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A STUDY OF LEARNING DISABLED ELEMENTARY SCHOOL STUDENTS IN SOOKE SCHOOL DISTRICT #62

by

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ABSTRACT

Student records of 71 learning disabled elementary school students from Sooke School District #62 were examined to look for common trends. The specific areas studied were home and actual school placement, length of time in special classes, grades repeated, IQ scores and profiles, academic levels, and social/behavioral traits.

It was discovered that 63% of the LD students were now or had once been in segregated special classes, most following the resource room model. The vast majority were integrated into regular classes at least one grade level below their age-appropriate placement. The records indicated that 92% of these children had full scale IQ scores that fell somewhere between the low average to high average range. Furthermore, over half of the students had no significant difference between the verbal and performance sub-scores on the intelligence scale. All but one child were achieving below average results in at least one of reading, writing, and mathematics; 61% were rated as below average in all three academic areas. As well, 42% of the LD children were described as having behavior problems, 52% had low social skills, 70% had low self concepts, and 99% were rated as having poor organizational skills.

In addition to the data collected on the LD students, School District # 62's policies and programs for learning disabled children were outlined. The entry/exit criteria were examined in detail, looking specifically at the

definition of a learning disability, identification procedures, and the use of standardized intelligence and achievement tests.

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CHAPTER 1

INTRODUCTION

The Purpose

The inspiration for this project arose during my years as a special education teacher, both in Calgary and Sooke. Each year, a new crop of learning disabled children was admitted to my elementary school classroom. I watched them develop, both academically and socially, and after they completed grade 7, I sent them off to junior high school, confident that most had bright futures. Although I certainly recognized that these children still had some academic difficulties, I truly believed that they had acquired the strategies to allow them to graduate successfully from high school.

Yet to my knowledge, not a single one of these LD children did make it through the regular program to grade 12. Many transferred into vocational or preemployment programs in junior high school, and they were, thus, removed from the academic stream. Many others never even reached high school, as they chose to drop out after they reached 15 years of age. Too often, I heard reports that my former students were in trouble with the law, had run away, or were heavily involved with alcohol or drugs.

Why did so many of these children fail? Did I overestimate their abilities and burden them with unrealistic expectations that they could never hope to achieve? Why could children who were

happy and successful in elementary school not cope in the junior high school system? Did I have an unusually low success rate, and, if so, why? If other teachers were achieving better results, what approaches were they using?

These were only a few of the questions that motivated me to undertake this project. Originally I had hoped both to make my study larger in scope and to examine the files of LD children in School District #62 for the past decade. I had intended not only to study the academic and social profiles of every learning disabled student who had passed through the system during the past 10 years, but also to determine their fates once they left elementary school. These data would have provided a basis of comparison for the LD children presently in the Sooke School District. Unfortunately, detailed records simply did not exist, a fact that rendered my original plan impossible to accomplish. The Special Education Department had destroyed the students' files after they had graduated or left school. In addition, no records were kept either to graduation rates of LD children or to the names and schools of former students. Thus, there was no way to collect the information that I desired.

Instead, I decided to look at identified LD children currently enrolled in elementary schools in School District #62. Detailed information was readily available for each one of these children, and it would be possible to compile data on their cognitive, academic, social, and behavioral characteristics. I hoped to answer two key questions: (a) have learning disabled children in School District # 62

been correctly identified, and (b) have intervention strategies for these LD children been successful?

Limitations

There are many limitations associated with this study, and it would be unwise to make definitive judgements based on the data attained. A major drawback involves the use of student files to draw conclusions about individual children's abilities. It is always difficult, even under ideal conditions, to gather meaningful information about human cognitive, personality, and behavioral traits; over the years, their measurement has remained problematic. To rely on second-hand information listed in student files makes accurate measurement even more difficult to achieve. In spite of these apparent limitations, two main sources of information were used during this study: (a) standardized intelligence and achievement tests that had been administered by Special Services staff; and (b) academic, social and behavioral checklists that had been completed by regular and LD class teachers. Both the validity of all three sets of results and the reliability of the checklists can be considered questionable.

The standardized individual intelligence and achievement tests can be viewed as reasonably reliable. They were administered by trained psychologists, who understood the importance of uniform testing conditions. It is very likely that the test guidelines, including questioning techniques and time limits, were strictly followed.

Scoring of the results can also assume to have been accurately performed. However, due to the human element, testing conditions were actually very different for each child. The students were tested at different times of the year, at different ages, in different settings, and by different examiners. Some children may have been enthusiastic and cooperative, while others may have been frightened, anxious, reluctant, or defiant. All these factors would have combined to influence the overall test results.

Perhaps even more significant is the question of validity. The problems associated with standardized tests will be discussed in detail in the following chapter, as many researchers believe that these formalized tests do not measure the concepts to which they claim. Too often, the tests are a series of brief skill exercises that bear little resemblance to the overall constructs of intelligence, reading, writing, or mathematics. In addition, several different tests were used by the Sooke examiners, making comparisons of different students' results even more difficult.

The student checklists were even more subjective, for no criteria or guidelines existed for teachers to follow. Teachers were simply asked to rate the LD children on a series of traits, ranging from academic performance, to classroom behavior, to social competence. Each child was awarded a score of 1-5, depending on the teacher's perceptions. The interaction between student and teacher would greatly influence the results, and the same child might be seen very differently by two separate teachers.

Nevertheless, despite potential limitations, the data obtained from the LD students' files are still useful. There will be a significant margin of error with some of the results, but interesting patterns can be noted and trends observed. Some tentative conclusions can be drawn, and possible avenues for future studies will emerge.

Summary

The purpose of this study was to explore some of the cognitive, academic, social, and behavioral characteristics of the learning disabled students enrolled in School District #62's elementary schools. It was hoped that two questions would be answered: (a) have the learning disabled children in School District #62 been correctly identified, and (b) have interventions for these students been successful?

Several limitations were associated with this research, including the reliance on second-hand information from student files, the likelihood of error when studying human subjects, and the low validity and reliability of some of the data.

CHAPTER 2

REVIEW OF THE LITERATURE

Background of Learning Disabilities

Definitions of Learning Disabilities

The Canadian Association for Children and Adults with Learning Disabilities adopted the following definition in 1982:

> Learning disabilities is a generic term that refers to a heterogeneous group of disorders due to identifiable or inferred central nervous system dysfunction. Such disorders may be manifested by delays in early development and /or difficulties in any of the following areas: attention, memory, reasoning, coordination, communicating, reading, writing, spelling, calculation, social competence, and emotional maturation.
>
> Learning disabilities are intrinsic to the individual and may affect learning and behavior in any individual, including those with potentially average or above average intelligence.
>
> Learning disabilities are not due primarily to visual, hearing or motor handicaps, to mental retardation, emotional disturbance or environmental disadvantage, although they may occur concurrently with any of these.
>
> Learning disabilities may arise from genetic variations, biochemical factors, events in the pre- to post-natal period, or from

any other subsequent events resulting in neurological impairment (Bachor, 1986).

The American based National Joint Committee on Learning Disabilties published a more concise definition in 1981. The Committee limited the areas of possible difficulties to listening, reading, speaking, writing, reasoning, and mathematical abilities. It also chose not to speculate on the possible causes of learning disabilities (Hammill, Leigh, McNutt, & Larson, 1987).

Bachor (1986) found that almost all formal Canadian definitions of learning disabilities included three essential elements: (a) a significant discrepancy between a student's perceived ability and his or her achievement; (b) an exclusion clause indicating that the discrepancy is not primarily due to intellectual, cultural, physical or emotional problems; and (c) a suggestion of a neurological or biochemical link.

Not all educators concur with these definitions. Coles (1989) challenges the basic premise of a neurological dysfunction. He points out that a medical or biological connection has never been proven, and he suggests that we may be remediating a non-existent condition. He states that learning disabilities develop "not from within the individual, but from the individual's interaction within social relationships" (p. 269). Galaburda (1989) believes that Coles's argument has some merit, but is too narrow in focus. He suggests that learning disabilities arise from a combination of biological, neuroanatomical, and environmental factors. Stanovich (1989) also supports many of Coles's theories, particularly those concerning the roles that socioeconomic status and family values play in determining

school success. He states that many educational researchers assume causation from correlational evidence, and that they therefore reach erroneous conclusions. Although Rourke (1989) also believes that learning problems must be viewed within a socio-political-historical context, he criticizes most of Coles' other ideas. He claims that Coles wrote "some material of merit and much opinionated balderdash" (p. 274).

Warner and Bull (1986) suggest that the major problem with current LD definitions is that they follow a medical, developmental, or socio-political model, rather than being educationally based. Leong (1989) agrees, and proposes that educators focus on specific reading, spelling, writing, and mathematical difficulties, rather than grouping all academic deficiencies under the one umbrella term, learning disability. Algozzine and Ysseldyke (1986) feel that vague definitions and poorly defined concepts have created major problems with classification. "What began as an important attempt to sort brain injured individuals from others who behave like them has become an 'avant-garde' movement characterized by controversy and confusion" (p. 396).

Diagnosis of Learning Disabilities

Entry criteria. Each province, state, or individual school district has a set of criteria that determine eligibility for learning disabled programs. McNutt (1986) reported that most school districts' entry criteria included (a) a language component, (b) an academic weakness, (c) a failure to achieve to perceived potential, and (d) an exclusion clause. Some districts also stated a minimum intelligence score. None included mention of a

neurological disorder, as this factor was judged too difficult to measure. McLeskey (1989) stated that most definitions today place less emphasis upon neurological dysfunction, and attach greater emphasis to a discrepancy between expected and actual levels of achievement. Significantly higher results on a standardized intelligence test than on a standardized achievement test may indicate a learning disability. In some cases, psychologists look for a significant difference between the verbal and the performance scores on intelligence tests. They may also note variation between individual subtests.

Despite the similarities between different school districts' entry criteria, there appears to be a lack of consistency in how individual districts diagnose children as learning disabled. Reynolds, Wang, & Walberg (1987) discovered that the numbers of learning disabled (LD) students varied considerably from state to state, ranging from .8 % in New York to 5.2 % in Maryland, while Bachor (1986) estimates that from 2 to 20 % of students could be diagnosed as LD. Biklen and Zollers (1986) are also critical of the lack of a clear, concise list of criteria; they claim that up to 80 % of the school-age population could be classified as learning disabled, according to certain characteristics. Frankenberger and Harper (1987) warn that this inconsistency may cause problems for children who move to a new district.

Intelligence testing. Despite a shroud of controversy, most learning disabled students today are subjected to extensive psychological testing, and may, as a result, receive IQ scores that help to confirm their LD status. The two most widely used tests are the Stanford-Binet Scale and the

Weschler Intelligence Scale for Children (revised edition). Before examining the arguments both for and against IQ testing, it would be desirable to discern the motives of Binet and Weschler themselves.

Alfred Binet was commissioned in 1904 to devise a measurement scale to ensure that no child suspected of mental retardation would be placed in a special institution when, in fact, he or she was capable of profiting from an ordinary school. At that time, children of limited intelligence were labelled, in order of descending mental capacity, as morons, imbeciles, or idiots. Binet decried the fact that different doctors arrived at conflicting conclusions for the same patients, relying upon highly subjective methods of classification. He explained that imprecise labelling made it impossible to determine the effectiveness of intervention programs. He felt that, because intelligence was dynamic, children's IQ scores could be compared before and after educational programs, in order to measure individual progress. He designed a series of subtests that together created a composite picture of intelligence. Binet warned against using any one subtest in isolation, arguing that a single test is too limited to reveal anything meaningful (Binet, 1916).

David Weschler first became involved in intelligence testing while employed as a psychologist at New York's Bellevue Hospital. He became concerned that the Stanford Binet Scale was inappropriate for many of his adult patients because: (a) it was designed for children, and (b) it placed too great an emphasis upon verbal abilities.

Weschler included both a verbal and a performance component in his test, and weighted the two sections equally to determine a person's full-

scale IQ score. He suggested that a significantly higher performance score usually indicated limited education, rather than limited intelligence. He recommended that IQ scores be considered along with an individual's past educational, social, and occupational history, current ambition, and health, in order to determine a useful intelligence index.

Intelligence testing became very popular in the 1950s and 1960s, and group tests were administered in schools, colleges, businesses, and government agencies. The examiners were not always qualified, and faulty interpretations of test results led to some questionable decisions. In perhaps the most astounding interpretation of IQ scores, data from the testing of American army recruits for World War 1 were used to create a ranking of intelligence for different nationalities. American-born Caucasians were judged the most intelligent, although the average recruit in this group scored barely above moron status. Northern and Western Europeans came next, followed by Eastern Europeans and American-born Blacks. Despite the fact that unfamiliarity with the English language, lack of educational opportunities, and different cultural backgrounds would have affected test scores, and thus skewed the results in favour of middle-class Caucasian Americans, these data were used to help pass the 1924 Immigration Restriction Act (Gould, 1981).

