8-1986

The Relationship between Learning Disabilities and Juvenile Delinquency in Macomb County Juvenile Court (1983-84)

Rita M. Bologna
Western Michigan University

Follow this and additional works at: http://scholarworks.wmich.edu/dissertations
Part of the Criminology Commons, and the Disability and Equity in Education Commons

Recommended Citation
http://scholarworks.wmich.edu/dissertations/2302

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.
The purpose of this study was to investigate the link between learning disabilities and juvenile delinquency in the Macomb County Juvenile Court System. Because of the presence of several key variables, it was believed that learning disabilities was a unique trait of the detained population.

The population consisted of 517 male and female detained and adjudicated delinquents that were admitted to the facility during the 1983-84 school year. Biographical and crime related data were gathered by hand searches of the legal file. The learning disabled or non-learning-disabled classification resulted from interpretation of the scores on the Peabody Picture Vocabulary Test Revised, the Woodcock-Johnson Psych-Educational Battery, and the Piers-Harris Children's Self-Concept Scale. Five hypotheses were constructed and tested.

A relationship was found between learning disabilities, hyperactivity, and juvenile delinquency. No relationship was established between learning disabilities and the type of programming, type of offense, levels of arrests, and gender of offender. Significant biographical data were reported.
INFORMATION TO USERS

This reproduction was made from a copy of a manuscript sent to us for publication and microfilming. While the most advanced technology has been used to photograph and reproduce this manuscript, the quality of the reproduction is heavily dependent upon the quality of the material submitted. Pages in any manuscript may have indistinct print. In all cases the best available copy has been filmed.

The following explanation of techniques is provided to help clarify notations which may appear on this reproduction.

1. Manuscripts may not always be complete. When it is not possible to obtain missing pages, a note appears to indicate this.

2. When copyrighted materials are removed from the manuscript, a note appears to indicate this.

3. Oversize materials (maps, drawings, and charts) are photographed by sectioning the original, beginning at the upper left hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is also filmed as one exposure and is available, for an additional charge, as a standard 35mm slide or in black and white paper format.*

4. Most photographs reproduce acceptably on positive microfilm or microfiche but lack clarity on xerographic copies made from the microfilm. For an additional charge, all photographs are available in black and white standard 35mm slide format.*

*For more information about black and white slides or enlarged paper reproductions, please contact the Dissertations Customer Services Department.

UMI Dissertation Information Service

University Microfilms International
A Bell & Howell Information Company
300 N. Zeeb Road, Ann Arbor, Michigan 48106

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Bologna, Rita Marie

THE RELATIONSHIP BETWEEN LEARNING DISABILITIES AND JUVENILE DELINQUENCY IN MACOMB COUNTY JUVENILE COURT (1983-84)

Western Michigan University

University Microfilms International 300 N. Zeeb Road, Ann Arbor, MI 48106

Ed.D. 1986

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
ACKNOWLEDGMENTS

I am grateful to Dr. Smidchens, Dr. Cowden, and Dr. Kryszak for their contributions and support while serving on the dissertation committee. A special thanks to Zig and Diana, David Myers, Tanina LaFalce, and Caprice Cleveland for their endless support, encouragement, drive, and guidance in preparation of this dissertation.

Never in my life have I ever been as privileged to know and to learn from such skilled, compassionate instructors.

To my children, Christina and Dominic, I express much love and gratitude for their understanding and patience these past few years. Although very young, they were willing to sacrifice all those hours apart (in sickness and in health), while Mommy was away at school or meetings in order to pursue her lifelong dreams and goals.

It is now my desire to instill the importance of attaining goals and serve as an inspiration to both, so that they too can acquire their own through education . . . you'll see . . . and yes . . . it is worth it! Just remember, "we're gonna make it."

I wish to commend Lee Pakko for her secretarial skills, patience, and ability to read illegible handwriting. She did a remarkable job in keeping the project on schedule.

My sincere thanks to Mr. Robert Fortney, the president, and staff, especially Zig, my partner, at Employers Association of Detroit for allowing me to grow professionally and for creating new challenges in my life and career.
And finally, to my never tiring "very special friend," O. C., who together with Z made suggestions, improvements through their interpretations of the results in the assessments, and through their analysis and insight, made it all happen. I am grateful to both of them every day of my life. For without them, all of the above would have been an impossible dream . . .

Rita M. Bologna

iii

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
# TABLE OF CONTENTS

ACKNOWLEDGMENTS ................................................. ii
LIST OF TABLES ................................................ viii
LIST OF FIGURES ............................................. ix

CHAPTER

I. INTRODUCTION ................................................ 1
   Statement of the Problem .................................... 1
   Need and Significance of the Study ....................... 3
   Limitations of the Study .................................. 5

II. REVIEW OF THE LITERATURE .............................. 7
   Learning Disabilities ....................................... 7
      Background ............................................. 7
      Conceptual Definitions ................................. 8
      Rationale for the Learning Disabled-Juvenile
      Delinquent Link ...................................... 15
   The Case for a Link ....................................... 23
      The Observational Record ............................. 24
      The Quantitative Record ............................. 25
   Case Against the Link ................................... 25
      LD and Causal Explanations in General ............ 26
      Rationales and Existing Evidence ................... 28
      Direct Critique of the Causal Linkage ............ 30
      The Effects of Labeling .............................. 31
      School Dropout and Delinquency ..................... 31
      The Susceptibility Rationale ......................... 33
Table of Contents--Continued

CHAPTER

Classification of Delinquents ................... 33
Personality Characteristics ...................... 36
Sociological Causes of Delinquency ................. 38
Biological Causes of Delinquency ................... 40
Psychological Causes of Delinquency ............... 41
Educational Causes of Delinquency ................. 44
Statement of the Hypotheses ........................ 45

III. DESIGN AND METHODOLOGY ................................ 52

Population of the Study ............................ 52
Description of Instruments .......................... 53
The Peabody Picture Vocabulary Test—Revised . 53
The Woodcock-Johnson Psycho-Educational Battery . 56
Piers-Harris Children's Self-Concept Scale ... 58

Design and Procedure .............................. 60
Method of Analysis ................................. 62
Summary ............................................. 65

IV. FINDINGS AND ANALYSES .......................... 66

Introduction ......................................... 66
General Characteristics of the Population ........ 66

Age .................................................. 67
Sex .................................................. 68
Reason for Admission ................................ 68
Number of Adjudications ............................ 69
Table of Contents—Continued

CHAPTER

Long Term Programming for Youth ................  71
Short Term Programming .......................... 71
Woodcock-Johnson Test Results ................... 73
Piers-Harris Children's Self-Concept Scale ..... 73
Grade Level Status .............................. 74
Hyperactivity or Attention Deficit Disorder .. 75
Felony or Misdemeanor ............................ 75
Type of Offense .................................. 76
Testing of the Hypotheses ......................... 78
Hypothesis 1 ..................................... 78
Hypothesis 2 ..................................... 79
Hypothesis 3 ..................................... 81
Hypothesis 4 ..................................... 82
Hypothesis 5 ..................................... 84
Summary ............................................. 85

V. SUMMARY, CONCLUSIONS, PRACTICAL IMPLICATIONS, AND RECOMMENDATIONS ................................. 87

Discussion of the Nature of the Population ..... 87
Age ............................................... 88
Sex ............................................... 89
Reason for Admission ............................. 89
Number of Adjudications .......................... 90
Long Term and Short Term Programming .......... 91
Woodcock-Johnson ................................ 92

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
# Table of Contents—Continued

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piers-Harris Children's Self-Concept Scale</td>
<td>92</td>
</tr>
<tr>
<td>Grade Level Status</td>
<td>92</td>
</tr>
<tr>
<td>Type of Offense: Felony Versus Misdemeanor</td>
<td>93</td>
</tr>
<tr>
<td>Conclusions Regarding the Hypotheses</td>
<td>93</td>
</tr>
<tr>
<td>The Effect of Learning Disabilities on the Rate of Felony Behavior</td>
<td>94</td>
</tr>
<tr>
<td>Committed by Detained Delinquent Youth</td>
<td>94</td>
</tr>
<tr>
<td>The Effect That Learning Disabilities Have on Higher Arrest and</td>
<td>95</td>
</tr>
<tr>
<td>Adjudication Records of the Detained Delinquents</td>
<td>95</td>
</tr>
<tr>
<td>The Effect of Cognitive and Personality Characteristics (Hyperactivity)</td>
<td>96</td>
</tr>
<tr>
<td>on the Detention Rate of Learning Disabled Youth</td>
<td>96</td>
</tr>
<tr>
<td>The Effect of Learning Disabilities on the Placement of Youth in Long</td>
<td>97</td>
</tr>
<tr>
<td>Term Placement Programs</td>
<td>97</td>
</tr>
<tr>
<td>The Effect of Gender on the Diagnosis of Learning Disabilities and</td>
<td>98</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>98</td>
</tr>
<tr>
<td>Summary and Practical Implications</td>
<td>98</td>
</tr>
<tr>
<td>Recommendations for Future Research</td>
<td>100</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>103</td>
</tr>
<tr>
<td>A. Peabody Picture Test</td>
<td>104</td>
</tr>
<tr>
<td>B. Woodcock-Johnson Test</td>
<td>111</td>
</tr>
<tr>
<td>C. Piers-Harris Self-Concept Scale</td>
<td>124</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>131</td>
</tr>
</tbody>
</table>
LIST OF TABLES

1. Age of Detained Youth ........................................ 67
2. Sex of Juvenile Offender .................................... 68
3. Reason for Admission ........................................ 69
4. Number of Adjudications .................................... 70
5. Long Term Programming ..................................... 72
6. Short Term Programming ...................................... 72
7. Woodcock-Johnson ........................................... 73
8. Piers-Harris .................................................. 74
9. Grade Level Status (PPVT-R): Grade Levels Behind Learning Disabled Youth ........................................ 75
10. Hyperactivity or Attention Deficit Disorders ......... 76
11. Felony or Misdemeanor ...................................... 76
12. Type of Offense ............................................... 77
13. Type of Delinquency Versus Learning Disability ...... 80
14. Number of Adjudications Versus Learning Disability . . 81
15. Hyperactivity Versus Learning Disability ................ 83
16. Long Term Versus Short Term Programming ............. 84
17. Sex Versus Learning Disabled and Non-Learning-Disabled .... 86
# LIST OF FIGURES

1. Causal Chain ............................................... 16
2. Dropout Process ............................................. 18
3. Delinquent Behavior .................................. 19
4. Personality Characteristics ....................... 21
5. Susceptibility Rationale .............................. 22
6. Variables in Delinquency ............................... 27
CHAPTER I

INTRODUCTION

In recent years professionals from both education and criminal justice have tried to establish a link between juvenile delinquency and the learning disabled youth. Ardoff (1972) noted that there is "a degree of correlation between the adjudicated delinquent and reading retardation" (p. 3). Also, Miller and Windhauser (1971) stated that "school failure is more highly correlated with delinquency than is any other concern such as poverty or a broken home" (p. 185).

It is this writer's opinion that education is the most significant stepping stone to future opportunities for all youth. When a youth suffers from a learning disability and cannot function in a "normal" environment, he or she then is faced with frustration and emotional stress. This emotional state can result in more frequent delinquent behavior than normally expected from average intelligent youth. In fact, the director and judges of the Macomb County, Michigan, Juvenile Court in 1984 suggested that on a percentage ratio the disabled youngster exhibits more delinquent behavior than the delinquent with average learning ability.

Statement of the Problem

Due to the lack of research studying the relationship between learning disabled youth and delinquency and types of delinquent acts
committed by delinquents of varying IQs, researchers from both educa-
tion and criminal justice have been unable to develop pragmatic 
rehabilitative programs pursuant to the juvenile delinquent (Lincoln, 
1974).

Studies conducted by Montgomery (1968) and Kvaraceus and Ulrich 
(1959) have indicated that delinquency and its causes are so complex 
and so broad in nature that there is little scientific evidence to 
either prove or disprove the myth of low IQ (learning disabled) and 
delinquency.

Practitioners such as Holte (1971) and Lincoln (1974) indicated 
that they viewed and experienced a relationship between learning 
disabilities and delinquency during their practice as juvenile court 
judges. Holte expressed the relationship in a speech before the 
Ninth Annual International Conference on Children With Learning Dis-
abilities. Lincoln, in the October 1974 issue of *Today's Education--
NEA Journal*, stated the "commonality between learning disabilities 
and delinquency" (p. 53). In fact, Lincoln labeled the years 10-17 
as the desperate years and offers his perception as to that factor 
within the school setting that contributes to high rates of delin-
quency when he asks:

How can I tell a 16-year-old high school dropout who has a 
fourth grade reading skill to keep his nose clean and go 
out and get a job? ... There aren't too many jobs for 
him. You can't rehabilitate a person who's never been 
"habilitated" in the first place. So, our job is to tide 
them over through the desperate years. I don't think 
anyone is ever rehabilitated, people just get old. (p. 53)

Lincoln's (1974) frustration was certainly justified when one 
considers the scarcity of research into causal factors of
The practitioners have one factor in common: They have been influenced by the symptoms of the overt learning difficulties. They believe that a change in rehabilitative techniques for the learning disabled will result in downward trend in delinquency. However, these factors, in view of the scarcity of the data, demand research into the field in that data will offer a beginning as to how rehabilitative action may be applied to reduce delinquency.

Therefore, this writer will investigate the link between learning disabilities and juvenile delinquency as it exists in Macomb County, Michigan. The leaders of that court suggest that data are available and that a careful analysis of the problem is needed in order to design more effective treatment modalities for this select sample of the overall delinquency population. Macomb County has a population of 750,000 people representative of a varied socioeconomic climate.

Need and Significance of the Study

Murray (1976) referred to learning disabilities (LD) as a relatively young term created in 1963 to label a variety of dysfunctions which appear to prevent otherwise normal children from learning at the expected level. The term achieved widespread usage by 1970, in that 43 states adopted official definitions of LD and made provisions for funding diagnostic and remedial programs for the treatment of these said children.
While there existed a major concern for the cause of educational failure, a second avenue of interest was developed by observing the delinquent population and the fact that a disproportionate segment of the delinquent population seemed to be slow in their learning process. One characteristic that appeared to occur in many of the files of the Macomb County Juvenile Court was poor school performance, which was prevalent in most of the histories of the delinquent children.

The growing interest in LD as a cause of delinquency has coincided with the rapidly increasing concern about delinquency itself. In the last 15 years, delinquency has not just kept pace with the general increase in crime, but has outstripped it. The increases have been most dramatic among the most serious type of offenses occurring in society, that is, the felony type of offenses such as assault and battery, murder, homicide, and severe theft situations. A few summary statistics help to convey the magnitude of the changes and magnitude of the existing problems:

1. "Youth arrests for all crimes rose 138% during the 15 years from 1960 through 1974, while arrest of people 18 years of age and over were increasing by only 16%" (Federal Bureau of Investigation, 1975, p. 182).

2. "Youth arrests for the four violent index crimes—murder, rape, robbery, and aggravated assault—rose 254% during those 15 years, more than twice the adult percentage increase" (Federal Bureau of Investigation, 1975, p. 182).
3. "These increases in serious offenses far outstrip increases in the youth population. The youth population age 9 through 17 increased only about 27% during the same period" (Census Report 1960 and 1970 from the Statistical Abstract of the United States, p. 36).

