

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

**SELF-CONCEPT IN LEARNING DISABLED CHILDREN:**  
**RELATIONSHIP TO PERCEIVED COMPETENCE, SOCIAL SUPPORT,**  
**AND TASK PERFORMANCE**

A thesis presented in partial fulfilment of the requirements for the degree of  
Master of Science at Massey University

Angela C. Person

1998

## **ABSTRACT**

Examined how some children with learning disabilities (LD) sustain higher levels of general self-worth despite academic difficulties. Global self-worth was examined for a relationship with academic self-concept, non-academic self-concept, and perceived social support. Self-concept was additionally examined for any relationships with task performance indicators. Data were collected from 41 students aged between 7 and 15 years using a multitrait-multimethod assessment methodology. Self-concept was assessed by the Self-Perception Profile for Children (Harter, 1985a), and perceived social support was assessed by the Social Support Scale for Children (Harter, 1985b). Task performance was assessed by a battery of academic and motor skill measures. Findings indicated that most LD children in this sample reported low levels of academically based self-concept. However, most also reported high levels of global self-worth. The study found students with high global self-concept perceived they were more competent/adequate in some non-academic domains (e.g., physical appearance and behavioural conduct), and perceived being socially supported, particularly by teachers. Perceptions of academic self-concept were not found to be as related to perceptions of global self-concept as non-academic domains. In regression analyses, perceptions of physical appearance followed by perceptions of athletic competence were found to be predictors of global self-worth. No predictors were found to be significant for academic self-concept. Classmate support predicted aspects of social self-concept (i.e., social acceptance). No pattern of significant relationships were found between task performance indicators and various domains of self-concept. Discussion includes using data to dispel myths some may have about the global self-worth of LD children as well as in intervention programmes. This study replicated and extended research in this area. Caveats and recommendations for future research are discussed.

## ACKNOWLEDGEMENTS

First and foremost, I would like to extend my sincere appreciation to my supervisor, Dr Kevin Ronan. It was his inspiration, enthusiasm, guidance, and support that kept me on target. I am grateful for having such a splendid supervisor.

I would like to thank SPELD Manawatu for their assistance, and the families who consented to be involved in this study. This study would not have been possible without their help.

I would like to dedicate this thesis to my family. It has been their faith and love that has always motivated me to strive just a little bit more.

Finally, I wish to thank Christopher for his patience and encouragement, Cynthia for her support, and Manawatu Women's Refuge for offering and providing me leave of absence to complete my thesis.

## TABLE OF CONTENTS

	PAGE
ABSTRACT .....	ii
ACKNOWLEDGEMENTS .....	iii
LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
CHAPTER 1 INTRODUCTION.....	1
1.1 Learning Disabilities.....	3
1.11 Common Characteristics Identified in Definitions of LD.....	4
1.12 Heterogeneity.....	7
1.13 Prevalence.....	8
1.14 A New Zealand Perspective.....	10
1.15 Concluding Comments.....	12
1.2 Self-Concept.....	13
1.21 Definition and Overview.....	13
1.22 Theory: Historical Development.....	13
1.23 Models and Assessment Methods.....	14
1.24 Research and LD Children.....	15
1.3 Perceived Competence.....	17
1.31 Theory.....	17
1.32 Research.....	19
1.33 Research with LD Children.....	21
1.4 Social Aspects of Self-Concept including Social Support.....	22
1.41 Definition & Historical Theory: What is Social Self-Concept.....	22
1.42 Empirical Research in LD Samples.....	23
1.5 Theory Guiding Current Research: Harter’s Model and Related Measurement.....	25

