. Two parent forms are enclosed.

The instructions will help insure the accuracy of the rating obtained. The following points are adopted from Martin (1984).

1. Each form of the TAB should be completed in an environment in which the rater is free to concentrate on the behavioral statements presented.
2. When multiple raters are used in a setting, the raters should complete the questionnaire independently.
3. Ratings on the parent forms should be based on the behavior of the child during the last three months.

Please make sure to read the directions on the parent form carefully before beginning to make the ratings. If there are any questions, the researcher (Cheryl Cardell) or the school liaison person ( \_\_\_\_\_ ), will clarify the directions.

Please return the permission form and parent forms to your child's teacher within one week from the time you receive them. Thank you for your help.



## Appendix F

Cheryl D. Cardell  
 3716 Atrium Drive  
 Plano, TX 75075  
 (214) 867-5842

Date

Director of Special Education  
 School District  
 Address  
 City

Dear Sir:

With reference to our conversation, please find enclosed a copy of the Temperament Assessment Battery. The Temperament Assessment Battery is a standardized test developed by Dr. R. Martin, University of Georgia, and is an instrument designed to measure factors associated with temperament development in early childhood.

The purpose of my dissertation research is to investigate the temperament characteristics of children classified as learning disabled. It is my intention to compare responses of parents and teachers of learning disabled children to those of the established normative population.

The Temperament Assessment Battery Parent and Teacher Forms consist of 48 items describing behaviors of children as they occur in the home (parent form) and in school (teacher form). Two of each form would need to be independently completed: mother and father and two different teachers (if possible). The rater responds to each item on a 7-point scale based on the frequency with which the behavior described in the item occurs (hardly ever, infrequently, once in a while, sometimes, often, very often, or almost always). Each form requires about 15 minutes to complete.

The sample population consists of children aged 7 years to 7 years, 11 months, who are diagnosed as LD. Confidentiality will be insured: no names will be used in reporting the data as results will be coded numerically (Student ID#). For each student a number will need to be assigned beginning with one and continuing sequentially. This number needs to be put on all the forms to be completed

for each child. IQ scores for each child are requested. Please indicate these scores on the enclosed Master List form. Participation would, of course, be on a voluntary basis. As noted on the permission form, individual information may be relayed to the school should the parent(s) wish; and I will be happy to furnish the school with the final results of the research.

I trust this information is sufficient, but should you require anything in addition, please contact me at the address and telephone number on the preceding page. Thank you for your consideration and willingness to work with me.

Yours sincerely,

Cheryl D. Cardell

## Appendix G

## MASTER LIST

School: \_\_\_\_\_

Student ID# \_\_\_\_\_ IQ Score \_\_\_\_\_

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_

Appendix H

PERMISSION FORM

ID# \_\_\_\_\_

Dear Parent(s):

I am a doctoral candidate, working on my PhD. dissertation in Special Education at North Texas State University. The purpose of my dissertation research is to investigate the temperament characteristics of children classified as learning disabled since an emerging area of concern over the past few years has been the social well being of these children. The data collected for my research will be examined to determine if there may be any particular temperament characteristics of learning disabled children which may contribute to their social competence.

\_\_\_\_\_ and your child's teacher have consented to participate in my research study and I am writing to ask for your participation. I have taken the liberty of enclosing the Parent Response Form (one for each parent or gaurdian) with a return envelope to my attention c/o \_\_\_\_\_.

The instrument used to measure temperament was developed and standardized by Dr. Roy Martin of the University of Georgia. It consists of a Parent Form and a Teacher Form, with 48 items describing behaviors of children as they occur in the home and in school. The form takes about 15 minutes to complete.

Anonymity will be insured: no names will be used in reporting the data as results will be coded numerically (student ID#). A measure of your child's cognitive ability is required and will remain confidential through the use of a coding system.

Your participation in this research study would be greatly appreciated. Thank you for your consideration.

Cheryl D. Cardell

-----

Please Check

- Yes, I agree to participate.
- I would like my child's results relayed to the school.
- No, I choose not to participate.

\_\_\_\_\_  
(parent or guardian)

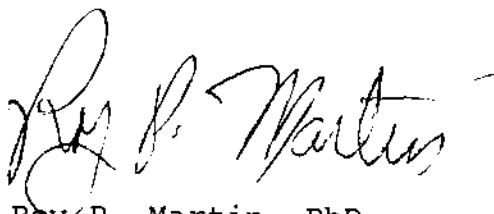
June 12, 1986

Ms. Cheryl D. Cardell  
3716 Atrium Drive  
Plano, TX 75075

Dear Cheryl:

This letter will serve as authorization for you to reproduce copies of the Temperament Assessment Battery forms. You may copy the forms for research and dissertation purposes, as required.

Yours truly,

A handwritten signature in cursive script that reads "Roy P. Martin". The signature is written in black ink and is positioned above the typed name and address.

