MAINSTREAMED LEARNING DISABLED STUDENTS
AT THE JUNIOR HIGH SCHOOL LEVEL:
A STUDY OF TEACHER ATTITUDES
AND THE VARIABLES WHICH AFFECT ATTITUDES.

by

LYNETTE MARIE GRANTS
B.A., University of Sydney, N.S.W., Australia, 1961
Dip. Ed., University of Sydney, N.S.W., Australia, 1962

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APPROVAL

Name: Lynette M. Grants
Degree: Master of Arts (Education)
Title of Thesis: Mainstreamed Learning Disabled Students at the Junior High Level: A Study of Teacher Attitudes And The Variables Which Affect Attitudes
Examing Committee
Chairperson: A. Horvath

__________________________
L. Prock
Senior Supervisor

__________________________
R. Gehlbach
Associate Professor

__________________________
R. Chester
Associate Professor
Faculty of Education
University of British Columbia
External Examiner

Date approved March 17, 1987

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Title of Thesis/Project/Extended Essay

Mainstreamed Learning Disabled Students at the Junior High

Level: A Study of Teacher Attitudes And The Variables Which

Affect Attitudes

Author:

(U signature)

Lynette M. Grants

(name)

17th March, 1987

(date)
ABSTRACT

This study investigated the attitude of junior high school teachers to mainstreamed severely learning disabled students, and the extent to which attitude is influenced by personal and professional variables. In addition, responses to the attitude to mainstreaming scale were analysed to determine differences in attitude between schools with categorically funded severely learning disabled programs, and those schools without such programs.

A questionnaire was developed, pilot tested, revised and distributed to junior high school teachers in seven secondary schools. The questionnaire was designed to elicit teacher attitudes to issues of behaviour, curriculum and standards, time, administrative and specialist support, training and expertise, parent expectations, and regular versus segregated placement.

The relationship of attitude to variables of gender, qualification, subject area, experience, courses taken in special education, overall degree of success, level of administrative and additional support was investigated. Responses from 174 teachers were analyzed.

The variables of courses taken in special education, overall degree of success, level of administrative support services and availability of additional support services were found to have a significant relationship to various of the attitude issues.
Moreover, some differences in attitude were discernible in schools with severe learning disability programs and those without such programs.

Of the seven sub-scales into which the questionnaire was divided, not one had a mean less than 2.5, the mid-point of the scale. This suggests that teachers did not respond in a significantly negative way towards the mainstreaming of severely learning disabled students. Strong positive responses to three of the sub-scales identify areas of teacher concern.

Fifty-six point five percent of teachers agreed that training and release time for training were necessary; 59.6 percent of teachers agreed that mainstreamed severely learning disabled students demanded more teacher time; and 58.9 percent agreed that adjustment of curriculum and standards was necessary to accommodate severely learning disabled students in the regular classroom.

The junior high school teachers surveyed in this study did not respond unfavourably to the concept and practice of mainstreaming severely learning disabled students. However, if severely learning disabled students are to receive an appropriate education in the mainstream, and if teachers are to be supported in their acceptance of responsibility for such students, areas of teacher concern will need to be addressed.
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CHAPTER I - INTRODUCTION OF THE PROBLEM

Introduction:

In 1978, the Ministry of Education in British Columbia introduced new Guidelines to Special Education Programs. These guidelines were significant because they strongly espoused a particular philosophy towards special education, a philosophy consistent with prevailing educational theory, and the increasingly prevalent educational practice of mainstreaming or integrating students with special needs.

The implementation of mainstreaming necessitates complex administrative responses from school districts and individual schools. However, the success of mainstreaming as a concept, and the success or failure of individual students who are mainstreamed depends in large part on the attitudes of the regular classroom teachers. As Roubinek (1978) comments:

Without the support of the classroom teacher, any significant change is doomed where it counts the most, in the classroom with the target group (p.410).

The target group of exceptional students for this particular study is the severely learning disabled. The problem addressed by this study is that of determining attitudes of junior high-school teachers, in a particular school district, to mainstreamed students who are identified as severely learning disabled.
The specific purposes of this study are:

1. To develop a questionnaire to measure:
   (a) The personal and professional factors of gender, qualification, subject area, experience, perceived degree of success with special needs students, and level of administrative and additional support.
   (b) The psychological factor of attitude to mainstreamed learning disabled students.

2. To investigate the extent to which professional and psychological factors relate to each other.

3. To determine differences in attitude between teachers in schools with categorically determined severely learning disabled programs, and teachers in those schools without such programs.

