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## The Rorschach inkblot test as an aid in the psychoeducational diagnoses of learning disabled latency-aged males

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THE RORSCHACH INKBLOT TEST AS AN AID IN  
THE PSYCHOEDUCATIONAL DIAGNOSES OF  
LEARNING DISABLED LATENCY-AGED MALES

An Abstract of a Thesis  
Submitted  
In Partial Fulfillment  
of the Requirements for the Degree  
Specialist in Education

Kathryn Harder Lynch  
University of Northern Iowa

July 1982

## ABSTRACT

The present study was intended to determine if three Rorschach indices (F%, A%, and ep) differentiated between matched pairs of LD and Non-LD latency-age males. The chief purpose of this research was to examine the efficacy of employing the Rorschach Inkblot Test as a supplement to the material currently used in the diagnosis of potentially LD children.

An examination was made of the case histories of LD boys who had received services from the Educational Clinic, University of Northern Iowa. Cumulative file data for Non-LD boys were gathered for comparative purposes. Subjects were matched according to age, IQ, and social-economic status. Rorschachs were administered to the Non-LD group and protocols scored. Data were analyzed using the Wilcoxon Matched-Pairs Signed-Ranks Test. No significant differences were obtained. Protocols were also examined qualitatively.

The major conclusions were as follows:

- 1) It is necessary to consider the entire protocol to understand both the quantitative and qualitative implications of the data.
- 2) A large Rorschach sample pool is important; larger numbers of available subjects may provide more closely matched pairs.
- 3) It is advisable for researchers to have access to extensive home and school backgrounds of subjects in any study of this nature.

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THE RORSCHACH INKBLOT TEST AS AN AID IN  
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A Thesis

Submitted

In Partial Fulfillment  
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July 1982

This Study by: Kathryn Harder Lynch

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 Psychoeducational Diagnoses of Learning Disabled  
 Latency-Aged Males

has been approved as meeting the thesis requirement for the  
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## Chapter 1

## INTRODUCTION

Recent years have witnessed a dramatic increase in special education programs for students who have been identified as learning disabled (LD). Generally, the literature suggests that these intervention programs have been remarkably unsuccessful, and have not resulted in demonstrable long-term benefits (Kronick, 1976; Arter & Jenkins, 1979). This may be associated with evidence that most enrichment programs for LD students tend to emphasize cognitive-oriented remediation. If remediation is to be effective, however, the interplay between cognitive functioning and emotional, social, maturational, and physical variables must be explored.

A global view of the child becomes increasingly important during the latency stage of development (ages 8-0 to 10-11). At this critical age within the schools, students are moving beyond the largely individual assistance stage of learning to curricula requiring substantial independent assumption of responsibility. The diagnostic implications for learning problems, therefore, are especially important at this transitional stage before puberty.

Procedures that might provide a view of the student's total environment within home, school, and community should be examined to augment assessment devices currently being used. If the context of learning can be seen as involving not only typical cognitive influences, then value might be derived from more extensive use of

the Rorschach Inkblot Test (Rorschach), and similar instruments, in the assessment of potential LD students. The Rorschach, in the hands of a skilled examiner, may be a useful vehicle in understanding not only the intellectual development, but also the emotional, social, and physical development of children. Ames (1968, p. 44) argued in behalf of this projective test in the schools in the following statement: ". . . although it is not widely used in the schools except where some personality deviation or disorder may be present or suspected, we have found the Rorschach to be an invaluable supplement in our behavior examination." Again, Ames (1974) stressed:

It seems probable that projective techniques, if carefully administered and skillfully interpreted in the perspective of adequate age norms, can throw light on each of these 3 factors: 1) the child's level of development, 2) his innate individuality, and 3) the kind of adjustment he is making to his life situation. (p. 3)

In considering the global view of the child, therefore, the Rorschach might be one of the various valuable tools which may be optionally utilized in the formulation of individualized, educational enrichment programs for LD children.

#### Statement of the Problem

This investigation compared matched pairs of learning disabled (LD) and non-learning disabled (Non-LD) white males in the latency stage of development on three Rorschach indices: F%, A%, and ep. Data were quantitatively analyzed using the Wilcoxon Matched-Pairs Signed-Ranks Test. Protocols were also examined qualitatively.

### Importance of the Problem

Past research has emphasized the relationship between LD and cognitive remediation. This apparent tendency to stress cognitive forms of intervention indicates that little, if any, attention has been given to the research of Maslow (1954) and Bloom (1964) who argued that basic needs must be met before a child gives priority to cognitive needs. In addition, the efficacy of the assessment devices and instructional programs currently utilized with LD students has not been supported by empirical research. A study of compensatory educational programs by Averch, Carrol, Donaldson, Kresling, and Pincus (1974) revealed no beneficial long-term results in students' cognitive achievements. Similarly, in their comprehensive review of the differential diagnosis/diagnostic prescriptive teaching model, Arter and Jenkins (1979) concluded that children do not appear to show educational gains from differential teaching which employs cognitive forms of enrichment.

It is entirely conceivable, however, that the ineffectiveness of school-related enrichment may be associated with unsophisticated and inaccurate diagnosis as well as social and economic shifts within society. Such shifts, and the pressures they exert on the family system, have apparently weakened family influences and consequently may have a powerful effect on the behavior of the child in school (Friedman, 1973). Scott (1980) agreed with Lash and Sigel (1975) and suggested that the learning problems of many children may

be a result not of cognitive, but of physical, social, and emotional circumstances over which schools have little direct control.

In actual practice, there is evidence that the interplay of cognitive, maturational, physical, social, and emotional variables are commonly ignored in the diagnostic process (Scott, 1980). In separate investigations in northern and southern Iowa, case studies of LD children revealed that remediation, for every LD child whose background was thoroughly studied, centered solely on cognitive activities within the schools. Parental and community influences were not introduced into the diagnostic or treatment stages. This strategy prevailed even when a child obviously manifested non-cognitive problems or circumstances (Scott, 1980).

If this is true, there is a need to consider a global view of the child, one that will focus attention on a child's total environment within the home, school, and community. Such an assertion has been supported by earlier researchers (Ames, 1968; Giffin, 1968; Koppitz, 1973; Lerner, 1976). Louise Bates Ames (1968), author of a number of books and articles emphasizing the totality of the child, summarized her beliefs in the following statement:

The developmental point of view, though it necessarily emphasizes a child's developmental level, is nevertheless concerned with the total organism. That is, just as the child learns not merely with his eyes, but with his whole brain and body [sic]. When learning problems occur, it is as a rule not just the learning which is disordered, but the child's total functioning. And conversely, even though learning may seem to be going along successfully, if the latent personality disorder

is serious enough, it may eventually lead to a learning disorder when grades and school adjustment presumably have been adequate. (p. 44)

Similarly, the totality of the child must also be considered in the assessment of potential LD students. If influences from home, school, and society are to be considered, then value might be derived from more extensive use of the Rorschach and similar projective instruments. Ames (1974) provided support for this assertion:

It would seem that if standard intelligence and development tests could be supplemented by projective tests such as the Rorschach, which is aimed at revealing the actual structure of the individuality, we might have a more adequate basis for understanding why a child's actual performance may not be keeping step with his supposed abilities. (p. 5)

#### Assumptions

For the purposes of this study, the researcher assumed that the Rorschach is a useful and appropriate instrument for the appraisal of personality or the prediction of future behavior. Although the Rorschach has been questioned on the grounds that it is an invalid and unreliable test (Zubin, 1953; Klopfer, et al., 1954), there are those who believe that in the hands of a skilled clinician it can be an invaluable tool (Hertz, 1935; Ames, 1968).

In addition, more specific assumptions were made concerning the construct validity of the three Rorschach indices chosen for investigation. These three indices and assumptions were:

- 1) F% represents constriction and inhibition (Levitt & Truuma, 1972).
- 2) A% is a measure of immaturity (Ames, 1974).

3) experience potential (ep) identifies needs and feelings which act on the individual rather than being more organized and controlled psychological activities (Exner, 1974).

The researcher also assumed that the boys identified as LD by appropriate educational officials were, in fact, LD. Similarly, the researcher assumed that the boys chosen from the regular classroom were different from the LD group by no other factor than being Non-LD.

#### Limitations

When generalizing the results of this research to other groups, the characteristics of the subjects used in the study must be recognized.

Factors that impose limitations upon the research which affect the procedures and the applicability of the study largely are related to the characteristics of the subjects chosen for this study. All subjects were male although approximately 80% of the learning-disabled population (nationally) is male. All subjects were Caucasian due to local population trends. In addition, all subjects were residents of the same metropolitan area.

#### Definitions of Terms

##### Learning Disability

Learning disability as operationally defined by Public Law 94-142 and by commonly accepted practice within the local Area

Education Agency includes language and academic learning disorders, perceptual handicaps, minimal brain dysfunction, dyslexia, and aphasia. It does not include children whose learning problems are primarily the result of physical, emotional, or environmental factors.

#### LD Group

The LD Group includes six LD boys referred to the Educational Clinic.

#### Non-LD Group

The Non-LD Group includes those boys in a non-special education placement, exclusive of those students with diagnostic labels or receiving resource educational planning.