Roy P. Martin, PhD  
Educational Psychology  
325 Aderhold  
Aderhold Hall  
University of Georgia  
Athens, GA 30602

(404) 542-4110

## References

- Barclay, J. (1983). A meta-analysis of temperament-treatment interactions with alternative learning and counseling treatments. Developmental Review, 3, 410-443.
- Bates, J. (1983). Issues in the assessment of difficult temperament: A reply to Thomas, Chess, and Korn. Merrill-Palmer Quarterly, 29(1), 89-97.
- Bates, J., & Bayles, K. (1984). Objective and subjective components in mothers' perceptions of their children from age 6 months to 6 years. Merrill-Palmer Quarterly, 30(2), 111-130.
- Bender, W. (1985). Differences between learning disabled and non-learning disabled children in temperament and behavior. Learning Disability Quarterly, 8(1), 11-18.
- Bryan, J., & Sherman, R. (1980). Immediate impressions of non-verbal ingratiation attempts by learning disabled boys. Learning Disability Quarterly, 3, 19-28.
- Bryan, T. (1982). Social skills of learning disabled children and youth: An overview. Learning Disability Quarterly, 5(4), 332-333.
- Bryan, T., & Bryan, J. (1981). Some personal and social experiences of learning disabled children. In B. Keogh (Ed.), Advances in special education: Socialization influences on exceptionality, Vol. 3. Greenwich, Connecticut: JAI Press, Inc., 147-186.

- Bryan, T., Pearl, R., Zimmerman, D., & Matthews, F. (1982). Mothers' evaluations of their learning disabled children. Journal of Special Education, 16, 149-160.
- Borg, W., & Gall, M. (1979). Educational research: An introduction (3rd ed.). New York: Longman, Inc.
- Cartledge, G., Frew, T., & Zaharias, J. (1985). Social skill needs of mainstreamed students: Peer and teacher perceptions. Learning Disability Quarterly, 8(2), 132-140.
- Conner, R., & Martin, R. (1983). Relationship between the Quay-Peterson revised behavior problem checklist and Temperament Assessment Battery. Paper presented at the annual meeting of the National Association of School Psychologists, Detroit, Michigan.
- Deschler, D., & Schumaker, J. (1983). Social skills of learning disabled adolescents: Characteristics and intervention. Topics in Learning & Learning Disabilities, 3(2), 15-23.
- Dillion, W., & Goldstein, M. (1984). Multivariate analysis: Methods and applications. New York: Wiley & Sons, Inc.
- Gerber, P., & Zirkgraf, S. (1982). A comparative study of social-perceptual ability in learning disabled and nonhandicapped students. Learning Disability Quarterly, 5(4), 374-378.

- Gordon, E., & Thomas, A. (1967). Children's behavioral style and the teacher's appraisal of their intelligence. Journal of School Psychology, 5, 292-300.
- Greenspan, S. (1981a). Defining childhood social competence: A proposed working model. In B. Keogh (Ed.), Advances in special education: Socialization influences on exceptionality, (Vol. 3). Greenwich, Connecticut: JAI Press, Inc., 41-82.
- Greenspan, S. (1981b). Social competence and handicapped individuals: Practical implications of a proposed model. In B. Keogh (Ed.), Advances in special education: Socialization influences on exceptionality, (Vol. 3). Greenwich, Connecticut: JAI Press, Inc., 41-82.
- Gresham, F. (1983). Social validity in the assessment of children's social skills: Establishing standards for social competence. Journal of Psychoeducational Assessment, 1, 299-307.
- Gresham, F. (1981). Social skills training with handicapped children: A review. Review of Educational Research, 51(1), 139-176.
- Gresham, F., & Reschly, D. (1986). Social skill deficits and low peer acceptance of mainstreamed learning disabled children. Learning Disability Quarterly, 9(1), 23-32.



- Hoge, R. (1983). Psychometric properties of teacher judgments: Measures of pupil aptitudes, classroom behavior, and achievement. Journal of Special Education, 17, 401-429.
- Hubert, N., Wachs, T., Peters-Martin, P., & Gandour, M. (1982). The study of early temperament: Measurement and conceptual issues. Child Development, 53, 571-600.
- Keogh, B. (in press). The influence of temperament on the educational experiences of at-risk and handicapped children. In J. Burke & M. Rubenstein (Eds.), Temperament interaction in the educational process.
- Keogh, B., Pullis, M., & Cadwell, J. (1982). A short form of the Teacher Temperament Questionnaire. Journal of Educational Measurement, 19, 323-329.
- Korn, S. (1984). Continuities and discontinuities in difficult/easy temperament: Infancy to young adulthood. Merrill-Palmer Quarterly, 30(2), 189-199.
- Lerner, J. (1984). The import of temperament for psychosocial functioning: Test of a goodness of fit model. Merrill-Palmer Quarterly, 30(2), 177-188.
- Lerner, J., Lerner, R., & Zabski, S. (1985). Temperament and elementary school children's actual and rated academic performance: A test of 'goodness-of-fit' model. Journal of Child Psychology and Psychiatry, 26, 125-136.