4. "In 1974, the problem had grown to the point that there were almost 1.7 million arrests of youth under 18, more than 80% of them for offenses which would be crimes if committed by an adult" (Federal Bureau of Investigation, 1975, p. 186).

It should be further noted that in the Juvenile Justice and Delinquency Prevention Act of 1974 (p. 1), it was stated that juveniles account for almost half the arrests for serious crime in the United States today.

With the above facts and the information cited from the Federal Bureau of Investigation, it can now become clear why there needs to be a study and some research conducted to see if there exists a probable link between juvenile delinquency and learning disabilities. The intent of this dissertation was to study the existing literature and analyze the link between learning disabilities and juvenile delinquency. Further, hypotheses were tested which tend to either support or not support some of the major findings already existing in the field of study relating to juvenile crime and its causes.

Limitations of the Study

The writer recognizes the fact that the type of study suggested in this dissertation has certain limitations. The most obvious limitation is the fact that the data are already on file in the
juvenile court records and that the information must be sorted and interpreted on a nonbiased basis. Ideally, a longitudinal and a cross-sectional study should be conducted of delinquents upon their admission to the youth home and compared to a control group of subjects. However, due to the fact that data already exist and that standardized questionnaires and information had been gathered for the year 1983-84, this writer will attempt to analyze those data and find either support or nonsupport for the existence of the link between learning disabilities and juvenile delinquency after careful review of the existing literature.

Another obvious limitation is that the population of delinquents in Macomb County Juvenile Court may not match that population in other counties throughout the United States. However, it should be noted that Macomb County Juvenile Court is representative of the typical juvenile court in the state of Michigan. Due to these limitations, this author will attempt to make an accurate study of the existing situation in Macomb County and then make recommendations for other studies in the concluding chapter of this dissertation.
CHAPTER II

REVIEW OF THE LITERATURE

The intent of this chapter is to review literature pertinent to the link between learning disabilities and juvenile delinquent behavior. The review of the literature is divided into the following areas: learning disabilities, background and definition, the rationale for the learning disabilities and juvenile delinquency link, the case against the learning disabilities and juvenile delinquency link, sociological causes, biological causes, psychological causes, and educational causes of delinquency. The review is extensive and includes all the above causes that either support or not support the suggested link.

Learning Disabilities

Background

In the early 1960s the term learning disabilities came into existence. The term was proposed by Samuel Kirk, an educator, who intended the term to be used as a label (Murray, 1976). The label served as a convenient way of referring to a variety of learning problems which apparently were not caused by low intelligence, emotional disturbance, physical handicaps, or incompetent teachers. As a label, it was not originally meant to have diagnostic utility. Despite its lack of specificity the phrase had other potential
utilities which rapidly increased its popularity. It was a way to identify children who were suffering from lack of the ability to learn.

The term learning disabilities has grown considerably since 1960. In 1964, a society was formed which was called The Association for Children With Learning Disabilities (ACLD). Since then, states have adopted suggested definitions of learning disability, terms which have come forth from the ACLD. To this day, seminars and conferences held by academicians are routinely scheduled to discuss the problem of the learning disabled. It is from these conferences and from these professionals that the definition of learning disabilities will come forth in this dissertation.

Conceptual Definitions

One of the first definitions entertained for this study was offered by the National Advisory Committee on Handicapped Children. The definition is as follows:

Children with special learning disabilities exhibit a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written languages. These may be manifested in disorders of listening, thinking, talking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, and so forth. They do not include learning problems which are due primarily to visual, hearing, or motor handicaps, to mental retardation, emotional disturbance, or to environmental disadvantage. (Hobbs, 1975, pp. 301-302)

For all practical purposes, this definition is generally accepted by the ACLD. Some states have adopted modified versions of
this overall theme, but none of them have strayed from it since the criteria for receiving federal funds for programs in learning disabilities are based on this definition (Vaughn & Hodges, 1973). However, this researcher believes that observed behaviors are probably the best way of introducing the subject of learning disabilities and to actually describe not how it is defined, but how it appears to parents, teachers, and professionals. Therefore, the definition will be broken up into particular areas that will lead to a sense of establishing a criteria to choose from when attempting to define the term learning disability. The criteria are as follows: symptoms and types, causes, and diagnosis.

Symptoms and Types

One of the more common symptoms associated with learning disabilities is the lack of language skill on the part of the youngster. Common problems are: (a) cannot distinguish "d" from "b," (b) mixes letters, (c) unable to process spoken language at a normal speed, (d) cannot remember spoken instructions after first few words are spoken, (e) inability to distinguish close sound gradations, and (f) inability to associate letters with a corresponding visual symbol.

A youngster may lose track of spoken instructions after the first few words, and thereby do part of a task precisely as told and then completely ignore the rest of it. Other symptoms that suggest an impairment of language functions include: an inability to distinguish between close sound gradations (dip for tip), or inability to associate letters with a corresponding visual symbol, or inability to
reproduce rhythm sequences by tapping them with a finger (Murray, 1976, pp. 12-13).

Language is not the only context which leads to a diagnosis of an LD condition. A child who is otherwise bright and motivated may show inability to differentiate left from right, up from down, or front from behind. Or he or she may be unable to process perceptions of speed and weight so that when the ball is thrown to him or her, he or she is never ready to catch it; or when he or she shuts a door, he or she slams it unintentionally. He or she may misperceive distance when he or she tries to hang his or her coat on a hook; he or she misses by a few inches.

A common characteristic of the learning disabled child is that he or she exhibits more than one type of disorder. He or she reverses letters and is clumsy and has a short attention span. Or the disorder may be interactive, involving more than one sense. He or she can read in a quiet room; he or she cannot read when any sounds are within his or her hearing. The multiple-disorder, multiple-modality characteristic raises questions about the utility of subdividing the disorders at all; and not surprisingly, it has resulted in variations of terminology. But out of these variations, three diagnostic terms have gained widest usage: dyslexia, aphasia, and hyperkinesis, each of which is outlined briefly below.

Dyslexia: The best known learning disability, dyslexia, usually implies reading problems: "word blindness," as it was originally called. Dyslexia embraces a variety of problems in visual processing of language. In its extreme forms, it can produce nearly total inability to absorb meaning from written symbols, even though the victim of it may be able to understand spoken information with normal or
above normal intelligence. Overlapping terminology includes specific reading disability, primary reading retardation, strephosymbolia, and dysembolia. (Murray, 1976, p. 13)

**Aphasia:** Aphasia is a broader term than dyslexia and encompasses language processing difficulties which can also be called dyslexic. But the basic distinction is that aphasia deals with auditory and speech deficits in addition to some visual ones. The symptoms mentioned earlier involving nonsense syllables and inability to understand spoken language at normal speed are aphasia problems. Again, the range of severity is great, from being unable to vocalize an occasional word to an inability to use language comprehensibly. Overlapping terms for aphasia are congenital auditory imperception, congenital aphasia, and developmental language disability. (Murray, 1976, pp. 13–14)

**Hyperkinesis:** The word "hyperkinesis" is widely familiar to nonspecialists often as a synonym for hyperactivity, but it is not as commonly assumed to be a learning disability. Its core meaning is abnormally excessive muscular movement, ranging from the large muscles that move legs to the very small ones that move eyes. Note that hyperkinesis is not synonymous with hyperactivity. The problem of the hyperactive child can be wholly emotional and psychological in origin. The hyperkinetic child is thought to have problems which will eventually be traceable to neurological origins. The distinction can be a fine one, as in so many of the etiological issues surrounding LD. Obviously, too, mild cases of hyperkinesis blend easily into the normally frenetic behaviors of children. But genuine hyperkinesis can have an unequivocally disabling impact on learning. When it is literally impossible for a child to remain attentive for more than a minute at a time, he is going to experience extreme difficulty in absorbing information as it is ordinarily communicated in the classroom. In addition to a short attention span, hyperkinesis can be characterized by symptoms of impulsiveness, irritability, social awkwardness, and clumsiness. (Murray, 1976, p. 14)

These brief and, it should be emphasized, technically imprecise outlines are intended to convey the nature of LD and its principal types. A theme which may already be apparent is that the "legitimacy" of a symptom is related to the degree to which it appears to
have organic origins. The discussion now turns to this issue: the causes of learning disabilities.

Causes

According to Murray (1976), very little is known about the causes of LD. So little that one motivation for using the phrase "learning disabilities" is that it is free of implications about causes. Other terminology does have etiological implications. Children who are called learning disabled are also widely labeled as "brain-injured," or as suffering from "minimal brain dysfunction." But whatever this terminology is applied, the objection can be raised that no medical techniques currently available can determine the location or nature of the brain damage for many types of "brain-damaged" children. The question asked: If the neurological base is only inferred, why insist on incorporating it into the label? "Learning disabilities" is to this extent a matter of word substitution for other terms.

Nonetheless, organic cause remains the most economical explanation for many LD symptoms. Perhaps the simplest way to put it is that the behavior patterns which lead to diagnoses of these disorders are ones which look as if they result from an organic base. If an otherwise bright, cooperative child of appropriate age cannot do things like copy a simple geometric shape, there are few plausible explanations except some sort of neurological impairment.

The more ultimate question of what causes the impairment is even less well-informed. Genetics may play a role. Several consultants
noted that the parents (particularly fathers) of a learning disabled child would sometimes say that "I didn't worry about it for a while, because I was just like him when I was a boy," and these consultants speculated that systematic research would reveal family histories of LD. Another cause is prenatal brain damage to the fetus, perhaps from nutritional, physical, or drug related sources. Still another possible source of impairment is nutritional deficiencies in infancy and early childhood, or side effects of food additives. Finally, extreme degradation of the physical environment—the very high levels of air and noise pollution and crowding in urban slums, for example, were raised as an explanation worth investigating. But at present, all these are essentially hypotheses. Prevention of LD by working with causes is not yet a feasible option.

**Diagnosis**

Murray (1976) stated that in their most severe forms, many symptoms of LD can be dramatic and unambiguous. But in the mild and moderate case, any one manifestation of a learning disability can be confused with a variety of other conditions. This is best illustrated by returning to a few of the LD symptoms which were listed earlier. When, for example, a child has a short attention span he or she may be suffering from the type of LD with the generic label of hyperkinesis. But he or she may also be a "nervous" child for any number of environmental reasons, or he or she may be reacting to a history of frustrations in school, the teaching materials may be boring, or he or she may simply be immature. Some first graders are
6-1/2 years old, some are 5-1/2 years old, and the extra year makes a difference. The example of the child who goes to hang his or her coat on the hook and misses is another illustration of the ambiguity. He or she may, indeed, have a perceptual disorder which prevents him or her from moving his or her arm in accordance with visual information about distance; but he or she may, instead, need glasses. And he or she may miss the hook because he or she does not particularly care whether the coat gets hung up.

The obvious question raised by this ambiguity is whether the LD youngster can be diagnosed accurately.

Murray (1976) suggested that if a skilled diagnostician is in charge, it can be diagnosed. By determining patterns of behavior, combining the results of a variety of tests, and running these data through the mind of an experienced observer of LD children, a learning disability can be distinguished from general retardation, emotional disturbance, and (in nonclinical language) ordinary contrariness or laziness.

**Definition**

The preceding section has clearly demonstrated the many facets that must be considered when attempting to define the learning disabled. It is essential to avoid a "kitchen sink" definition of the term which would make it so broad in application that it would be impossible to measure in terms of a controlled variable.

Therefore, this writer has accepted the definition put forth by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) Act.
(cited in Wepman, Cruickshank, Deutsch, Morency, & Strother, 1975) which is: "those children of any age who demonstrate a substantial deficiency in a particular aspect of academic achievement because of perceptual or perceptual motor handicaps, regardless of contributing factors" (p. 306). Operationally the OJJDP includes as learning disabilities the perceptual-motor handicaps which are often labeled as dyslexia, aphasia, or hyperkinesis, and which meet these diagnostic criteria:

1. The diagnosis should be based on evidence which cannot as easily be interpreted as a manifestation of mental retardation, physical handicap, emotional disturbance, or environmental disadvantage. This does not mean that each individual indicator must be unambiguous, but that the diagnosis should be based on triangulated measures which permit a pattern that is inconsistent with the alternative explanations.

2. The diagnosis should be accomplished by evidence that a discrepancy exists between achievement and expectation. For example, that a child may be demonstrated to occasionally reverse letters does not constitute a learning disability if the child is reading and writing at the level expected of that age and intelligence. (Wepman et al., 1975, p. 306-307)

This definition is thought to be inclusive, valid, and controllable in the formation of hypotheses in this study.

Rationale for the Learning Disabled–Juvenile Delinquent Link

To the average lay person it is not obvious that learning disabilities are related to the causes of delinquency. However, Murray (1976) published a national report which was prepared for the OJJDP which clearly suggested that there is a link between learning disabilities and juvenile delinquency and that link is a chain of
causative factors. In his report, the diagram shown in Figure 1 was offered.

![Diagram of a causal chain]

**Figure 1. Causal Chain.**


Murray (1976) referred to this diagram as a causal chain. The causal chain is based on two hypothetical sequences.

The first sequence links learning disabilities to school failure, to dropout, and to delinquency. Berman (1975) most graphically described this sequence in the following passage:

The cycle begins with early problems at home. The child was showing perceptual and attention problems even prior to school, but the behavior was written off as "ornery" or "uncooperative" personality. The child enters the early grades of school already accustomed to the fact that he won't be able to do things as well as expected of him, that he will fail and be humiliated continually. This prophecy is fulfilled in school as teachers, considering the child "a behavior problem," punish and ridicule him for failures or for behaviors that he cannot control. The child begins to think of himself as a loser, as someone who can never hope to live up to what people expect of him.

Rather than face the embarrassment of continual failure in front of friends and teachers, the behavioral signs become even more pronounced. Clowning around and general
disruptiveness become the ways which best insulate this youngster from having to face continual and repeated failure. He becomes much more successful as a clown or troublemaker than he ever could be as a student.

Teachers now are completely diverted away from any learning problems and concentrate solely on how to deal with the child's behavior. He gets further and further behind, becomes more and more of a problem. Eventually he's suspended, drops out or is thrown out of school to roam the streets, and the inevitable road to delinquency is well under way. The original problems have never been dealt with; the child is thought of as incorrigible. His problems are seen as psychogenic, not as the result of deflated self-esteem and fears of inadequacy, all of which have been generated by disability. His prophecy of himself as a loser has been fulfilled. (Berman, 1975, pp. 45-56)

Murray (1976) stated that the rationale refers to three immediate effects on the learning disability (or set of disabilities): adults perceive the child as being a disciplinary problem; the child is inherently handicapped in achieving academically (apart from the effects of the self-fulfilling prophecy that Berman, 1975, mentions); and his peers perceive him as socially awkward and generally unattractive except as an object of ridicule. Diagrammatically, Murray's (1976) suggestion is shown in Figure 2.