#### F%

F% reflects the degree to which the individual responds only to the form determinants, and does not employ such other determinants as movement, color, shading, and the like in responding (Levitt & Truuma, 1972). In addition, F% is the degree to which constriction and inhibition is represented in an individual's life. An individual, of average or higher intelligence with a high F%, generally relies upon repression in his adaptation to life. If inhibitory needs assume a dominant role, they may expand to the point that growth potentials are all but stifled (Vorhaus, 1952).

#### A%

A% represents the proportion of animal responses to all Rorschach responses (Exner, 1974). Levitt and Truuma (1972)



pointed out that  $A\%$  is negatively related to intelligence and maturity. In addition, an individual exhibiting an abnormally high  $A\%$ , therefore, is likely to manifest low intelligence, lack of imagination, a tendency to stereotypy of perceptual and thought processes, and a rigid and/or constricted personality (Levitt & Truunmaa, 1972).

### Experience Potential

Experience potential (ep) is derived from the sum of  $(FM + m)$  and  $(Y + T + V + C')$  (Exner, 1974). These responses are believed to illustrate needs and affects which act on the individual rather than being more controlled psychological activities. Unlike M and C responses, they are considered to be "disorganized" and not readily controlled by the individual's higher cognitive actions. Rather, they work on the individual to provoke responses (Exner, 1974).

## Chapter 2

### REVIEW OF THE LITERATURE

The past thirty years have shown a dramatic increase in special education programs for students defined as LD. However, the majority of academic enrichment programs for these children tend to focus on cognitive-oriented remediation. A "whole child" approach to remediation and assessment, which deals with the interplay of cognitive, maturational, social, physical, and emotional influences, is rarely employed. Reviews of the literature revealed the extent to which the Rorschach and other projective instruments have been de-emphasized in student assessments.

This chapter will examine how the multiplicity of perspectives concerning the definition of LD has led to problems of diagnosis and, hence, remediation. The chapter will progress from an examination of the characteristics associated with LD to implications for remediation and assessment. This is followed by an examination of the utility of the Rorschach and how it might be used to yield information that might enhance the diagnostic understanding of LD children. The chapter concludes with a discussion of the Rorschach indices--F%, A%, and ep.

#### Learning Disabilities

As a relatively new and growing field of study, learning disabilities have evolved from a multidisciplinary approach and LD students currently represent one of the largest groups of exceptional

children served within the public school (Lerner, 1976). The diverse professions which demonstrate their concern in assisting these children have resulted in a multiplicity of perspectives concerning the definition and identification of LD students. Therefore, it becomes difficult for schools to respond to this significant problem.

Attempts to formulate a precise and comprehensive definition of learning disabilities have also been difficult due to differences in taxonomy and semantics. Over the years, modifications and refinements in the definition of LD accompanied by changes in terminology used to describe these children have been made (Lerner, 1976; Myers & Hammill, 1976; Lerner, 1981). The scope of this incongruity, however, was reported by McDonald (1967) in a paper prepared for the Southern Regional Education Board. The results of a questionnaire administered to thirty-five educators and psychologists who dealt with learning disorders revealed twenty-two different terms, each of which can be used to describe a child with a learning disorder. Many terms reflected a wide range of orientations including the areas of medicine (brain injured, minimally brain-damaged), psycholinguistics (language disorder) and education (educationally handicapped), while others were quite general (learning disability), or specific (reading disability). This apparent confusion concerning the definition of learning disabilities would, no doubt, exist today if this study were replicated (Myers & Hammill, 1976).

Thus, professionals as well as parents remain bewildered as to who these children with learning disabilities are. Without an operational definition of learning disabilities, it becomes quite difficult to identify and then to implement the appropriate educational strategies for these children.

At present, the most widely accepted definition that has become the basis for federal and state law, as well as many learning disabilities programs, is found in Public Law 94-142, the Education for All Handicapped Children Act (USOE, August 23, 1977). This definition reads:

Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, or mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage. (p. 65083)

In addition, rules and regulations concerning the procedures for identifying and evaluating specific learning disabilities are outlined in detail.

Despite the general acceptance of the federal definition and the major provisions set down in PL: 94-142, identification and remediation of potentially learning disabled children remains a complex issue. Estimates as to how many children are in fact LD vary greatly. For example, the National Advisory Committee on

Handicapped Children (1968) estimated the incidence of hard core cases of LD in the school population at 1-3%. One survey of LD "authorities" found that half of the respondents placed the incidence at 5% or less; one-third believed the incident to be 15% or more (Wissink, 1972). Another survey of school populations found the estimated rate of LD to range from 3% to 18% (Bryant, 1972). In addition, four to six times as many boys are diagnosed LD than girls (Lerner, 1976).

Differences in estimated incidence of LD may also be linked to problems of diagnosis. Ilg and Ames (1955) illustrated this point:

When a child lacks some of these essential visual skills (fusional ability, fixation ability, convergence ability, accommodation ability), he may find himself classed as a reading problem, a behavioral problem, or more often just as a lazy child who could do the work if he would only try. When we speak of vision, we are concerned with the child's ability to get meaning and understanding from what he sees by the skillful and efficient use of both eyes. (p. 271)

Dr. Ralph Scott (1980), Director of the Educational Clinic in Cedar Falls, Iowa, presented additional support to these contentions in the following:

. . . if an LD consultant encounters a child with a "listening problem," the common response within schools is to focus on educational measures to improve listening or attentiveness. But poor listening may appear with different children and for entirely different reasons. One child may have difficulty understanding oral language because of profound sensory impairment; another may seek to "tune out" adults; a third may seek to passively resist learning; a fourth may have suffered experiential deprivation and, not understanding the meaning of words, may feel that attentiveness doesn't pay; a fifth child may be highly anxious and fragment thinking into small details or compulsive behavior

and, hence, not appear to be listening. To consider these five children--who illustrate only a few of the many possible etiologies associated with LD--as requiring similar treatment programs only invites a high proportion of remedial failure. (p. 16)

Attention, therefore, must be directed toward the actual cause for a child's disability, be it perceptual, cognitive, emotional, or organizational. The above examples both emphasize the importance and need for a comprehensive diagnosis in the explanation of an individual child's apparent learning disability, a diagnosis that considers the student's total environment within home, school, and community. Furthermore, learning disabilities cannot be remediated by a specific teaching method or training technique (Koppitz, 1973). Rabinovitch (1959, p. 858) stated that "no single disciplinary approach to learning problems is valid; neurological, psychological, psychiatric, and educational emphases must be brought together without preconceived bias in both clinical and research work." Behavioral characteristics of each child, therefore, must be thoroughly studied before any educational services are delivered, for if a particular child's personality pattern does not blend with the remediation that is being provided the program will be unsuccessful regardless of the accuracy of diagnosis (Aylward, 1971).

Educational strategies, intended to improve the learning of children identified as LD, have also dramatically changed during the past thirty years. In the 1950's a few special education programs existed and children with learning disabilities were often tested not only on cognitive, but also on physical, social, and emotional

instruments. It was then not uncommon for projective measures such as the Rorschach to be included in this assessment. However, with the advent of the anti-test movement which dealt harshly with projective instruments, there has been an observable decline in the use of projective testing in the field and in textbooks (Myers & Hammill, 1976; Lerner, 1981). Recent years have witnessed an increase in the use of behavior modification techniques. This practice of assessing underlying abilities and devising subsequent instruction in accord with ability strengths and weaknesses fails, however, to seek to discover the underlying causes of inappropriate behavior (Lerner, 1976; Haring & Bateman, 1977). In addition, research by Arter and Jenkins (1979) concluded that behavior modification techniques are not producing long range schooling gains. Thus, it is apparent that greater attention must be given to the non-cognitive aspects of the child experiencing learning problems. As Gardner (1962, p. 87) stated: "The basis of all learning is emotion. There is no intellectual interest which does not spring from the need to satisfy feelings, but feelings themselves are relieved and helped by learning. Any education must always take into account education of the emotions."

Children with learning problems often suffer from emotional problems. The emotional disturbances found in many LD children, however, can be both the cause and the result of an educational disability (Bruecknew & Bond, 1955). For example, an emotionally maladjusted child may enter school and exhibit learning difficulties.

Similarly, a child who makes a poor personal and social adjustment to school may also fail in the area of learning (Bruecknew & Bond, 1955).

Recurrent failures often lead to fear, anger, and resistance. Consequently, learning may be inhibited. The child may resist change when new ideas conflict with the perceptions he already has of himself or of his world (Combs & Snygg, 1959). In order to maintain his self-concept, the child may ignore aspects of experience that conflict with this concept and instead select perceptions which tend to confirm it (Combs & Snygg, 1959). Even though a child may display a facade of contempt for learning, the genuine wish to succeed at learning and the inability to account for his/her learning difficulties and behavior exists (Schwebel, 1962). The longer resistance persists, however, the more the original cause becomes encrusted with layers of other problems. A problem that might have started as an unrecognized visual defect and inadequate reading skill may take on such symptoms as isolation, surliness, defiance, or resignation (Schwebel, 1962).

As Piaget, Erickson, Freud, and others have emphasized, it is necessary for a child to master the varying tasks of a developmental stage before adequate mastery at a subsequent phase becomes possible (Giffin, 1968). Ames (1968) believed that learning disabilities are often created when children are pushed by society into experiences before they are ready.