Many researchers today feel that intelligence tests are both out-moded and irrrelevant in the study of learning disabilities. Neill and Medina (1989) make the point that the Weschler test, also known as the WISC-R, has altered little since 1949, while our knowledge of children's learning has changed dramatically. They also claim that statistical error

is often not taken into account. Baldwin and Vaughn (1989) are highly critical of districts that require LD children to attain a minimum full-scale IQ score: "We do not know of any disease, organism, birth defect, or neurological disorder that selectively attacks humans with above-average intelligence. If this is true, then a child with an IQ of 50 is just as likely to suffer from a learning disability as a child with an IQ of 150" (p.520).

Seigel (1989) delivered a scathing attack on the use of IQ testing in schools. She believes that many LD children are hindered on the verbal portion of the test by low reading levels and difficulties with language. Results may also be depressed on the performance section by the fact that many subtests are timed, and may thus be affected by sequencing skills, fine-motor coordination, short-term memory, and attention span. She also suggests that IQ scores do not correlate well with reading potential, as many children with lower IQ's become good readers. Graham and Harris (1989) challenge Seigel's second premise, and criticize her belief that word callers, who demonstrate poor comprehension, can be classified as good readers. Kersher (1990) suggests that IQ is not an accurate predictor of learning ability, as LD children with lower IQ's progress as rapidly as LD students with higher IQ's. He believes that self concept is a more useful predictor. Aaron (1991) recommends that discrepancies between listening and reading comprehension be used to predict potential reading ability. Torgeson (1989) states that, as children grow older, it becomes increasingly difficult to diagnose their reading difficulties, as lack of exposure to text may have placed some of them at a disadvantage in terms of knowledge, vocabulary, and language. Cummins (1977) cautions against the use of IQ

tests with children to whom English is a second language; he explains that it takes 5 to 7 years for these students to reach the average vocabulary levels of native Canadian children. And Campione (1989) warns that many teachers still perceive IQ scores as absolutes, and thus feel less responsibility to remediate lower scoring students. "Despite Binet's impassioned plea, the view of intelligence as fixed and immutable continues to be held by many" (p.155).

Other researchers feel that IQ testing is a useful tool, as long as certain precautions are followed. Leong (1989) suggests that psychologists should concentrate upon the verbal scores rather than the full scale results, as verbal ability is a much better predictor of reading potential. He also recommends retaining a lower IQ limit of around 85 for the diagnosis of learning disabilities. Wong (1989) and Bryan (1989) both think that it is premature to abandon the use of IQ tests, and they believe that IQ remains a useful tool for predicting achievement. Graham and Harris (1989) propose that decisions regarding placement in LD programs should be made by multi-faceted teams; they insist that eligibility for LD support services should not be based solely upon IQ scores. Campione (1989) states that IQ scores can help professionals to identify students in need of special services, but they are not useful in providing profiles for intervention.

The discrepancy formula. The discrepancy clause, which looks for a significant difference between intelligence and achievement, has also come under fire. The Council of Learning Disabilities recommended in 1986 that discrepancy formulas be eliminated from eligibility criteria; because IQ

scores of LD children are often depressed, discrepancies may be caused by a number of different factors, and the achievement tests often lack validity or reliability (Leigh, 1987). Stanovich (1989) calls the discrepancy idea astounding; he suggests that educators are enamoured with the glamourous but unproven idea of unlocked potential. Lyon (1989) and McLeskey (1989) both reported that research does not support the discrepancy formula. Algozzine and Ysseldyke (1987) suggest that "discrepancies have become a popular tool in the process of limiting the number of students who receive special education, because through numbers, they facilitate in seductive and sophisticated ways otherwise difficult decisions" (p. 309). However, Meyen (1989) says that if educators abandon discrepancies, and rely solely on achievement, they will have no means of assessing whether or not a child is performing at a reasonable level for his or her ability. In some instances, the needs of under-achieving average or high-ability students may be neglected.

The Increased Diagnosis of LD Students. Amidst the simmering debates about LD definitions and criteria, the number of children diagnosed as learning disabled has increased steadily during the past decade. Frankenberger and Harper (1987) calculated that the number of LD children receiving special services in American schools rose 119% in a seven year span from 1979-1986. Biklen and Zollers (1986) reported that 42% of American special education students were classified as learning disabled in 1986, as compared with only 21.5% ten years earlier. Reynolds, Wang and Walberg (1987) also noted a rapid rise in the identification of LD

children, coupled with a decrease in the number of educably mentally handicapped (EMH) pupils. Kaufman, Gerber and Semmel (1988) however, claim that identification has now levelled off.

Several theories exist as to the reasons for this increase in LD students. The Heritage Foundation Report of 1984 implied that greater numbers of LD children not only provided a means for schools to receive greater funding, but also discouraged regular classroom teachers from modifying programs to meet their pupils' needs (Sapon-Shevin, 1987). Biklen and Zollers (1989) mention that the removal of lower functioning LD students from regular classes brings up the norms on standardized tests; as a result, higher test scores give the public the perception that schools or classes are more effective. Gelzheimer (1987) suggests that the LD label reduces guilt over school failure. If the child is diagnosed as handicapped, the school and parents are absolved of any responsibility. Algozzine and Ysseldyke (1986) concur with this notion, and describe the term learning disabled as "more appealing than mental retardation, less alarming than emotional disturbance, and more effective in arousing sympathy than normal or low-achieving" (p.397).

Adelman and Taylor (1986) warn that, unless we reduce errors and stop identifying children who do not meet the criteria of learning disabled, the LD field will lose credibility with governments and the general public. McLeskey (1989) expands upon this viewpoint: "If the category of learning disabilities is to maintain any level of credibility, it is essential that reliable and valid criteria for identification be determined—guidelines that practitioners agree upon and consistently apply in practice. Otherwise the

category will continue its unabated growth and include increasing numbers of students with minor learning problems while excluding students with more extreme academic problems. Whether this goal is achievable is highly questionable" (p. 438).

Characteristics of LD Children

There is no prototype of an LD student: learning disabilities occur in all groups of children from every possible background. Nevertheless, many researchers have attempted to look for common personality, behavioral, and social traits that are shared amongst large numbers of LD children.

Cooley and Ayres (1988), Forman (1988), Gregory, Shanahan, and Walberg (1986), and Kistner and Osborne (1987) all reported that LD students tend to have lower self concepts than other students of the same age. Forman suggested that the support of classmates was the most important factor in determining self worth, followed by perceived scholastic behaviors, athletic competence, and physical appearance. Kistner and Osbourne noted that the LD pupils with higher IQ scores were more negative about their own abilities, and they speculated that higher family expectations were perhaps the reason. Lewis and Lawrence-Patterson (1989) and Taylor, Adelman, Smith and Phares (1989) found that LD children perceived that they had less control over their school lives than did their non LD classmates. In many instances these children were externally motivated, and believed that success was predetermined, rather than earned. Mokros, Poznanski, and Merrick (1989) failed to find a correlation between depression and learning disabilities.

A number of studies suggest that LD children have weaker social skills than regular students. Gresham and Reschly (1986) found LD pupils to be much lower in teacher, parent, and peer-related social skills. Baum, Duffelmeyer, and Geelan (1988), Olivia and LaGreca (1988), and Ritter (1989) all concluded that LD adolescents possessed less effective social strategies than their similarly aged peers. McConaughty and Ritter (1985) noted that LD boys participated in fewer school activities than did the other boys. Bryan, Pearl, and Fallon (1989) found that LD students in junior high schools rated themselves both more susceptible to peer pressure and more likely to engage in anti-social behavior than the regular students. Landau, Milich, and McFarland (1987) categorized LD children into three different groups, according to their verbal and performance IQ scores; they calculated that children with significantly higher verbal than performance scores were the most popular and the least rejected of the three groups. The group with higher performance scores were the next most popular, while those with no significant difference between the two scores were rated the most rejected, the least popular, and the most aggressive. Bryan states that these social problems begin at an early age, and that they cannot be attributed to academic failure.

The results of other studies conflict with the previous findings. Cartledge, Stupay, and Kaczala (1986), and Sabornie and Kauffman (1986) found no significant difference between LD and non LD students in either social-skill measure or sociometric status. Kistner and Gatlin (1989) discovered that the majority of LD students were accepted by, and popular with, their age-appropriate peers, and that the rejected children were those

rated as overly aggressive. Dudley-Marling and Edmiaston (1985) caution against making generalizations, for although LD children as a group may be at risk for attaining low social status, many LD youngsters are very popular and well adjusted.

Delinquency and school misbehavior are also associated with learning disabilities (Adelman, Nelson & Smith, 1989; Bender & Golden, 1988; Derr, 1986; McConaughty & Ritter, 1985). Others connect LD children with low attention spans, off-task behavior, low-task completion, difficulty following directions, and poor organizational skills (Fellers & Saudargas, 1987; Gresham & Reschly, 1989).

Even before the concept of learning disabilities was introduced, Weschler had indicated a link between social incompetence and a discrepancy on his intelligence scale: "The most outstanding single feature of the sociopath's test profile is his systematic high score on the Performance as compared to the Verbal part of the Scale" (Matarazzo, p. 433).

McKinney (1989) and Leigh (1987) reported that LD children with maladjustive behavior displayed both weaker social skills and greater behavior deficits as they became older, and they suggested that intervention programs are therefore essential. McKinney also noted that these children with behavioral problems experienced steadily decreasing patterns for achievement from elementary to high school. In contrast to the better known theories of school failure and preferential treatment, Larson (1988) hypothesized that a lack of social metacognition skills, including

awareness, control, and evaluation of social situations, may account for the link between learning disabilities and delinquency.

Blachman (1988) questions the value of these previous studies, stating that because we cannot fully agree on who is an LD child, there is no way to accumulate true scientific knowledge. He feels that educators should accept the tremendous heterogeneity in the field, treating each person as an individual: "The numerous conditions subsumed under the LD label make it clear that it is futile to continue to look for the prototypic LD child—LD is simply not a unitary construct" (p. 287).

Curriculum for the LD Child

Definitions of Curriculum

It is impossible to meaningfully assess and evaluate different curricula available for LD children without first settling on a clear definition of the concept curriculum. Although it may come as a surprise to the majority of the people directly involved with schools, several opposing viewpoints exist as to what curriculum entails.

Pratt (1980) and Barrow (1984) share the feelings of many teachers, principals, students, parents, and government officials, who all see curriculum as a blueprint for instruction. They believe that well designed curriculum, which includes objectives, content, and evaluation procedures, leads to more effective instruction. Proponents of this definition often utilize theories and models to help rationalize and plan programs. Reid (1981) describes these individuals as "systemic" theorists.

At the opposite end of the spectrum are the radicals, who feel that schools and curriculum serve to reproduce the structured inequalities of our society (Bowles & Gintis, 1976). These theorists suggest that, in order to change curriculum and to offer equal opportunity to minorities or lower-class children, society must be willing to make major social and political transformations. Until that happens, schools will continue to be a vehicle for cultural reproduction.

A third group, the existentialists, view curriculum as a highly personalized means of self-discovery. Pinet (1975) explains the concept of currere, the nature of one's educational experience. He states that currere is descriptive, rather than prescriptive, and allows each person to turn inward to discover his or her own cognitive and affective insight.

The fourth outlook examines curriculum as a practical act that endeavours to improve people's capacity to make good decisions, both individually and collectively. Joseph Schwab (1969), a leading proponent of this deliberative approach, states that it is impossibe to separate curriculum from the milieu of learners, teachers, and community. Learners are much more than just minds; they have unique feelings, personalities, values and futures. Curriculum must take this into account and should not attempt to divide the intellect from feelings and actions. "Otherwise the curriculum becomes a bore, an unpleasant duty, a necessary evil" (Schwab, 1954, p. 108).

In the ensuing discussions of curriculum for the LD child, this paper will follow the deliberative approach, and examine the wide variety of factors that can influence educational programs.

Educational Goals for the LD Child

In 1988, the British Columbia Ministry of Education released The Royal Commission on Education: A Legacy for Learners, a lengthy document compiled by B.M. Sullivan. This report summarized the feelings of government, parents, teachers, students, business, and the general public towards schools in this province. The document concluded that schools have three major functions: (a) to provide custodial service while parents work; (b) to socialize students to norms and values of our society; and (c) to provide educational opportunities, including the cultivation of the mind, the preparation for vocational life, moral and civic development, and individual growth such as self worth, challenge, and self satisfaction. Sullivan suggested that the educational function should be the prime concern of schools, as other societal agencies can help fulfill the first two functions.

The official British Columbia government philosophy of education states "that education is a lifelong process embracing many factors, including personal development, career preparation, the enhancement of creativity, self-discipline, mature judgement, and a broad range of life skills, not the least of which is curiosity—the love of learning" (Sullivan Report, p.1).