It is useful to further elaborate on the mechanism which is thought to be involved in the process leading to dropout; namely, the labeling process, whereby a student who has a prior record or who is a behavior problem (or both) tends to be labeled as a problem student. Perhaps he or she is informally labeled; perhaps he or she is grouped in classes with other problem students. As a result of labeling, it is argued, the child's negative self-image is reinforced by adults as well as by his or her peers; and further, he or she is thrown into contact with other "problem" children, many of whom are
likely to be considered problems because they are hostile to school and prone to engage in delinquency. The result is to encourage the LD child to be socialized by the children who are most likely to drop out or to become delinquent. According to Berman (1975), and illustrated by Murray (1976), the school rationale looks roughly like the diagram in Figure 3.

Finally, it is important to specify the mechanisms hypothesized to produce delinquent behavior. These are least often made explicit, since the contribution of dropout to delinquency is often taken for granted. There appear to be two main mechanisms for that linkage. First, the dropout simply has more time on his or her hands. Elliott
One or more types of LD

Adults perceive as disciplinary problem

Poor academic achievement

Labeled and grouped with other problem students

Associates with peers who are hostile to school and prone to delinquency

School dropout, suspension

Delinquent behavior

Other children perceive as socially awkward, unattractive

Figure 3. Delinquent Behavior.

and Voss (1974) stated that "'idle hands are the devil's workshop' has been translated into a simple scientific proposition" (p. 110). A second motive could plausibly be inferred from the dropout's lack of marketable skills—committing thefts is the most available way of making a living. And a separate sequence is added, which does not depend on dropout or school failure: the fact of continual failure itself is hypothesized to produce needs for compensation, which in turn increases the reinforcement value of acts which defy authority.

Murray (1976) clearly demonstrated his rationale as shown in Figure 4.

Murray (1976) put forth a second line of argument linking LD and delinquency. In effect, this rationale—call it the susceptibility rationale—argues that certain types and combinations of LD are accomplished by a variety of socially troublesome personality characteristics. These go beyond the physical and social awkwardness which was discussed earlier. General impulsiveness is one of these characteristics; many LD children are said to be quicker than normal children to act on a sudden whim. Closely related to this is an apparent poor ability to learn from experience. The LD child is often said to have more than usual difficulty in accepting (or absorbing) the probability that if an act was accomplished by unpleasant consequences the last time, it will be accompanied by them this time, too. The third commonly discussed characteristic which fits into this rationale is poor reception of social cues. Peters (1974) stated that the child "does not appreciate the 'weight' of what is said or the 'toughness' of social danger signs" (p. 2). The child can back himself or
One or more types of LD

Adults perceive as disciplinary problem

Labeled and grouped with other problem students

Poor academic achievement

Other children perceive as socially awkward, unattractive

Negative self-image

Associates with peers who are hostile to school and prone to delinquency

Increased need for compensating successes

School dropout, absenteeism, suspension

Psychological incentives to commit delinquent acts

Opportunities for delinquent behavior

Economic incentives to commit crimes

Figure 4. Personality Characteristics.

herself into a confrontation without knowing how he or she got there.

Murray (1976) suggested that characteristics like these point to a child who is said to be less than ordinarily sensitive to the usual social sanctions and rewards. The problem is not initially callousness or street toughness on the part of the child. He or she might, on the contrary, be extremely receptive to rewards and sanctions. But the messages do not get through in quite the way they were intended, with the result that some of the factors which might restrain a normal child from committing a delinquent act might not restrain the LD child. The susceptibility rationale for linking LD to delinquency is, then, just that: a causal chain suggesting that the LD child starts out with a strike against him when exposed to opportunities for committing delinquent acts. The basic steps are recapitulated in Murray’s (1976) diagram as shown in Figure 5.

![Susceptibility Rationale Diagram]

Figure 5. Susceptibility Rationale.
According to Murray (1976), the two chains of reasoning summarized in Figure 5 capture the major arguments used to link LD with delinquency. The ultimate test of the arguments is simple—at least in theory. If the link exists, a population of learning disabled children will show higher rates of "delinquency" (however defined) than a matched set of children who are not learning disabled. But such a test has not been conducted; and one is not likely to be completed in the near future. There are a number of very difficult obstacles. A major one is time: to test whether LD causes delinquency. It is (among other things) essential to know that the LD exists prior to the delinquency. This implies the need to identify samples of LD and "normal" children at an early age, and to follow them through adolescence—the kind of longitudinal study that is so badly needed in so many aspects of the efforts to understand and prevent delinquency. Lacking that, the evidence for and against the LD/JD link must take other forms. In the remainder of this section, an attempt is made to describe the overall state of the evidence.

The Case for a Link

With rare exception, the impetus for discussing LD as a cause of delinquency has originated not among the academic specialists on either delinquency or LD, but among practitioners: counselors for schools and juvenile courts, staff in correctional facilities for juveniles, and clinical psychologists who work with disturbed youth.

Murray (1976) stated that "the evidence which the proponents offer in support of the LD/JD link takes two forms: the
observational evidence of these professionals who work with delin­
quents, and some quantitative studies" (p. 29).

The Observational Record

Murray (1976) suggested that of the two types, the observational
data are at the same time less systematic and more persuasive. In
effect, the counselors, correctional staff members, and psychologists
that were interviewed suggest that the sequences of events outlined
are correct. The children they see in the course of their work are
in the process of being labeled as problem children; they are expe­
riencing school failures and contemporaneously committing delinquent
acts; they are showing up in juvenile courts just following dropout
from school. Murray (1976) also stated that

practitioners report that their client youth give self­
reports of "reasons why" which fit the rationales: chil­
dren who say that their sets of friends have changed be­
cause they are isolated by academic and social failure; who
say they are dropping out of school because of failures;
and who convey their sense of getting even with their
school failures by committing delinquent acts. (p. 29)

Another source of information to support the causal argument is
the analysis of school records. Compton (1974) argued that analysis
of records of learning disabled children reveals that "in a generali­
zation of all of these patterns, (grades) two through six, there are
at least two significant items common to all—a sudden drop in
achievement coupled with truancy" (pp. 50-51). The report was based
on preliminary results, and detailed analysis of these patterns is
not available; but there is clearly a potential means of investiga­
tion through school records of this sort.
The Quantitative Record

Murray (1976) stated:

If it is true that many experienced, perceptive observers report that the phenomena supporting an LD/JD Link characterize large groups of delinquents, it is also that these phenomena are rare. This is not a new observation. In response to it, several studies of the LD/JD Link have been conducted which purport to demonstrate that, statistically, an unusually high proportion of delinquents are learning disabled. And the claims are increasing in speeches, at conferences, and in the press that these studies are proof of the LD/JD Link; accusations are heard that the relationship is being "studied to death" rather than being made the target of practical programs. (p. 31)

It should be noted or stated that most research is weak due to use of very small samples. The studies do generally support the notion that delinquents in institutions suffer widely from learning handicaps, ranging from retardation to ocular problems to emotional disturbance to perceptual-motor problems.

Case Against the Link

The review of the literature suggests that the proponents and opponents of the LD/JD link tended to break along practitioner/academic lines. According to Murray (1976), this is not entirely accurate:

Many of the practitioners hold teaching positions or perhaps conduct some research; many of the academicians work with youth in clinic and correctional facilities. But as a rule, it can be said that none of the leading proponents of the relationship come from an academic background; and the academic consultants who specialize in delinquency were unanimously skeptical that a significant causal relationship exists. (p. 33)
Their skepticism was based on two types of objectives; the general state of causal explanations for delinquency, and some more specific existing evidence which casts doubt on some of the causal links between LD and delinquency.

LD and Causal Explanations in General

Murray (1976) stated that:

The single point of consensus was that the rationales for the Link between LD and delinquency comprise one very small segment of a very large causal map. The diagrammed relationships shown in the following School Failure rationale, for example, (see Figure 6) are nested within a series of larger causal networks. LD is only one of many causes of school failure; school failure is only one of the many ways in which the school experience might cause delinquency; and the school is only one of many settings in which delinquency is thought to be nurtured. A parallel illustration could be drawn about the Susceptibility rationale: LD is only one of many sources of the psychological attributes said to increase susceptibility to delinquency; this set of attributes is only one of many psychological configurations which can conduce to delinquency; and psychological attributes are only one of many factors which contribute to delinquent behavior. (pp. 33-34)

According to Murray (1976), these other factors, it was frequently emphasized, are of major documented importance. Given what is already known about the importance of poverty, the broken home, social disadvantage, cultural alienation, emotional disorders, socialization by delinquent peers, or any of a number of other variables, the argument that LD is a primary cause of a major part of the delinquency problem is extremely dubious on its face.

In Murray's report it was suggested that to get around this objection, the proponents of the LD/JD link are driven toward one of two alternatives. The first is to argue that LD can be a critical
School failure as a cause of delinquency

All causes of delinquency—
e.g., family-related,
Economic, social, cultural,
Psychological, school-related, etc.

School related
causes of delinquency

School failure as a cause of delinquency

LD as a cause of school failure

Figure 6. Variables in Delinquency.
catalyst of delinquent behavior, interacting with other potential causes. The second alternative is to argue that the socioeconomic factors which are said to cause delinquency actually cause LD, which in turn causes the delinquency. Either alternative produces the same question: How much of the variance can be attributed to the causal influence of the LD? Or less formally, to what extent are LD and delinquency symptoms of the same disease? Even if it is assumed for the sake of argument that (for example) preschool environmental disadvantages can cause genuine LD, and that LD can increase the likelihood of delinquency, it is also an odds-on bet that the same home is having many other delirious effects on the child. So, it was asked, even if the child is treated for his learning disability, how much difference will it make?

In the Murray (1976) report, arguments were common among the specialists on delinquency, cutting across theoretical schools of thought. It reduced to a single theme: the notion that a significant proportion of delinquent behavior can be causally explained by a single variable, LD, goes against the grain of the scholarship on delinquency. One of the few things known for sure about delinquency is that its causes are multivariate and complex.

Rationales and Existing Evidence

In general, the many explanations for delinquency and their supporting data do not either contradict or confirm the causal logic linking LD with delinquency. They simply do not intersect. But
there are aspects of delinquency research which are relevant. They are summarized below for each of the rationales.

**The School Failure Rationale**

Most specialists in delinquency must keep in touch with educational developments as well; similarly, most specialists in the education of exceptional children deal with issues relating to delinquents and predelinquents. So nearly all of the consultants, whether they came from a delinquency or education specialty, had things to say about the school-delinquency relationship. Among the consultants were, however, some who had dealt directly with that relationship in their work. Among the delinquency experts were such noted theorists as Elliott and Voss (1974), Kvaraceus (1969), Kvaraceus and Ulrich (1959), and Polk and Schafer (1972). Among the learning and education specialists who had also done work specifically on delinquency were Rabinovitch and Ingram (1962) and Silberberg and Silberberg (1971). Their points of view helped to mold this researcher's understanding of the school failure rationale and the link to exceptional children.

**The Association Between School Failure and Delinquency**

On one point underlying the school failure rationale, there was no argument: Delinquents characteristically do have poor school records. This relationship was one of the first to be documented in the study of delinquency and it has been observed repeatedly. A recent example, by no means the most dramatic one, is the finding in
the Philadelphia cohort study that more than half (54.6%) of the delinquent boys were below average in school achievement, compared to only 27.4% of the nondelinquent boys (Wolfgang, Figlio, & Sellin, 1972, p. 63). The association between poor school performance and delinquency was not disputed by any of the consultants. But there was no consensus on the strength of the causal relationship.

**Direct Critique of the Causal Linkage**

Critchley (1968) analyzed the records of 371 institutionalized delinquent boys. The interpretation of his findings is obscured by his inclusion of dyslexic boys with the much larger sample of reading retarded, and his findings are by no means definitive. But he did appear to stay well within his data when he concluded as follows:

> In the past, many have speculated upon a causal connection between reading retardation, truancy, and delinquency . . . but few people have attempted an investigation of this linkage. The present attempt . . . including (I) examination of the aetiology of reading disability as seen among delinquents, (II) review of the emotional and scholastic background of the retarded readers and comparison of their background with that of other delinquents not retarded in reading, (III) scrutiny of the life-history of the more intelligent of the retarded readers to trace the relationship between early schooling, disruptive events and behavioral disorders, did not reveal the manner whereby a dyslexic child may drift into delinquency (p. 1546)

With this exception, the studies which directly address the LD/JD link have concluded that their data supported its existence. Criticism of the language comes from more indirect sources.
The Effects of Labeling

An important part of the school failure logic is that LD children are mistakenly "labeled" as slow learners or behavior problems, which sets up a destructive cycle whereby the child does, in fact, become a behavior problem or a failure in school.

In addition, and according to Murray (1976), consultants in the field were convinced that labeling's causal role is substantial and proven: Children do tend to become what they are told they are. The more powerful the labeling ritual (e.g., the process of becoming an adjudicated delinquent), the more powerful the effects. Within the school, being labeled "dumb" by peers or a "slow learner" by adults might produce less dramatic immediate effects than labeled "delinquent," but it does escalate the frustration which can motivate delinquent behavior. By the same logic, being labeled "LD" can have its own debilitating effects on a child's development. Some consultants criticized the labels as being artificial and harmful props of our educational system, and stress the need for fundamental reform. Others adopted a more limited stance, criticizing inaccurate labeling rather than the process itself, or criticizing failure to follow up the label with remedial programs.

School Dropout and Delinquency

Proponents of LD's causal role repeatedly portray dropout as a key event bridging LD and delinquency, and it would appear to be one of the most obvious, least arguable links in the chain. But there is
increasing doubt that the "obvious" causal role of dropout actually exists. A recent and major longitudinal study of dropout and delinquency (Elliott & Voss, 1974) raises serious doubts about the extent to which dropout contributes to delinquency. Elliott and Voss, like others before them, found that dropouts have much higher rates of official and self-reported delinquency than nondropouts. But the longitudinal analysis reveals that the highest rates occurred prior to dropping out of school. Once they were no longer in school, "the findings based on the two measures of delinquency (police records and self-reported delinquency) are consistent—there is decreasing involvement in delinquency after dropout" (Elliott & Voss, 1974, p. 119). This is not a decisive criticism of the school failure rationale—the essential event is school failure; dropout is only one alternative route to subsequent delinquency. But this can be viewed in light of the additional finding that "educationally handicapped" dropouts had only slightly, nonsignificantly higher mean delinquency rates than "intellectually capable" dropouts (Elliott & Voss, 1974, p. 115). Put conservatively, these findings, using a large, multischool sample and what appears to be a carefully executed methodology, are at least not supportive of arguments of the disability-failure-delinquency chain as a dominant source of delinquency.

Much the same conclusion could serve as a summary about the relationship of the existing theory and data to the school failure rationale: They are not supportive of a major role for LD as a cause of school failure leading then to delinquency; neither do they eliminate the possibility the LD plays this major role.
The Susceptibility Rationale

According to Murray (1976), consultants who deal with LD children emphasized how ordinary these children are in general personality, when the disabilities are mild. The milder the disability, the more the LD child is indistinguishable from his non-LD peers. And by the same logic, the milder the disability, the less likely that it is a cause of subsequent delinquency. But many of those who argue for a closer look at the LD/JD link did so out of observation of a personality type characteristic of the severely learning disabled child who has reached early adolescence without diagnosis or treatment. A constellation of personality traits is said to be at work: impulsiveness, poor receptivity of social cues, and poor ability to learn from experience (see Figure 5).