The outstanding cause of school difficulties in our experience is immaturity. The majority of children experiencing learning problems as seen by our clinical



service have been overplaced in school. This presents a serious hazard since overplacement or lack of readiness not only aggravates learning problems when they exist, but causes problems in cases where there is a potential for good performance. (p. 72)

Some research has supported Ames' observation that children manifesting learning problems are often more immature and poorly integrated than most children in their age group and that they need time to mature (Koppitz, 1973).

Many of these findings were noted over thirty years ago by one of the founders of the LD movement, Alfred Strauss. Strauss and Lehtinen (1947) found several similarities between brain-injured children. These children manifested perceptual handicaps such as figure-ground confusion and integration of parts into wholes. Perseveration was observed as the children had difficulty changing from one activity to another. They were more hyperactive, continually in motion, distractable, and unable to organize materials and thoughts in a normal manner. At times, behavior was explosive, erratic, and otherwise uninhibited (Strauss & Lehtinen, 1947).

LD children are also believed to exhibit an impulsive or field-dependent cognitive style of learning. Kagan (1966) explained this characteristic in the following:

Some children and adults select and report solution hypotheses quickly with minimal consideration for their probably accuracy. Other children, of equal intelligence, take more time to decide about the validity of solutions. The former group has been called impulsive, the latter reflective. (p. 17)

In order to be a successful learner in school, a child must be able to delay decision or response while separating relevant from

irrelevant aspects of the task (Keogh & Donlon, 1972). Research in this area supported these assertions and reported that children diagnosed as LD had faster response times, made more errors, and tended to respond immediately with little critical evaluation of alternatives (Campbell & Douglas, 1972; Keogh & Donlon, 1972). In addition, the children who were impulsive or field-dependent tended to be more pessimistic about the outcome of potentially frustrating events, and had less self-confidence. In summary, Douglas (1972) stated:

These youngsters are apparently unable to cope with situations in which care, concentrated attention, or organized planning are required. They tend to react with the first idea that occurs to them or to those aspects of the situation which are the most obvious or compelling. (p. 275)

Again, when unable to perform at the level of his classmates, the child with learning problems may be overly hostile, may resist pressure, may cling to dependency, may be quickly discouraged, may feel that success is dangerous, may be extremely distractable or restless, may be absorbed in a private world, or may consciously refuse to learn (Harris & Sipay, 1975). A vicious cycle results as Lerner (1981) pointed out in the following:

The child whose failure to learn is accompanied by emotional problems may be the victim of a continuous cycle of failure to learn and emotional reaction to failure. In this cycle, the failure to learn leads to adverse emotional responses, feelings of self-derision, poor ego perception, and anxiety, which augment the failure to learn syndrome. (p. 404)

Questions are raised, therefore, as to the motivational or affective components of task performance which may confound learning for a child with markedly disturbed perceptual functioning (Keogh & Donlon, 1972). Since successful school learning requires both accurate field differentiation, organization, and ability to control or delay speed of response, assessment procedures become very important. How a child approaches and attempts to solve a learning task, the kind of information he uses, and how he organizes it, may provide critical information for development of remedial programs (Keogh & Donlon, 1972).

In order to avert these cycles of failure, this may be the time to reconsider evaluating the child's total personality structure through assessment. If assessment procedures are to consider non-cognitive influences, then diagnostic tools developed to evaluate the child's total personality must be employed. One particular projective test that yields clues as to an individual's intelligence, thought content, emotional adjustment, and basic personality structure is the Rorschach.

#### The Rorschach Inkblot Test

Nearly sixty years ago, Hermann Rorschach introduced a test designed to probe the total personality, revealing not only intellectual and non-intellectual traits, but also traits such as emotional stability and instability, adaptability, stereotypy, and originality of thinking and living (Hertz, 1935). This technique, entitled the Rorschach Inkblot Test, is a modification of free

association in which ten non-specific forms or inkblots are used as stimuli and the subject is permitted a free range of response.

Although Rorschach himself intended that the test be understood primarily as an aid to clinical diagnosis, the Rorschach Inkblot Test has stimulated great interest and considerable research (Exner, 1974). Criticism of the Rorschach has been both favorable and unfavorable. Many practitioners considered the Rorschach to be the most effective of the clinical instruments and supported the technique while many researchers and those with a strong allegiance to stringent measurement theory advocated its abandonment (Exner, 1974). However, the decades that followed witnessed extensive use of the Rorschach in clinical practice. In 1947, a survey of clinical testing practices conducted by Loutitt and Browne (1947) revealed that when compared to twenty commonly used tests, the Rorschach ranked fourth in frequency of use, and by 1959 it was recognized as the most frequently used instrument in clinical practice (Sundberg, 1961).

The decade of the 1950's witnessed the most extensive use and research of the Rorschach. During this time, 3,000 articles were written concerning this instrument (Exner, 1974). Unfortunately, however, instead of working together to develop a single system from which solutions could be formulated, five reasonably distinct Rorschach systems (Beck, Hertz, Klopfer, Piotrowski, and Rapaport-Shafer) had evolved and have remained static since that time (Exner, 1974). This divergence of Rorschach methodology has not only

created scoring differences and interpretative postulates for each category, but also has led many researchers to question the reliability and validity of the test.

In regards to demonstrating reliability, no adequate statistical procedure has yet been proposed to resolve this challenging problem. Since the Rorschach is global in nature, it is inappropriate to work with isolated variables of the test (Hertz, 1951). In addition, repeating the test at another time is not feasible as personality data cannot be exactly duplicated from one time to another and memory factors may influence responses (Hertz, 1951). The technique of using matched pairs of subjects and comparing entire Rorschach protocols has been cited as the only successful approach to determining reliability (Hertz, 1951).

Those individuals who spoke out against the use of the Rorschach argued that the test was invalid due to subjectivity linked to administrative, scoring, and extraneous variables (Levitt & Truunmaa, 1972). An overview of Rorschach research revealed that a number of studies ensued to prove the Rorschach's validity or invalidity (Hertz, 1951). Hertz (1951) supported its value in the following:

It is fair to say that research to date provides clinical, experimental, and statistical evidence of sufficient importance to justify favorable regard for the instrument. Despite our limitations in theoretical explanation and in statistical verifications those of us in clinical work know that we have an instrument that works under the critical eye of the clinician. I think it is fair to say that the only time it does not work is when it is dissected, distorted, modified,

objectified to the point of sterility, and subjected to piecemeal and rigid statistical manipulation. Otherwise, it works. (pp. 331-332)

In the 1950's, instruction in the Rorschach and other projective tests were included in most psychology programs. However, instruction in the Rorschach technique by this time had become quite difficult. Not only was the Rorschach difficult to learn, time-consuming to administer, and complex to interpret, it also varied from system to system in methods of administration, scoring, and interpretation. The findings of Jackson and Wohl (1966) reflected the overall dilemma in Rorschach instruction and implied that 1) there had been a significant failure to standardize the teaching approach to the test, and 2) the training programs were utilizing less well-trained or qualified instructors to teach the Rorschach than in the past. Studies conducted by Shamberg and Kealy (1970) and Biedermann and Carbus (1971) also found that projective techniques including the Rorschach were given less emphasis in the training of clinicians. Rorschach (1942, p. 121) himself stated, "The test lends itself to psychiatric diagnosis only in the hands of workers capable of collecting psychologically comparable material." This being true, de-emphasis in Rorschach training poses a serious problem concerning the qualifications of those using the test and adds to the problems that already exist (Weiner, 1972).

In response to these problems and variations that had developed in the Rorschach, Exner (1974) produced a comparative analysis of

the various approaches to the test. During the period from 1962-1968, Exner worked closely with systematizers Beck, Klopfer, Hertz, and Piotrowski. He incorporated features from each of these systems, along with more recent work with the Rorschach, into his book entitled The Rorschach Systems. If successful, Exner's integration of these Rorschach systems would offer a method that is easily taught, and that manifests a high inter-clinician reliability and validity (Exner, 1974).

Despite the controversy and criticism surrounding this test, the Rorschach has survived this turbulent history because it was of value to the diagnostician in the clinical routine. As Exner (1974) stated:

If the collective wisdom of clinical psychologists over the past three decades is to be given any weight at all, then the role of the Rorschach has probably been greater than any other psychological test. If the goal of understanding the individual remains important to psychology, then the Rorschach will continue as a significant tool. (p. 15)

It may be time to reconsider whether there may be merit in encouraging greater use of projective measures such as the Rorschach in the diagnosis of children with learning problems.

#### Rorschach Indices

Protocols in this study were routinely scored using the procedures of Beck, et al. (1961). The scoring systems of Exner's Comprehensive System (1974) and Ames (1974) were also used for comparative purposes. As aforementioned, three indices--F%, A%, and ep--were chosen for further examination.

F%. The F% is the proportion of all responses determined solely by form. The use of form perception as an index of ego functioning is emphasized by Korchin (1960) in the following:

The personality is active in every perceptual act--not only in the "distortion" of perception through the penetration of demanding needs, but as well in the achievement of reality-oriented, objective perception. The interpretation of form level in the Rorschach depends on the assumption that in neither case does perception consist simply of the passive reception of "what is there." (p. 109)

Moreover, the manner of quality in which form is employed reflects the individual's ability to perceive things conventionally or realistically. Korchin (1960, p. 110) goes on to explain further: "The type and adequacy of the solutions reached depend on the subject's ego organization, showing the requisite cognitive abilities; which, however, must be understood in terms of internal drives and affective pressures and the demands of the external situation as he interprets them."