4. To provide data regarding teachers' concerns about the main-streaming of severely learning disabled students.

Severe Learning Disability as a Category of Exceptionality:

The 1978 Guidelines to Special Education Programs acknowledged mainstreaming as the "new administrative arrangement" (Csapo, 1981). However, they did not in fact herald a radical departure from existing British Columbia practice. Some students with identified special needs, such as hearing impaired, were already part of the mainstream; other students with special needs, such as the severely learning disabled, were part of the mainstream by default.
In 1978 in British Columbia there was no category of exceptionality identified as severely learning disabled. Students recognized as such were served through Learning Assistance, which was funded non-categorically on the basis of total number of students per school. At the secondary level many students who would currently be recognized as severely learning disabled were assigned to vocational or occupational programs.

However, in 1980, the Ministry of Education, responding to increasing knowledge of the field of exceptionality, to active parent advocacy, and to the categories of handicap acknowledged by United States Public Law 94-142 (The Education for All Handicapped Children Act of 1975) moved to identify and establish an educational category for a hitherto provincially unacknowledged category of exceptionality: the category of Severe Learning Disability.

No direct funding for severely learning disabled students had formerly been available. Funding was now made available through Function 3 (Special Education), with a unit of 12 pupils to one teacher, plus 0-5 aide time. The Manual of Policies, Procedures and Guidelines to Special Education programs issued in 1980, (revised 1982, and again, 1985 - see Guidelines in Appendix A) recognized the incidence of Severe Learning Disability as pertaining to 1-2% of children in the schools.
Thus, in British Columbia, two potentially contradictory movements were taking place: on the one hand a movement towards the mainstreaming and integration of students who had been identified as having special needs; on the other, a movement towards the identification of students from within the mainstream as belonging to a category of exceptionality. The latter movement reflected a recognition that some students with special needs were indeed mainstreamed, but they were not receiving appropriate education in that mainstream.

With school district identification of learning disabled students, and with subsequent applications for categorical funding, school districts assumed an added responsibility towards such students. The responsibility assumed was that of providing adequate and appropriate education.

The Ministry of Education recognized a range of service options: "assessment and programming centres, resource rooms, self-contained classes as well as itinerant services." However, school districts were adjured to "examine the least restrictive alternative." The least restrictive alternative for the majority of students is the regular classroom. Thus the severe learning disabled student would be mainstreamed for at least part of his/her school day. The classroom teacher was, then, very actively involved in a major process of educational change that was potentially challenging to established teaching practices, materials and beliefs.
Severe Learning Disabilities at the Junior Secondary Level:

The establishment of the category of Severe Learning Disability in British Columbia coincided with a growing body of research that recognized the distinct educational needs of the adolescent who has learning disabilities (Hammill, 1979; Deshler, 1978; Alley and Deshler, 1979). For example, Deshler (1978) concluded in a review on the characteristics of learning disabled adolescents:

*By adolescence there is a high probability that learning disabled students will experience the indirect effects of a learning handicap as manifested by poor self-perception, lowered self-concept, or reduced motivation. Disability in a basic learning process may be the root problem, but it must be considered not only by itself but also in relation to other problems that it may precipitate (p.68).*

Moreover, the demands of the secondary school curriculum differ markedly from the demands of the elementary school. The secondary curriculum is based on content acquisition, and the secondary school teacher has been trained as a content specialist. Not only are individual class sizes likely to be larger, a teacher's total enrolment may be in excess of 180 students. Both teachers and students face complicated time-tables. The junior high-school teacher is aware of, but may have difficulty accommodating, the heterogeneous demands of his classes. He/she will see each class for no more than one hour before another class is scheduled. The learning disabled adolescent adds another dimension to the existing complex demands. It is not surprising then that while programming for
elementary learning disabled students is "maturing" the junior high-school effort is in its infancy (Lindsey, 1983).

Overview
The background to the problem, and a statement of the problem and its significance has been given in the first chapter. Chapter II will present related research literature. Chapter III will describe the methodology of the study. It will describe the development of the questionnaire, including the pilot study, the sampling, the final questionnaire and the statistical methodology.

Chapter IV gives the analyses and results of the administration of the questionnaire. Chapter V will discuss the conclusions drawn from the study, limitations, and recommendations.
CHAPTER II
REVIEW OF THE LITERATURE

INTRODUCTION

The passage of United States Public Law 94-142, the Education of All Handicapped Children Act, on November 29, 1975, was the most significant federal legislation to affect education in the United States in a decade (Ryor, 1978). Abeson and Zettel (1977) characterized the law as the "conclusion of a policy revolution," bringing into the orbit of the public schools many students once denied attention, and affirming the right to an education for every child with a handicap. Moreover, the law guaranteed access to free appropriate education to all handicapped individuals between the ages of three and twenty-one years (Alley and Deshler, 1979). The definition of handicap accompanying the law included "children with specific learning disabilities" (Garrison, 1978).