Classification of Delinquents

According to Murray (1976), one source of information on this issue is the result of personality classification programs which have been applied operationally by juvenile corrections services. The most widely used of these is the "Interpersonal Maturity Level Classification" system first developed in the 1950s and since expanded and applied in California, New York, and many other states. The system defines seven successive stages of interpersonal maturity, ranging from the level of a newborn infant to that of a socially mature adult. For all practical purposes, Levels 2 through 4 have been found to include almost all juvenile delinquents who have under-
gone the classification process. A total of nine delinquent subtypes have been defined within those three levels.

Which of these levels include the severely disabled child who is characterized in the susceptibility rationale? According to Murray (1976), two were proposed. One was the "I-2" level, applied to a child whose interpersonal standing and behavior are integrated in ways that conceive and react to others primarily as "givers" or "withholders." He or she has no conception of interpersonal refinement beyond this. He or she is unable to explain, understand, or predict the behavior or reactions of others. The child is not interested in things outside himself or herself except as a source of supply. He or she behaves impulsively, unaware of the effects of this behavior on others. Since the child is a simple perceiver, "a receiver of life's impact," and has difficulty understanding structure, he or she has many problems in school, and typically needs small classes and specially trained teachers (Warren, 1966). According to Warren (1966), who was one of the leading figures in the development of the system, extensive classification experience in California and New York indicates that only about 5% of all delinquents fall in the "I-2" classification.

A second level in which LD delinquents tend to cluster was argued to be "immature conformist." This child may generally be described as immature, dependent, extremely eager for social approval, and with low self-esteem. About 26% of juvenile delinquents in New York are classified as "I-3 cfm." Referring specifically to institutionalized delinquents, Hursch (1976) estimated that "I-3
cfm's constitute half to two-thirds of the intake for Colorado.

Neither of these groups should be seen as learning disabled by another name. It is argued simply that those delinquents who are severely LD tend to cluster within them. The problem is estimating the proportions. Warren (who disclaimed expertise in LD per se) speculated that most LD would fall in "I-2." And on a more general level, her experience with classification results of the interpersonal maturity system and other systems left her very skeptical that LD can explain much of the variance in delinquency.

Another view was posed by Hursch (1976). In her experience, the "I-3 cfm" group contains the bulk of the LD delinquents; specifically, "the 'low' end, in the interpersonal sense, are my 'large preschoolers.' . . . The extreme high end of the group usually, like the 'I-4's,' are not LD (while those in the law end almost all are either retarded or LD)" (p. 44). She described the relevant symptoms as follows:

The most important area of difficulty usually is language. They have auditory reception problems (difficulty distinguishing the stimuli to which they are trying to attend from the background noise), sequencing, memory span, discrimination, etc., poor inner language to use in thinking, difficulty retrieving words and facts they obviously know, plus small vocabularies and confused grammar" (Hursch, 1976, p. 47).

Whether the results of the experiences in classifying delinquents are inconsistent with the logic of the susceptibility chain depends very much on the assumptions which are chosen. If the subset of LD children within the "I-2" and "I-3 cfm" levels is assumed to be large, a nontrivial overall proportion of LD delinquents can be
inferred. If the subset is assumed to be small, some very modest overall proportion of LD "susceptible" delinquents is implied. In either case, however, it appears most reasonable to assume that a clear minority of the total delinquent population is involved.

Personality Characteristics

Quay & Werry (1972) approached the topic of delinquent personality from a quantitative and behavioral perspective asking this question: Can the deviant behaviors of children and adolescents be grouped into a few basic syndromes that are (a) internally consistent (if a child exhibits Behaviors A, B, and C, chances are high that he or she will also exhibit Behavior D), (b) independent (mixes of behavior across syndromes are limited), (c) replicable (the same patterns are found to occur across a variety of youth populations), (d) valid (the same patterns persist across measurement procedures), and (e) inclusive (the syndromes effectively encompass the universe of deviant behaviors in children). His synthesis of the literature and several studies of his own lead him to the conclusion that these conditions can be met by use of only four syndromes, labeled "conduct disorder," "personality disorder," "immaturity," and "socialized delinquency."

The relevance of this to the LD/JD issue parallels the relevance of the interpersonal maturity system: One of the syndromes—immaturity—roughly corresponds to the personality characteristics which are often ascribed to severely disabled children. Among the most common behavior traits in the immaturity subgroup have been
preoccupation, short attention span, and clumsiness; in the life histories of children in this classification, key characteristics cited by Quay and Werry (1972) are truancy from home and inability to cope with the complex world. Again, it must be emphasized that the immaturity syndrome does not coincide with the characteristics of the severely learning disabled; it is an imperfect superset which plausibly encompasses most of the severely LD children, plus many others who exhibit correlate personality traits without suffering from the learning disability. Quay and Werry's (1972) summary is worth quoting at length:

Although the third major pattern (immaturity) has not been as pervasive and prominent as the previous two patterns, it has nevertheless appeared in a number of studies. . . . As with conduct and personality disorder, immaturity has been found in samples of children and adolescent studies in public schools, child guidance clinics, and institutions for the delinquent. . . . With the notable exception of a study of emotionally disturbed children in special classes, . . . it is generally less prominent than either conduct disorder or personality disorder. . . . Since most of the behaviors (in the immaturity pattern) seem appropriate to all children at some state in their development, this pattern seems to represent a persistence of these behaviors when they are inappropriate to the chronological age of the child and society's expectations of him. At the same time, regression to an earlier form of behavior could also be involved. Again, this pattern occurs in all settings where deviant children are found. It seems especially prominent in public school classes for the emotionally disturbed . . . and the learning disabled. (p. 311)

The point to emphasize is that the set of delinquents characterized by the behavior of the "immaturity" pattern has constantly accounted for a smaller proportion of delinquents than any of the other three patterns; presumably, the severely LD are only a portion of even that population. Quay and Werry's (1972) impromptu estimate .
of the proportion of the delinquents who were learning disabled in the sense of "a clearly demonstrable perceptual or integrative disorder" was very small—less than 1%.

In addition to the LD/JD link, many theorists propose that the sociological, biological, psychological, and educational causes of delinquency be studied.

Sociological Causes of Delinquency

Many researchers suggest that delinquency is caused by a societal imbalance and is most prevalent in large, poverty-stricken cities. Subcultures form their own values and act out in the preferred style in order to survive. Religion, group life, attitudes, education, occupation, and values come into play.

Theorists that will be reviewed are: Short (1968) and Rubenfield (1965).

Short (1968) has stated that:

Society frequently assumes that the motivating tendencies involved in the development of the attitudes and behavior patterns of the delinquent are of a very different character from those imputed to individuals whose conduct is in accordance with the laws of conventional society. (p. 83)

However, Short (1968) pointed out that:

There is a considerable amount of evidence to substantiate the assumption that the wishes and desires underlying the delinquent boy's participation in the unlawful practices of his group are essentially not unlike those of members of groups whose activities meet with conventional social approval. (p. 99)

The premise here is that each group will reflect the values of their immediate culture, thus giving explanation as to why those who
feel rejected by the larger society may become delinquent although
the process of learning values is the same for both the delinquent or
nondelinquent groups.

To ascribe to Short's (1968) theory is to believe that delin­
quent behavior is learned, as persons not trained in delinquency do
not invent delinquent behavior. Delinquency is learned from inter­
action with other people. In fact, the principle portion of learning
is accomplished by interaction with personal groups.

In summary, a person becomes delinquent when his primary group
is in favor of law violations as opposed to primary groups which are
in favor of abiding by the law.

Rubenfield (1965) discussed the containment theory:

Delinquency is behavior that violates norms and/or laws,
and that violative behavior is contained by sets of forces,
one inside the individual, the other environmental. The
nondelinquent individual is constructed in such a way that
he resists temptations to break the law and is inclined to
seek his satisfaction within it. His environment controls
him, through police power and other punishing agents, and
he is supported and shaped in a conforming direction by the
values, goals and practices of others to whom he is loyal.
The delinquent is not a failure in one or the other control
systems, but a combination of circumstances both outer and
inner, the delinquent is pushed by his lack of restraint
and his interest in illegal activity and pulled by his
social world into inventing deviant ways of obtaining
various important satisfactions. (p. 49)

The main characteristic of this theory is the emphasis of the
delinquent culture on group autonomy or intolerance of restraint
except from the informal pressures from within the group. Phillipson
(1971) discussed delinquency as "being related to being without
values, or norms from the point of view of lack of opportunity to
achieve cultural values because of the underlying social
Thus, delinquency is caused because of socially induced deviation which the cultural and the social organization conjoined to produce. In other words, without access to achievement there is no establishment of goals to work toward.

In summary, sociological factors do come into play when one attempts to explain the ramifications of delinquency.

Biological Causes of Delinquency

Many researchers report the relationship between physical health and physical wholeness as it affects the development of the personality. Theorists such as Goring (1913), Lombrosco (1911), Kretchmer (1925), and Hooten (1939) will be discussed.

Goring (1913) stated that "criminals have a physically inferior physique to that of non-criminals" (p. 23). His studies also attributed criminal behavior to mental deficiencies.

In 1911, Lombrosco stated that there are "physical types and physical determinism in crime and that one can tell from the physical features of the person ... ears, eyes, etc., whether he is criminal or will become a criminal" (p. 101).

Kretchmer (1925) introduced the terms "Pyknic, Asthenic and Dysplastic in describing the body types" (p. 39) resulting from constitutional factors that many, under certain conditions, lead the individual to engage in certain forms of unlawful conduct.

Hootens (1939) stipulated that certain physical characteristics emerged with greater frequency among the prison population than among
his so-called "normal sample"; for example, "sloping and low foreheads, high and narrow nasal roots and a marked overbite" (p. 44). He attributed criminal behavior to a form of biological inferiority. The biological theories are far more numerous than those listed. For the sake of brevity only the more prevalent and accepted theories are offered. The dates indicate that the research was conducted early in the 20th century when the study of delinquency was just beginning to surface.

Psychological Causes of Delinquency

The psychological approach to crime and delinquency fundamentally conceives of criminal acts as being caused due to emotional and psychological problems. This writer has highlighted the works of Glueck and Glueck (1968), Friedlander (1956), Redl and Wineman (1962), and Johnson (1949).

Glueck and Glueck (1968) concerned themselves with the difference between the personalities of delinquents and nondelinquents. From their research and investigations, Glueck and Glueck drew the following conclusions:

1. Delinquents are more extroverted, vivacious, impulsive, and less self-controlled than the nondelinquents.

2. Delinquents are less concerned about meeting conventional expectations and are more ambivalent toward or far less submissive to authority. They are, as a group, more socially assertive.

3. To a greater extent than the control group, the delinquents expressed feelings of not being recognized or appreciated.
Friedlander (1956) stated that the psychoanalytic school has taught that all children come into the world with impulses and instincts "that are not adjusted to life in society" (p. 61). In fact, children are born "potentially delinquent, meaning that if a child could realize the demands of his instincts the child would behave as a delinquent" (p. 64).

The psychoanalytic school maintains that every child is "born with feelings of insecurity that give rise to tension and fear. Unless the feelings of insecurity can be relieved, tension will accumulate and psychological pressure will build up within the individual" (p. 33). This pressure may be discharged temporarily by aggression or avoided by escape into fantasy, or the pressure may be alleviated by socializing bonds with the child's parents resulting in the formation of conscience. Conscience repels and dissuades psychic tension from breaking out into aggression. When psychic tension does break out into aggression, the conscience will determine the limit and direction of the individual's behavior in terms of that which the conscience deems least wrong.

Redl and Wineman (1962) stated that the delinquent personality differs from the nondelinquent in the intensity of psychic tension, the extent and direction of resistance, and in the frequency with which psychic tension tries the bonds of conscience. Redl and Wineman have described delinquency as a "function of a disturbed ego; the ego in the delinquent is determined to defend gratification at any cost" (p. 22). The task of the delinquent ego is to get away with antisocial behavior in an "effort to secure guilt-free and
anxiety-free enjoyment of delinquent impulsiveness" (p. 101). The delinquent youth tend to incorporate into their behavior ideals which support delinquent behavior. Perhaps an example of a difference between delinquent youth and normal youth is that "delinquent youth use anti-social examples to construct their own self-image while normal youngsters use imaginary play" (p. 40).

Johnson (1949) indicated that the cause of delinquency may be either psychological or sociological and that particularly for treatment purposes the two should not be confused. She called the psychological delinquent "the individual delinquent" and held to the thesis that "anti-social acting out in a child is unconsciously fostered and sanctioned by the parents who vicariously achieve gratification of their own poorly integrated forbidden impulses through a child's acting out" (p. 41). In turn, the child's behavior stimulates the parents to added need for this gratification. The reactions of the well integrated parent direct the development of the child's super ego. This transmission is a subtle conscious and unconscious matter wherein the identification with the parent consists of more than incorporation of the manifest behavior of the parent, but of necessity, "involves inclusion of the parents' conscious and unconscious image of the child" (p. 37). The child internalizes not only the positive socially consistent attitudes of the parent but also the frequently unrepessed, ambivalent antisocial feelings. Thus, the child is used as a mode of expression for parental impulses and is the recipient of a hostile destructive drive in the parent.
Through this sort of etiology Johnson (1949) explained why one child in a family may be delinquent and no other child in the family is delinquent. She indicated that the delinquent child has been unconsciously "selected as the family scapegoat and acts out the parents' wish to behave in an anti-social manner" (p. 45). In essence, Johnson's theory explained why a child from a good home or one from a high socioeconomic home may become delinquent.

Educational Causes of Delinquency

When this writer attempted to correlate the educational process to the causes of delinquency, the lack of research was evident. To be more specific, many major theorists avoided the role of education by simply stating that there was a relationship, but that it was too large and complex of a task to measure.

One significant study concerning school performance and delinquency was conducted by Benning (1971). Benning took teacher grades in:

- English,
- Science,
- Mathematics, and
- Social Studies,

as well as scores from the Sequential Test of Educational Progress (S.T.E.P.) for reading and compared the scores between children who became delinquent and children who did not become delinquent.

Reviewing the records of third and sixth grade students in 1961 and 1962, then reviewing grades for the same two groups of students five years later when the students would have been in grades eight and eleven, the delinquent boys had a significantly lower mean in obtained grades than did the non-delinquent boys. (p. 63)

Benning (1971) did not find "a significant difference in grades and S.T.E.P. scores between delinquent and non-delinquent girls"
Benning's study was in apparent agreement with previous work of Glueck and Glueck (1968), who found that delinquents "are definitely more retarded educationally than were nondelinquents" (p. 310).

Where Glueck and Glueck (1968) differ from Benning (1971) was in the attempt to identify causes of educational retardation. They maintain that the delinquent's educational retardation was apparent "even at the age at which they entered the first grade" (p. 46).