Form responses, therefore, are divided into two basic categories, good form and poor form. At this point, however, the five major Rorschach systems differ to some extent concerning the best method of determining the accuracy of the form used in the response. The procedure followed by several Rorschach systematizers for determining form accuracy involves the assignment of the symbol + for good form responses and - for poor form responses. Associations are often scored as F+ when a definite + or - cannot be ascertained.



Exner (1974) proposed that F% is a good index of the attention-concentration features of a subject's thinking operations, and represents a form of affective delay or control.

A%. The second index appraised in the study involved the A%. With the child, as with the majority of adults, the most frequent response at every age is the animal (A) response (Ames, 1974).

The percentage of animal responses in a protocol is a measure of the subject's ability 1) to see what's there and 2) to free the perceptual activity from this easiest kind of reaction (Beck, 1945). In other words, A% is an index of adaptive thinking at the peripheral level (Beck, 1945). Draguns, Haley, and Phillips (1967) maintained that a high A% reflects the potential for confusion where the stimulus inputs from the environment are complex or varied frequently. In addition, A% may also be linked to aspects of cognitive functioning that are not always reflected in IQ scores or mental age levels. Therefore, an over-emphasis on A may indicate that emotions are interfering with efficient utilization of intellectual resources (Draguns, Haley, & Phillips, 1967). Ames (1974) considered A% a measure of stereotypy of response. However, Ames believed a certain amount of stereotypy useful in the successful performance of daily tasks; she stressed that a lack of this factor can result in unpredictable and highly variable behavior.

Examination of the A% yields quantitative as well as qualitative information. When analyzing a Rorschach protocol, not only the number, but also the type of animal response is customarily taken into account (Ames, 1974). For example, Bochner and Halpern (1945) illustrated that an animal with a human expression such as a "grinning bear" or a "sly fox" suggests critical thinking and evaluation. Moreover, the type of animal chosen can offer insight into the respondent's feelings and attitudes. Ferocious and aggressive animals such as tigers, bears, and lions convey hostility and aggression, whereas butterflies and rabbits are suggestive of passivity and insecurity (Ames, 1974). Whether these feelings are directed inward or outward will be determined by other factors in the protocol.

However, specific age differences have been found with regard to the type of animals reported (Ames, 1974). At age 2, for example, domestic animals are the most common response whereas wild animals occur more frequently at age 3,  $3\frac{1}{2}$ , 4, and 5. After 5 years of age, however, the butterfly-bird category reaches and maintains first place. Thus, when evaluating the type of animal responses given in a protocol, these developmental changes must be recognized (Ames, 1974).

Experience Potential--ep. The third index examined was the Experience Potential (ep). The ep is derived from the summation of the frequencies of the two components to the ep: (FM + m) and

(the shading responses-- Y + T + V + C'). Exner (1974) contended that these responses illustrate needs and affects which act on the individual rather than being readily controlled by higher cognitive actions. In other words, they represent actions which are disorganized and work on the individual to provoke responses (Exner, 1974).

A more thorough understanding of the ep is obtained by examining each determinant separately.

1. FM + m. Although uncommon to Rorschach's original test, the scoring of animal movement (FM) has been supported by both logic and literature (Exner, 1974). Systematizers agree that the FM response involves a more primitive operation than an M response and represents a spontaneous, impulsive inner life (Ames, 1974; Exner, 1974). Therefore, a high frequency of FM may be indicative of an individual who is more accustomed to being "ruled" by needs of immediate gain than by longer term goals (Exner, 1974).

Inanimate movement responses (m) represent impulses or fantasies that have been "disowned" or "deemed unacceptable" by the person and thus projected outward (Ames, 1974). Ames (1974) pointed out the essence of the m response in the following:

When many of a person's movement responses are in m, an important part of his fantasy is inaccessible to him for constructive use, even though it may significantly determine his overt behavior. Nevertheless, the m may represent a kind of reservoir of movement potentiality which might be brought to greater realization by changes of inner balance. (p. 63)

Research connected with the m response is rather limited. However, Piotrowski (1937), Hertz (1943), and Klopfer (1954) agreed that the m response reflects thoughts and drives not well integrated into the cognitive framework, thereby weakening the overall stability and organization of the personality. Piotrowski (1937) and Klopfer (1954), postulated that m activity operated

as an irritating force which is disequilibrating. This force apparently reflects the tension and discomfort experienced by the inability to attain a stabilizing relationship with the environment, and, logically, if carried to excess, can be disruptive and disorganized to the overall response patterns of the individual. (Exner, 1974, p. 266).

A significant number of m responses in an individual protocol, therefore, warrants attention for it may represent the impingement of excessive tension, frustration, and/or hostility on the personality integration (Exner, 1974).

## 2. The Shading Determinants: Y + T + V + C'.

a. Y. Exner (1974) summarized the views of several Rorschach systematizers concerning shading responses when he stated:

The diffuse shading answers are probably best interpreted as illustrating a form of psychological "helplessness" and/or withdrawal which may be accompanied by anxiety. These diffuse shading responses provide a hint of paralysis or resignation to stress. They are, like other responses to the grey-black features of the blots, painful affective experiences. (p. 290)

As such, the significance of the Y response is complimentary to that of the color response (Beck, 1945). In other words, Y expresses an absence of creativity.

The use of form in the shading response yields important diagnostic information. Exner (1974) substantiated this claim in the following:

The extent to which form is used in these responses probably conveys some indication of the cognitive coping which occurs in relation to the painful affect. When form is dominant, the experience is controlled and overt responses to it are probably delayed and organized. When form is secondary, or absent, there is a greater tendency for the affect to be expressed more directly as the subject tends to be overwhelmed by it. Some Y, particularly the FY variety, is expected in almost every record as the ambiguities of the blots should provoke some experience of insecurity. (p. 290)

b. T. The texture response (T) is the most common of the shading responses (Exner, 1974). Responses containing a reference to texture generally lead to similar explanations by the proponents of each system. Beck (1945) explained that texture responses relate to the more infantile erotic needs of the individual. Klopfer (1954), who used the symbol "c" for a texture response, added:

As with the other shading responses, the interpretation of "c" responses related to the handling of affectional need and to the basic expectation of affection to be received from the outside world. The presence or absence of texture responses and the degree of differentiation involved (c vs. cF vs. Fc) is believed to relate to the degree of awareness and differentiation of the person's needs for affection and dependency. (pp. 270-271)

Exner (1974, p. 285) maintained that "the texture response is probably best interpreted as indicating needs for affective interpersonal contact."

The presence of form is given important consideration when evaluating the texture response. Exner (1974) reported that both Beck (1945) and Klopfer (1954) agreed that where form is dominant and under the subject's control, the affective need is possibly being used to the subject's advantage. "Conversely," as Exner (1974, p. 284) pointed out, "when the use of form is secondary, or absent in the texture answer, the painful affective experience of the subject, created by an affective deprivation, is much more overwhelming and causes interference with the attempts of the individual to maintain useful and productive interpersonal contacts."

c. V. Vista responses, represented by the symbol V, are created by the grey-black features of the blot and are the least frequently given kind of shading answer (Beck, 1945; Exner, 1974). In contrast with the other shading responses which refer to flat grey areas, the Vista responses include the variations in shading resulting in a three-dimensional effect. However, in addition to the content in the response, the subject's language must give reference to distance, height, depth, or reflection.

Literature suggested that the Vista response can be associated with depressive features and feelings of inferiority. Klopfer (1954) regarded the Vista response as an attempt of the individual to distance himself from his problems and thus view them objectively by "introspective efforts."

d. C'. Rorschach did not include a special scoring for achromatic color, but several Rorschach systematizers considered

it a necessary and important scoring criterion. Klopfer (1938) was the first to devise formal scoring criteria for these kinds of responses and represented them with the symbol C'. Although this type of answer is very uncommon and is identified by the complete absence of form, Klopfer defines the C' response as one in which the grey, black, and white areas are used as color (Exner, 1974).

Rapaport, Piotrowski, and Klopfer agreed that the C' response represents or acts as an index of depressive feelings (Exner, 1974). However, responses of this type are often scored Y by investigators using the Beck system.

## Chapter 3

### METHODOLOGY

#### Subjects

The study included six LD/Non-LD pairs. Subjects were restricted to white males in the latency stage of development (ages 8-0 to 10-11). In addition, all subjects lived in the same geographical region; subject characteristics may reflect this homogeneity. Confidential case records and cumulative files were examined for all subjects. Information obtained included IQ (determined by the Cognitive Abilities Test or Otis-Lennon for Non-LD subjects, and the WISC-R for LD subjects), social-economic status (SES--determined by parental occupation), and birthdate. In no case was a subject selected who did not reside with both parents.