1.6 Research Guiding Current Study.....	27
1.7 The Current Study.....	30
CHAPTER 2           METHOD.....	35
2.1 Participants.....	35
2.11 Sample.....	35
2.12 Selection Procedure.....	36
2.2 Assessment.....	38
2.21 Measures.....	38
2.22 Self-Perception Profile for Children.....	38
2.23 Social Support Scale for Children.....	44
2.24 Task Performance Measures: The SPELD Test Battery.....	48
2.3 Procedure.....	52
2.4 Design and Plan of Analyses.....	54
2.41 Categorisation of Demographic Variables.....	56
2.42 Categorisation of Self-Report Measures.....	57
2.43 Categorisation of Task Performance Data.....	58
CHAPTER 3 RESULTS.....	59
3.1 Preliminary Analyses.....	59
3.11 Demographic Based Relationships.....	59
3.12 Correlations of Demographics with Perceived Competency/Adequacy.....	64
3.13 Relationship between Demographic & Social Support.....	66
3.14 Relationship between SPPC, SSS, & Task Performance.....	67
3.2 Main Analyses.....	70
3.21 Hypothesis 1: Proportions of Global Self-Worth and Scholastic Competence.....	70
3.22 Hypothesis 2: Global Self-Worth and Perceived Competency/Adequacy.....	71
3.23 Hypothesis 3: Global Self-Worth and Perceptions of Social Support.....	72
3.24 Hypothesis 4: Categorising Subgroups of Global Self-Worth/ Scholastic Competence.....	75

3.25	Hypothesis 5: Subgroups of Global Self-Worth/ Scholastic Competence & Non-Academic Domains.....	76
3.26	Hypothesis 6:Subgroups of Global Self-Worth/ Scholastic Competence & Social Support.....	77
3.27	Hypothesis 7: Subgroups of Global Self-Worth/ Scholastic Competence & Task Performance.....	80
3.28	Hypothesis 8: Predictors of Global Self-Worth.....	83
3.29	Hypothesis 9: Predictors of Scholastic Competence.....	84
3.30	Hypothesis 10: Predictors of Social Acceptance.....	85
CHAPTER 4 DISCUSSION.....		86
4.1	Summary of Major Findings.....	86
4.2	Specific Findings.....	89
4.21	Demographic Based & Norm Group Differences.....	89
4.22	Proportions: Global Self-Worth & Scholastic Competence..	91
4.23	Global Self-Worth, Scholastic Competence & Perceived Competency/Adequacy.....	92
4.24	Global Self-Worth & Perceptions of Social Support.....	94
4.25	Categorising Subgroups of Global Self-Worth/Scholastic Competence.....	96
4.26	Subgroups of Global Self-Worth/Scholastic Competence & Non-Academic Domains.....	96
4.27	Subgroups of Global Self-Worth/Scholastic Competence & Social Support.....	97
4.28	Self-Concept & Task Performance.....	98
4.29	Predictors of Global Self-Worth.....	98
4.30	Predictors of Academic Self-Concept.....	100
4.31	Social Acceptance.....	100
4.32	Limitations of the Study.....	100
4.33	Future Directions.....	103
REFERENCES.....		105

**LIST OF TABLES**

TABLE		PAGE
1.	Number of Mothers and Fathers Categorised into Socioeconomic Status Groups.....	36
2.	Subscale Means and Standard Deviations of the Self-perception Profile for Children: A Comparison between the Normative Sample and the LD sample.....	60
3.	Subscale Means and Standard Deviations of the Social Support Scale for Children: A Comparison between the Normative Sample and the LD Sample.....	62
4.	Means and Standard Deviations for Task Performance indicators for the LD sample.....	63
5.	ANOVA Means and Standard Deviations for the Self-Concept and Perceived Social Support for Students reporting High and Low Global Self-Worth.....	74
6.	ANOVA Means and Standard Deviations for Perceived Competency/Adequacy and Perceived Social Support for Global Self-Worth/Scholastic subgroups.....	78 & 79
7.	ANOVA Means and Standard Deviations for Task Performance for Students in each Global/Scholastic subgroup.....	81 & 82

**LIST OF FIGURES**

FIGUIRE	PAGE
1. Domains of the Self-Perception Profile for Children.....	39

## CHAPTER ONE

### INTRODUCTION

Learning disability was formally recognised 25 years ago as being characterised by academic achievement deficits (Kavale & Forness, 1996). Research over the years has highlighted that other important correlates may also coexist. For example, research indicates that some children with learning disabilities (LD) also have emotional and social problems (Bryan, 1986; Houck, 1984; Kavale & Forness, 1996; Peal, Donahue & Bryan, 1986; Poplin, 1984).