A partial answer to explain the early age retardation, according to Glueck and Glueck (1968), was found "by the greater moving about that the delinquents did with their families; by their placement in foster homes following the disruption of the parental home; and by commitments to correctional institutions" (p. 153). Glueck and Glueck further stated that "although the delinquent showed less ability than the non-delinquent in reading and arithmetic, the differences between them were not as great as has been generally supposed" (p. 153).

While pointing out incidence of educational retardation among delinquents, Glueck and Glueck (1968) did reiterate their position that "maladaptation at school by the delinquent was a symptom of delinquency rather than a major causative factor; the disease of delinquency is gotten in the development of an emotional disturbance prior to school entry" (p. 49).

Statement of the Hypotheses

The preceding review of the literature constituted the theoretical foundation of this study. Many research questions could have
been offered as a result of the review of the literature. It goes without saying, that the study could have been a monumental task in design and implementation. However, due to the input of the practitioners this study was designed to answer the following basic research questions which were of paramount importance to the practitioners.

1. Is there a measurable link between learning disabilities and juvenile delinquency?

2. If there is a link, is there a particular style of behavior exhibited by the juvenile offender?

3. Does an offender's self-concept reflect the seriousness of his or her delinquent behavior?

4. Is hyperactivity a causal factor?

5. Does the learning disabled youngster require special programming?

6. Are learning disabled youth arrested more frequently than non-learning-disabled youth?

7. What are the prior arrest records of learning disabled youngsters?

8. Are learning disabled youth treated equal to non-learning-disabled youth? Is programming equal?

9. What is the frequency of status offenses among learning disabled youth?

Five hypotheses were constructed to attempt to answer the relevant questions of the practitioners and to add to the scarce bank of research data which structured the causal link between learning
disabilities and juvenile delinquency.

While nine major research questions were put forth by the practitioners and also reinforced by the review of literature, five hypotheses were formed. Hypothesis 1 relates to Research Question 2. Hypothesis 2 relates to Research Questions 1, 6, and 7. Hypothesis 3 relates to Research Questions 3, 4, and 5. Hypothesis 4 relates to Research Question 8, and Hypothesis 5 encompasses the presence of a particular gender in all nine research questions.

Hypothesis 1: Detained delinquents with learning disabilities demonstrate higher rates of felony offenses than non-learning-disabled detained delinquents.

In 1974, the FBI reported in the Public Law Journal (93-415) that there was a 254% increase in juvenile crime reflecting the four violent index crimes of rape, robbery, assault, and murder, twice the percentage increase in adults. Elliott and Voss (1974) stated that committing thefts and victimizing others are the most available means of making a living for the dropout delinquent plagued with school problems. Furthermore, the fact of continual failure is hypothesized to produce needs for compensation, which in turn increases the reinforcement value of acts which defy people and authority.

Based on the above theoretical views it was hypothesized that a link did in fact exist between felony behavior and the learning disabled youth suffering from the ramifications of learning disabilities.

Hypothesis 2: Detained delinquents with learning disabilities demonstrate higher levels of adjudications and arrests than non-learning-disabled delinquents (recidivism).
The rationale for the hypothesis stemmed from Lincoln's (1974) comments that police tend to pick up and arrest learning disabled adolescents disproportionately because of the tendency of the learning disabled youth to be awkward and abrasive in communication and behavior.

As stated in the review of literature, Murray (1976) stated that the learning disabled delinquent is perceived by adults and authority figures as being a disciplinary problem; the youngster is handicapped academically; and peers perceive him or her as socially awkward, uncommunicative, and generally unattractive, along with being the object of ridicule.

The susceptibility rationale offered by Murray (1976) in Figure 5 stated that certain types and combinations of learning disabilities are accomplished by a variety of socially troublesome personality characteristics. These go beyond physical and social awkwardness and, in fact, lead the learning disabled youth into confrontation without the youth knowing how he or she got there. The youth, according to Peters (1974), suffers from a poor perception of social cues.

In summary, Murray (1976) stated that if the link exists, a population of learning disabled youths will show higher rates of delinquency than a matched set of youth who are not learning disabled. Therefore, Hypothesis 2 was constructed.

Hypothesis 3: Children with learning disabilities possess certain cognitive and personality characteristics which make them more susceptible to delinquent behavior. Therefore, LD youngsters
are often diagnosed as hyperactive at a higher rate than non-learning disabled youth.

A common characteristic of the learning disabled youngster is that he or she exhibits more than one type of disorder. He or she reverses letters and is clumsy and has a short attention span. Or the disorder may be interactive, involving more than one sense. He or she cannot read in a quiet room; he or she cannot read when sounds are within the hearing range. The multiple-disorder, multiple-modality characteristic raises questions about the utility of subdividing the disorders at all; and not surprisingly, it has resulted in variations of terminology. But out of these variations, three diagnostic terms have gained widest usage: dyslexia, aphasia, and hyperkinesis.

In addition, the practitioners of Macomb County Juvenile Court have retained the services of a physician to examine and treat the unusually high number of hyperactive children who are detained. Robin (1984), the treating physician, when interviewed, clearly expressed the belief that there is a relationship between learning disabilities, delinquency, and hyperactivity. Review of her Youth Home records indicate that as many as 75% of the learning disabled delinquents have been diagnosed as hyperactive. Murray (1976) substantiated this claim by his review of the literature and also an examination of previous studies investigating the link. Wacker (1974) clearly stated that an effective means of preventing delinquency was the early identification and treatment of hyperactive children.
Based on the above studies and the practitioners' point of view, Hypothesis 3 was formulated.

Hypothesis 4: Detained learning disabled delinquents are committed to long-term residential detention center programs at a higher rate than non-learning-disabled detained delinquents.

The rationale for Hypothesis 4 came directly from the practitioner's point of view in Macomb County Juvenile Court. As endorsers of this study, the practitioners wanted a method or rationale to use when designing future treatment programs for Macomb County. This hypothesis was based on their years of treating juveniles and the experiences they encountered. Their input in the formation of the hypothesis was purely practical experience.

Hypothesis 5: Gender is not an issue in the diagnosis of learning disabilities or hyperactivity among delinquents.

The review of literature suggests strongly that the male is the dominant gender in the juvenile justice system. In order to compare this study's impact on the other court jurisdictions across the country, this researcher felt it necessary to establish and test common characteristics found among previous studies attempting to establish the LD/JD link.

The practitioners in Macomb County were also interested in these data for their future planning efforts. The design of buildings and the training of staff became significant at this point.

A directional hypothesis was constructed to investigate the possibility that gender was not as critical an issue as the literature and practitioners indicated.
This researcher has formulated and studied the above five hypotheses because of their extreme importance to the previous literature attempts to research the link between learning disabilities and juvenile delinquency. Many more hypotheses could have been constructed but time and money were critical to this researcher.

The major conclusions of this study were to investigate the causal link between learning disabilities and juvenile delinquency. It is believed that the five hypotheses provide sufficient data and insight into future studies of the link. Furthermore, each hypothesis is based on solid practical experience and/or previous research literature.
CHAPTER III

DESIGN AND METHODOLOGY

This chapter describes research design and methodology utilized in this study. Included are descriptions of the population, the instruments, the design and procedures, and the methods of analysis.

Population of the Study

The target population of this study was the entire group of youngsters that were adjudicated and detained in the Macomb County Juvenile Court and Youth Home for the year 1983-84. The total population was 517 youths. Of the 517 youths, 20 comprised a pilot group and were included in the total study. Both males and females were included in the study.

The nature or characteristics of the detained youngster reflected the socioeconomic class level of Macomb County. Most youngsters were Caucasian, middle-class citizens. Macomb County is a northeastern suburban area of Detroit. Macomb County does not suffer from inner-city blight or economically deprived climates. The average age of the offender was 14.9 years. Eighty-five percent of all the youngsters were between the ages of 14 and 16 years of age.

Macomb County has a population of 750,000 people that are above average of the modern day suburbanite class. Therefore, this study does not address the inner city delinquent gang-culture, nor does it
reflect the socioeconomic level of welfare recipients or the "down and out" cultures of the metropolitan areas of the United States.

Description of Instruments

Three instruments were used for data collection. The instruments are commercially prepared and were purchased, selected, and administered by the special education staff of the Youth Home. The instruments were: the Peabody Picture Vocabulary Test (Appendix A), the Woodcock-Johnson Psycho-Educational Battery (Appendix B), and the Piers-Harris Children's Self-Concept Scale (Appendix C). All instruments are listed in Buros's (1978) The Eighth Mental Measurements Yearbook and are considered to be valid and reliable.

All youngsters who are admitted to the Youth Home are administered the Peabody Picture Vocabulary Test, which allows the educational staff to design an individualized educational program. Two hundred and sixty youngsters were administered the Woodcock-Johnson and all 517 were administered the Piers-Harris. Individual discussion of each instrument is offered below.

The Peabody Picture Vocabulary Test—Revised (PPVT-R)

The PPVT-R is designed for the following reasons: (a) to provide a quick estimate of verbal ability or scholastic aptitude, (b) to screen for mental retardation and giftedness, (c) to evaluate pupils referred for remedial educational services, (d) to complement other ability and achievement tests as part of a comprehensive battery, and (e) to assess the English hearing vocabulary of non-English
speaking students. According to the Buros's (1978) *Mental Measurement Yearbook*, the PPVT-R was designed as a measure of receptive language and has replaced the original test published in 1959. The test consists of two forms (L and M), which allows a verbal or nonverbal response, is individually administered, and is untimed. Examiners are asked to indicate which four pictures presented on a carousel-mounted plate correspond to a stimulus word read aloud by the examiner.

According to Buros (1978), several writers, including the publishers, have investigated the psychometric properties of the PPVT-R and its comparability to other tests. The test manual reports respectable internal consistency (.61 to .88) and alternative form reliability values (.71 to .91) from the standardization sample.

According to Buros (1978), results from several independently conducted studies reported in the literature reveal alternate form reliability coefficients within the moderate to high range for standard scores. Also, when alternate form equivalency is examined by comparing means, Form M typically produces slightly higher standard score equivalents than does Form L. Generally, comparison studies support the publisher's contention of equivalency of forms.

When PPVT-R standard scores are compared to PPVT IQs, WISC-R IQs, and Stanford-Binet IQs, the mean PPVT-R scores have been significantly lower. However, results from two studies indicate comparable mean standard scores between the PPVT-R and McCarthy Scales of Children's Abilities. Correlations ranging from .16 to .78 have been obtained from studies examining the relationship between the PPVT-R...
standard score equivalents and various "g factor" scores such as Wechsler Full Scale IQs, Stanford-Binet IQs, and McCarthy Scales of Children's Abilities GCIs; correlation coefficients ranging from .40 to .60, however, are more common. The modest coefficients of determination emerging from these correlations suggest limited shared variance; thus PPVT-R scores should not be interpreted as intelligence test scores (Buros, 1978).

No predictive validity (or long-term temporal stability) data are available. The educational utility of the PPVT-R will depend in part upon the establishment of respectable predictive validity values.

In summary, the PPVT-R, like its predecessor, is an attractive, easy to use test of receptive language. The administration format is convenient; no special training or equipment is needed to administer or score the test. Psychometric characteristics appear adequate to excellent.

As stated earlier, each youngster was administered the PPVT-R upon admission. If the youngster was tested as 2 or more years behind his peer group, the youngster would be labeled learning disabled, according to the definition offered in the review of the literature.

Practitioners selected this instrument over others because of the "fairness" of the instrument. Anyone who could hear the words and see the picture could be tested. No reading or writing is required and a simple yes or no response is acceptable.
The Woodcock-Johnson Psycho-Educational Battery (WJ)

According to Buros (1978), the Woodcock-Johnson Psycho-Educational Battery is a significant entry into the market of individually administered cognitive and achievement tests. It is a complex instrument with many facets. It is also a wide range tool designed for use with persons from age 3 to age 80. The Woodcock-Johnson has several commendable features. It is the first major individual instrument, which includes measure of cognitive ability, academic achievement, and scholastic interest, to be standardized on the same norming sample. Hence when making eligibility decisions for placement in learning disabilities programs, the uncontrolled variance associated with comparing a child's performances on separately normed cognitive and achievement scales is nonexistent. Another positive feature of the Woodcock-Johnson is the creativity of the test developers which is reflected in the cognitive subtests. Included with the traditional measure of cognitive behavior (e.g., picture vocabulary, repeating digits backward) are innovative subtests such as Analysis and Synthesis, Concept Formation, and Visual-Auditory Learning. What makes these subtests especially attractive is that they break with the tradition of Binet and Wechsler style intelligence test items. These subtests are miniature learning tasks. This researcher considers the inclusion of learning tasks as appropriate direction for future developers of intelligence tests.
Reliability

Data provided in the technical manual indicate that the scales and subtests are generally quite reliable. The median reliability coefficient for the Broad Cognitive Scale is .97, with a range of .96 to .98 across age levels. The median reliabilities for the cognitive clusters are: Verbal, .90; Reasoning, .87; Perceptual Speed, .70; and Memory, .85. Of the four cognitive clusters only the Perceptual Speed Cluster is somewhat suspect in regard to reliability (Buros, 1978).

Validity

The validity data included in Development and Standardization of the Woodcock-Johnson Psycho-Educational Battery are much more comprehensive than most technical manuals for current measures of cognitive and academic abilities. In this sense the technical manual for the Woodcock-Johnson should serve as a model for future test developers.

Criterion-related validity studies are reported for "normal" children and adults as well as for special populations (e.g., mentally retarded learning disabled, and learning/behavior disordered). Impressive concurrent validity coefficients for the Tests of Cognitive Ability, Reading, Mathematics, Written Language, and Knowledge Clusters in conjunction with appropriate anchor tests are presented in the technical manual (Buros, 1978).

The Woodcock-Johnson was administered to 260 detained youth. Because of the comprehensiveness and time to administer the
instrument, 25 youngsters a month were selected for testing. They were chosen randomly as time permitted. The testing led to the classification of 166 or 63.8% of the population as learning disabled.

**Piers-Harris Children's Self-Concept Scale**

According to Buros (1978), the Piers-Harris Self-Concept Scale (PHSCS) is a self-report inventory consisting of 80 declarative statements. It is intended for use with children in Grades 4 through 12 and can be administered either individually or in a group. Presentation format is a four-page booklet with statements on one side of the page and "Yes" or "No" on the other side. The response requirement is that the youngster circle either "Yes," indicating that the statement describes the way he/she feels about himself/herself, or "No," indicating that the statement does not describe the way he/she feels about himself/herself. Raw scores (total number of responses marked in the positive direction) can be converted to percentiles, stanines, and t scores, and are available in the form of an overall self-concept or as a profile of six cluster scores (Behavior, Intellectual and School Status, Physical Appearance and Attributes, Anxiety, Popularity and Happiness, and Satisfaction).

The scale takes about 20 to 25 minutes to complete and may be administered and scored by teachers or trained paraprofessionals under supervision.

The manual suggests several uses for the scale: as a general screening device in special settings, as a component in individual
assessment, or as a research instrument. One chapter is devoted to
an extensive discussion of the specialized used for which the scale
has been employed as a research instrument and as a measure of treat­
ment outcome. Descriptions of its use with specific ethnic, minori­
ty, and exceptional populations are also provided.