#### Learning Disabled (LD) Subjects

Fifteen LD subjects between the ages of 8-0 and 10-11 were obtained from the files of children who were seen at the Educational Clinic, University of Northern Iowa. These boys, identified for LD services, had been referred to the Educational Clinic partly for this reason. Records were reviewed for IQ scores, birthdates, and family background information. Consequently, unstable home environments, divorces, and testing dates prior to 1980 eliminated five LD subjects.

Routinely, parental consent had been secured prior to receiving services. Parents had also been informed that the Educational



Clinic serves an educational function and that their child's test scores might be used anonymously for research purposes.

### Non-Learning Disabled (Non-LD) Subjects

Non-LD subjects were chosen from two elementary schools. After securing the proper administrative clearances, an examination was made of confidential case records and cumulative files for all boys, ages 8-10 to 10-11, who were members of the regular classroom. Students with diagnostic labels or who were receiving resource educational programming were excluded from the study.

The files of eighty-nine Caucasian boys were examined. After information regarding IQ, birthdate, and parental occupation was obtained, a subset of twenty-four students who most closely matched the LD group on these predetermined variables was selected. In no case was a child selected who differed more than six months in chronological age, or five points in IQ. Subjects were then matched for social class according to parental occupation. From this subset, ten Non-LD subjects were chosen.

### Procedures

Parents of the Non-LD subjects received a written explanation of the research project and were asked if they would grant permission to have their child individually tested for approximately forty minutes with the understanding that results would be coded and names not used. When only three of ten parental consent forms were returned, these letters were followed with a telephone call to answer

any additional questions. Upon receipt of six consent forms, parents were contacted and informed of the date their child would be tested.

Non-LD subjects were individually tested in their schools in rooms relatively free from outside distractions. Prior to testing, each subject was informed that he would be helping the researcher with a special project. The Rorschach was administered by Dr. Ralph Scott following the procedures of the Beck system, modified in part by Ames (1974), a practice routinely employed in the Educational Clinic.

The secretary of the Educational Clinic coded the protocols to insure anonymity and typed only notations concerning overt behaviors and oral responses. Protocols were independently scored by the researcher with the assistance of Dr. Scott following the scoring procedures of Beck, et al. (1961). Scoring methods of Klopfer (1954), Ames (1974), and Exner (1974) were also used for comparative purposes and will be discussed in further detail in the following section.

Six LD/Non-LD pairs matched on age, IQ, and SES were obtained from the initial group of ten LD and eighty-nine Non-LD subjects. Therefore, twelve protocols were used for this investigation. Of these six pairs, one was at 8 years, three were at 9 years, and two were at 10 years. Each pair is designated by a corresponding letter. For example, the 8-year-old pair is A, the 9-year-old pairs are B, C, and D respectively, etc. To distinguish between the

members of each pair, either LD or Non-LD follows the assigned letter in parentheses such as (A-LD) or (A-Non-LD). This scheme of presentation was followed through the remainder of this thesis.

### Scoring Criteria

#### F%

The scoring of F+ and F- in the current study followed the procedures developed by Beck, et al. (1961, pp. 130-207) using statistically determined tables constructed by card, location area, and content. Although both Ames' (1974) and Exner's (1974) tables were also used, differences were minimal. Thus, if a response on the protocol appeared under the appropriate card and location, it was scored either F+ or F- accordingly. If not found, the response was judged as more or less similar to other F+ or F- responses and so scored (Ames, 1974). For example, "jet" was given as a response to Card V. "Jet," as such, did not appear in the list of categories. However, the response "airplane" appeared and incurred an F+ for form quality (Beck, et al., 1961, p. 163). Therefore, "jet" was scored F+. In cases of borderline or vague responses, F<sub>+</sub> was recorded. The response "scorpion," given to D8 of Card X, was scored F<sub>+</sub> since a similar answer did not appear in the table (Exner, 1974).

F% was calculated as total F [(F+) + (F-) + (F<sub>+</sub>)] divided by the total number of responses (R).

A%

The second major index, A%, was calculated by total A responses [(A) + (Ad)] divided by R (Beck, et al., 1961; Exner, 1974). Systematizers agree that animal content responses are scored A and refer to any species other than man including mammals, birds, fish, invertebrates, and insects. All zoological forms, animal carcasses, and animal skins are also scored A. A response that pertains to any external portion of an animal such as a head, foot, claw, etc. and excluding all internal organs, is scored as an animal detail or Ad (Beck, et al., 1961).

ep

The Experience Potential (ep) is the sum of six Rorschach indices (FM + m, and the shading determinants-- Y + T + V + C'). Scoring criteria for each determinant will be discussed individually.

FM + m. This study followed Ames' (1974) procedure of scoring FM. Therefore, a response involving animals in activity which is common to the species, such as "a bird flying," "a fish swimming," or "a deer running" was scored FM (Ames, 1974).

Scoring procedures established by Hertz (1943) and Klopfer (1954), which combine and recognize the importance of form in the m response, were utilized. Therefore, inanimate response such as "a rocket blasting off," "a fire going," and "a volcano erupting" were scored Fm.

Y. Most Rorschach systems have included scoring procedures for shading responses; however, there have been disagreements regarding scoring criteria. This study followed the scoring method adopted by Beck, et al. (1961) which uses the symbol Y to identify shading answers. For example, responses that referred to the light-dark features of the blot such as "smoke" were scored Y. However, when form features were assigned to the shading characteristics, the response was scored either YF, or FY. "Smoke coming out of a spaceship" was scored YF since form was used secondarily for purposes of elaboration. Conversely, "eagle, he has black wings" was scored FY since form was primary to the formation of the response and shading was employed for elaboration.

T. Again, there is a lack of agreement between systems as to the scoring of texture (T) answers. Thus, following the scoring procedures of Beck, et al. (1961), it is possible to score texture responses as T, TF, or FT depending on the presence or absence of form. An example of a texture response in the current study was "two rabbits with fluffy tails" which was scored FT.

V. In all but very few instances, the Vista response appears in the FV form. It is occasionally VF, and very rarely pure V (Beck, 1945). Beck (1945) regards the FV as an indication that the subject is attempting to deal with the disturbance created by the feelings. A VF response, on the other hand, suggests that the individual is involved in an unsuccessful struggle to overcome the disturbance. A pure V response implies that the subject is heavily

oppressed by the feelings. Examples of Vista responses in this study included "rocks under the water" (FV), and "animals being pulled down to an underground cave" (FV).

C'. Responses in this study referring to the achromatic features of the blot were scored C'. The C' response was very uncommon and was identified by the complete absence of form. For example, the response "mud, because mud is that color" to Card X was scored C'.

Ambiguous responses were reconciled and scored accordingly:

1) monster was scored as a Human (H) response, 2) clown was scored as a M+ response as illustrated by Beck, et al. (1961), and three sub-themes within a response were not scored. For example, a response composed of several subthemes such as "sculptures of something--of a cat--of whiskers like hair when he gets mad--and of the U.S.--different shapes and everything" was scored [W FM- statue] (Beck, et al., 1961, p. 74) based on the initially presented theme.

## Chapter 4

## RESULTS

The present study was conducted to determine if the F%, A%, and experience potential (ep) of the Rorschach would discriminate between LD and Non-LD learners. Data were analyzed for each index using the Wilcoxon Matched-Pairs Signed-Ranks Test and results examined for significance. Results for each group are presented in table form by chronological age.

Although the aim of this study was to compare an LD and Non-LD group of latency-age males, it was also to evaluate the Rorschach responses of each child to norm groups of the same ages. Rather than follow the usual procedures of scoring children's records by adult norms, children's norms developed by Ames (1974) and Exner (1978) were used. Both norms tables listed the number of responses one might expect at any given age (R); to what extent color, movement, and shading responses occur; what type of color responses to expect; whether movement is of humans or animals; and to what extent the content of response changes according to age (Ames, 1974). Both norm tables are similar in the locations, determinants, and content that are included, but the manner of presentation differed. For example, Ames' norm table listed percentages, whereas Exner presented a mean and standard deviation for each age group. In other words, Exner listed the mean number of F responses for each age group, but failed to list F%. Therefore, it was necessary to use Ames' norms

when comparing F% and A%, and Exner's norms when comparing ep. Note that ep, which is solely used in Exner's comprehensive scoring system, is represented in the norm tables as (FM + m) and (the sum of all shading-- Y + T + V + C').

Based on the research studies cited, one would expect LD children to score higher on the three selected indices than Non-LD children. Results from the scoring of the twelve Rorschach protocols are presented in Table 1.

Table 1  
F%, A%, ep Indices of LD and Non-LD Subjects

		Rorschach Indices					
		F%		A%		ep	
Age	Subject	LD	Non-LD	LD	Non-LD	LD	Non-LD
8	A	.65	.85	.70	.69	7.0	2.0
9	B	.42	.64	.63	.57	4.0	1.0
	C	1.00	.83	.72	.88	0.0	3.0
	D	.36	.70	.73	.56	6.0	3.0
10	E	.63	.46	.56	.54	3.0	7.0
	F	.21	.47	.46	.43	7.0	12.0

Each determinant is discussed separately. Expectations are presented, matched pairs compared to each other and to either Exner's or Ames' norms, Wilcoxon results discussed, and unexpected response totals examined.



F%

The first determinant examined was the F%. The F% indicates the degree of interplay between cognition and emotion, and represents a form of affective delay or control (Exner, 1974).