There is a concern that academic failure can have a potential impact on global perceptions of children with learning disabilities (Cooley & Ayres, 1988). Historically, an assumption has been made that children with learning disabilities experience a lower self-esteem than children who are more academically successful (Bear, Clever, & Proctor, 1991). In general, this hypothesis has been supported when academic self-concept measures have been utilised (Chapman, 1988b). However, when global self-concept measures have been used, findings have been inconsistent (Kistner, Haskett, White, & Robbins, 1987). Therefore, the presence of a learning disability may have a significant impact on students' academic self-concept, but this impact may not necessary generalise to their global self-concept (Rothman & Cosden, 1995). In fact, some researchers propose that a high level of global self-concept may be attained through a compensatory relationship, whereby academic failure is compensated for by strengths in other self-concept domains (Chapman, 1988b; Hagborg, 1996; Kloomok & Cosden, 1994; Silverman & Zigmond, 1983). In any case, research in this area is in need of clarification.

Researchers have additionally examined the social self-concept of students with learning disabilities (e.g., Forman, 1988; Kloomok & Cosden, 1994) and these results have also varied. For example, a recent meta analysis (Kavale & Forness,

1996) of 152 studies indicated that about 75% of learning disabled students can be differentiated from normal achieving students through measures of social competence. Approximately the same percentage of difference between these groups was found across different evaluators (teachers, peers, self) and across different dimensions of social competence, such as social interaction, social rejection, nonverbal communication ability, and social acceptance. Other studies, however, have conversely reported that students with learning disabilities perceived their social acceptance about as positively as normal achieving students (Clever, Bear, & Juvonen, 1992; Durrant, Cunningham, & Voelker, 1990). These results suggest low achievement in school does not necessarily affect the social self-concept of all students. One possible reason for this may be social support serving as a buffer (Harter, 1985b; Kloomok & Cosden, 1994).

Due to the inconsistency of research findings to date, the present study was designed to replicate and extend previous research in order to help clarify some of the ambiguity in the field. As little research has been devoted to studying individual differences among children with learning disabilities, the present study investigated differences in self-concept of children with learning difficulties. It focused on how an individual's global self-worth related to their self-concept in both academic and non-academic areas and to perceived social support. Due to the fact that LD students often experience task performance problems that can impact on their academic achievement, other sources of common problems were also assessed for correlations with academic self-concept and global self-worth. These variables included: academic tasks (spelling and reading), motor skills, and specific auditory and visual memory abilities. Attention was paid to how some children with academic disabilities can maintain a positive self-concept.

The exploration of these relationships may provide some insight as to how the problems that LD students experience may impact specific areas of self-concept, global self-concept, and perceived social support. Such information may prove valuable for developing intervention strategies in both the educational and psychological fields. For example, the characteristics associated with LD may be linked to aspects of their self-concept and perceptions of social support. Investigations into such relationships may provide pathways for better

understanding how the characteristics of these children may impact their self-perceptions. These 'pathways' possibly could then be implemented into intervention strategies to improve both academic achievement and self-concept.

The next sections provide the framework for the present study, beginning with a general discussion on (a) learning disabilities, and (b) self-concept. An elaboration on specific aspects of self-concept is then presented, focusing on the role of competency and social support. These provide a backdrop for the subsequent section, which is concerned with theory guiding the current study. The final section of the introduction discusses recent research guiding the current study and presents the hypotheses.

## **LEARNING DISABILITIES**

The term learning disabilities (LD) emerged from a need to identify students who regularly failed in school. There have been many definitions of LD proposed. However, these definitions and the classification of students with LD have been considerably debated (Algozzine & Ysseldyke, 1986; McLeskey, 1992). Lack of consensus surrounding an operational definition for LD has plagued this area for more than 25 years, and ultimately has had implications for the generalisation of research findings and empirically-based decision-making (Adelman, 1992; Adelman & Taylor, 1985).