Recent reliability studies generally confirm and expand on the
results of the original studies. Test-retest reliabilities ranged
from .42 to .96, with a mean of .73. Studies investigating internal
consistency yielded coefficients ranging from .88 to .93 on the total
scale. In another study using the scores from the original norm
group, the internal consistency coefficient for the total scale was
.90, with the cluster scales ranging from .73 to .81. Thus, the
instrument appears to be highly reliable in terms of temporal sta­
bility and internal consistency (Buros, 1978).

Research on the instrument itself indicates that it may also be
clinically relevant when the results are integrated with other data
regarding the individual. Additionally, because of its brevity, ease
of administration and scoring, and favorable psychometric properties,
it can be used with a fairly high degree of confidence as a screen
instrument or as a possible introductory and structuring activity for
future counseling/therapy sessions.

All 517 youngsters were administered the Piers-Harris Scale.
Three hundred and sixty-four youngsters, or 70.4%, scored below
average on the scale. Below average reflected the lowest possible
scoring category on the test.
Design and Procedure

This study was designed to answer research questions concerning the causal link between learning disabled youngsters and juvenile delinquency in Macomb County, Michigan. This researcher has relied on data which were collected by the practitioners and educators of the court system. Educational tests were already administered and LD classifications were made by the educational staff of the youth home.

The first step in implementing the study was the endorsement of the project by the administration of the Macomb County Juvenile Court. The endorsement was aided by the fact that this researcher had just completed a doctoral internship at the court and also had credentials (M.A.) in the field of special education, specifically, a major in learning disabilities. Confidentiality of the data was guaranteed to the administrators; therefore, access was granted to the files under the watchful eye of the court director of children's services.

Upon endorsement of the study, the files were individually hand-searched by this researcher, without aid of assistants, and all data were recorded on predesigned coding sheets. At no time were names associated with the data recordings. Only file numbers were recorded. After coding, all file numbers were returned to the director and placed under secure conditions. To this date, this researcher does not have the names of the 517 participants. In fact, even the file numbers were removed from the data processing of the information. Recorded information included the following: age, sex, reason
for admission, number of adjudications, long-term programming, short-
term programming, Woodcock-Johnson test results, Piers-Harris Self-
Concept Scale results, grade level status report (Peabody), hyper-
activity, felony vs. misdemeanor, and types of offense. All of the
data were included in the section of the master file labeled as the
"Social-History" file.

The next step was to review each youngster's school records.
This researcher, along with the Youth Home school personnel, searched
for evidence that would label the youngster learning disabled as
defined in the review of literature. The review of test data of the
previously described three tests was absolutely complete and orderly
and allowed for the classification of LD or non-LD. Once classified,
this researcher then began to process the data and test hypotheses.
It should be noted that all classification was based on precollected
data and test scores. Also, at the time of administration of the
tests, only two practitioners were involved in the testing process.
Therefore, there was some control over the bias of the examiner. The
practitioners voiced reliability of the testing instruments and were
experienced in the administration of the instrument.

The data in the social files were placed there by the practi-
tioners in the court. The data were collected on a standardized
social history form and were completed in almost 100% of the cases.
This researcher was impressed with the clarity and accuracy of the
data. The social file is a separate file maintained by the court
caseworker that contains the personal data relating to the
delinquent. This file is kept separate from the legal file because
of the confidential nature of the reports that may bias a legal decision.

Method of Analysis

In this section, the rationale behind the testing of each hypothesis is identified. An appropriate statistical test for data analysis is suggested with a preset alpha level of .05.

**Hypothesis 1** stated that detained delinquents who are labeled learning disabled have been involved in a higher rate of felony delinquent behavior than non-learning-disabled delinquents. The hypothesis was tested using the chi-square analysis. Those data were gathered by a hand search of the juvenile records and compared the types of offenses (felony or misdemeanor) with the status (learning disabled or non-learning-disabled) of the offender. The null hypothesis states that the proportion of detained delinquent learning disabled students identified by the Piers-Harris test, the Peabody, and/or the Woodcock-Johnson test committing felony offenses compared to misdemeanor offenses as identified by the researcher is equal to non-learning-disabled detained delinquents.

**Hypothesis 2** stated that learning disabled detained delinquents experience a higher arrest and adjudication record than non-learning-disabled delinquents. The hypothesis was tested by comparing those data gathered in the files which reflected the number of prior arrests and adjudications with the learning disabled or non-learning-disabled status of the offender. The responses were coded from 1 through 13 for prior arrests, and then tested using chi square with
the alpha level of .05.

The null hypothesis stated that the proportion of detained learning disabled students as identified by the researcher by the previously mentioned tests, having a high rate of recidivism as identified by the arrest and adjudications records is equal to the proportion of detained delinquents non-learning-disabled students having a high rate of recidivism.

Hypothesis 3 indicated that hyperkinesis is a key trait of learning disabled youngsters. When blended with the element of delinquency, these youth will be detained and labeled learning disabled more readily than non-learning-disabled youth. Therefore, detained youngsters are more often diagnosed as hyperactive and learning disabled than non-learning-disabled youngsters.

The null hypothesis stated that the proportion of detained delinquent learning disabled students identified by the researcher by the tests, also being diagnosed as hyperactive by the practitioners, is equal to the proportion of detained delinquent non-learning-disabled students also being diagnosed as hyperactive. An alpha of .05 was selected to test significance via the use of the chi square method of analysis.

Hypothesis 4 addressed the issue of juvenile justice planning for the adjudicated youth. It was hypothesized that a detained learning disabled delinquent, once adjudicated, will be programmed into a long-term program more frequently than a non-learning-disabled delinquent. The rationale was that the learning disabled youth is unable to act as "normal" as the non-learning-disabled youth and that
punishment and removal from society is evident for that learning
disabled youth.

The null hypothesis stated that there is no difference in the
proportion of detained delinquents learning disabled students as
identified, by the researcher, by the tests, being committed to long-
term residential treatment programs compared to non-learning-disabled
detained delinquents committed to long-term residential programs.
Again, a .05 alpha was used to determine null hypothesis signifi-
cance. The chi-square test was utilized.

Hypothesis 5 addressed the gender of the offender and the hy-
pothesized relationship between hyperactivity and learning disabili-
ties or hyperactivity among delinquents that there is no difference
among gender. In this particular analysis two separate comparisons
occurred. The first comparison dichotomized the gender of the
offender and then the status of the offender. The second comparison
dichotomized the results of the Piers-Harris scale and the gender of
the offender.

The null hypothesis states that the proportion of male detained
delinquent students identified as learning disabled by this re-
searcher, using the previously mentioned tests, is equal to the
proportion of female detained delinquent students identified as
learning disabled. An alpha of .05 was used to determine acceptance
or rejection of the null hypothesis via the chi-square test.
Summary

This chapter presented a description of the population, the type of instruments utilized in the study, design and procedure used to collect data, and methods of analysis. The following chapter will address the findings and analysis of the specified data collection procedures.
CHAPTER IV

FINDINGS AND ANALYSES

Introduction

This chapter reports the findings of the study. It must be remembered that the primary purpose of this study was to examine the link between juvenile delinquency and learning disabilities. The first section of this chapter will report generalized findings and biographical data, and the second section will report the results of the testing for the five previously stated hypotheses.

General Characteristics of the Population

The population consisted of 517 detained and adjudicated youth in the Macomb County Juvenile Court for the school year 1983-84. Data regarding age of detained youth, reason for admission, sex, number of adjudications, long term programming, short term programming, Woodcock-Johnson test results, Piers-Harris self-concept scores, grade level status, hyperactivity, and the types of offenses will be presented in table form. All data were gathered from confidential analysis of case files from the juvenile court records. At no time will this researcher make mention of individual names or characteristics that may lead to the identification of an individual or individuals participating in this study.
Age

In the state of Michigan, per the Juvenile Code, an offender is defined as a juvenile if an offense has been committed prior to the 17th year of birth. Therefore, for analytical purposes a 17-year-old may be included in the population study, because detention was incorporated as part of the sentence after 17, when in fact the offense occurred prior to the youth's 17th birthday. The data in Table 1 reflect the age frequency of the 517 participants.

Table 1
Age of Detained Youth

<table>
<thead>
<tr>
<th>Age</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
<th>Cumulative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 years</td>
<td>1</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>10 years</td>
<td>1</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>11 years</td>
<td>2</td>
<td>0.4</td>
<td>0.8</td>
</tr>
<tr>
<td>12 years</td>
<td>15</td>
<td>2.9</td>
<td>3.7</td>
</tr>
<tr>
<td>13 years</td>
<td>45</td>
<td>8.7</td>
<td>12.4</td>
</tr>
<tr>
<td>14 years</td>
<td>100</td>
<td>19.3</td>
<td>31.7</td>
</tr>
<tr>
<td>15 years</td>
<td>168</td>
<td>32.5</td>
<td>64.2</td>
</tr>
<tr>
<td>16 years</td>
<td>170</td>
<td>32.9</td>
<td>97.1</td>
</tr>
<tr>
<td>17 years</td>
<td>15</td>
<td>2.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>517</td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

The mean age of the detained juvenile was 14.9 years. In addition, 84.7% of the youths studied were in the 14 to 16 year category.

Sex

The literature strongly suggested that the majority of offenders in the juvenile justice system are male. This study supported that position due to the fact that 73.1% of the detained youth were male. Table 2 reports this finding.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex of Juvenile Offender</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Reason for Admission

The juvenile code incorporates six reasons why a youth can be placed in a detention facility. Table 3 reports the reasons behind the detention and the frequency of occurrence.

Table 3 indicates that 48% of the tested population was detained because of a violation of probation. This reason indicates that the youth was already on probation and in fact was a recidivist. The
second reason for detention (20.5%) was the status offender, who was charged with school or home truancy. A close third was the admission for serious offenses (19.3%). The data suggest that the reason for detention reflects the fact that the youth is known to the court because of previous juvenile history and is a chronic offender with home and school problems.

Table 3
Reason for Admission

<table>
<thead>
<tr>
<th>Reason</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Home condition poor</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>2. Runaway from home</td>
<td>106</td>
<td>20.5</td>
</tr>
<tr>
<td>3. Serious offense</td>
<td>100</td>
<td>19.3</td>
</tr>
<tr>
<td>4. Observation</td>
<td>24</td>
<td>4.6</td>
</tr>
<tr>
<td>5. Violation of probation</td>
<td>248</td>
<td>48.0</td>
</tr>
<tr>
<td>6. Change of placement</td>
<td>33</td>
<td>6.4</td>
</tr>
<tr>
<td>Total</td>
<td>516</td>
<td>99.8(^a)</td>
</tr>
</tbody>
</table>

Note. Missing data = 1.

\(^a\)Does not total 100% due to rounding.

Number of Adjudications

Table 4 illustrates the number of times the detained youth was adjudicated prior to detention. The data indicate that 42% of all
detained youth had one prior adjudication and that 83.6% of the youth had one to three adjudications before detention. Recidivism definitely had an impact on the detention status of the youth. This finding is in direct support of the literature which suggests that the detained youth is often times a recidivist and very familiar with the juvenile justice system. The number of previous adjudications was 2.2 with a variance of 2.6.

Table 4
Number of Adjudications

<table>
<thead>
<tr>
<th>Number</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
<th>Cumulative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>1</td>
<td>217</td>
<td>42.0</td>
<td>43.0</td>
</tr>
<tr>
<td>2</td>
<td>141</td>
<td>27.3</td>
<td>70.3</td>
</tr>
<tr>
<td>3</td>
<td>70</td>
<td>13.5</td>
<td>83.8</td>
</tr>
<tr>
<td>4</td>
<td>31</td>
<td>6.0</td>
<td>89.8</td>
</tr>
<tr>
<td>5</td>
<td>28</td>
<td>5.4</td>
<td>95.2</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>1.7</td>
<td>96.9</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>2.1</td>
<td>99.0</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>0.6</td>
<td>99.6</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>0.2</td>
<td>99.8</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>517</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Long Term Programming for Youth

The review of the literature suggested that detained youth were more than likely involved in long term juvenile justice planning. The definition of long term placement is a definitive program which removes the youth from society for one or more years. The removal is characterized by restriction of personal freedom by removal from the family and usually secure living quarters. Examples of long term placement are: state commitments, private residential placements, intensive probation (CPR), family skills detention (FSD), total preparation detention (TPI), and psychiatric institutionalization. Table 5 indicates that 237, or 46% of the population, were detained in long term juvenile justice programs. State commitments and the local total preparation program constituted 78.5% of the commitments. Both programs are minimally 1 year in length and are designed for the hardcore delinquents.

Short Term Programming

Table 6 indicates that 280 of the 517 youngsters were actually on probation, if not, in fact, involved in long term planning. The significance of this finding is that all participants were actively involved in the minimal official jurisdiction of the court which was probation.
### Table 5

**Long Term Programming**

<table>
<thead>
<tr>
<th>Type of long term programming</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total preparation I</td>
<td>96</td>
<td>18.6</td>
</tr>
<tr>
<td>Commitment to state dept.</td>
<td>90</td>
<td>17.4</td>
</tr>
<tr>
<td>Residential long term placement</td>
<td>14</td>
<td>2.7</td>
</tr>
<tr>
<td>Community preparation program</td>
<td>29</td>
<td>5.6</td>
</tr>
<tr>
<td>Family skills development</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>517</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### Table 6

**Short Term Programming**

<table>
<thead>
<tr>
<th>Type of short term program</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probation</td>
<td>280</td>
<td>54.2</td>
</tr>
<tr>
<td>Long term programming</td>
<td>237</td>
<td>45.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>517</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Woodcock-Johnson Test Results

As described earlier, the Woodcock-Johnson test was used to establish either a learning disabled or a non-learning-disabled status for the youngster. Table 7 illustrates that 260 of the 517 youngsters were administered the Woodcock-Johnson test. Of the 260 youngsters, 166 were classified as learning disabled, 94 youngsters were classified as non-learning-disabled, and 257 were not administered the test.

Table 7
Woodcock-Johnson

<table>
<thead>
<tr>
<th>Category label</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD</td>
<td>166</td>
<td>32.1</td>
</tr>
<tr>
<td>Non-LD</td>
<td>94</td>
<td>18.2</td>
</tr>
<tr>
<td>Missing</td>
<td>257</td>
<td>49.7</td>
</tr>
<tr>
<td>Total</td>
<td>517</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Piers-Harris Children's Self-Concept Scale

The Piers-Harris Children's Self-Concept Scale was designed to reflect an assessment of a child's self-concept. Table 8 illustrates the fact that 364, or 70.4% of the youngsters tested, had a below average self-concept. In fact, only 10.4%, or 54 participants, felt above average about themselves. This finding strongly supports the
position that learning disabled youngsters do in fact believe less in themselves as do non-learning-disabled youth. A link is suggested as a result of this finding.