Impulsivity and inability to concentrate have been characteristics common to LD children as shown in several research studies (Kagan, 1966; Douglas, 1972; Keogh & Donlon, 1972; Lerner, 1976). Therefore, higher F% scores were expected among the LD children in this study. When compared to Ames' norms (Table 2), two Non-LD subjects (B and D) and one LD subject (E) were within .03 points of the expected F% responses.

Table 2

## Expected F% Responses--Ames' Norms

Age	8	9	10
F%	.58	.67	.63

Although Ames (1974) found F% in children very high as compared to adults, both groups in this study produced unexpected values of F% responses. In the LD group, an extremely low F% of .21 (F-LD) and an extremely high F% of 1.00 (C-LD) were recorded. Though not as noteworthy, low F%'s of .36 (D-LD) and .42 (B-LD), and high F%'s of .83 (C-Non-LD) and .85 (A-Non-LD) were also recorded.

Since F% is the percentage of responses determined solely by form, a high F% simply means that the respondent has made minimal

use of movement, color, and shading in responding to the Rorschach cards (Levitt & Truunmaa, 1972). A low F%, therefore, would have converse meaning.

Researchers offer several interpretations for both high and low F%. The respondent with a high F% may be rigid and inhibited in his thinking (Levitt & Truunmaa, 1972). On the other hand, a low F% may indicate emotions dominate the individual to such a degree that concentration is prevented (Beck, et al., 1961). Exner (1974, p. 256) explains that "an excess of F responses indicated some form of defense and/or constriction, neither of which would be 'conflict free' nor would there necessarily be an absence of affect." Therefore, the F% of a healthy individual represents a form of affective delay or control which allows for attention and concentration and suppresses impulsivity and distractibility.

Results of the Wilcoxon for F% are presented in Table 3.

Table 3

F% Values and Wilcoxon Calculations for LD and Non-LD Males

Age	8	9	9	9	10	10
Subject	A	B	C	D	E	F
LD	.65	.42	1.00	.36	.63	.21
Non-LD	.85	.64	.83	.70	.46	.47
d	-.20	-.22	.17	-.34	.17	-.26
Rank	-3	-4	1.5	-6	1.5	-5

Results of the Wilcoxon ( $W^+ = 3$ ) were not significant at the .05 level. In only two cases were the LD responses higher than the Non-LD responses. F% measures for the LD group ranged from .21 - 1.00. According to Ames' norms, only one boy (E-LD) was at the expected number of .63 responses for his age. Showing less variability, the Non-LD responses on F% ranged from .46 - .85.

### A%

The second determinant examined was A%. Since A% indicates stereotypy of response and is considered a signal reflecting immaturity, one would reason that the LD group would produce more animal responses to the Rorschach cards than the Non-LD group. In the LD group, A% ranged from .46 - .73. Similarly, A% for the Non-LD group ranged from .43 - .88. Overall, most subjects in both groups had a higher A% than Ames' norms (Table 4).

Table 4  
Expected A% Responses--Ames' Norms

Age	8	9	10
A%	.45	.48	.49

Even though the LD group was slightly higher on A% in most cases, a Non-LD boy (C-LD) received the highest number of A% responses. Higher A% reflects the ability to react in a routine and unpredictable manner, although it also illustrates potential for confusion where the stimulus inputs from the environment are

complex and frequently varied (Draguns, et al., 1967). In addition, Beck (1945) and Klopfer (1954) agreed that the excess of animal content is a signal reflecting intellectual limitations or emotional disturbance. Ames (1974) pointed out that roughly 50% of the responses from children are animal (A) or animal detail (Ad) responses, and emphasized that a certain amount of stereotypy is useful in the successful performance of daily tasks, but a lack of this factor results in unpredictable and highly variable behavior.

Results of the Wilcoxon for A% are presented in Table 5.

Table 5

A% Values and Wilcoxon Calculations for LD and Non-LD Males

Age	8	9	9	9	10	10
Subject	A	B	C	D	E	F
LD	.70	.63	.72	.73	.56	.46
Non-LD	.69	.57	.88	.56	.54	.43
d	.01	.06	-.16	.17	.02	.03
Rank	1	4	-5	6	2	3

Although results of the Wilcoxon ( $W^+ = 16$ ) were not significant at the .05 level, five of the six LD subjects had a higher A% than their matched Non-LD mates.

ep

The third Rorschach determinant examined was the experience potential (ep). The ep represents needs and affects that are not readily controlled by the individual's higher cognitive actions. The ep is derived from the summation of (FM + m) and the shading responses (Y + T + V + C'). Since these variables appear with such low frequency, they offer more meaning when collapsed into one single score than when viewed separately (Exner, 1974).

Since LD children are reported to manifest more emotional problems than Non-LD children (Giffin, 1968; Lerner, 1981), one would expect that the LD group would have higher ep scores than Non-LD children.

According to Exner's norm table (1978, pp. 8-9), ep is expressed as two additive components: (FM + m) and (Y + T + V + C'). He lists the mean number of expected responses and standard deviation for each component. Therefore, the LD and Non-LD scores for ep will be presented as two components in Table 6 and Exner's norms will follow in Table 7. Note that an "expected range" is calculated from Exner's mean and standard deviation for each age. In addition, Table 7 will also be referred to when interpreting eb, which is the ratio of the two components:  $FM + m / Y + T + V + C'$ .

Table 6  
 ep Components Scores for LD and Non-LD Males

Age	Subject	LD		Non-LD	
		FM + m	Y + T + V + C'	FM + m	Y + T + V + C'
8	A	5.0	2.0	1.0	1.0
9	B	2.0	2.0	1.0	0.0
9	C	0.0	0.0	3.0	0.0
9	D	6.0	0.0	1.0	2.0
10	E	2.0	1.0	4.0	3.0
10	F	5.0	2.0	8.0	4.0

Table 7  
ep Scores for LD and Non-LD Males

Age	FM + m	Y + T + V + C'
8	M = 2.8 SD = 0.7 Range: 2.1 - 3.5	M = 1.6 SD = 0.7 Range: 0.9 - 2.3
9	M = 3.2 SD = 1.2 Range: 2.0 - 4.4	M = 1.7 SD = 0.8 Range: 0.9 - 2.5
10	M = 3.1 SD = 0.7 Range: 2.4 - 3.8	M = 1.8 SD = 0.8 Range: 1.0 - 2.6

When ep was viewed as one component, (FM + m) and (Y + T + V + C'), there were no subjects within Exner's norms. As a group, more LD boys exceeded Exner's norms in (FM + m) than Non-LD boys. However, the number of shading responses for four LD boys was within the norm ranges. Surprisingly, one boy (C-LD) failed to give any (FM + m) or shading responses. The two ten-year-old boys (E and F -Non-LD) were above Exner's range on both (FM + m) and shading responses. These were unexpected results for the Non-LD group.

Although it would be necessary to consider the ep in relation to other Rorschach indices to make any valid conclusions, a high

ep is a signal that the individual is less likely to be in control of his emotions than the individual with a low ep.

Results of the Wilcoxon for ep are presented in Table 8.

Table 8  
ep or eb Values and Wilcoxon Calculations for  
LD and Non-LD Males

Age	8		9		10	
Subject	A	B	C	D	E	F
LD	7.0	4.0	0.0	6.0	3.0	7.0
Non-LD	2.0	1.0	3.0	3.0	7.0	12.0
d	5.0	3.0	-3.0	3.0	-4.0	-5.0
Rank	5.5	2	-2	2	-4	-5.5

Results of the Wilcoxon ( $W^+ = 9.5$ ) were not significant at the .05 level. There appeared to be no pattern in the number of responses given. Both groups had three high ep's and three low ep's.

While it appears that utilizing three localized variables of the Rorschach did not significantly discriminate between groups of LD and Non-LD boys, this may have been a function of how the design was established. Each pair of subjects was compared on three Rorschach indices: F%, A%, and ep. Results were then analyzed quantitatively on these three determinants with no reference to qualitative features or additional scoring indices.



Just as the present chapter dealt with the presentation and discussion of the quantitative results for both LD and Non-LD groups, the following chapter will look at each pair separately, and then qualitatively examine each student's Rorschach protocol.

## Chapter 5

## DISCUSSION, CONCLUSIONS, AND SUMMARY

Discussion

When the entire protocol of each subject was examined and comparison between groups made, qualitative differences between the LD and Non-LD boys were recognized. For purposes of clarification, norms for R, F%, A%, F+%, EB, and EA are listed in Table 9 (Ames, 1974, pp. 226, 237, 250). Exner's (1978, pp. 8-9) norms were consulted for ep and eb and are listed in Table 7, page 46. (See Appendix for definitions of all indices.)

Table 9

Average R, F%, A%, F+%, EB, and EA--Ames' Norms

Age	8	9	10
Indices:			
R	15.9	18.6	16.3
F%	.58	.67	.63
A%	.45	.48	.49
F+%	.87	.84	.89
EB	1.3/1.8	1.4/2.1	1.7/1.5
EA	3.1	3.5	3.2

Subject pairs are presented according to the identification system established previously in Chapter 3. For each subject age,

IQ, and SES of father and mother has been recorded. This is followed by the Rorschach indices and a brief interpretation of the protocol.