Throughout the past several decades, several special interest groups have lobbied to have schools change their primary goals. The 1957 launching of the Soviet Sputnik satellite sparked a movement towards a greater emphasis upon science and technology in the classroom during the

1960s. Later, freedom of the individual became a popular theme, followed by the more recent "search for excellence." Today, many American organizations feel that "the future of the country is in jeopardy because the country's schools are failing to prepare the young for the demands and challenges that lie ahead" (Rosario, 1986, p. 31). While Canadian schools may escape the more overt pressure exerted by the American media and big business, they nevertheless must juggle a wide range of demands from government, local school boards, parents, and numerous special interest groups. Sometimes the needs of learning disabled children may seem to conflict with the goals of other groups, and schools may not be able to satisfy everyone.

The Mainstreaming Debate

Background on mainstreaming. Throughout the past century, educators' opinions have differed as to the setting best suited to special needs children, and the debate continues today. In earlier times, only severely mentally or physically handicapped students received special services. These children were usually educated in large institutions, completely separate from their non-handicapped peers. Learning disabled youngsters were not identified, and they remained in the regular classroom, likely to struggle academically. However, in those days, most young people left school after the seventh grade, choosing not to write the grade 8 entrance exams (Cochrane, 1981). LD children would not have stood out as being different; they would have simply joined the majority of their classmates in seeking employment after elementary school.

It was not until the late 1960s that learning disabled students became entitled to special education services. Segregated classes were set up in designated schools and LD children were bused in from surrounding neighbourhoods. Private schools and institutions also arose, some of which claimed to offer services superior to those of the public schools. Regardless of the setting, LD students had separate classrooms, specially trained teachers, and alternate methods of instruction. Often, these children were integrated with regular classes for non-academic subjects such as art, music, and physical education.

Later, as concern mounted as to the possible negative effects of this isolation policy, many schools adopted a resource room format. In this system, LD children were registered in regular classes in their home schools, and they would go to a separate room for help with areas of academic difficulty. The resource room teacher was usually trained in the remediation of learning difficulties. Today, although the resource room is still the setting in which the majority of learning disabled students receive academic assistance (Junkala & Mooney, 1986; McNutt, 1986; McNutt & Friend, 1985), many educators now advocate a total integration policy, whereby LD children receive help within the context of the regular classroom.

Research on mainstreaming. A myriad of studies have been conducted to examine the effectiveness of mainstreaming. The conclusions are often contradictory, ranging from highly positive to strongly negative.

Vaughn and Bos (1987) found that LD children had very positive attitudes towards the resource room, and they enjoyed going there for instruction. However, Cooley and Ayres (1988) reported that LD youngsters in the resource room had poorer self concepts than their non LD peers, and that they were not academically motivated. Forman (1988) concluded that school placement, whether in the regular class or resource room, was irrelevant to self concept; the level of social support was the determining factor.

Many studies state that mainstreaming fosters more positive attitudes of regular students towards disabled children (Donaldson, 1980; Esposito & Reid, 1986; Fielder & Simpson, 1987). Stein and Hoover (1989) disagree, and suggest that the pressure of mainstreaming may cause anxiety in LD pupils. Other educators believe that the placement of a learning disabled child in a regular class will not in itself ensure positive results; successful mainstreaming requires more active interventions (Gresham, 1982; Hundert, 1981; Johnson & Johnson, 1980). Junkala and Mooney (1986), and Reidiger, Hillyard and Sobsey (1986) both report that effective teaching is the most important component of successful mainstreaming. Strain and Shores (1983) feel that poor teaching contributes to negative mainstreaming experiences, and they also recommend that more attention be paid to the development of social skills. McNutt and Friend (1985) propose that increased teacher inservice training would also contribute to more successful mainstreaming.

Government policies regarding mainstreaming. The best known piece of legislation on mainstreaming is American Public Law 94-142. This law states that all special needs students are entitled to services in the "least restrictive environment." After consulation with parents, teachers must write individual educational plans (IEP's) for each student. In addition, children must receive both non-discriminatory evaluation and culturally appropriate tests (Gallagher, 1989).

The Canadian Charter of Rights has been referred to in order to help determine the legal rights of special needs children. The Charter "guarantees the rights and freedoms set out in it subject only to reasonable limits prescribed by law as can be demonstrated justified in a free and democratic society" (MacKay, 1990, p. 6). MacKay feels that the preceding statement places the onus on educators to show why segregation is appropriate, rather than on parents to prove that integration is more desirable.

The British Columbia Ministry of Education (1989) clearly seems to favour the integration of LD students, as evidenced by statements from The Year 2000 Report. This document says that learning should be individualized, so that each student may experience success, and that programs should be modified in accordance with children's different learning rates and styles.

The Regular Education Initiative. The Regular Education Initiative (R.E.I) began in the 1980's, sparked by concerns about pullout policies for special needs children. Biklen and Zollers (1986) listed several problems with the resource room model, including a disjointed school day, lack of teacher accountability, the homogeneous grouping of children with behavior problems, and lack of coordination between the regular class and the resource room. Reynolds, Walberg and Wang (1986) noted that a pullout program assumes a problem with the student rather than with the learning environment. McGrady (1985) suggested that some LD children were placed in segregated classes mainly because the regular teachers lacked the skills to deal with them effectively. Wang, Reynolds and Walberg (1988) stated that LD diagnostic procedures are costly and time-consuming, and "steal even more resources that should be going into direct educational services to children" (p. 250).

Advocates of the R.E.I. propose that regular and special education merge, and assume a model that "promotes cooperation, coaching and sharing among special and regular educators and one that allows for employment of strategies in the mainstream that will prevent learning and behavior problems" (Trent, 1989, p. 24). Villa and Thousand (1990) detail a very successful program that operates on the zero reject premise, whereby every child is welcome in his or her home school. Features of this program include expanded decision making and teaching of social and life skills as well as academics, but no homogeneous tracking. Stainback and Stainback (1990) prefer the term inclusion to the term mainstreaming. They state that inclusion requires schools to meet the needs of the students, while

mainstreaming tries to fit the child into a fixed classroom setting. They advocate natural proportions of LD children in classes, and they are opposed to overloading one class or school with too many special needs students. Biklen and Zollers (1986) stress the need for both cooperative learning and a strong emphasis on intervention.

Many educators are leery of the Regular Education Initiative. Salend, Brooks, and Salend (1988) caution that school district policies do not always correlate with implementation procedures, and they suggest that mainstreaming can be used as a way to cut budgets. Friend and Bauwens (1988) point out that regular educators may resist having special needs students returned to their classrooms. Others feel that LD children cannot get the individualized programs and intensive instruction they require in a large group setting (Bryan, Bay & Donahue, 1988; Gallagher, 1986; Kauffman, Gerber & Semmel,1988; Schumaker & Deshler, 1988). Chisholm (1988) warns against jumping on another educational bandwagon, and he suggests that regular class teachers are not adequately prepared to assist LD children. Vergasson and Anderezz (1989) concur with this notion and wonder if the regular class setting is one source of LD children's problems, why certain educators are so adament about keeping them in that problem environment. They perceive a resource room as a beneficial support system.

Tracking. Closely associated with mainstreaming is the concept of tracking, or homogeneous grouping. Sometimes entire classes are selected according to perceived ability levels. In elementary schools, this is

particularly prevalent in "split" classes, whereby mainly high achieving students with independent work habits are chosen to be in the class. At other times, separate groups exist within a single classroom, and they receive different instruction in reading and mathematics. In secondary schools, the different classes are often offered different programs of instruction, some less academic than others.

The British Columbia Ministry of Education is critical of tracking or streaming, stating that "students are locked into pathways that do not provide for re-entering the mainstream" (p. 13). The Ministry feels that tracking is too often designed to limit options and to eventually terminate study of an academic subject. The National Coalition of Advocates for Students also is opposed to tracking, and states that misclassification is an added problem, especially for minorities (Sapon-Shevin).

Cuban (1989) questions the entire concept of the graded school, and says that it is archaic to assume that thirty children of approximately the same age will learn the same material at approximately the same rate, using the same methods. He feels that graded schools unintentionally worsen social disadvantage by systematically categorizing, segregating, and eliminating those who do not conform to expected standards.

Doyle (1989) addresses the question of retention, and concludes that a wealth of evidence, dating back to the early 1900's, suggests that retaining children has more negative than positive consequences. Hahn (1987) agrees, and mentions that the most common reason for Los Angeles children to drop out of school is that they are older than their classmates. Hahn discovered that even a good reader who is overage is more likely to

drop out than a poor reader who is with his age-appropriate peers. As most LD children are older than their classmates (Gregory, Shanahan & Walberg, 1986), it would seem plausible that they are of high risk for leaving school early.

Murphy and Hallinger (1989), Goodlad (1984), and Simon (1987) all are concerned that ability grouping promotes unequal access to knowledge, as the lower groups tend to receive a lesser quality of instruction than the more academically inclined groups. Goodlad observed that the higher tracks both engaged in higher level processes and were permitted more independent behaviors, while the lower tracks received extensive rote learning. In addition, the teachers were far more enthusiastic and had higher expectations for the "top" groups, and students in these settings felt more positive towards school, teachers, and peers than did children placed in the lower groups. This system served to widen the gaps between the two tracks, and the lower achieving students fell further and further behind.

Program Interventions

If one accepts Schwab's broad view of curriculum as the interaction of students, teachers, parents, community, and school, then it would be reasonable to expect that program interventions take all these factors into account. Archer (1990) concurs with this viewpoint, and stresses that LD intervention strategies must closely match the regular curriculum, and should not be presented out of context. She further suggests that programs should (a) benefit many children in the class, (b) not be too costly in terms of teacher time or resources, and (c) be based upon empirical research.

Clough (1988) cautions against distinct programs designed only for special education students, as they "serve to reinforce the separateness of special needs students, not the least by cutting them off from the common curriculum which is an expression of the culture in which we commonly live" (p. 333).

The British Columbia Ministry also emphasizes the common curriculum in The Year 2000 Report, and opposes isolated intervention techniques. The report advocates individualized programs that allow special needs students to experience success in the regular classroom.

In the not so distant past, the prevailing philosophy of educators was that they were expected to teach the course content, and students were expected to learn as best they could. As a former Ontario school teacher explains: "I taught arithmetic, I taught grammar, I taught spelling and history, and if I taught Johnny and Mary and Peter, it was purely coincidental" (Cochrane, p. 72.).

Segregated classes and resource rooms became prominent in the 1970s and 1980s, as a response to the growing numbers of children who were struggling academically in the regular classroom. Many of these programs were criticized for being based on the deficit model (Salzer, 1986), which tried to fix the deficiencies of individual students. Clough (1986) suggests that the use of individualized and psychologized programs is "reductive, empirically insensitive, even morally questionable" (p. 328). He, and others like Adelman and Taylor (1986), and McNeil(1987) emphasize the importance of personalized instruction within the parameters of the regular curriculum. Children's learning styles should be accounted for

(Dunn & Dunn,1987; Hodges, 1987) and classroom teachers should be re-educated (McNeil). The special educator must work in a collaborative and consultative role, rather than in an emergency and marginal capacity (Clough).

Duke (1986) points out that many teachers face the dilemma of having to juggle the needs of both the individual and the larger group. He suggests that although many teachers strive to reach individuals, many administrators are more concerned about collective experiences, such as "implementation of a new program, increased test scores for the 8th grade, a reduced dropout rate" (p. 28). Leiberman (1986) feels that the search for excellence has been misinterpreted at times to mean the raising of group norms at the expense of the individual student. Children who fail to meet arbitrary standards may fall by the wayside. He proposes that the only hope for true excellence is to meet the needs of each individual student, and to reduce the failures in our educational system.

Improved teacher education is cited by many researchers as an important prerequisite to the successful inclusion of learning disabled children in the regular classroom. Schwab believed that there must be a direct interpersonal relationship between the teacher and student, based upon mutual liking and respect. Alves and Gottlieb (1986), Goodlad (1984), McGrady (1985), and Stainback, Courtnage, and Jaben (1985) were all critical of teacher attitudes towards disabled youngsters. Pernell, Mcintyre, and Bader (1985) found that teacher training improved teachers' attitudes towards disabled children. In many cases, that training of regular teachers was conducted by special educators at the individual

school level. Yet Leigh and Patton (1986) question the competence of many of the supposed special education experts, citing the tremendous discrepancy of learning disabled teacher certification standards in the different American states. "We have a system in which learning disabled students' opportunities to be taught by competent professionals, who have met appropriate standards of training, is dictated largely by geography and chance" (p. 226).

The majority of programs designed to help learning disabled children have focussed upon literacy, with reading and writing receiving the bulk of attention. Lapointe (1987) discussed the popular belief about a national literacy crisis, and concluded that while 90% of young people between the ages of 9 and 25 are functionally literate, the majority are unable to read complex material requiring extended reasoning and critical thinking (p. 13). Bereiter and Scardamalia (1987) stated that schools tend to promote "low literacy" or minimal reading levels, and that they destroy any chance of attaining more sophisticated literacy by simplifying text books, rejecting classic literature, and teaching lower level skills. Smith (1989) also feels that many current classroom practices destroy literacy, but he cautions that while literacy is a desirable goal, it will not solve all of society's problems.