Table 8

<table>
<thead>
<tr>
<th>Category label</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above average</td>
<td>54</td>
<td>10.4</td>
</tr>
<tr>
<td>Average</td>
<td>99</td>
<td>19.1</td>
</tr>
<tr>
<td>Below average</td>
<td>364</td>
<td>70.4</td>
</tr>
<tr>
<td>Total</td>
<td>517</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Label categories as listed in the Piers-Harris instrument (see Appendix C).*

Grade Level Status (PPVT-R)

By definition, as established in this study, one criterion for the label of learning disabilities was that if a student was 2 or more years behind his or her peer group he or she would be labeled learning disabled. Table 9 indicates that 197 of 257 youth tested (76.7%) would be labeled learning disabled. Only 60, or 23.3% of the youth, would be labeled non-learning-disabled. The data suggested that 76.7% of the detained and tested youth are in fact learning disabled. These data were collected from the scores on the Peabody Picture Vocabulary Test-Revised.
Table 9
Grade Level Status (PPVT-R): Grade Levels Behind Learning Disabled Youth

<table>
<thead>
<tr>
<th>Category label</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning disabled</td>
<td>197</td>
<td>38.1</td>
</tr>
<tr>
<td>Non-learning-disabled</td>
<td>60</td>
<td>11.6</td>
</tr>
<tr>
<td>Missing data</td>
<td>260</td>
<td>50.3</td>
</tr>
<tr>
<td>Total</td>
<td>517</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Hyperactivity or Attention Deficit Disorder

Earlier in the study it was suggested that hyperactivity is a possible characteristic of a learning disabled or delinquent youth. The data in this study as expressed in Table 10 indicate that 62.1% of the youth were diagnosed as hyperactive by juvenile court professionals. The diagnosis was made by doctors, psychologists, and/or professional social workers.

Felony or Misdemeanor

The severity of the offense is indicated in Table 11. As indicated in the table, 74.7%, or 386 youth, were detained for felony type offenses.
Table 10
Hyperactivity or Attention Deficit Disorders

<table>
<thead>
<tr>
<th>Category label</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disorder present</td>
<td>321</td>
<td>62.1</td>
</tr>
<tr>
<td>Disorder not present</td>
<td>130</td>
<td>25.1</td>
</tr>
<tr>
<td>Missing data</td>
<td>66</td>
<td>12.8</td>
</tr>
<tr>
<td>Total</td>
<td>517</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 11
Felony or Misdemeanor

<table>
<thead>
<tr>
<th>Category label</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felony</td>
<td>386</td>
<td>74.7</td>
</tr>
<tr>
<td>Misdemeanor</td>
<td>131</td>
<td>25.3</td>
</tr>
<tr>
<td>Total</td>
<td>517</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Type of Offense

Table 12 indicates the actual offense that resulted in detention. As the table shows, 45.3%, or 234 youths, were involved in breaking and entering (B&Es) or larcenies. Of significant interest
Table 12
Type of Offense

<table>
<thead>
<tr>
<th>Category label</th>
<th>Absolute frequency</th>
<th>Relative frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Break and enter (F)</td>
<td>156</td>
<td>30.2</td>
</tr>
<tr>
<td>Larceny (F)</td>
<td>78</td>
<td>15.1</td>
</tr>
<tr>
<td>Assault and battery (F)</td>
<td>50</td>
<td>9.7</td>
</tr>
<tr>
<td>Murder (F)</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Drugs (F)</td>
<td>31</td>
<td>6.0</td>
</tr>
<tr>
<td>Assault with deadly weapon (F)</td>
<td>15</td>
<td>2.9</td>
</tr>
<tr>
<td>Malicious destruction of property over $100 (F)</td>
<td>11</td>
<td>2.1</td>
</tr>
<tr>
<td>Robbery (F)</td>
<td>10</td>
<td>1.9</td>
</tr>
<tr>
<td>Extortion (F)</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Criminal sexual conduct (F)</td>
<td>9</td>
<td>1.7</td>
</tr>
<tr>
<td>Carrying concealed weapon (F)</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Stolen car (F)</td>
<td>14</td>
<td>2.7</td>
</tr>
<tr>
<td>Arson (F)</td>
<td>4</td>
<td>0.8</td>
</tr>
<tr>
<td>Home truancy (M)</td>
<td>75</td>
<td>14.5</td>
</tr>
<tr>
<td>School truancy (M)</td>
<td>36</td>
<td>7.0</td>
</tr>
<tr>
<td>Larceny under $100 (M)</td>
<td>11</td>
<td>2.1</td>
</tr>
<tr>
<td>Disturbing peace (M)</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Fake reports (M)</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Incorrigibility (M)</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Phone misuse (M)</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Malicious destruction of property under $100 (M)</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>517</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Note.**  F = felony.  M = misdemeanor.
is that 111 (21.5%) youngsters were involved with home and school problems.

Testing of the Hypotheses

The hypotheses that follow offer an analysis of variables which are of interest to this researcher and the Macomb County Juvenile Court when evaluating the link between learning disabilities and juvenile delinquency. The hypotheses have resulted from the review of literature and expectancies formed from previous studies investigating that link between delinquency and learning disabilities. It should also be noted that the staff of Macomb County Juvenile Court offered professional perspectives toward the formation and testing of the hypotheses.

Each of the five hypotheses and related information concerning the suggested findings will be presented. Results and conclusions will follow each hypotheses where appropriate. The selected probability of committing a Type I error is .05.

Hypothesis 1

Detained delinquents with learning disabilities demonstrate higher rates of felony behavior than non-learning-disabled detained delinquents.

It was hypothesized that the proportion of felons among detained learning disabled students is greater than the proportion of felons among non-learning-disabled students.
Null Hypothesis

The proportion of felony offenses versus misdemeanor offenses committed by learning disabled students is equal to or similar to the proportion committed by non-learning-disabled students.

Conclusion

The results of the $\chi^2$ analysis indicate no support for the research hypothesis that learning disabled students commit felony offenses in greater proportions than do non-learning-disabled students. The probability yielded by the data (.15) is greater than the chosen alpha level .05 and thus the null hypothesis is retained and support for the research hypothesis is not indicated. Table 13 illustrates the values as tested by the chi square.

Hypothesis 2

Detained delinquents with learning disabilities demonstrate higher levels of adjudication and arrests than non-learning-disabled delinquents.

It is hypothesized that the proportion of detained delinquent learning disabled students having a higher rate of recidivism is greater than the proportion of detained delinquent non-learning-disabled students having a high rate of recidivism.
Table 13

Type of Delinquency Versus Learning Disability

<table>
<thead>
<tr>
<th>Type of offense</th>
<th>Learning disabled</th>
<th>Non-learning-disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Felony</td>
<td>278</td>
<td>76.6</td>
</tr>
<tr>
<td>Misdemeanor</td>
<td>85</td>
<td>23.4</td>
</tr>
<tr>
<td>Total</td>
<td>363</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Corrected chi square = 2.05 with 1 degree of freedom. 
Alpha = .05.

Null

The proportion of detained delinquent learning disabled students as identified by the Macomb County Juvenile Court having a high rate of recidivism as identified by the Macomb County Juvenile Court arrest and adjudication records is equal to the proportion of detained delinquent non-learning-disabled students having a high rate of recidivism (see Table 14).

Conclusion

Table 14 indicates the values tested by the chi square. The data analysis indicated no support for the research hypothesis that the proportion of detained delinquent learning disabled students having a high rate of recidivism is greater than the proportion of non-learning-disabled students having a high rate of recidivism. The
calculated value of $\chi^2$ was 6.91, which was less than the critical value of 7.815 with 5 degrees of freedom at an alpha of .05. Since the analysis of the data indicated a probability less than .05, the null hypothesis is retained and the alternate or research hypothesis is not supported.

Table 14

<table>
<thead>
<tr>
<th>Category label</th>
<th>1-3</th>
<th>4-6</th>
<th>7-8</th>
<th>9-13</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Learning disabled</td>
<td>293</td>
<td>81.2</td>
<td>53</td>
<td>14.7</td>
<td>13</td>
</tr>
<tr>
<td>Non-learning-disabled</td>
<td>135</td>
<td>89.4</td>
<td>15</td>
<td>9.9</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. $\chi^2 = 6.91$. $\chi^2_{cv}$ for alpha .05 = 7.815.

Hypothesis 3

Children with learning disabilities possess certain cognitive and personality characteristics which make them more susceptible to delinquent behavior. Therefore learning disabled detained youngsters are more often diagnosed as hyperactive than non-learning-disabled youth.

It is hypothesized that the proportion of detained delinquent learning disabled students diagnosed as hyperactive is greater than
the proportion of detained delinquents non-learning-disabled students diagnosed as hyperactive.

Null

The proportion of detained delinquent learning disabled students identified by the Macomb County Juvenile Court being diagnosed as hyperactive by the practitioners is equal to the proportion of detained delinquent non-learning-disabled students also being diagnosed as hyperactive.

Conclusions

The results of the $\chi^2$ analysis indicate support for the research hypothesis that learning disabled students are diagnosed hyperactive in greater proportions than non-learning-disabled students. A probability of .02 was calculated using the gathered data from the Macomb County Juvenile Court records. This value is less than stated probability level of alpha .05. Therefore, the null hypothesis is rejected and the alternate or research hypothesis is supported. Table 15 illustrates the above findings.

Hypothesis 4

Detained learning disabled delinquents are committed to long term residential detention programs more frequently than non-learning-disabled delinquents.

It is hypothesized that the proportion of detained delinquent learning disabled students committed to long term residential...
Table 15
Hyperactivity Versus Learning Disability

<table>
<thead>
<tr>
<th>Diagnosis of hyperactivity</th>
<th>Learning disabled</th>
<th>Non-learning-disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>237</td>
<td>75.0</td>
</tr>
<tr>
<td>No</td>
<td>79</td>
<td>25.0</td>
</tr>
<tr>
<td>Total</td>
<td>316</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Alpha = .05.

detention programs is greater than the proportion of detained delinquent non-learning-disabled students committed to long term residential programs.

**Null**

There is no difference in the proportion of detained delinquent learning disabled students as identified by the Macomb County Juvenile Court being committed to long term residential detention programs compared to detained delinquent non-learning-disabled students committed to long term residential programs.

**Conclusions**

The results of the $\chi^2$ analysis indicate that there is no support for the research hypothesis that learning disabled students are committed to long term residential detention programs in greater
proportions than non-learning-disabled students. The data yielded a probability of .69 which did not fall within the region of rejection for an alpha level of .05. Since the probability of .69 did not fall within the region of rejection, the null hypothesis is retained and the research hypothesis is not supported. Table 16 illustrates the findings.

Table 16
Long Term Versus Short Term Programming

<table>
<thead>
<tr>
<th>Type of Program</th>
<th>Learning disabled</th>
<th>Non-learning-disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Long term</td>
<td>169</td>
<td>71.3</td>
</tr>
<tr>
<td>Short term</td>
<td>194</td>
<td>69.3</td>
</tr>
</tbody>
</table>

Note. Corrected chi square = .163 with 1 degree of freedom.
Alpha = .05.

Hypothesis 5

Male detained delinquents that are learning disabled are detained at a greater proportion than female detained delinquents that are learning disabled.

It is hypothesized that the proportion of male detained delinquent learning disabled students is greater than the proportion of female detained delinquent learning disabled students.
Null

The proportion of male detained delinquent students identified as learning disabled by the Macomb County Juvenile Court is equal to the proportions of females detained delinquent students identified as learning disabled.

Conclusion

The results of the data analysis using the $\chi^2$ test indicate that the proportion of male detained delinquents identified as learning disabled is not greater than the proportion of female students identified as learning disabled. The data yielded a probability of .19 which failed to fall into the region of rejection for an alpha level of .05. Since the probability of .19 is greater than the level of significance or .05, the null hypothesis is retained and the alternate or research hypothesis is not supported. Table 17 illustrates the data used in the chi-square analysis.

Summary

Results have been offered which this researcher finds in support of the purpose of conducting the study. The first section described the general characteristics of the targeted population. Characteristics of interest were: age, sex, reason for admission to youth home, number of previous adjudications, long term programming, short term programming, Woodcock-Johnson test results, Piers-Harris Children's Self-Concept Scale results, grade level status, hyperactivity,
Table 17

Sex Versus Learning Disabled and Non-Learning-Disabled

<table>
<thead>
<tr>
<th>Sex</th>
<th>Learning disabled</th>
<th>Non-learning-disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>272</td>
<td>74.9</td>
</tr>
<tr>
<td>Female</td>
<td>91</td>
<td>25.1</td>
</tr>
<tr>
<td>Total</td>
<td>363</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Corrected chi square = 1.748 with 1 degree of freedom. Alpha = .05.

and the types of offenses of the detained population of the Macomb County Youth Home for the school year 1983–84. Up to this time in history, data were never sorted in Macomb County which resulted in a better understanding of the detained population. The data provided a solid starting point for future analysis of yearly populations.

The second section of the chapter presented the results of the testing of the five hypotheses. All five hypotheses were based on the review of the literature as well as the concern of the administration of the Macomb County Juvenile Court.

Chapter V offers a discussion concerning the conclusions that can be drawn from the data analysis offered in this chapter. Practical implication and recommendations are also offered for future research efforts.
CHAPTER V

SUMMARY, CONCLUSIONS, PRACTICAL IMPLICATIONS, AND RECOMMENDATIONS

As earlier mentioned, this study has been conducted to examine the hypothesized link between juvenile delinquency and learning disabilities. The task was described as difficult at best due to the limited research on the topic and also due to the confidential nature of the juvenile court records. Also, the absence of longitudinal studies caused much controversy about the link itself and what could be identified as variables in the process. Therefore, with much encouragement from the practitioners in Macomb County, and from personal interest as a learning disability educator the task was begun and it is believed that pertinent data and findings were discovered and reported in this study.

Discussion of the Nature of the Population

The first section of Chapter IV presented all the descriptive data concerning the 517 detained delinquents of the Macomb County Juvenile Court for the school year 1983-84. The biographical and personalized data represent an attempt to begin to understand the mental and physical composite of the type of youngster detained in the youth home who has lost his or her freedom. It must be remembered that the data were gathered as a result of a hand search of 517 files maintained by the Macomb County Juvenile Court. The
conclusions concerning the general biographical data will be dis­
cussed first and then will be followed by conclusions about the
hypotheses.

Age

As stated earlier, the Michigan Juvenile Code states the age of
jurisdiction for the juvenile court would be 17 years or younger.
The offense must occur prior to the 17th birthday of the offender.
In this study the 15 youngsters, or 2.9%, were detained at the age of
17. According to the practitioners this finding was significant
because of the difficulty of finding appropriate housing for delin­
quents of this age. It appeared that once a youngster reached his
17th birthday, very few long term or residential facilities would be
interested in serving the offender's needs. The 17-year-old usually
is sophisticated and somewhat difficult to treat in comparison to the
younger offender. Security is an issue when trying to treat this
offender. On the other extreme, the youngest offender was age 9.

The major conclusion of these data comes from the mean score
which was 14.9 years of age. The mean age represents, again, the
housing needs of that age offender as well as the type of treatment
made available by the system. It should be noted that 438 (84.2%) of
the 517 offenders were 14-16 years of age.

It is obvious from these data that the practitioners must design
their treatment programs for the teenagers, between the ages of 14
and 16, who have been detained more frequently than any other age
group. From this researcher's point of view, is there still enough
biological time left to correct the self-defeating and criminal behavior? Where were the "experts" the first 14 years of their lives? This conclusion suggests the need for more preventive efforts on the part of the professional.