- Martin, R. (1985). Child temperament and educational outcomes: A review of research. Paper prepared for the symposium on temperament held in Leiden, The Netherlands, July 1, 1985.
- Martin, R. (1984). The temperament assessment battery: Interim manual. Athens, GA: Developmental Metrics, Publishers.
- Martin, R., Nagle, R., & Paget, K. (1983). Relationships between temperament and classroom behavior, teacher attitudes, and academic achievement. Journal of Psychoeducational Assessment, 1, 377-386.
- Martin, R., Wisenbaker, J., Matthews-Morgan, J., Holbrook, J., Hooper, S., & Spalding, J. (1986). Stability of teacher temperament ratings over 6 and 12 months. Journal of Abnormal Child Psychology, 14(1), 167-180.
- McFall, R. (1982). A review and reformation of the concepts of social skills. Behavioral Assessment, 4, 1-33.
- Morrison, G., MacMillan, D., & Kavale, K. (1985). System identification of learning disabled children: Implications for research sampling. Learning Disability Quarterly, 8(1), 2-10.
- Odom, S., Jenkins, J., Speltz, M., & Deklyn, M. (1982). Promoting social integration of young children at risk for learning disabilities. Learning Disability Quarterly, 5(4), 379-387.

- Pearl, R., & Bryan, T. (1982). Mothers' attributes for their learning disabled child's successes and failures. Learning Disability Quarterly, 5(1), 53-57.
- Pearl, R., Bryan, T., & Donahue, M. (1983). Social behaviors of LD children: A review. Topics in Learning and Learning Disabilities, 3(2), 1-14.
- Pedhazur, E. (1982). Multiple regression in behavioral research (Second ed.). New York: Holt, Rinehart & Winston.
- Perlmutter, B. (in press). Personality variables and peer relations of children and adolescents with learning disabilities. In S. Ceci (Ed.), Handbook of learning disabilities, (Vol. 2). Hillsdale, NH: Lawrence Erlbaum, Associates.
- Perlmutter, B., & Bryan, J. (1984). First impressions, ingratiation, and the learning disabled child. Journal of Learning Disabilities, 17, 157-161.
- Perlmutter, B., Crocker, J., Cordray, D., & Garsticki, D. (1983). Sociometric status and related personality characteristics of mainstreamed learning disabled adolescents. Learning Disability Quarterly, 6(1), 20-30.
- Pfeffer, J., & Martin, R. (1984). Comparison of mother's and father's temperament ratings of referred and non-referred preschool children. Journal of Clinical Psychology, 39, 1013-1020.

- Plomin, R., & Daniels, D. (1984). The interaction between temperament and environment: methodological considerations. Merrill-Palmer Quarterly, 30(2), 149-162.
- Pullis, M. (1985). Temperament characteristics of LD students and their impact on decisions made by resource and mainstream teachers. Learning Disability Quarterly, 8(2), 109-122.
- Pullis, M. & Caldwell, J. (1982). The influence of children's temperament characteristics on teacher decision strategies. American Educational Research Journal, 19(2), 165-181.
- Pullis, M. & Smith, D. (1981). Social-cognitive development of learning disabled children. Topics in Learning and Learning Disabilities, 1(1), 43-55.
- Reid, K., & Hresko, W. (1981). A cognitive approach to learning disabilities. New York: McGraw Hill Publishing Co.
- Rothbart, M. (1981). Measurement of temperament in infancy. Child Development, 52, 569-578.
- SAS Institute Inc. (1985). SAS user's guide: Statistics, version 4 edition. Cary, NC: SAS Institute Inc.
- Scott, M. (1980). Ecological theory and methods for research in special education. Journal of Special Education, 14(3), 279-294.

- Texas Education Agency Department of Special Education.  
(1983). State board of education rules for handicapped students. Austin, Texas: Publications Distribution Office.
- Thomas, A. (1984). Temperament research: Where we are, where we are going. Merrill-Palmer Quarterly, 30(2), 103-109.
- Thomas, A., & Chess, S. (1977). Temperament and development. New York: Bruner/Mazel.
- Thomas, A. & Chess, S. (1980). The dynamics of psychological development. New York: Bruner/Mazel.
- Thomas, A., Chess, S., & Birch, H. (1968). Temperament and behavior disorders in children. New York: New York University Press.
- Thomas, A., Chess, S., Birch, H., Hertzog, M., & Korn, S. (1963). Behavioral individuality in early childhood. New York: New York University Press.
- Thomas, A., & Korn, S. (1982). The reality of difficult temperament. Merrill-Palmer Quarterly, 28, 1-20.
- Walker, H. (1981). Assessment of behavior disorders in the school setting: Issues, problems and strategies. In M. Noel and N. Haring (Eds.), Progress or change? Issues in educating the mildly emotionally disturbed. POAS and USOSE Monograph Series.