One framework for examining the characteristics of LD was provided by the 1977 Federal Register / Individuals with Disabilities Education Act (IDEA) in the United States (Mercer, 1997). Primary characteristics of academic and language difficulties were identified that included problems with: oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematics calculation, and mathematics reasoning. Other associated characteristics have been commonly referred to in literature regarding learning disabilities. These characteristics include cognitive deficits, attention disorders, memory problems, motor problems, social, and behavioural problems.

Being aware that many different LD definitions exist, the following section identifies common characteristics and elements of many LD definitions (Hammill, 1990; Mercer, 1997).

### **COMMON CHARACTERISTICS IDENTIFIED IN DEFINITIONS OF LD**

Most definitions of LD include a 'discrepancy factor' (Hammill, 1990), whereby a discrepancy exists between estimated ability and academic performance. This discrepancy varies among students with LD. For example, a recent study found the severity of reading or maths deficits decreased with age (McLeskey, 1992).

In addition to the 'discrepancy factor', many prominent definitions of LD are similar in that they identify seven different deficits that may be indicative of LD (Mercer, 1997). These deficit areas are briefly identified below.

#### **ACADEMIC & LANGUAGE PROBLEMS**

One of the most widely accepted characteristics of LD is that of academic learning difficulties, with reading problems tending to be the most common (Mercer, 1997; McLeskey, 1992). Other academic deficits include written expression and mathematical calculation (Kaplan & Sadock, 1994). These specific learning disabilities can be identified by examining if a discrepancy between intelligence and academic achievement exists. Language problems, such as oral expression and listening comprehension, have also been found to be prominent among LD students (Gibbs & Cooper, 1989). For example, Gibbs and Cooper (1989) examined 242 children with LD and found that 90.5% had language deficits, many of which were in the mild to moderate range of severity (Gibbs & Cooper, 1989).

#### **PERCEPTUAL PROBLEMS**

Students with LD may experience perceptual problems, such as an inability to recognise, discriminate, or interpret sensations (Mercer, 1997). Research of

visual and auditory problems among students with LD has been popular in the past. For example, overall findings have indicated that spatial deficits may be a factor in learning mathematics for students with LD (Garnett, 1992). More recently, however, research in this area has declined (Mercer, 1997).

#### COGNITIVE / METACOGNITIVE PROBLEMS

Some students with LD have cognitive and metacognitive deficits, which impact on problem solving and academic success (Bos & Filip, 1984; Montague & Appelgate, 1993). For example, Wang, Haertel, and Walberg (1993/1994) found that the student's capacity to plan, monitor, and re-plan learning strategies (metacognitive processing) had a significant impact on learning. They also found that the student's general intelligence, prior knowledge, competency in reading and mathematics, and verbal knowledge (cognitive processing variables) greatly influenced learning (Wang et al., 1993/1994). Metacognitive and cognitive processing were found to be the second and third most influential factors on learning (teacher management of the classroom was the most influential) (Wang et al., 1993/1994). It has been suggested that students with LD may be delayed or have a deficit in using these strategies (Kulak, 1993). That is, students with LD may process information in a way that differs quantitatively (delayed) or qualitatively (deficit) from that of students without learning disabilities (Kulak, 1993). For example, one study found that students with learning disabilities did not use metacognitive strategies to solve difficult problems; however, their non-LD student peers did (Montague and Applegate, 1993)

#### SOCIAL, EMOTIONAL, & BEHAVIOURAL PROBLEMS

Students with LD may experience increased frustration related to their learning difficulties. Feelings of negative self-worth may also emerge in these children (Mercer, 1997). In fact, some researchers have found that students with LD have a low self-concept in academic domains in comparison to their non-LD peers; however, these groups may not differ in other self-concept domains such as social, affect, and family (e.g., Montgomery, 1994). More research in this area is reviewed in later sections.