A(LD)

AGE: 8-3  
 IQ: 94  
 SES: Father - Press Operator  
 Mother - Housewife

Rorschach Indices:

R = 23	ep = 7.0	EB = 1/.5
A% = .70	F+% = .40	eb = 5/2
F% = .65	EA = 1.5	

Although this boy's F% is above average for his age, F+% is low, indicating that he tends to be inaccurate in his perceptions of reality. The high A% demonstrates immaturity and a tendency to react in a predictable or routine manner. However, when faced with complex stimuli from the environment, there may be a possibility for confusion. The EB and EA are low, and the eb and ep are high, indicating that emotions are not under the control of higher cognitive actions and may work against him to provoke responses (Exner, 1974). As a result, he may not be able to utilize his potential abilities. Furthermore, a higher number of FM than M responses indicates the potential for "acting out" (Exner, 1974). When viewed with regard to the very limited emotional controls, the possibility of this behavior increases. Based on these results, this boy would be likely to experience learning problems in the classroom.

A(Non-LD)

AGE: 8-0  
 IQ: 99  
 SES: Father - Printer  
 Mother - Registered Nurse

## Rorschach Indices:

R = 13	ep = 2.0	EB = 0
A% = .69	F+% = .82	eb = 1/1
F% = .85	EA = 0	

Although the below-average number of responses and the brief answers that were given limit the usefulness of some of the structural data in this protocol, several determinants provide significant input.

The majority of responses were birds, insects, and animals resulting in an above-average A%. This presents a constricted, somewhat stereotyped pattern of activity (Ames, 1974). The high F% and F+% also suggest rigidity (Levitt & Truuma, 1972) even though this boy is able to perceive things conventionally and realistically. There is little affect displayed in this protocol as a result. No M or C responses were given, indicating a denial of emotional expression. The ep and eb, although depressed for this age, indicate resources not readily available to him that still need to be organized (Exner, 1974).

The brevity and quality of responses led the researcher to question the effort put forth by this boy. If his performance during the test administration was not representative of his true potential, this protocol may be invalid.

B(LD)

AGE: 9-4  
 IQ: 107  
 SES: Father - Systems Planner  
 Mother - International Translator

## Rorschach Indices:

R = 19	ep = 4.0	EB = 5/3
A% = .63	F+% = .38	eb = 2/2
F% = .42	EA = 8.0	

This boy manifests an above-average number of animal content responses, resulting in a high A%. An over-emphasis on A may indicate that emotions are interfering with the learning process (Draguns, et al., 1967). Similarly the low F% and F+% may signify a lack of affective delay or control, or difficulty dealing with emotion or stresses. The EB shows a good balance between M and C, with a greater preference toward inner life as a source for basic gratifications. The high EA and average ep and eb indicate well-organized affective resources. Although this boy has been diagnosed LD, his Rorschach protocol does not show as many LD-associated indicators as records of the other LD boys examined in the present study.

B(Non-LD)

AGE: 9-7  
 IQ: 108  
 SES: Father - Engineer  
 Mother - Hairdresser

## Rorschach Indices:

R = 14	ep = 1.0	EB = 2/2.5
A% = .57	F+% = .44	eb = 1/0
F% = .64	EA = 4.5	

Restraint is suggested here since B(Non-LD) did not give the expected amount of responses for his age group. He may also have

difficulty expressing himself in emotionally charged situations (Exner, 1974). Although he is able to perceive form in the inkblots ( $F\%$  is average),  $F+\%$  is low. His responses, however, tended to be very unique and creative. For example, among the animals used in the responses were an antelope, a baboon, a lizard, and otters. These answers are not listed in any of the tables consulted and thus earned an F-. The researcher, therefore, felt that the low  $F+\%$  should be interpreted qualitatively rather than quantitatively. The EB shows a balance between M and C responses, indicating flexibility (Exner, 1974). In other words, he is able to derive gratification both internally and externally. The EA is above average and ep is low, indicating that this boy has control of his psychological activities.

C(LD)

AGE: 9-0  
 IQ: 92  
 SES: Father - Real Estate  
 Mother - Bank Employee

Rorschach Indices:

R = 18	ep = 0	EB = 0
A% = .72	F+% = .56	eb = 0
F% = 1.00	EA = 0	

The most striking feature of this protocol is the absence of emotion. In addition, the extremely high  $F\%$  ( $F\% = 1.00$ ) suggests that this boy is very rigid and perfectionistic in his ways. A low  $F+\%$ , however, indicates that form accuracy is poor. This boy is basically not dealing with or recognizing emotions as evidenced by no EB, EA, eb, or ep responses. This raises the question of an Emotionally Disabled (ED) rather than an LD placement for this boy.

C(Non-LD)

AGE: 9-2  
 IQ: 97  
 SES: Father - Factory Worker  
 Mother - Reproduction Operator

## Rorschach Indices:

R = 24	ep = 3.0	EB = 0/1
A% = .88	F+% = .45	eb = 3/0
F% = .83	EA = 1.0	

The limited responses and excessive card turning give evidence that this is a very anxious child (Exner, 1974). The below-average number of responses may also indicate that he has difficulty expressing himself in emotionally charged situations (Exner, 1974). Furthermore, the A% is extremely high, reflecting immaturity. The high F% and F+% indicate that emotion may be interfering with concentration (Beck, et al., 1961). The EA and EB are low, suggesting very few organized activities. Although ep is within the average range, it is solely composed of FM and m responses, signaling the possibility of acting-out behaviors (Exner, 1974). Therefore, this boy may show the potential for exhibiting behavior problems in the classroom.

D(LD)

AGE: 9-4  
 IQ: 109  
 SES: Father - Industrial Security  
 Mother - Hairdresser

## Rorschach Indices:

R = 11	ep = 6.0	EB = 1/1.5
A% = .73	F+% = .75	eb = 6/0
F% = .36	EA = 2.5	

The protocol of this boy is dominated by emotion. Even though the number of responses is below average for this age, they are

largely animal in content (high A%) and aggressive in nature. For example, "bats ripping up food," "elephants that have been crushed," "something smashed into rocks, eaten by scavengers," and "Sylvester that has been flattened" were among the thirteen responses given. The EB hints that this boy is more prone to seek gratification from his environment (Exner, 1974). However, the low EA and high ep lead to the conclusion that his resources are not organized and he may not control significant aspects of his psychological activity. The low F%, which indicates lack of affective delay or control, lend support to this speculation. The high frequency of FM responses (6), more than half of the total record, represents an impulsive inner life that desires immediate gratification (Klopfer & Kelly, 1942). The evidence presented led the researcher to conclude that this boy's emotions may interfere with the learning process in the classroom.

D(Non-LD)

AGE: 9-2  
 IQ: 106  
 SES: Father - Journalist  
 Mother - Housewife

Rorschach Indices:

R = 43	ep = 3.0	EB = 0/6
A% = .56	F+% = .46	eb = 1/2
F% = .70	EA = 6.0	

Of the twelve protocols, this boy's was the longest. The forty-three responses given were two and one-half times greater than expected, indicating that this boy is very verbal and expressive. The A% is slightly elevated. Although F% is average for



this age,  $F+\%$  is low, suggesting problems in perceptual accuracy. The EB, EA, and ep indicate organization of his resources; however, the limited reality testing illustrates that these resources are not being used to his best advantage (Exner, 1974). The preponderance of C answers, as represented in the EB, indicate that this boy is more prone to seek gratification in the environment; absence of M responses, however, suggest that he may be subject to rather volatile and impulsive emotional reactions (Exner, 1974). In order to be successful in the classroom, it may be necessary for this boy to develop more inner controls to channel his energies in the appropriate manner.

E(LD)

AGE: 9-11  
 IQ: 118  
 SES: Father - Maintenance Lubrication  
 Mother - Registered Nurse

Rorschach Indices:

R = 27	ep = 3.0	EB = 2/5
A% = .56	$F+\%$ = .47	eb = 2/1
$F\%$ = .63	EA = 7.0	

This boy was more verbal than most of the subjects as shown by his above-average number of responses. The A% is slightly elevated, but within the average range. Although  $F\%$  is average, suggesting an inadequate responsiveness to reality (Exner, 1974),  $F+\%$  is low. It is interesting to note that many of his  $F-$  responses referred to internal organs of the body such as "a heart," "your lungs," "a brain," and "ribs." Other responses throughout the protocol also suggest a preoccupation with body parts. For example, "Bugs Bunny's eyes and mouth," "vampire with wings and two

arms," "a face," "a dragon's head," and "a monster's head" were mentioned. In addition, monsters, vampires, devils, and dragons appeared frequently. The EB includes both M (2) and C (5) responses, but indicate that this boy is more prone toward an affective discharge towards the environment. The two FM responses, which signify a need for immediate gratification, support this assertion. Furthermore, seven responses included reference to the tendency to protect oneself in new situations. The higher EA and average ep, however, reveal that he is in control of his psychological activities. Overall, this protocol represents a boy that may deal largely in fantasy.