As with most revolutions, policy makers are influenced by and influence other jurisdictions. From educational policy promulgated elsewhere (Warnock Report, 1978; Organization for Economic Cooperation and Development Report, 1976;), it is clear that normalization of special education was an idea whose time had come (Csapo, 1981). It is also clear the Public Law 94-142 acted as a catalyst to the development of educational policy in the various provinces of Canada, both in terms of categories of handicap identified for special education funding and the provision for the least restrictive environment provision (Pocklington, 1980).
Learning Disabilities - Definitional Problems

The exponential growth of the field of learning disabilities has been well documented (Larsen, 1978; Ames, 1977; Gallagher, 1984). While it has been claimed that the roots of scientific and philosophical interest in learning disabilities are probably as old as these disciplines themselves (Gleason and Haring, 1974; Wiederholt, 1974), the formal history of learning disabilities is relatively brief. Yet learning disabilities as a "self-conscious discipline" (Wallace, 1976), has expanded at a breathtaking rate in the two decades of its official existence, its rate of growth unequalled by that of any other condition of handicap (Larsen, 1978; Algozzine & Korinek, 1985).

Such rapid, if not precipitate growth (Perkins, 1976; Ames, 1977; Ysseldyke, Algozzine and Epps, 1983) has been accompanied by problems, not least of which has been the problem of definition. Wilson (1985) concluded that

The concept or operational definition of learning disabilities has been one of the most debated topics in special education (p.46).

The term "learning disability" was used for the first time by S.A. Kirk in the first edition of his textbook Educating Exceptional Children (1963). It was a term used to differentiate a particular group of children on the one hand from their normally achieving peers, and on the other from those children identified as Educably Mentally Retarded (Lovett, 1985). In
1963, when the Association for Children with Learning Disabilities was formed, the new term "learning disability" was used as a non-controversial substitute for etiological labels such as brain injured or perceptually handicapped (McLeod, 1983).

In 1968, the National Advisory Committee on Handicapped Children of the United States Office of Education presented a definition of specific learning disabilities which became part of the Learning Disabilities Act of 1969 (Mercer, Hughes and Mercer, 1985; Mann, Cartwright, Kenowitz, Boyer, Metz and Wolford, 1984). This definition, frequently referred to as the NACHC definition is as follows:

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

The passage of Public Law 94-142, in 1975, which again used the NACHC definition, sparked fierce debate among theorists and practitioners, a debate which was exacerbated by an alternative definition proposed by the Bureau of Education for the Handicapped in 1976.
The Bureau of Education for the Handicapped definition stipulated that

A specific learning disability may be found if a child has a severe discrepancy between achievement and intellectual ability in one or more of several areas: oral expression, written expression; listening comprehension or reading comprehension, basic reading skills, mathematics calculation; mathematics reasoning, or spelling. 'A severe discrepancy' is defined to exist when achievement in one or more of the areas falls at or below 50% of the child's expected achievement level, when age and previous educational experiences are taken into consideration (Normand and Zigmond 1981, p.543).

Resistance to this new definition was formidable (Norman and Zigmond, 1980). Following lengthy hearings and considerable debate, the Office of Education rejected the definition. The definition that accompanied the final regulations governing the Education of All Handicapped Children Act in 1977, is the NACHC definition, with however, the inclusion of specific identification criteria.

The basic components of the United States Federal criteria are: (a) a multidisciplinary education team (b) failure to achieve commensurate with age and ability (c) severe discrepancy (d) exclusion (e) observation and (f) written report (McNutt, 86).

The major differences between the definition and the identification criteria were thus the omission of psychological processes in the identification criteria, and the
interpretation of language and academic problems within the context of a discrepancy factor (Lerner, 1981; Mercer, Hughes and Mercer, 1985).

Continuing attempts have been made to re-formulate the definition, largely in an effort to eliminate the focus on psychological processing disorders (McLoughlin and Netick, 1983, Hammill, Leigh, McNutt, 1981). The National Joint Committee for Learning Disabilities presented the following definition in 1981.

Learning Disabilities is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g. sensory impairment, mental retardation, social and emotional disturbances) or environmental influences (e.g. cultural differences, insufficient/inappropriate instruction, psychogenic factors), it is not the direct result of those conditions or influences. (Hammill, et al, 1981. p.336)

This definition, while avoiding reference to processing disorders, also attempted to avoid the controversial discrepancy clause. According to McLeod (1983), however, the reference to significant difficulties in the acquisition of "........" is merely a way of sweeping discrepancy "under the verbal rug" (p.24).