Research has also found that behaviour problems are sometimes evident. For example, a recent study was conducted to provide current information about the characteristics of students with LD (McLeskey, 1992). 790 students with LD were examined. Based on multidisciplinary team reports, it was found that about 15% exhibited significant behavioural problems (McLeskey, 1992). More specifically, behavioural disorders such as attention deficit hyperactivity disorder (ADHD), conduct disorder, and oppositional disorder have been found to be more prevalent in children who have learning problems (e.g., Brier, 1989; Huessy, 1992). LD students may also experience social interaction problems with teachers, parents, peers, or strangers (e.g., Bryan, 1977; Gresham & Elliott, 1989). Furthermore, students with LD tend to be less socially competent than their peers (Toro, Weissberg, Guare, & Leibenstein, 1990), demonstrate social skills deficits (Kavale & Forness, 1996), and are more at risk for internalising disorders (Thompson & Kronenberger, 1990).

#### MEMORY PROBLEMS

Students with LD have been found to exhibit memory problems for auditory and visual stimuli (Hallahan & Kauffman, 1988). In fact, students with learning disabilities can be differentiated from children without learning problems using measurements of memory (Gettinger, 1991; Swanson, Cochran, Ewers, et al., 1990). For example, Gettinger (1991) found that students with LD are more likely to have working memory problems. Another study found that students with LD used different strategies to learn (Torgesen & Kail, 1980). That is, children without LD were found to learn a list of words by rehearsing the names or by classifying the words into groups, while children with LD failed to use such strategies spontaneously and remembered less (Torgesen & Kail, 1980).

#### MOTOR PROBLEMS

Some students with LD exhibit gross or fine motor skill deficits. For example, they may have trouble throwing or catching a ball, walk clumsily, and may have difficulty using scissors, buttoning, or zipping compared to children without LD

(Mercer 1997, Silver, 1996). In the past, there was an emphasis on researching motor abilities among children with LD (e.g., Ayres, 1972); however, currently little research has been focused on motor deficits of LD students (Cratty, 1996).

In summary, the identification of common characteristics present in prominent definitions of LD appears to be creating a movement toward some consensus operational definition (Hammill, 1990). However, overall consensus continues to remain elusive (Mercer, 1990). Difficulty reaching consensus is partially due to the heterogeneity of the LD group (Mercer, 1990). Given that common aspects of LD definitions have now been outlined, the following sections briefly describe the heterogeneous aspects of LD, the prevalence of LD, and provide a discussion on a New Zealand based perspective.

## **HETEROGENEITY**

It is widely accepted that students with LD make up a heterogeneous group (e.g., Hagborg, 1996). As mentioned earlier, many definitions of LD share common areas of deficits and a discrepancy factor. It is also commonly accepted that there are numerous different types of learning disabilities (Mercer, 1997). For example, a student may have a discrepancy between ability and achievement in any one of the pertinent areas described earlier, or may have discrepancies in all or various combinations of these.

To capture this complexity, one must consider the number of combinations possible. As previously mentioned, there a number of cognitive and social-emotional characteristics that are attributed to learning disabilities. For example, cognitive deficits in attention, perception, motor functioning, memory, problem solving, and metacognition are commonly associated. Social-emotional difficulties include problems such as hyperactivity, low self-concept, learned helplessness, social imperception, distractability, and disruptive behaviour. Interestingly, more than 500,000 combinations of these cognitive and or social-emotional problems are theoretically possible (Mercer, 1997). The numbers of possible characteristics are further increased when the severity of each problem is considered.

Accepting that individuals with LD are different, some researchers have investigated subtypes. Thus far, three subtype groups have emerged based on: (1) language deficits, (b) visual deficits, and (c) a behavioural impairment group (Bender & Golden, 1990). Other researchers have reported the existence of a fourth nonverbal learning disabilities subgroup (Harnadek & Rourke 1994; & Little, 1993), which appears to have some overlap with the visual deficit subgroup. Memory variables in relation to subgroups have also been investigated (Torgesen, 1988). For example, children with LD who have deficits in short term memory have been found to be deficient in coding the phonological features of language into short term memory (Torgesen, 1988). Such research investigating the subtypes of individuals with LD provides a meaningful contribution as it can lead to more accurate identification and treatment (Kavale & Forness, 1987).