E(Non-LD)

AGE: 10-1  
 IQ: 115  
 SES: Father - Engineer  
 Mother - Housewife

Rorschach Indices:

R = 13	ep = 7.0	EB = 1/2
A% = .54	F+% = .67	eb = 4/3
F% = .46	EA = 3.0	

Although this boy did not offer as many responses as most ten-year-olds, his answers were very creative and complex. Space ships, aliens, and Martians were common subjects of his answers. However, many of his themes were destructive in nature. For example, "injured bat with wings ripped up--messed up in a fight," "a space ship on fire," "volcanoes erupting with lava coming out," and "Martians fighting off crabs" were among the responses given. The low F% and F+% reflect the complexity and uniqueness of his responses. Although the EB and EA were within

the normal range, ep and eb were slightly above average. In addition, the occurrence of three FM responses and one m response signify that there is a potential for "acting out" behaviors.

F(LD)

AGE: 9-8  
 IQ: 94  
 SES: Father - Factory Worker  
 Mother - Housewife

Rorschach Indices:

R = 14	ep = 7.0	EB = 7/4.5
A% = .46	F+% = .67	eb = 5/2
F% = .21	EA = 11.5	

This boy reacted with emotion to each stimulus that was presented to him. Even though the number of responses was below average for this age, most expressions carried an emotional component. "Monsters bleeding," "things kicking," "monsters attacking," "dead people falling back," "people fighting," and "the earth cracking" were among the fourteen answers given. However, it must be mentioned that several responses consisted of subthemes that were quite lengthy and were not scored. It is not surprising that F% is extremely low, indicating an absence of interplay between cognition and emotion. In addition, F+% is also low, suggesting a lack of affective delay or control (Rorschach, 1942). Both the M and C components of the EB ratio are above average. Although the high EA reflects a great resource of activity available to him, the high ep represents that there are actions that are not under his psychological control. High ep signifies that emotions may not permit this boy to learn to the best of his potential.

F(Non-LD)

AGE: 10-1  
 IQ: 94  
 SES: Father - Farmer/Realtor  
 Mother - Food Services

## Rorschach Indices:

R = 30	ep = 12.0	EB = 3/8.5
A% = .43	F+% = .92	eb = 8/4
F% = .47	EA = 11.5	

There are many interesting features in this protocol that identify this boy as a ten-year-old with much to offer. He was very verbal and gave almost twice the number of responses obtained with other children of his age. The A% was slightly depressed indicating that he may be more oriented toward intellectual ideation than towards a more simple and conventional activity (Exner, 1974). Although F% is low, F+% is slightly above average, indicating adequate responsiveness to reality (Exner, 1974). This is also a very emotionally dominated protocol. The EB reveals that although he has more internal control than the average child his age, he is more prone toward outward expression. The eb is very high, consisting of several FM and m responses, indicating needs for immediate gratification and some internal turmoil or conflict. In addition, the eb also consisted of two Y, one V, and one C' response, giving evidence of psychological pain and reflecting attempts to restrain his affect (Exner, 1974). The EA and ep are also extremely high, indicating that many resources are not well organized or controlled. Thus, this may be a boy who may not fully use his intellectual resources.

### Conclusions

As mentioned previously, LD and Non-LD protocols were quantitatively compared on three Rorschach indices and no significant differences were observed. However, differences were later discovered upon interpretation of entire protocols. For example, four LD boys (A, D, E, and F) displayed definite signs of emotional factors that might be interfering with the learning process. The two other LD subjects did not exhibit as many of these signs (B), or showed more indications of being emotionally disturbed (E) than LD. In addition, the responses of some Non-LD boys (B and E) appeared to be more creative than the LD boys, thus depressing the F+%. Four Non-LD boys (C, D, E, and F), however, gave evidence for potential learning problems. One Non-LD protocol (A) was considered invalid. Interpreting a protocol quantitatively rather than qualitatively can also lead to different conclusions. For example, one LD subject (C) received an extremely high F% of 1.00. Although it was predicted that LD boys would score higher on F%, it would appear that this was still an unexpected result. When examined qualitatively, it was discovered that this boy could be very rigid and perfectionistic while repressing his emotions. This combination could lead to learning problems in the classroom. Thus, the score itself was not the indicator, but the dynamic interpretation of this score in relation to the entire protocol. This provided the most accurate understanding of the child. It is certainly logical, therefore, to suggest that future research recognize

the importance of considering the total Rorschach protocol as well as specific determinants.

A large sample pool should be considered important in future research studies of this type. The small number of subjects in this study was unavoidable, however, due to the limited LD population served by the Educational Clinic and the unavailability of Non-LD subjects within the same geographic area. In addition, failure to attain parental permission for testing some Non-LD boys restricted the size of the Non-LD group. Matching procedures also eliminated possible subjects. If the researcher would have had access to a larger number of subjects, it is conjectured that more similar matched pairs might have been attained. Therefore, future research studies, in general, might include more extensive explanations of procedures by letter or phone call, not only to parents, but also to administrative officials responsible for granting access to schools and cumulative files. This becomes very important when working with a test as controversial as the Rorschach. Preconceived notions among the public concerning the test are often negative or skeptical.

Limited background information from cumulative school records concerning each Non-LD child may have reduced the adequacy of matching procedures. While it was possible to examine the files of LD boys for family and environmental factors that might have been affecting the child's learning, such information was not included in the Non-LD files. For example, information regarding parental occupation was very broad and incomplete which may have

reduced the accuracy of the matching procedures. Parents could not be contacted for ethical reasons. Thus, future research may need to consider other or additional variables upon which to match subjects.

#### Summary

The present study was intended to determine if three Rorschach indices (F%, A%, and ep) differentiated between matched pairs of LD and Non-LD latency-age males. The chief purpose of this research was to examine the efficacy of employing the Rorschach Inkblot Test as a supplement to the material currently used in the diagnosis of potentially LD children.

An examination was made of the case histories of LD boys who had received services from the Educational Clinic, University of Northern Iowa. Cumulative file data for Non-LD boys were gathered for comparative purposes. Subjects were matched according to age, IQ, and social-economic status. Rorschachs were administered to the Non-LD group and protocols scored. Data were analyzed using the Wilcoxon Matched-Pairs Signed-Ranks Test. No significant differences were obtained. Protocols were also examined qualitatively.

The major conclusions were as follows:

- 1) It is necessary to consider the entire protocol to understand both the quantitative and qualitative implications of the data.

2) A large Rorschach sample pool is important; larger numbers of available subjects may provide more closely matched pairs.

3) It is advisable for researchers to have access to extensive home and school backgrounds of subjects in any study of this nature.



Note: Page 64 was missing from the original print copy

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## APPENDIX

R represents the total number of responses on a Rorschach protocol (Beck, 1961).

A% represents the proportion of whole animal responses (A) and animal detail responses (Ad) to all Rorschach responses (Beck, 1961). A% is negatively related to intelligence, flexibility of thinking and maturity (Levitt & Truuma, 1972). An adult exhibiting a very high A%, therefore, may manifest intellectual limitations, lack of imagination, or a rigid and/or constricted personality (Beck, 1961; Levitt & Truuma, 1972). Ames (1974) contended that A% indicates stereotypy of response.

F% reflects the degree to which the individual responds only to the form determinants, and does not employ such other determinants as movement, color, shading, and the like in responding (Levitt & Truuma, 1972). In addition, F% is the degree to which constriction and inhibition is represented in an individual's life. An individual, of average or higher intelligence with a high F%, generally relies upon repression as his adaptation to life. If inhibitory needs assume a dominant role, they may expand to the point that growth potentials are all but stifled (Volhaus, 1952).

F+% is obtained by dividing the total number of F+ responses by the sum of (F+) + (F-) responses (Beck, 1961). The correlation between F+% and limited intellectual endowment is relatively high (Beck, 1930). In addition, F+% is an indicator of the length of attention span and capacity for concentration (Rorschach, 1942).

EB represents the ratio of human movement (which can, generally, be equated with introversive tendencies) to the weighted sum of the chromatic color responses (which can, generally, be equated with extratensive tendencies) (Exner, 1974). From the EB ratio, it is possible to determine how the individual experiences, but not what he experiences. In addition, it is also possible to determine the strength of introversive feelings from the number of M responses as well as the strength of extratensive features from the number of C responses. In summary, the EB represents, as Exner (1974, p. 311) explained, "an index of style or preference for response and illustrates whether the subject relies more on his inner life, and prefers delays associated with that kind of activity, or whether he is prone towards an affective discharge toward his world."



EA, or Experience Actual, represents the total number of the human movement responses plus the weighted sum of color responses (Exner, 1974). Beck (1961) indicated that the EA reflects the magnitude of the organized activity available to the individual.

ep, the Experience Potential, represents the summation of  $(FM + m)$  and (the shading responses--  $V + T + Y + C'$ ). Unlike the EA, the ep illustrates needs and affects which act on the individual rather than being controlled by the individual's higher cognitive actions (Exner, 1974).

eb represents experience base, a ratio composed of Sum  $(FM + m)$  as contrasted with the Sum of all  $V + T + Y + C'$  responses (Exner, 1974). The ratio was originally suggested by Klopfer (1954) who proposed that  $(FM + m)$  responses reflect introversive tendencies, while the shading responses reflect extratensive tendencies. However, these response tendencies are not fully accepted or available to the subject at the time, and therefore, work on the individual to provoke responses (Klopfer, 1954; Exner, 1974).