Sex

According to the literature, the male is the most frequently identified delinquent. This finding holds true in this study. Seventy-three percent of the detained population were male. The national norm was reflected by the data and concluded that Macomb County, in fact, does compare with other major cities across the nation on this particular variable. There is no link in the data which suggest that the male is more prone to be LD than the female.

Reason for Admission

The Juvenile Code lists six reasons for admission to the youth facility. They are as follows: (a) poor home conditions, (b) runaway from home/school, (c) serious offense, (d) observation/treatment, (e) violation of probation, and (f) change of placement.

The data findings conclude that 48% (248) of the detained delinquents were admitted for violation of probation. Conclusions drawn from this finding are that the delinquent is a recidivist and that he or she is acting out against society and that the current programming is not effective in meeting the offender's needs. Another conclusion, and one of extreme importance, according to Spier (1985), is that 20% of the juveniles detained are there for status offenses.
The practitioners pointed out that status offenders must be treated differently than the typical delinquent. Detention must only occur as a last attempt of treatment. The 20% is significantly high and disturbing to the practitioners. Thus, a major conclusion is that special programming is needed to meet the needs of the status offender.

One other conclusion, based on the data, is that 100, or 19.3% of the population, was detained for serious law violations (felonies). This finding leads to the conclusion that treatment programs should also include security precautions which guarantee society from the escape of those convicted felons.

The dilemma for the practitioners is obvious: How do you house the felon with the status offender or vice-versa? Or better yet, how do you design programs to meet the needs of both populations when they are housed under one roof?

**Number of Adjudications**

A significant conclusion of this study is that no juvenile was detained upon their first offense. That in fact, the Macomb County Juvenile Court used detention as a last resort. The data suggested that 42%, or 217 youngsters, were detained after their first petition and as a result of a violation of probation. One hundred and forty-one youngsters, or 27.3%, had 2 prior adjudications before the detention. What is alarming is that 16.4% of the youngsters had 3 or more offenses, with one youth having 13 prior adjudications. One hundred and fifty-nine youngsters were chronic offenders of the law and, in
fact, were not removed from their local home site.

The final conclusion is that a significant population of detained delinquents (16.4%, or 159) were chronic offenders who obviously were not readjusting to societal life after their exposure to the juvenile justice system.

**Long Term and Short Term Programming**

The data lead to the conclusion that of the six available long term programs available to the juvenile the two most frequently used (78.5%) were commitments to the state of Michigan, and the county's own Total Preparation I Program. The four other programs were: residential private placement, intensive probation (CPR), family skills development (FSD), and psychiatric care.

One of the conclusions is that Macomb County in 18.6% of the cases felt that they could provide more appropriate treatment for the juvenile than using other options available. Also, in 17.4% of the cases the youth were committed to BTS or GTS (state) programs which offered maximum security. It appears that Macomb County is confident in the utilization of their TPI program and that as a last resort of treatment they commit a youngster to maximum security facilities.

No conclusion can be drawn from the data collected for short term programming except that 280 youngsters were on probation following their release from the youth home.
Woodcock-Johnson

The Woodcock-Johnson test was administered to 260 youngsters. The purpose of the test was to diagnose learning disabilities among school age children. Of the 260 youngsters tested, 166, or 63.8% of the youth, were classified learning disabled. A conclusion drawn from these data is that the majority of tested children, 166 were learning disabled—94 non-learning-disabled. This researcher considers this finding to be a major conclusion of the study. Proportionately, learning disabilities is a trait found in delinquent youth.

Piers-Harris Children's Self-Concept Scale

The Piers-Harris test concluded that 364 of the 517 youngsters, or 70.4% of the population, were below average in their feelings about themselves. Only 10.4%, or 54, of the youngsters felt above average and 99, or 19.1%, felt average.

A conclusion is that detained delinquents do suffer from below average self-concept. A trait? Yes, definitely.

Grade Level Status (PPVT-R)

One conclusion that can be drawn in respect to the issue of hyperactivity is that the majority (62.1%) were diagnosed as having the trait. Conclusion: Hyperactivity is a condition that was prevalent in the population of detained delinquents. The significance of this conclusion is that Macomb County practitioners had voiced
concern of the presence of hyperactivity and had, in fact, hired a medical doctor, expert in the field, to examine and treat the afflicted youngsters. Obviously, programming should incorporate the concern of hyperactivity and its impact on the delinquent youngster.

Type of Offense: Felony Versus Misdemeanor

One conclusion that can be made is that 74.7% of the detained delinquents were involved with felony type behavior at one point in their criminal career. Forty-five and three-tenths percent were involved in breaking and entering or larceny. Seventy-four and seven-tenths percent of the offenders committed felonies that were aimed at a victim (arson, stealing, murder, rape, etc.). These youngsters were not involved in victimless crimes. Another conclusion is that these youngsters do pose a threat to society and that their presence is evident as a force to be dealt with in terms of rehabilitation and justice.

Conclusions Regarding the Hypotheses

The following conclusions are related directly to the five listed hypotheses in Chapter IV. Each hypothesis is discussed as well as conclusions based upon review of the literature and statistical testing.
Hypothesis 1 stated that detained delinquents who are labeled learning disabled have been involved in a higher rate (felony) delinquent behavior than non-learning-disabled delinquents. This hypothesis was not supported at the .05 alpha level. From the practitioner's point of view, the data are significant due to the fact that 76.6% of learning disabled youth do in fact commit felony offenses. The practitioners from the court were surprised and even somewhat shocked at the high rate of felony and learning disabled frequency. Murray (1976) also suggested the relationship in his report and thus used the percentage relationship as a basis for a possible link. However, in this study the hypothesis was not supported.

One conclusion that can be drawn is that felony offenses are crimes against people. In other words, there are victims. The aggressiveness of the behavior should be a concern of the practitioners thus leading to awareness of the psychological profile of the target population. Perhaps, there is a link between the poor self-concept of the delinquent and his or her concern for others in society. An investigation should be initiated to study the possible correlation between the two variables. The FBI (1974) did report a major increase in violent index crimes.
The Effect That Learning Disabilities Have on Higher Arrest and Adjudication Records of the Detained Delinquents

Hypothesis 2 stated that detained delinquents with learning disabilities demonstrate higher levels of adjudication and arrests than non-learning-disabled delinquents. The rationale offered for this hypothesis came from Murray (1976) and Lincoln (1974). Both authors suggested that police tend to pick up and arrest learning disabled youth disproportionally because of the learning disabled delinquents' awkwardness and inability to communicate.

The results indicated that all the detained youth had a minimum of one prior adjudication and that some were adjudicated 13 separate times. The chi-square test led to no support of the hypothesis. No difference was found at the .05 alpha level.

One conclusion that was drawn from these data is the need for police to be more sensitive to the plight of the learning disabled youth at the time of arrest. Perhaps, a little insight would result in the prevention of detention, if efforts were made to understand the noncommunicative youngster.

Another conclusion was based on the fact that all of the detained population had prior arrest records. Recidivism was a common trait and should be a major concern of the practitioners. Sentencing guidelines should be reviewed and perhaps reprioritized for the learning disabled youngster.
Hypothesis 3 stated that hyperkenesis was a key trait of a learning disabled youngster. When linked with the element of delinquency, these youngsters would be detained at a greater rate than non-learning-disabled youngsters. Therefore, hyperactivity did have an effect on the status of the youngster and these youngsters often possessed both learning disabilities and hyperactivity.

The chi-square test yielded significant differences at the .05 alpha level. In fact, to dramatize the point, 75.0% of the learning disabled population were diagnosed as hyperactive, while only 62.2 of the non-learning-disabled population were hyperactive.

The conclusion: Hyperactivity is present, if not a critical factor, in the link between learning disabilities and juvenile delinquency.

The impact of this finding is significant to all practitioners in the field of juvenile justice. If theories are correct that hyperactivity is genetic, then the practitioners must become more concerned with the medical treatment and diets of the hyperactive and learning disabled delinquent. Ironically, Macomb County practitioners had just implemented a program in the treatment of hyperactivity. A segment of the population was being treated medically by a physician via the use of prescribed drugs, and diets were being monitored by a nutritionist. Follow-up evaluation and study of this new treatment is suggested by this researcher to measure the impact of the process.
The significance and implications of this finding could have a major impact on the treatment of juveniles across the total juvenile justice system. The need for future research, both academic and medical, is needed and should be prioritized.

**The Effect of Learning Disabilities on the Placement of Youth in Long Term Placement Programs**

Hypothesis 4 states that a detained disabled delinquent once adjudicated will be committed to a long term program more frequently than a nondisabled delinquent. The rationale is that the learning disabled youth is unable to act as "normal" as the non-learning-disabled youth and that punishment and removal from society is evident for the learning disabled youth. The results of the chi-square did not support the hypothesis as stated. The alpha level used was at the .05 level.

The conclusion leads to the fact that the learning disabled youngster is treated similarly to the non-learning-disabled youngster. In fact, the presence of learning disabilities does not lead to appropriate placement or treatment of the learning disabled youngster when compared to the delinquent youngster. Murray (1976) suggested that the needs aren't even recognized much less met. A question of "ethics" and "professionalism" now enters the treatment spectrum. If the youngster is removed for society's good, what is the system doing to improve the youth?
The Effect of Gender on the Diagnosis of Learning Disabilities and Hyperactivity

Application of the chi-square test indicated no support for the hypothesis. Males may be the predominant gender in the juvenile court system; however, the rate of hyperactivity among the sexes is not significant at the .05 alpha level.

One general conclusion among the practitioners is that the male delinquent is more antisocial and tends to be the focus of police arrest. Practitioners have suggested that police do not arrest females as frequently, nor do they detain them, simply because a girl is a girl. The findings suggest that the practitioners are wrong and that, in fact, males and females are both present in the system and that programs are needed for each gender. No longer should the treatment programs be designed for males only.

Summary and Practical Implications

In summary, conclusions have been offered concerning the five hypotheses considered in this study. The conclusions were based on the data analysis, practitioner interpretation, and statistical test of significance.

The study offered a strong data base for the biographical information of the detained delinquent. The data presented a profile of the typical delinquent detained in Macomb County. Resulting from the analysis of data was a clearer understanding of the program design that is necessary for future treatment of the delinquent in Macomb County. Treatment specialists were enlightened with the provided
data and finally were able to gain more insight into the needs of the detained population. It must be remembered, that although the data were not of a startling nature, it was the first attempt of the court to begin to dissect the files to begin more constructive efforts in implementing treatment programs.

The results of the testing of the hypotheses reported the retention of the null in Hypotheses 1, 2, 4, and 5. Hypothesis 3 led to the rejection of the null hypothesis which then supported the research hypothesis that there is a relationship between juvenile delinquency, hyperactivity, and learning disabilities. The major scope of the study was to investigate the link. The findings suggest that a link is present for the population of this study. One practical aspect of this finding is that educators, judges, social workers, and child care workers should be aware of these influences if they are to appropriately treat the population of this study. Their jobs are difficult enough, in their attempt to correct behavior, but with the added variables, inter-disciplinary cooperation is essential. Schools, courts, and police must work together in a prevention approach in order to identify the problem youth and perhaps to offer him or her assistance prior to actual criminal behavior and detention.

Another practical implication of the study is the impact of the learning disabled youngster on the juvenile justice system. Special education programs are essential, as are medical and psychological programs. Grants, which are available through federal and state governments, should be sought in order to finance more creative
treatment efforts.

Another practical implication of the study has to do directly with the role of the police officer. If the typical delinquent is damaged by learning disabilities, self-concepts, hyperactivity, etc., then the juvenile officer should be educated to deal with the situation. If the youth is unable to communicate or sit still it should not be considered as aggressive or antisocial behavior. Without doubt, the police are quick to detain the youth who appears to be hostile or aggressive. The implication is the need for better police insight into the learning disabled delinquent.

One area that has not been touched upon in the study is the family influence. A practical implication of the study suggests that the family, if aware, could identify problems of their children at an earlier age, and then seek assistance. The key is prevention not detention.

This researcher hopes that the data offered to Macomb County will launch a keener awareness of the youngster detained in their facility. Ideally, the study will lead to more effort on the part of the practitioners to treat the offenders instead of depriving the youngster of his or her freedom based on learning disabilities or poor mental and physical health.

Recommendations for Future Research

Ideally, this research will result in additional analysis and study concerning the detained delinquent and the influence of learning disabilities. More documentation and study is needed to
determine the appropriate need levels of this segment of population in our country today.

It is specifically recommended that judges be encouraged to open their files to trustworthy researchers in order to launch valid studies which would reflect the reality of the juvenile justice system. Confidentiality was always an issue and at times a stumbling block in this project. It seems that an "easy way out" was to cop a plea of confidentiality in order to not answer a question or reveal a test finding. The confidentiality issue added hours and much pain to the process.

Ideally, longitudinal studies could be funded that would allow medical and psychological evaluation to be performed on a target population at a given period of time. Test standards would be equal, and philosophy of the testers would be similar. Extraneous variables could be isolated and controlled. Under current conditions, variables were not completely controlled thus taking away from the purity of the research.

One major recommendation for future research is that state and federal endorsement be sought so that appropriate dollars could be sought for the reimbursement of pure research. Dollars were not available for this study due to the lack of concern by many top agency staff. As one administrator admitted "the bucks are out for kids first," or "did you know that the dog pound is air conditioned and the Youth Home doesn't even have a large fan?" Kids are obviously not a priority.
Ideally, future research would allow for personal interviewing of families and detained delinquents. A structured interview would allow for more personal background information which was not always contained in the court records. Parental views could be incorporated into the actual questionnaire to measure the effects of home life.

One final recommendation for future research, or, perhaps, one big wish, would be for this study to be read aloud to the police, educators, social workers, judges, administrators, and court workers to understand that they are not failures in their professions, but that, in fact, they are doing a "professional" job in their attempt to deal with an offender plagued by hyperactivity, poor school performance, poor self-concept, and learning disabilities. Future research could and should reflect the positives of the people who have tried to turn these youngsters around with very limited resources to work with. While the state of affairs of the juvenile justice system is sad, the people who are committed to their careers should be recognized and applauded for their efforts.

This chapter has attempted to present conclusions, practical implications, and suggestions for future research. Without preaching, the point should be made that this research effort, while not ideal, can serve as a starting point for future studies that will reveal the "real" world of the juvenile justice system. This study has served as a guiding light, an eye opener, and a sincere effort in researching the mystical link between learning disabilities and juvenile delinquency.
PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

<table>
<thead>
<tr>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>105-110</td>
</tr>
<tr>
<td>112-123</td>
</tr>
<tr>
<td>125-130</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Appendix A

Peabody Picture Test
Appendix B

Woodcock-Johnson Test
Appendix C

Piers-Harris Self-Concept Scale
BIBLIOGRAPHY


Benning, J. (1971, March). Prediction of delinquency, adjustment and academic achievement over a five year period with the Kvaraceus Delinquency Proneness Scale. Paper presented at the annual meeting of the National Council of Measurement in Education, Minneapolis, MN.