Park (1986) is highly critical of instruction in isolated reading and writing skills for lower achieving students, and she is especially scornful of "high interest, low vocabulary" texts. She states that "it is pedagogically indefensible to use teaching strategies and materials with slower moving students which are no longer regarded as good enough for the more

competent students" (p. 70). Sweetland (1989) also believes that slow readers need good literature, and that they should not be subjected to fragmented text, stilted language, or trivial exercises. However, Dupuis (1987) defends the books designed for low readers, and lists the benefits of high interest levels, new mini-paperback formats, and added skill practice and workbook exercises.

Luke (1986) thinks that our schools discriminate against children from different cultural backgrounds or lower socioeconomic levels, and he feels that a whole language approach to reading and writing is the best technique to help overcome this problem. Farrell (1987) also believes that culturally different groups are disadvantaged, as literary decisions are made by politically powerful people, usually without the input of ethnic minorities. Hirsch (in Cox, 1987) criticizes the language experience approach to reading, and he recommends a program based upon classic literature: from nursery rhymes and fairy tales in the primary grades, to Shakespeare in the upper levels. He feels that an exposure to traditional literature will help cultural minorities to mainstream into the rest of society.

Numerous educators advocate the importance of meaningful writing experiences for all children, and are opposed to isolated skill development. Calkins (1986) says that even low students must perceive themselves as authors, and they should be given large chunks of time to write about real life experiences. Jenkinson (1988) states that "writing for some is a one-sided game always won by the teacher" (p. 712) and he cautions against excessive emphasis being placed upon spelling, punctuation and

grammar. Maimon (1988) supports writing across the curriculum, and he advises teachers to do less grading and more helping. Both Bartoli (1989) and Lynch and Jones (1989) stress the need for LD students to have more opportunities for meaningful communication. Kirby, Dawn and Vinz (1988) advise governments to leave the writing process in the hands of teachers, as they believe that most good teaching strategies suffer when they become institutionalized and turned into mandated curriculum.

Goodlad (1984), Stainback and Stainback (1990), Johnson and Johnson (1990), and The Year 2000 Report all outline the value of cooperative learning. The Johnsons have documented over 600 studies that show a cooperative approach is more effective than a competitive atmosphere in the classroom. They state that although cooperation is not used as frequently as it could be, it is the most powerful way to increase achievement, stimulate cognitive development, increase self-esteem, and promote liking for school. Vaughn (1985) believes that social skills should be actively taught within a cooperative setting, for LD children will not automatically model the appropriate behaviors exhibited by their peers in the regular classroom. Scruggs and Richter (1986) advocate peer tutoring as a means to improving social skills.

Evaluation of Learning disabled Students

Canadian and American schools are in the midst of a testing boom, as each year record numbers of students are subjected to a barrage of standardized tests (Haney and Madaus, 1989). Many experts are alarmed by this trend, and they suggest that overuse or misinterpretation of tests

can create a multitude of problems. Neill and Medina (1989) claim that by "narrowing the curriculum, frustrating teachers, and driving students out of schools, these standardized tests undermine school improvement instead of advancing its cause" (p. 689). They also suggest that most tests are culturally biased towards Caucasian middle-class children. Campione (1989) adds that standardized tests assume that all children have equal opportunity to acquire the necessary skills and content. He argues that as this assumption is obviously erroneous, all results must be considered invalid. Goodlad (1984) identifies standardized tests as the most serious barrier to the understanding of the American school system, and he warns that they should never be used to measure the success of educational programs. Farr (1987) agrees that pencil and paper tests cannot accurately determine complex aspects of curriculum such as a reading program, and he adds that the misunderstanding of test results leads to a narrower curriculum and sidetracks educational reforms. Centra (1986) questions the value of using timed tests with LD students, as he has shown that the scores of LD children improve much more significantly than those of regular students when extra time is provided. Wiggins (1989) adds that standardized tests usually reward fast recall and penalize slower thinkers.

Schwab (1950) challenges the entire concept of validity in standardized testing, stating that as curriculum is dynamic and is affected by different variables in every classroom, a valid test is impossible to achieve. "A valid test in the ordinary sense is nothing more than an effort to measure the contours of a shifting and altering shadow; the standard for validation does not exist" (p. 278). He also proposes that the ultimate goal of

school testing should be to evaluate curricula in order to initiate improvement, rather than to rank or judge student performance. Rogers (1989) believes that student input should be gathered after each unit to help assess curriculum.

The British Columbia Ministry of Education has addressed the issue of achievement testing on several occasions. Sullivan found that many of the people he interviewed believed that "achievement" was the essence of good schooling, but respondents were unsure of how best to define and measure achievement. The Year 2000 Report recommends more flexible assessment procedures and suggests that teachers should rely more on criterion-referenced tests. Although the Report acknowledges the value of norm-referenced standardized tests, in certain situations, it states: "For most assessment purposes in school, traditional forms of standardized tests are not very useful" (p. 17). As well, the Report notes both that special needs students may be exempted from writing provincial exams, and that LD students are permitted to perform oral rather than written exams at the high school level.

Vocational Education

Traditionally, large numbers of high school students who were not academically proficient were channelled into vocational programs, to help prepare them directly for future employment. In recent years, vocational programs have suffered a decline both in availability and social status, due to changing values in society (Shields, 1989). Goodlad (1984) suggests that schools have lowered the status of vocational courses, both by making them

optional and by not providing enough money to update equipment. As a result, often the academically inclined students concentrate on college or university prepatory courses, leaving the industrial arts and home economics classes to be filled with the lower achieving students. Goodland advocates both the prescription of vocational subjects and heterogeneously grouped classes.

The Year 2000 Report also addresses the issue of vocational education. All students in the primary and intermediate programs soon will take part in a common curriculum that includes practical and fine arts as well as humanities and sciences. Classes will be heterogeneously selected, and streaming or tracking discouraged. During the last two years of high school, now to be called the graduation program, students who do not intend to go on to post-secondary education will be actively involved in career preparation programs. The Ministry of Education recommends that the career programs be far more extensive than the traditional metalwork, woodwork, sewing, and cooking courses, and it proposes that local districts include options relevant to the particular community.

Summary

Every school district in Canada determines eligibility to LD support services, based on its selection of a definition of a learning disability. Most definitions include: (a) a significant discrepancy between perceived ability and actual achievement, (b) an exclusion clause stating that the discrepancy is not primarily due to

intellectual, cultural, physical, or emotional factors, and (c) a suggestion of a neurological or biochemical link.

Although each district uses its own set of entry criteria, most share the common elements of (a) a discrepancy between achievement and perceived intelligence, (b) a language component, (c) an academic weakness, and (d) an exclusion clause. School District #62 includes all four of the above components in its entry criteria.

Often, a comparison between a student's results on standardized intelligence and achievement tests is used to determine a possible learning disability. Many educators question this practice, and state that such factors as poor reading levels, limited vocabularies, and cultural differences can artificially depress test scores. As well, some teachers may misinterpret test results, or fail to account for the standard error of measurement. However, other researchers support the use of standardized tests, and feel that IQ scores are a useful predictor of achievement.

There is no prototypic LD child, as learning disabilities occur in heterogeneous groups of children. However, numerous studies have suggested that LD students are more likely that non LD children to exhibit low self esteem, less perceived sense of control, weak social skills, delinquency, low attention spans, and poor organizational abilities.

The effects of mainstreaming special needs children have been fiercely debated for decades, and conflicting studies abound. Some

educators feel that the integration of LD students fosters improved attitudes of both the LD and regular students, and they suggest that children should not be removed to smaller, segregated classes. Others disagree, and believe that LD students can make greater academic and social gains within a resource-room setting.

The British Columbia Ministry of Education favours a total integration policy, whereby LD students receive special support within the context of the regular classroom. This format is intended to promote greater coordination between regular and special education teachers, and to ensure that intervention strategies match the regular curriculum. It is proposed that evaluation procedures be flexible, and standardized tests may not be appropriate for certain students. Some educators are sceptical of the integration movement, and warn that funding may be cut, individual needs may be neglected, and regular teachers may neither be willing nor trained to adequately assist LD youngsters.

In the past, lower achieving students were often placed in vocational programs. The British Columbia Ministry of Education now recommends that practical and fine arts classes be both mandatory and heterogeneously selected for students in grades 1-10. During the final two years of high school, a wide variety of vocational opportunities should be offered to interested students.

CHAPTER 3

METHOD

Subjects

This study involved the examination of 71 elementary school students' records from Sooke School District #62. A total of 61 boys and 10 girls, ranging in age from 7-14 years, were studied. These students either had all been identified as learning disabled or had received the benefits of special programming for LD students, as of June 1990.

Procedure

The first step was to identify all the learning disabled children enrolled in the district's 16 elementary schools. It was decided that all children who were presently or had been previously registered in the LD classes at Glen Lake or Sooke Elementary Schools would be included in the study. As well, all children who had been diagnosed as learning disabled, and were enrolled at their home schools, with or without additional support, would be examined. The subjects were identified by a master list kept by the Special Education Department. To confirm the accuracy of this list, the names were discussed with the itinerant teacher responsible for the integration of special needs students. She discovered several students who should not have been classified as LD, and who, in fact, had been refused support services because they did not meet the district's criteria. She also added the names of several LD students who had been tested

during the spring of 1990, and who had not yet been entered into the computer.

After the identification process had been completed, each child's personal file was examined, and pertinent data were recorded. As these student files are strictly confidential, all research was conducted at the School Board Office in the Special Education wing. No file left that area, nor was any document photocopied.

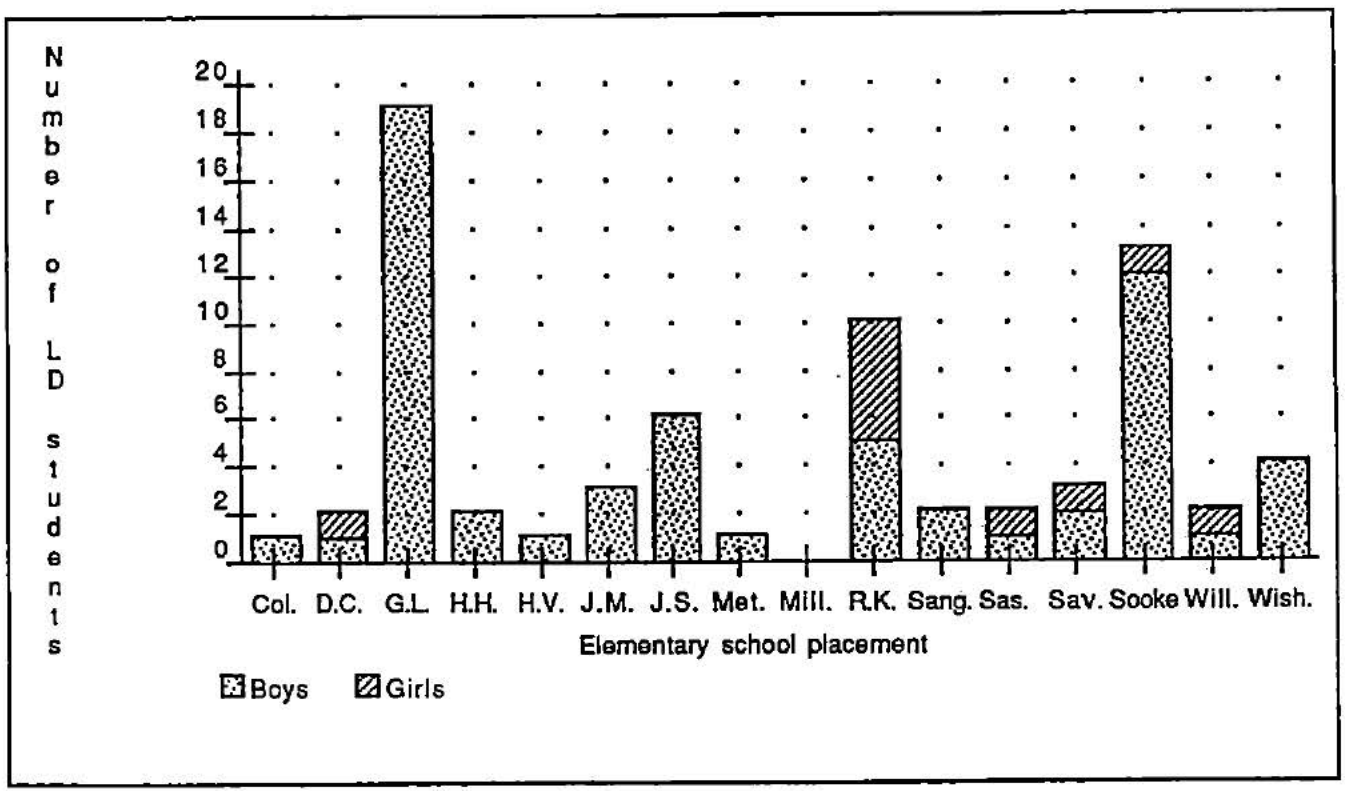
The information collected included the child's home school and current placement, school history, psychometric testing, academic levels and social-behavioral characteristics. The following "Results" section outlines the findings.