## **PREVALENCE**

The incidence of learning disabilities is difficult to estimate due to the variations in definitions and assessment practices. However, estimations have been made. For example, the United States has a wealth of statistical data on the prevalence of LD. The Department of Education in the United States of America reported that 4.09% of U.S. children and youth aged 6 – 21 years were identified as having a learning disability during the school year of 1992-1993 (cited in Mercer, 1997). This statistic comprised a compilation of individual state percentages ranging from 2.34 % to 6.24%. The variation of percentages across states could possibly be due to factors, such as different identification criteria used, policies, and changes in state populations.

In contrast, New Zealand statistics are sparse. Of course, one reason is that the government of New Zealand maintains a non-categorical perspective regarding students with generic learning problems. That is, LD is not officially recognised here. As since no definition is recognised by schools, this obviously limits estimations of prevalence. Education policy makers in New Zealand currently prefer mainstreaming. Within such philosophy, policies have been developed to meet the needs of “particular learning needs” of “underachieving students” (Chapman, 1992). Despite this, limited prevalence estimations have been made.

Research suggests that between 7 to 15% of students in New Zealand have significant learning difficulties (Norman et. al., 1984; Roache & Hunt, 1988; Walsh, 1979).

Overall, learning problems appear to be more common among males than females (Smith, 1994). For example, the following ratios (males:females) were found on examination of several studies: seven studies reported a ratio of 2:1, five studies reported a 3:1 ratio, four studies reported a 4:1 ratio, and one study reported a 6:1 ratio (Smith, 1994). A local LD focused body also agrees that the prevalence of males exhibiting LD is greater than females (Manawatu SPELD, 1997). In terms of other sex differences, severity of academic achievement deficits appears to be greater for females compared to their male peers for maths and reading; however, males appear to have more problems in visual-motor abilities, spelling, and written language than females (Vogel, 1990). These sex differences may be attributed to medical, maturational, or sociological factors (Mercer, 1997). For example, males may be more at risk for brain injury during pre- and postnatal periods. Males also mature more slowly than females from birth to adolescence which may result in a lack of school readiness, and boys are more often referred for assessment of LD by teachers than girls, as teachers expect males to have more learning problems (Mercer, 1997).

The occurrence of learning disabilities has been identified across various cultures, and is reflected in the growing amount of research regarding LD in different cultural contexts. For example, language based learning disabilities have been detected in children using an alphabet based written language system (e.g., English) and Logographic (pictorial) written language system (e.g., Chinese) (Mercer, 1997).

In addition to the United States, research on various aspects of LD has emerged from Australia, Canada, Chile, Columbia, Denmark, Germany, Italy, Israel, New Zealand, the Netherlands, and the United Kingdom. Some of these countries differ from others in their actual recognition, identification, and treatment of LD. For example, the governments of Italy and New Zealand do not officially recognise the term “learning disabilities”. However, this does not prevent

relevant research being carried out and intervention offered (e.g. Specific Learning Disabilities Association of New Zealand - SPELD).

## **A NEW ZEALAND PERSPECTIVE**

In New Zealand, the government promotes mainstream education, and provides limited funding to meet the needs of students with special needs. Although the term LD is not recognised in New Zealand, reference is made to children who have “particular academic difficulties” (Department of Education, 1987), or “learning difficulties” (e.g., Roache & Hunt, 1988). Children who are extremely limited may access remedial assistance, be included in a reading recovery program, or be assisted under provisions made for “educationally retarded” students (Chapman, 1992). The Reading Recovery Program primarily aims to reduce the number of children who develop difficulties in reading and writing, through early identification and intervention. Despite claims of the program being successful (Clay, 1987a), the effectiveness of the program has been questioned (e.g., Chapman & Turner, 1991; Glynn, Crooks, Bethune, Ballard, & Smith, 1989).