Results

School Placement

Figure 1 shows the schools that each of these LD children were attending during the spring of 1990. Of the 61 boys and 10 girls studied, 31 children were enrolled in segregated classes for at least a portion of each day. A total of 16 students, all male, were at Glen Lake Elementary School, in one of three LD programs. Another 9 students were at Sooke Elementary School in combined classes for the learning disabled and educably mentally handicapped. Another 5 children were in special behavior adjustment classes. The remaining 40 LD students were integrated full-time in regular classes, most at their home schools.

Figure 1. Actual school placement of learning disabled children during the 1989-90 school year.



Key

Col. - Colwood
D.C. - David Cameron
G.L. - Glen Lake
H.H. - Hans Helgeson
H.V. - Happy Valley
J.M. - John Muir
J.S. - John Stubbs
Met. - Metchosin
Mill. - Millstream
R.K. - Ruth King
Sang.- Sangster
Sas. - Saseenos
Sav. - Savory
Will. - Willway
Wish. - Wishart

Home Schools

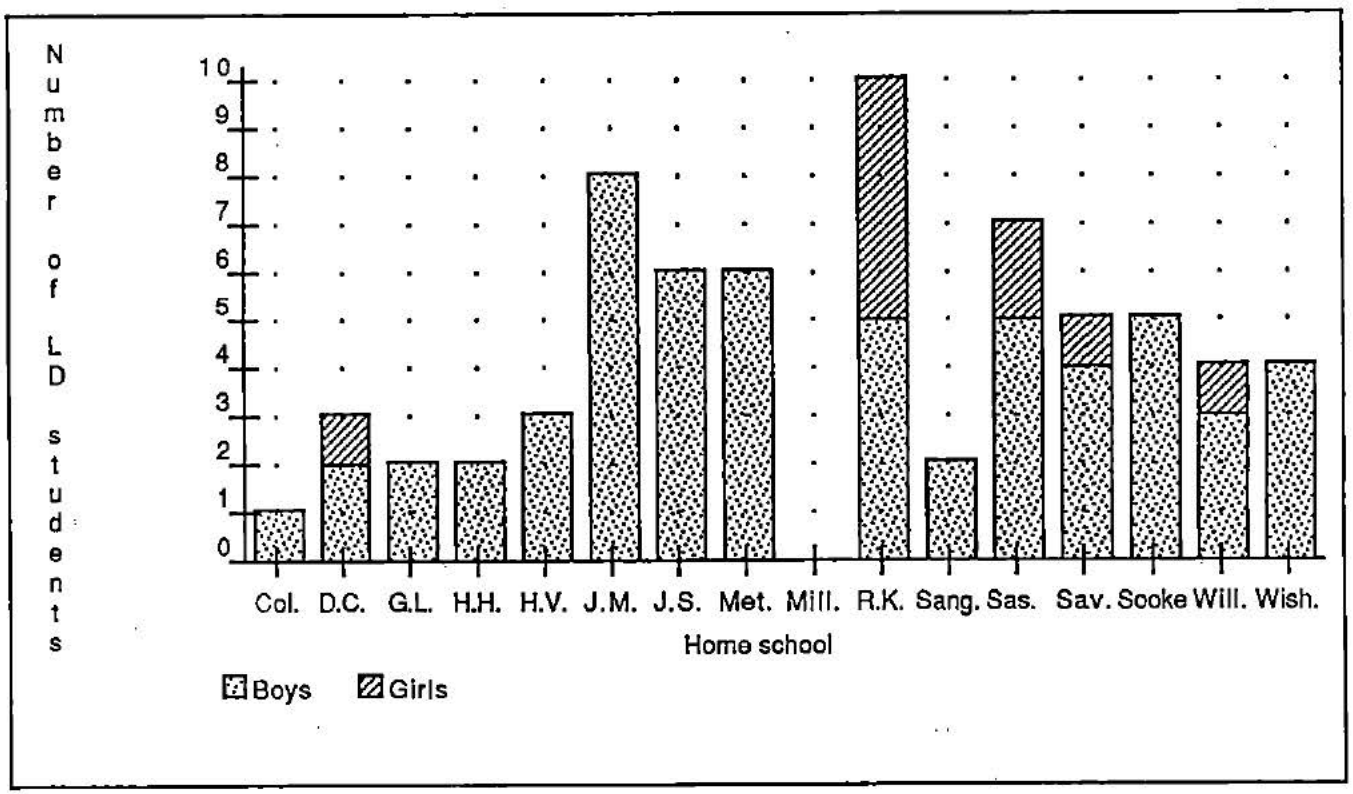
Figure 2 lists the appropriate home schools for all 71 learning disabled students. This will become a very important list in the future, as the district replaces the segregated LD programs with home school models.

Time in Special Classes

The students in integrated settings were polled to determine how many of them had once been registered in segregated LD classes. It was discovered that 4 girls and 10 boys had been in special classes earlier in their school careers. This meant that only 26 of the 71 elementary aged LD students in School District # 62 had never been removed from their regular home school classrooms. However, several of these children had at one time been recommended for special class placement, but their parents had not granted permission.

Figure 3 shows the mean length of time that LD children had remained in special class settings. Students at Sooke Elementary averaged slightly longer stays in the LD classes than did students from Glen Lake. These statistics are somewhat misleading, as they do not illustrate the tremendous variation between different students. A number of children stayed in the special programs for only one year, while others were enrolled for up to five years.

Figure 2. Appropriate home school placement of learning disabled children during the 1989-90 school year.



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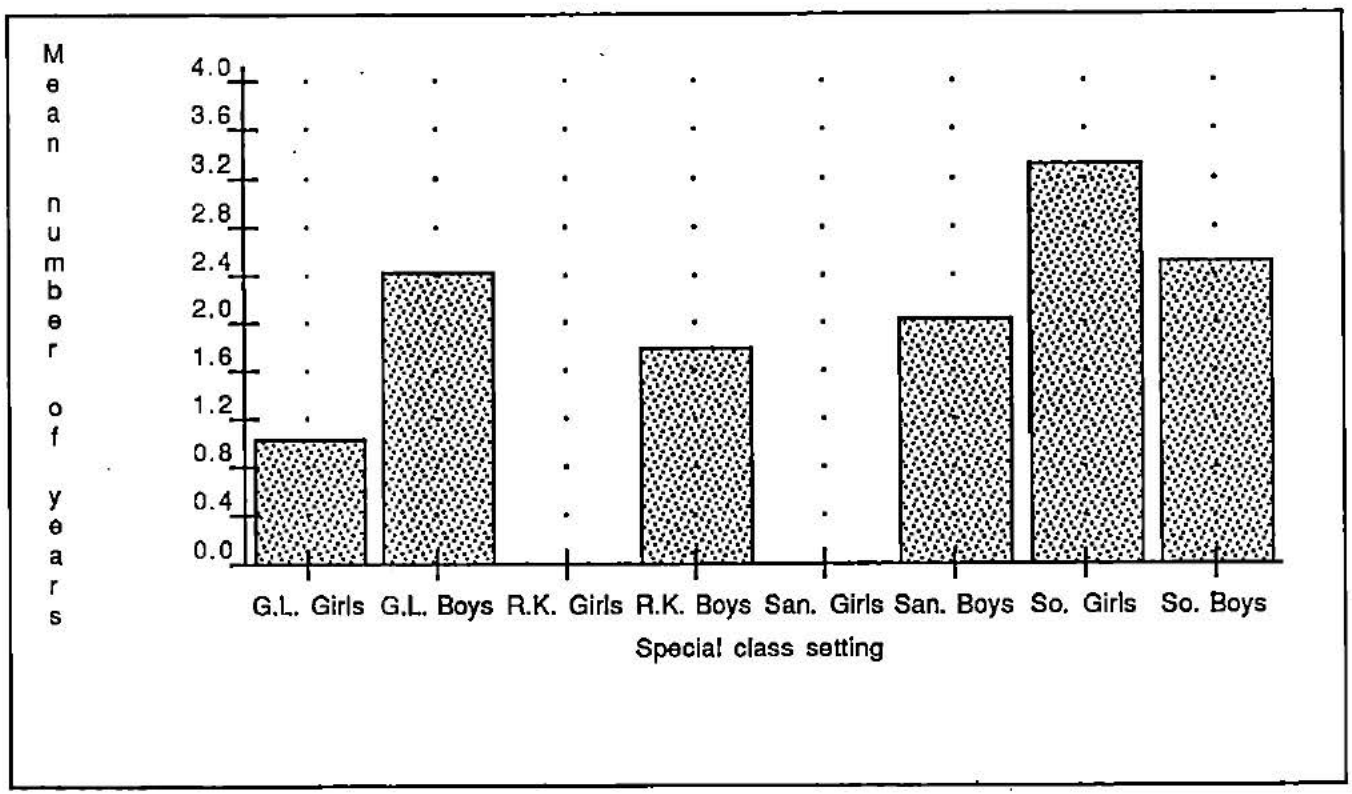
Sas. - Saseenos
Sav. - Savory
Will. - Willway
Wish. - Wishart

Figure 3. Mean number of years spent in special class programs.



Grades Repeated

Figure 4 illustrates the different grades that the LD children repeated. In June, 1990, only 13 LD students, 2 girls and 11 boys, were at their age-appropriate grade level. Fifty-one students were one year behind their peers, while an additional group of 7 boys were two grades lower than expected. Records indicated that 90% of the children who had ever been in segregated classes were at least one year behind, while only 50% of the students who had remained in regular programs had been retained.

Most of the LD children had been identified as having learning difficulties at an early age; 53% had been retained by the end of grade 2. Only one student had repeated an intermediate grade. The remaining 25% had been placed in a lower grade than their peers the year that they returned to the regular class from the segregated setting.

IQ Profiles of LD Students

Intelligence levels, as measured by the WISC-R , Stanford Binet, or Woodcock Johnson Scales, are portrayed in Figures 5 and 6. Figure 5 shows that the vast majority of LD students in District #62 had full-scale IQ's that fell somewhere between the low average to high average range. This average classification was considered to be within one standard deviation above or below the middle IQ of 100, or between the 85th and 15th percentiles. Five students were classified as "low intelligence," while only one child had an IQ in the superior range.

Figure 4. Grades during which learning disabled students were retained.

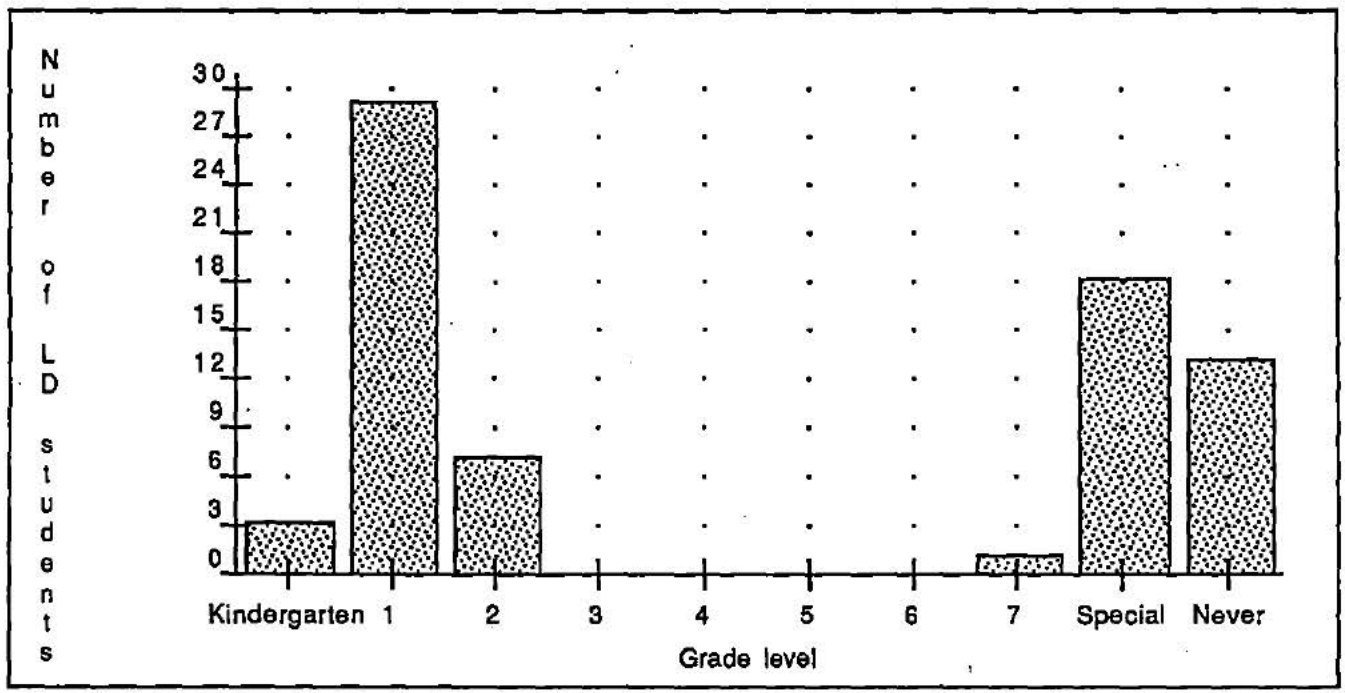


Figure 5. Full scale intelligence quotient scores of learning disabled students, as measured by the WISC-R, Stanford, or Woodcock Johnson scales.

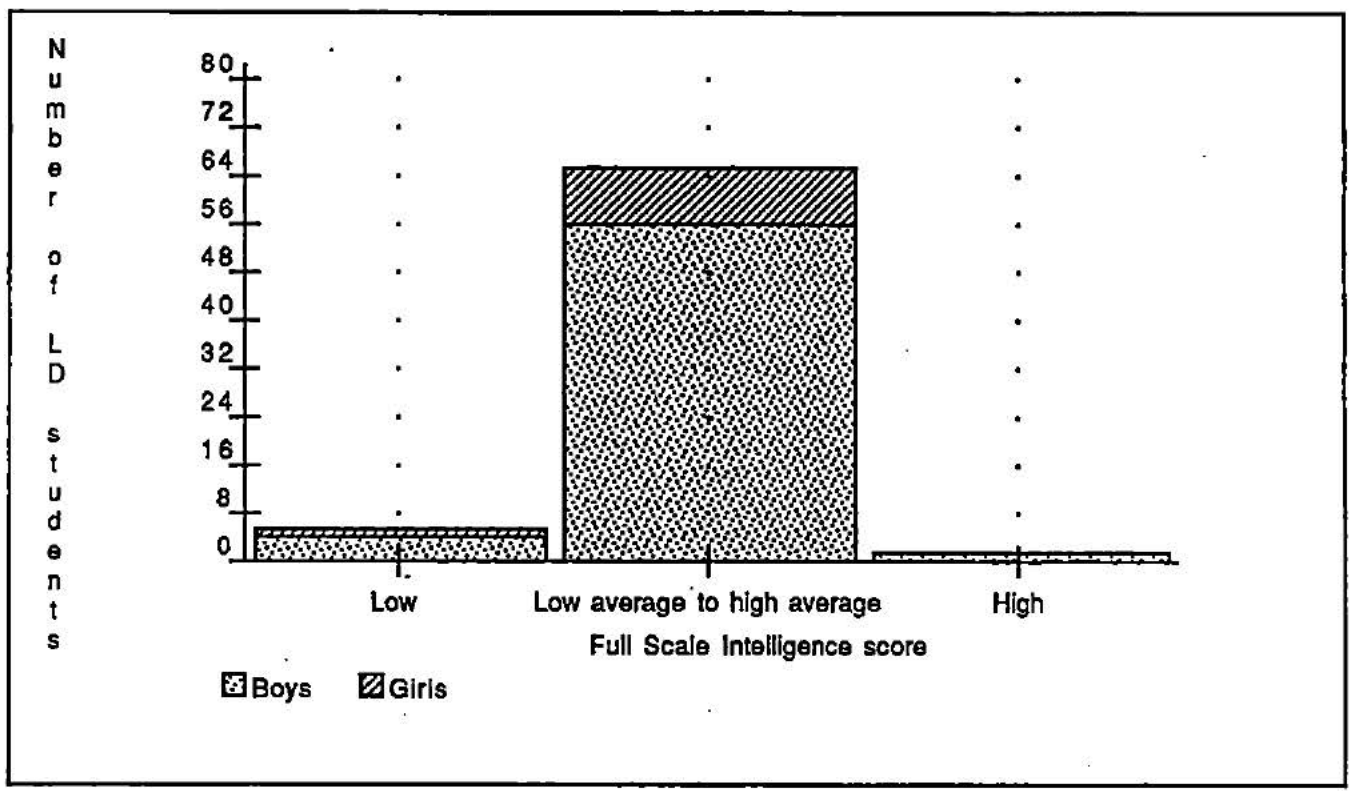


Figure 6. Comparison of verbal and performance intelligence quotient scores of learning disabled students.

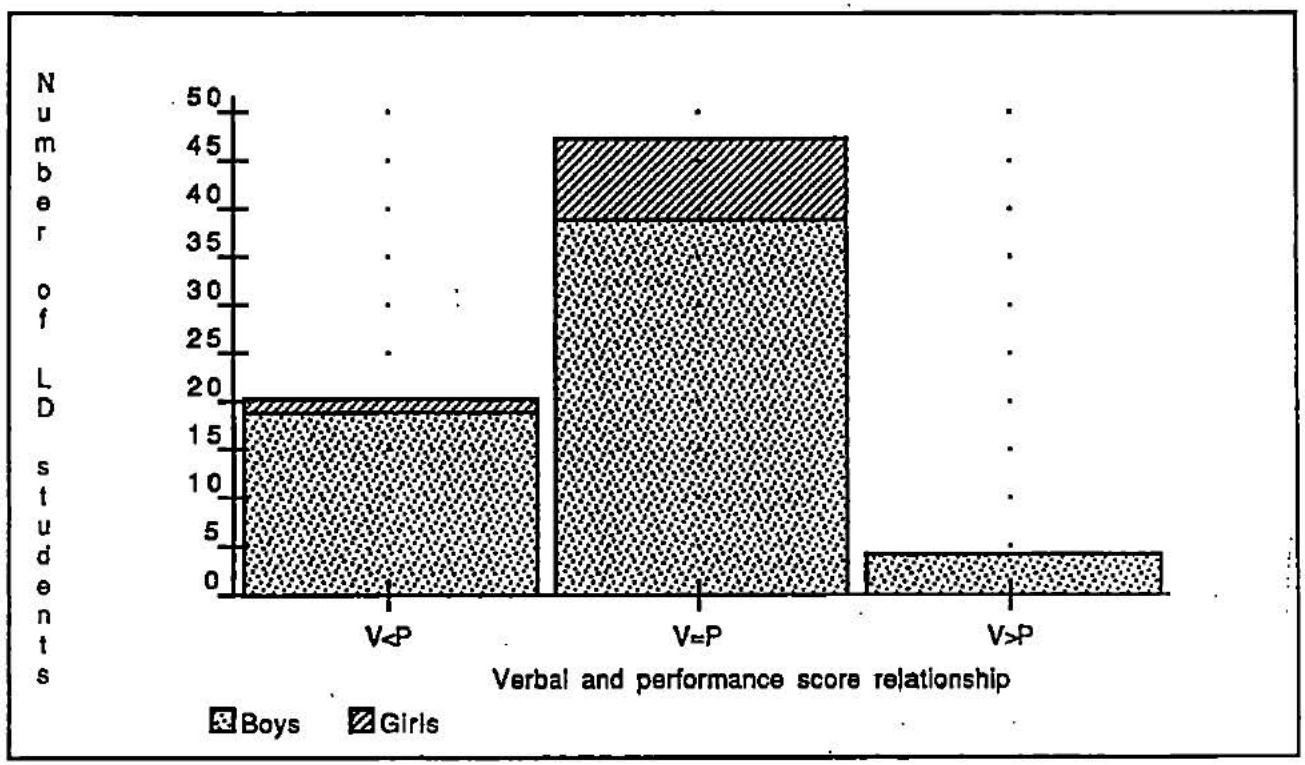
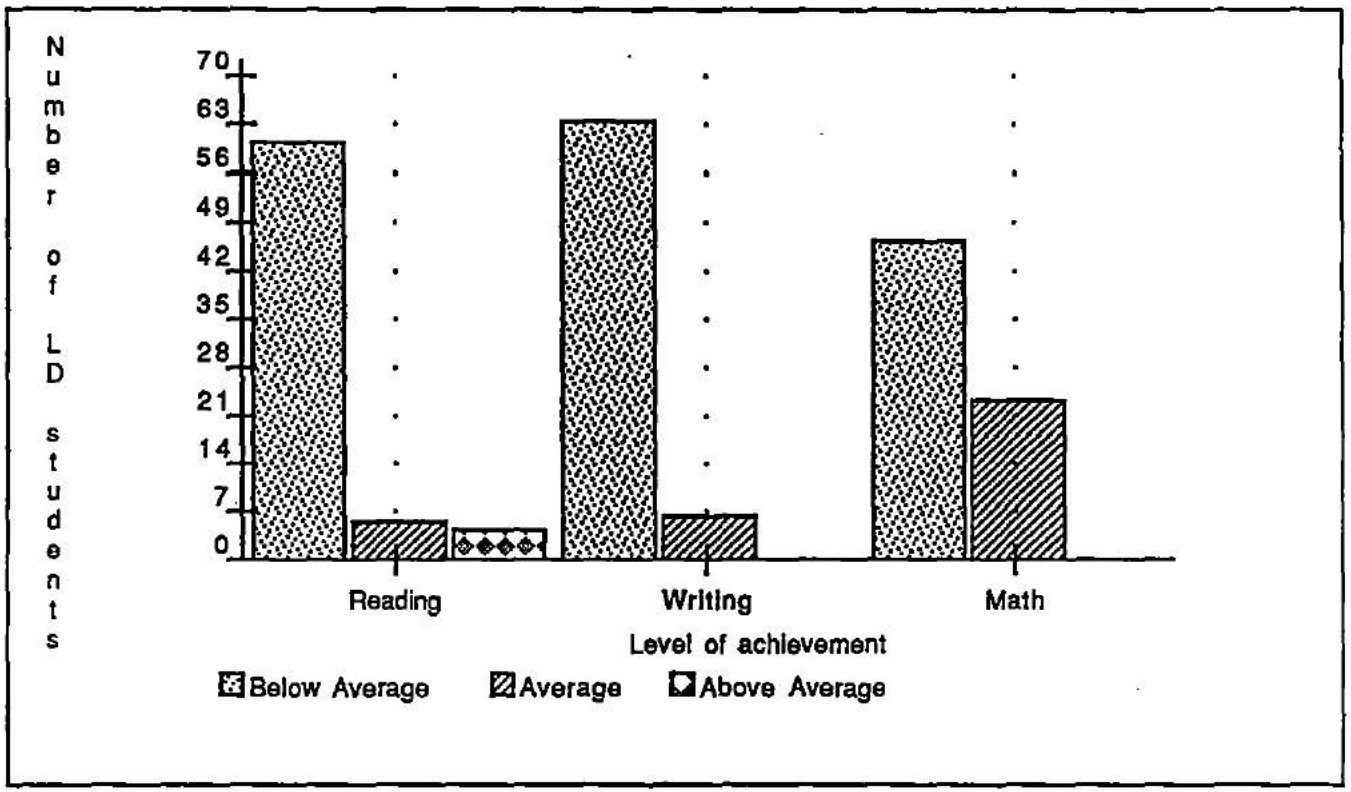


Figure 6 examines the discrepancies between the verbal and performance (non-verbal) scores on the IQ tests. Scores were considered to be significantly different if they were more than 1.5 standard deviations apart. The majority , or 66%, of the LD children, had no significant difference between their verbal and performance scores; 28% had significantly higher performance scores; while 6% had higher verbal results. Interestingly, of the four boys with higher verbal abilities, three were enrolled in Ruth King's behavior class, and the fourth had been seriously considered for a behavior adjustment program. Possible reasons for these results will be explored in the "Discussion" section.

Academic Profiles of LD Students

The academic levels of the LD students are displayed in Figure 7. These results were attained by studying the student records, with particular emphasis being placed upon the standardized achievement test scores. Reading, writing, and mathematics were the three areas tabulated. Two boys were missing this information in their files, so data were only collected for 69 students. Records showed that 87% of the students were judged to be below-average readers according to norms for their age-appropriate grade level, 7% of the children were performing within the average limits, while four boys were rated as above-average readers. Of these 4 strong readers, 3 boys were also judged to have serious behavior disorders. The results were slightly better for math, as 33% of the LD children were performing at average levels. Still, the remaining 67% of the

Figure 7. Achievement levels of learning disabled students in reading, writing and mathematics.



students were achieving at below-average levels. Writing was the area of greatest difficulty, as 91% of the subjects were considered to be functioning at low or low-average levels, 9% of the children were rated as average, and no one was performing above average. The majority of these students had multiple problem areas; 61% were judged as below average in all three academic subjects.