An organisation called the New Zealand Federation of Specific Learning Disabilities Associations (SPELD) is a group that has attempted to raise the profile of LD in New Zealand. SPELD was first established in New Zealand in 1971, and later expanded when associations throughout New Zealand joined to form a corporate body in 1975 (Chapman, 1992).

The primary aim of SPELD was to have Specific Learning Disorder (SLD) accepted as a category of need in the education system of New Zealand (SPELD, 1985). SPELD requested that the New Zealand government train teachers in the specialised identification, assessment, and remedial methods required to assist students with LD (SPELD, 1985). These demands have been rejected by successive Ministers of Education. Historically, SPELD has adhered to a traditional neurological view of specific LD, which appears to have influenced these rejections from Ministers of Education (Chapman, 1992). For example, SPELD’s 1985 policy statement stated “first and foremost, specific learning

disability is a dysfunction in one or more of the underlying cerebral processes involved in understanding or in written or spoken language” (SPELD, 1985).

SPELD diagnoses LD in terms of specific process deficits. That is, the assessment includes the measurement of performance in reading, writing, spelling, and maths. The battery of tests also uses various instruments to assess process and functional deficits. These tests assess auditory and visual skill, spatial perception, and motor coordination.

SPELD has been criticised for an “outdated” view on the etiology, identification, and assessment, as it adheres to the traditional psychological process disorder perspective that was promoted in North America during the 1960s and 1970s (Chapman, 1992). SPELD has been criticised for promoting an organic etiology (Clay, 1987b). Both the theoretical and psychometric properties of tests used have also been criticised (e.g., Algozzine & Ysseldyke, 1986; Arter & Jenkins, 1979; Coles, 1978). For example, Coles (1978) found that the LD test battery fails to correlate with a diagnosis of LD.

In general, tests used for assessing perceptual or psychological processing abilities are also criticised for having low reliability and limited evidence of validity (Chalfant, 1989; Shepard, Smith, & Vojir, 1983), and being both inappropriate and technically inadequate (Ballard, 1987). However, recent research on the SPELD battery (Little, 1991) has found evidence supporting some tests in the battery.

As previously noted, most conceptual definitions of LD contain some reference to psychological processes of learning. Although the psychological process model has been criticised, some researchers emphasise the relevance of assessing information processing (Chalfant, 1989; Stanovich, 1991). In fact, some researchers have worked toward developing a theoretical base for a psychological-processing approach to LD. For example, Kolligian and Sternberg (1987) proposed a componential-deficit theory of LD, supported by empirical research. Moreover, Swanson (1987, 1991) informs that recent developments in cognitive psychology may contribute to a theory of LD. Research to date

certainly suggests that the inclusion of information processing in the criteria for diagnosing LD is both practical and theoretically viable (Shaw et al., 1995).

## **CONCLUDING COMMENTS**

In essence, while some consensus on the major components of LD appear to have developed in the past 20 years, the definitional debate continues (Mercer, 1997). Meshed within various perspectives are opinions on the function of categorisation and labelling. Some categorically dismiss a LD designation (e.g., Reynolds, Wang, & Walberg, 1987; Stainback & Stainback, 1984). Others argue that while special education service delivery is necessary, labelling contributes very little (e.g., Reschly, 1988). However, many others have a different opinion. For example, Chalfant (1989) states that identifying characteristics associated with LD in children can be used to assist in a number of areas, including: (a) facilitating efforts to study this population, (b) assisting in identifying appropriate instructional and intervention strategies, (c) helping identify the origins of the condition, and (d) assessing special education funding (Gallagher, 1986; Kauffman, 1989; Semmel, 1986).

Regardless of the perspective, the fact remains that despite efforts at consensus, disagreement about definition is still common in this area (Shaw, 1995). Further study on individuals experiencing LD may reveal important characteristics of this heterogeneous group and lead toward a more accurate and consensually based definition. Recently, research has been undertaken to identify characteristic features related to the self-concept of students with learning disabilities. The following section explores this construct. A definition and overview of self-concept is provided, along with its historical development, the models and assessment methods used, and pertinent research findings.