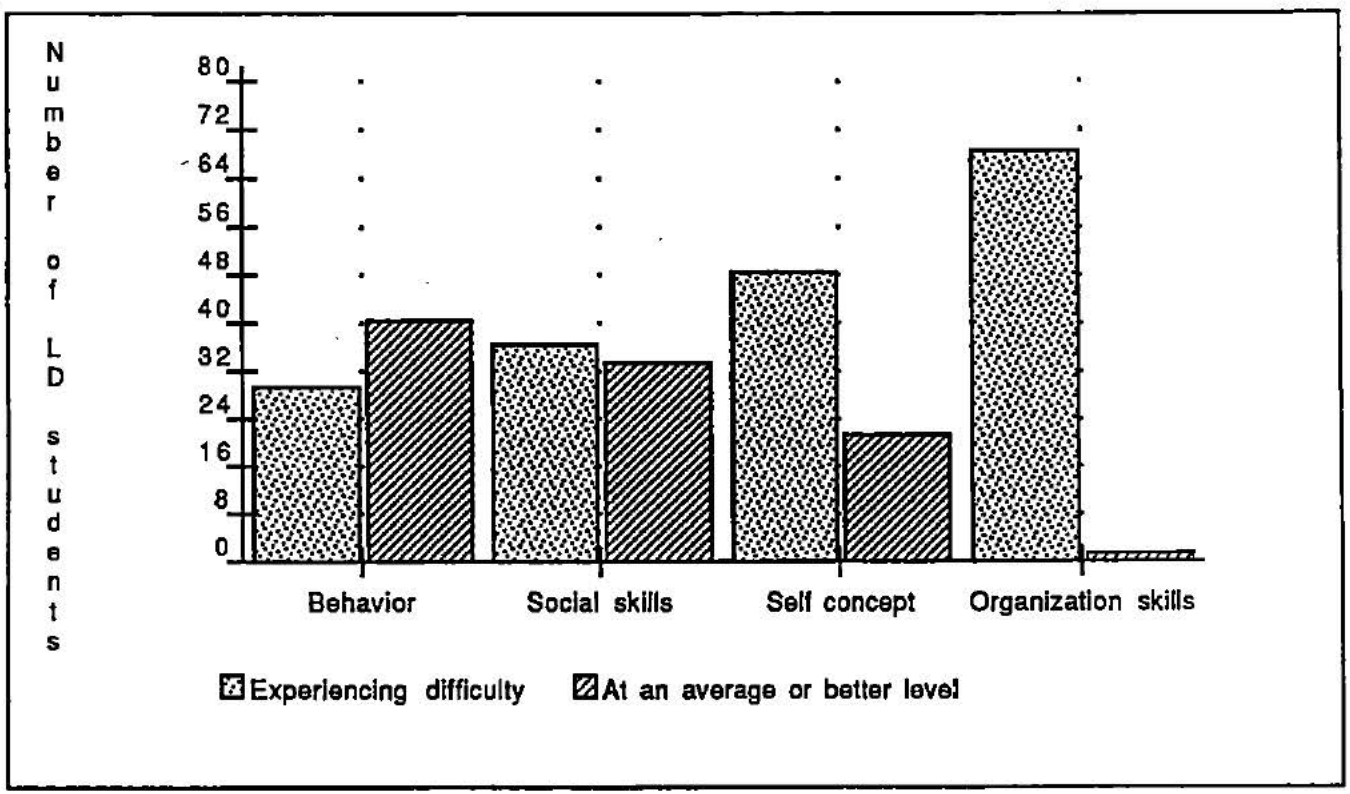
Social / Behavioral Profiles of LD Students

Figure 8 shows some of the other characteristics of the LD children. Again, using data from student files, information was collected in four areas: social competence, school behavior, self concept and organizational skills. As can be seen, many students had difficulty in some of these areas, particularly with organization, where 99% of the LD children were rated as deficient. Once again, a number of students were weak in several categories; 35% of the children, all males, were low in all four areas, while an additional 16% had difficulties in three categories.

Summary

The files of 71 elementary school students were examined, and data were collected on regarding each child's school history, current placement, psychometric test results, academic levels, and socio-behavioral characteristics.

Figure 8. Social/behavioral levels of learning disabled students.



It was discovered that 31 students were enrolled in segregated settings, and the remaining 40 children were registered in regular classes. Only 26 students had never been registered in segregated special programs. Fifty-eight children were at least one grade level below their age-appropriate levels; over half of them had been retained by the end of grade 2.

It was found that 65 of the 71 LD children had full scale IQ scores that fell within the average limits, 5 children recorded scores in the "low" range, and 1 child was classified as having a "superior" IQ score. Sixty-six percent of the subjects had no significant discrepancy between the verbal and performance scores on the intelligence test, 28% had higher performance than verbal scores, and only 6% had higher verbal results. The vast majority of these LD children were experiencing difficulty with reading, writing, and mathematics. Many students were also rated by their teachers as weak in classroom behavior, social competence, self concept, and organizational abilities.

CHAPTER 4

DISCUSSION

Entry / Exit Criteria

Definition of an LD Student

The Sooke District utilizes the following definition of a severe learning disability:

"Students with severe learning disabilities are those who are experiencing difficulties in written or spoken communication, attention and memory and verbal and / or non-verbal information processing. These children experience significant difficulties in acquiring or using listening, speaking, writing, reading, reasoning or mathematical skills."

In order to be classified as an SLD student, a child must: a) demonstrate an inability to function within the context of a regular classroom with learning assistance and other support services; b) have received an in-depth psychoeducational and / or neuropsychological assessment that indicates a learning disability, usually defined as a difference of at least 1.5 standard deviations between the score on a standardized achievement test (usually the Woodcock-Johnson) and the overall verbal, performance, or full-scale scores on the WISC-R, or the cognitive score of the Woodcock-Johnson; c) show evidence of basic problems in areas such as attention, perception, symbolization, and the understanding or use of spoken or written language; d) have learning

problems that are not primarily resultant from factors such as mental retardation, emotional or behavioral disturbance, physical or sensory impairment, English as a second language, or lack of opportunity to learn on account of irregular attendance.

Sooke's definition of a learning disability closely parallels that of the American National Joint Committee on Learning Disabilities, and is less comprehensive than that of the Canadian Association for Learning Disabilities. Bachor (1986) found that most Canadian definitions state three essential components: (a) a significant discrepancy between a child's perceived ability and his or her actual achievement; (b) an exclusion clause ruling out intellectual, cultural, physical or emotional problems as the primary cause of the academic difficulties; and (c) a suggestion of a neurological or biochemical link. The Sooke district includes the first two items in its formal definition, but it does not specifically mention the neurological or biochemical possibility. This is probably a wise oversight, for even if one accepts the premise that a learning disability is caused by a brain dysfunction, it is usually very difficult to prove. In the Sooke jurisdiction, only a few children can be clearly identified as suffering from neurological damage; these are students who have experienced severe head injuries. The vast majority of LD pupils are only assumed to have some sort of central nervous system dysfunction through a process of elimination, whereby other common causes of academic difficulty are ruled out. However, as with any assumption, there is always a margin of doubt, and in this case the diagnosis can be no more than an educated guess by a group of qualified professionals. It therefore seems prudent not to insist

formally on the neurological or biochemical link, unless a way is found to measure this condition accurately.

Standardized Intelligence and Achievement Tests

While the Sooke district does not explicitly state a minimum IQ score necessary for placement into severely learning disabled (SLD) programs, usually only children of average intelligence are eligible for LD special services. This is illustrated by the fact that 92% of the elementary school students formally diagnosed as SLD fall within the average range of intelligence. There are a few exceptions, as every year one of two children in the borderline range (below the 15th percentile) are admitted into LD classes. This usually occurs when the psychologist who administered the WISC-R, the parents, the classroom teacher, and any other involved individuals feel that the child has more potential ability than his or her test scores indicate. Human judgement is always taken into consideration, and the Special Education Department clearly recognizes that tests are not infallible. As well, occasionally when parents felt very strongly that their child would benefit from LD programs, the Special Education Department has granted the child access to LD services, despite the fact that he or she does not meet all of the District's LD criteria.

However, despite the flexibility demonstrated in several individual cases, whereby children with IQ scores that fall below the 15th percentile have been admitted into SLD programs, there is not a normal distribution of intelligence scores amongst the 71 learning disabled elementary school students in School District #62. One would expect, in a normal group of 71

children, for 10-11 students to fall between the 1st and 15th percentiles, an additional 10-11 students to be between the 85th and 99th percentiles, and the remaining 50 or so children to lie somewhere in between. In Sooke, 65/71 students are in that middle or average range, only 5 children fall below the 15th percentile, and a mere 1 child has an overall full scale intelligence score above the 85th percentile.

Several possibilities exist to explain this situation. If one accepts the basic premise that a learning disability is physiologically based, one must also accept the fact that it may exist in people of all levels of intelligence. As Baldwin and Vaughn (1989) pointed out, there is no disease, organism, birth defect or neurological disorder that selectively attacks humans according to their intelligence levels. Therefore, the unequal distribution of Sooke LD students must be a result of selective identification, faulty testing, or biased criteria for program admittance.

At the low end of the scale, the major problem is with limited resources. The Special Education Department recognizes that students with overall low IQ's also may suffer from learning disabilities, but in order to qualify for provincial funding, a child must achieve at least a low-average IQ score on one of the approved intelligence tests. Children with low IQ scores who exhibit LD tendencies are not neglected; they receive special services under the label of educably mentally handicapped (EMH). Qualified teachers design programs to address the individual learning needs of these students. The children who may be denied assistance are those who do not demonstrate a significant discrepancy between the scores on the intelligence and achievement tests. Some of these students

experience serious learning difficulties and need more intensive help than can be provided by a normal learning assistance program, yet are excluded from special services support. These are the cases in which increased flexibility is essential; children should not be allowed to fall further and further behind academically, year after year, simply because they do not fit into a structured formula.

There are some very valid reasons for limiting the entry of children into LD programs. Firstly, there is the credibility of the LD field. As several researchers have warned, if we do not maintain consistent criteria for LD diagnosis, the term loses all meaning, and it will simply become synonymous with learning difficulty. For this reason, it is recommended that School District #62 continue to follow the strict guidelines that it has been employing for the past several years. If the professionals feel that a non-LD student could benefit from LD services, then it is certainly very desirable to try to accommodate that child. But it should be made clear to everyone involved that the child is not technically learning disabled, and his or her name should not be included in the district's LD quotas. This guideline should also apply to students who move to Sooke after being classified as LD in their former districts, but who do not meet Sooke's qualifications.

Secondly, current LD programs might not be academically appropriate for children of limited cognitive abilities. In the intermediate grades, and especially at the high school level, LD program emphasis is upon helping children to succeed in academic areas. Students are encouraged to develop skills and techniques, and teachers are expected to

make program modifications to allow students to complete the required core subjects. The goals are for these students to continue in the academic stream, and to graduate from high school with their peers. These are lofty goals, and some LD children find the regular curriculum too challenging, even when support is offered. Factors such as low self esteem, classroom misbehavior, negligible family support, or lack of training of the regular class teachers may contribute to limited success for the LD child. Therefore, at the high school level, a preemployment program may be a more appropriate placement for certain students. However, the decisions to remove an LD child from the academic stream, or to deny him or her LD services, should never be made lightly. The child, parents, teachers, and special education staff should all be involved in the decision-making process whenever possible.

The reasons for the extremely low incidence of identified LD children with high IQ scores are both less apparent and less defencible. These are children of tremendous academic potential, who normally would be expected to meet the qualifications of university entrance, and to have professional careers if they so desired. Yet many of them are never identified as learning disabled, and may go through school without receiving the assistance to which they are entitled.

A major problem lies in the District's criteria for identification of learning disabilities, as students are required to be experiencing academic difficulties beyond those that can be remediated by a learning assistance teacher. In fact, gifted LD students may function very adequately within the regular classroom context, yet not achieve anywhere close to their

expected levels. If the Sooke District believes that IQ scores are indeed accurate predictors of achievement, then it is reasonable to assume that children with high IQ's are capable of achieving superior results. One would also expect them to qualify for enrichment programs such as PACE. Instead, it is probable that some of these students experience academic difficulties, and achieve very inconsistent results. They may experience great frustration if they have difficulties with oral or written language, because they are unable to adequately communicate their ideas and knowledge. It is important that the regular classroom teacher receive inservice, explaining both the importance of identifying the LD children with high IQ scores, and some of the characteristics for which to look. Otherwise, these students will continue to be ignored, and they will not be referred for testing by Special Service staff. The regular classroom teacher is the vital first link in the identification process.

A second problem is that some educators feel both that children who are able to perform at average levels are not in need of special services, and that teachers should concentrate on helping the children who are experiencing more severe academic difficulties. However, this argument would seem to permit discrimination against LD children with high IQ scores. It would seem desirable to at least identify these LD students. Provincial funding is available to provide extra support, so assistance would not be taken away from lower-achieving LD students. If, for some reason, resources were limited, everyone involved could decide which students seemed most needy, and assistance could be provided accordingly.

As discussed on page 13, great debate rages as to the use of discrepancy formulas to determine LD criteria. Many educators feel that standardized intelligence and achievement tests are not accurate assessment instruments and that they are biased against certain groups of children. Others believe that without these tests, we would have no objective means of identifying learning disabled students.

Certainly, many precautions are necessary to ensure reasonably accurate diagnosis of LD youngsters. Firstly, all assessment staff in the district should be very aware of the limitations of the WISC-R and Stanford Binet intelligence scales, and they should note the warnings issued by the tests' original designers. Neither scale is intended to be used as a sole determinant of intelligence; the IQ scores must be considered along with a variety of other factors. If the people who know a child best, such as the parents or the classroom teacher, strongly disagree with a psychologist's findings, their insights should be taken seriously. Family background, lack of exposure to standard English, low self esteem, emotional problems, and attention disorders are only a few of the many variables that can affect test performance and artificially depress IQ scores. As well, intelligence must be viewed as dynamic, and IQ scores should be updated regularly. School District #62 is very aware of this fact, and considers scores more than two or three years old to be invalid.

Both Weschler and Binet stressed that individual subtest scores should neither be viewed in isolation nor used for diagnostic purposes. Occasionally, in a student's file, remediation strategies will be suggested based upon individual subtest scores. This is not a useful practice, and it

goes against Weschler's and Binet's recommendations. The Sooke District's psychologists do clearly recognize the existence of statistical error; they do not proclaim IQ scores as absolutes. Rather, they explain that a student's true score may fall between two given numbers. To further emphasize this fact, several psychologists do not assign numerical values to intelligence; rather they use more generalized terms, such as "low average" or "superior."

Standardized achievement tests also have been highly criticized in recent years, and they should be used only with extreme caution. Instruments such as the Woodcock-Johnson or the Canadian Achievement Test can be useful devices for identifying students who experience difficulty in reading or mathematics. However, the tests often have little correlation with actual classroom instruction, and they tend to measure isolated skills rather than meaningful concepts. They are also timed, which lowers the scores of many LD children. The classroom teacher's observations, supplemented by student work samples, offer far greater insight into a student's academic profile than does a standardized test. The test can serve to confirm or challenge a teacher's diagnosis, but it should never be used alone as a measure of student achievement. As well, standardized achievement tests do not provide sufficient information to be used as diagnostic tools, and remediation strategies should not be prescribed according to the test results.

Characteristics of School District #62's LD Students

Gender of LD Students

Sooke elementary schools had 61 boys and 10 girls identified as learning disabled in the 1989-1990 year. This ratio of 6:1 in favour of the males seems unnaturally skewed, and is likely due to social as well as academic reasons. While there are many exceptions, boys in our society tend to exhibit more outwardly disruptive behaviors than do girls. In a classroom setting, boys who are academically frustrated may become defiant, exhibit silly, attention-seeking behavior, or act aggressively towards their peers. While a few girls may also act in these ways, many others may try to hide their deficiencies. These students will likely be confused about their academic subjects, but will manage to scrape through their classes by doing neat work, getting help from friends, or being highly cooperative. This is a generalization, and it is definitely not true in many cases. However, it is likely that if a classroom teacher is only going to refer one or two children each year for psychological testing, he or she will choose the students who demand the majority of his or her time, and these are frequently the disruptive boys.

School Placement

In 1989-90, 44% of elementary school LD children were enrolled in special classes, most at either Glen Lake or Sooke Schools. These segregated classes are gradually being eliminated, and all LD children will eventually be integrated at their home schools. Ruth King School had the highest number of LD students, which is not surprising, for several

reasons. Firstly, it had the largest population of any elementary school in the district that year. Secondly, it is located in a lower socioeconomic area, and has a number of transient families. In theory, the incidence of LD children should not be affected by family background; in reality, this is often not true. Sometimes children from disadvantaged backgrounds do not receive nearly as much educational support from home as do students from more stable families; therefore, they may be less able to function adequately in the classroom. A child who has well-educated parents who assist him with his school work, provide a wide variety of educational experiences outside the school, and foster a positive self esteem, is much more likely to cope in a regular classroom setting than a similarly disabled child who receives little support from his family. Thirdly, Ruth King has an experienced, knowledgeable staff that has regular contact with Special Services personnel; as a result, its teachers may be more adept at identifying possible LD candidates.

John Muir and Saseenos Schools had the next greatest incidence of LD students; however most of these children actually attended the special classes at neighbouring Sooke Elementary. Once again, socioeconomic status could be one factor in explaining these high numbers. Also, perhaps the convenience of having a special class placement only a few miles down the road encouraged John Muir and Saseenos teachers to refer children who were experiencing academic difficulties for psychological testing.

It would be very unwise to read too much into the home school distribution data, as these results are from one year only, and may be

purely coincidental. It would be necessary to maintain records for at least five years to discern any meaningful trends.

Grade Levels of LD Students

The fact that over half of Sooke's elementary school-aged LD children had repeated a primary grade indicates that these learning disabilities became obvious at an early age. The primary grades tend not to have the rigid academic standards of the older grades, and students are encouraged to progress at their own rates. Usually, there is flexibility in programming, and different rates and styles of learning are accepted. If students were unable to cope in these settings, they must have had some major deficits.

However, the fact that 82% of the LD children were at least one grade lower than their age-appropriate level is a disturbing statistic. As several researchers have discovered, retention usually has negative consequences, and it is a leading reason that students drop out of school. Often LD children who are placed in a lower grade continue to have academic difficulties, and no longer have the support of their peer groups. It seems desirable to place LD youngsters with their age-appropriate peers, and to modify academic programs to meet their individual needs, rather than retarding their social development by placing them in classes of younger children.

IQ Profiles of LD Students

The overall intelligence levels of Sooke's LD children have previously been discussed. However, some other rather surprising trends emerged

from the data on IQ testing, that perhaps suggest a weakness in the referral process. Presumably, in the general population, there are equal numbers of people with higher verbal than performance scores as the other way round. Yet in this district, 20 children had significantly higher performance scores than verbal scores, while only 4 students had significantly higher verbal results. Furthermore, all 4 of these verbally adept children exhibited serious behavior disorders.

The probable explanation for this phenomenon centres around the importance of reading and writing in our school system. In elementary school, reading and writing receive more instructional time than any other subjects, and deficiencies in these two areas usually lead to problems in other subjects such as social studies and science. Even mathematics can be adversely affected by low reading skills, as student text books have a lot of written instructions. Therefore, teachers cannot help but be concerned when students struggle with reading and writing, and may well refer them for further testing. These are the students who are more likely to demonstrate lower verbal than performance scores on intelligence tests.

At the other end of the spectrum, low performance or non-verbal abilities may not be quite as crippling at the elementary school level. Math is one subject that is likely to be affected, although difficulties may surface in certain other other areas. But if the child reads and writes well, a teacher may not feel justified in referring him or her for testing. In later grades, non-verbal difficulties may become more apparent, as the child will likely experience confusion in areas such as chemistry, physics, drafting, algebra, geometry, and computer programming. It would be

interesting to note whether LD students identified in junior high school had greater proportions of lower performance than verbal scores than did the students diagnosed in elementary school.

The fact that all 4 students with higher verbal scores had behavior maladjustments is probably not mere coincidence. When a child is extremely disruptive and wreaks havoc in the classroom, teachers are far more likely to refer him or her for testing, in the hopes of getting some assistance. All 4 of these boys were originally tested to see whether or not they might qualify for one of the behavior classes. Although it was known that they also had some learning difficulties, the behavior was a major concern. There is no guarantee that they would have ever had the chance to be diagnosed as LD under different circumstances; with their strong reading abilities, it is quite possible that they would have remained in regular classes and received only school-based learning assistance had they been motivated, cooperative, and popular students.

Academic Profiles of LD Students

Certainly the majority of Sooke's LD children were experiencing major academic difficulties, which is to be expected if one considers the entry criterion that stipulates a discrepancy between achievement and intelligence. Reading and writing were very weak areas for almost all students, and obviously remediation strategies should look at ways of strengthening these two areas. Math results were considerably higher for the group, as almost one third of the LD children were performing at average levels. Still, the remaining two thirds were below average. And

overall, only one students was considered to be at average levels in all three subjects for his grade. Clearly, low academic skills will seriously jeopardize these students' chances of experiencing school success, unless program interventions and modifications are made.

Social / Behavioral Characteristics of LD Students

After studying the data displayed in Figure 8, it becomes very apparent that many children in this particular group of LD students need far more than just help with reading, writing and math. The majority could benefit from social skills development, programs to foster self esteem, and strategies to improve organization. The latter area should perhaps be a primary focus, as all but one student have low organizational skills, and this is an area that can often be successfully remediated. At first, teachers and parents will have to do a lot of monitoring, to ensure that students keep better track of time and belongings. Notebooks can be checked as regularly as necessary, to make sure that everything is in order. LD children can be paired with highly organized peers, and they can be encouraged to compare their notes with those of their partners. Students can learn to carry personal agenda books, and they should write down pertinent dates for exams and completion of assignments. Teachers and students can work together to construct reasonable timelines for major assignments, and mini-deadlines can be established for each section of the projects. Parents can help to set up and enforce reasonable and effective homework schedules. Personal belongings such as pens, pencils, and texts may be

stored in safe locations, so that the LD child does not arrive to class empty handed.

There are a number of highly recommended social skills programs available, and schools should choose one that they think would benefit their particular students. These programs tend to work best in a regular class setting, where positive role models can influence the socially weaker children. The advantage of such programs is that they help everyone in the class, and the LD children do not feel singled out. At other times, smaller groups may be desirable, but again there should be a mixture of high and low functioning students, rather than a homogeneous grouping of socially unskilled children. Counsellors and other school support staff can also become involved. Social skills can be promoted every day in classrooms with caring teachers who try to foster interpersonal development and create positive classroom environments. Similarly, self esteem and responsible behavior can be developed both through formal programs and by teachers who stress the affective aspects of education.

Summary

For a child in School District #62 to be classified as learning disabled, he or she must: (a) be unable to function within the regular classroom with the support of school-based learning assistance; (b) exhibit a discrepancy between scores on standardized intelligence and achievement tests; (c) display basic problems in any of the areas of attention, perception, symbolization, or language; and (d) not have cultural, intellectual, emotional, behavioral, or attendance problems

that are considered to be the primary cause of the learning difficulties. These criteria are consistent with those of most school districts in Canada.

The majority of the LD students in Sooke School District had full scale IQ scores that fall within the average range. One possible reason that more children with lower IQ scores were not enrolled in LD classes is that the programs in Sooke have a strong academic focus, and may not be appropriate for lower-functioning children. It is difficult to speculate why there were not more LD children with high IQ scores. Perhaps these students were able to achieve satisfactory results with the help of a learning assistance teacher. Another possibility is that regular class teachers were not trained to identify these children: thus they were never referred for psychological testing.

School District #62 relies heavily on standardized intelligence and achievement tests to confirm LD diagnosis. These tests have some severe limitations, and results should be interpreted with caution. Factors such as family background, unfamiliarity with standard English, self-esteem, and emotional or behavioral disorders all can lead to lower than expected test scores. As well, tests do not always correlate with classroom instruction: the teacher can often provide more useful information about a child's learning strengths and weaknesses. Even if test scores are compared to look for discrepancies between actual and expected levels of achievement,

they should never be used for diagnostic purposes, nor should individual subtests be viewed in isolation.

Many of the LD students were at least one grade level below their expected placement. This is probably not a desirable occurrence, as retention is a leading cause of children dropping out of school. It is likely preferrable to place LD children with their age-appropriate peers.

The majority of the LD students had no significant difference between the scores on the verbal and performance sections of the intelligence test. However, of the children who did exhibit a difference, the vast majority had higher performance scores. It is speculated that the reason for this pattern is that reading and writing are considered extremely important in elementary school, and that much of the instructional time in the early grades is devoted to these two areas. If a child is experiencing difficulty in reading or writing, it is very likely that the teacher would be concerned, and he or she might possibly refer that child for further assessment. Low non-verbal skills might not be quite as obvious, or directly cause as much academic difficulty. Perhaps in the later grades, when subjects such as chemistry, mathematics, physics, drafting, and computers became compulsory, a greater percentage of LD children with low non- verbal abilities would be identified .

Conclusion

This paper has examined some of the characteristics of the elementary school-aged LD children in School District #62. It was hoped that the results would help to answer two key questions: (a) have the LD children in School District #62 been correctly identified, and (b) have intervention strategies been successful?

It would appear that the 71 learning disabled children have indeed been correctly identified. Almost all the children appear to meet the entry criteria of the special Education Department, and would seem to be in need of extra support. In addition, Sooke's entry criteria would seem to be consistent with national standards. However, that does not necessarily mean that other children might be equally needy, nor that these are the only LD children in the district. It is quite possible that other LD children are struggling in regular classrooms, and are not receiving the support that they are entitled to, either because the classroom teachers have not yet identified them, or because their test results do not satisfy all the LD guidelines. It is important for all the decision-makers to show flexibility; for despite all the tests, formulas, and guidelines, the fact remains that there is not any definitive method to diagnose a learning disability. For that reason, it would seem only fair to give the student the benefit of the doubt, and if the people who know him or her best feel that LD support would be beneficial, it should be provided whenever possible .

Due to the lack of long-term data, it was not possible to accurately answer the second question regarding the success of intervention programs. Therefore it is proposed that these 71 LD childen be tracked

throughout their school careers. As they enter high school, records will be kept as to the types of programs they are enrolled in, and their academic results will be noted. It will be interesting to compare the dropout rates of these children with those of the regular students, and to try to discern whether common characteristics exist for the LD children who do actually graduate.

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