In fact, the important commonalities of the two definitions are significant problems in acquiring academic skills and the
absence of other handicapping conditions as the primary cause of learning disability (Hallahan, Kauffman and Lloyd, 1985).

In spite of wide endorsement of the NJCLD definition (McLaughlin and Netick, 1983; Hallahan, Kauffman and Lloyd, 1985; Hammill, Leigh and McNutt, 1981), the definition which accompanied the passage of PL 94-142 remains the only definition with legal status.

Definitions in British Columbia

In the midst of these active controversies about definitions of learning disabilities and operational criteria, the Ministry of Education in British Columbia advanced its own definition in 1980 (see Appendix A). The definition accompanied the recognition of learning disabilities as a handicapping condition, eligible for Special Education funding.

Children with learning disabilities are those who show a significant discrepancy between their estimated learning potential and actual performance. This discrepancy is related to basic problems in attention, perception, symbolization and the understanding or use of spoken or written language. These may be manifested in difficulties in thinking, listening, talking, reading, writing, spelling or computing. These problems may or may not be accompanied by demonstrable central nervous system dysfunctions. (Special Programs, A Manual of Policies, Procedures and Guidelines).
Conspicuous by their absences in the definition are references to processing disorder and an exclusionary clause. On the other hand, the definition makes explicit reference to discrepancy. Moreover, in the preamble to the definition the Ministry identifies "discrepancy" as the "one universal characteristic of learning disabled children" in one or more learning areas, performance consistently falls far short of capabilities in other areas as well as estimated general potential.

The Ministry also advanced identification criteria

Students suspected of being severely learning disabled should be referred for in-depth psychoeducational assessment. Health and developmental information should be included in the assessment. The question of quantifying the discrepancy between ability and achievement is best approached through standard score comparisons.

However, in revised Guidelines issued in May, 1985, the definition advanced includes reference to processing disorder, to exclusion, and within the definition itself, refers to mechanisms (grade equivalent or standardized scores) for determining significant discrepancy.

Learning disabilities is a processing disorder involved in understanding or using symbols or spoken language. These disorders result in a significant discrepancy between estimated learning potential and actual performance. Generally, a discrepancy of two or more years on grade equivalent scores or a similar discrepancy on standardized score comparisons is recognized as significant. This discrepancy is related to basic problems in attention, perception, symbolization and the understanding and use of spoken or written language. These may be manifested in extreme difficulties in thinking, listening, talking, reading, writing, spelling or computing.
The 1985 Ministry of Education Guidelines made a specific reference to exclusion, "stating that the severe learning disabilities category does not include children with learning problems primarily resultant from factors such as:

1. Sensory or physical impairments;
2. Mental retardation;
3. Emotional disturbance;
4. Environmental or cultural disadvantage;
5. English as a second language;
6. Lack of opportunity to learn: due to irregular attendance or transiency"

Operationalizing a Definition

Initial information derived from studies in the United States to determine the consistency of States' adherence to federal learning disability definition and identification criteria, led Perlmutter and Parus (1983) to conclude that "educators are experiencing severe problems reliably classifying learning disabled children" (p. 327). In particular, difficulties arise over the accurate identification of learning disabled students as distinct from students who are simply slow learners, that is "students who fail to meet objectives set for them by the school" (Epps, Ysseldyke and McGue, 1984). Reports comparing learning disabled and low achieving students at the elementary level (Taylor, Satz and Friel, 1979; Epps, Ysseldyke and McGue, 1984), corroborated the conclusion of Warner, Schumaker, Alley and Deshler (1980) that "behavioural attitudinal, and test characteristics" of learning disabled and low achieving adolescents are "more similar than dissimilar" (p.33).
In addition, Ysseldyke and Algozzine (1984) claimed that the subjective identification criteria relied on in categories such as learning disabilities, result in higher prevalence rates. Federal authorities, academicians and teachers in the field expressed alarm at the acceleration in learning disabilities definitions (Hallahan, Keller and Wall, 1986).

To test the assumption that higher prevalence rates are more variable for categories such as learning disabilities, Hallahan, Keller and Ball (1986) compared the variability of prevalence rates from state to state for each of the categories of special education.

> variability of prevalence rates is one index of how consistently a category is defined and how consistently identification procedures are followed (p.9).

They found, in contrast to the predictions of earlier studies, (Algozzine and Korinek, 1985; Ysseldyke and Algozzine, 1984) that higher prevalence categories, including learning disabilities, are, as a group, no more variable than lower prevalence categories. Furthermore, the most prevalent category, learning disabilities, "had the least variable prevalence rate" (p.10). Thus it would appear that educators are increasingly successful in defining learning disabilities operationally.
surveying fifty State Education Authorities and the District of Columbia, McNutt (1986) determined that seventy-two percent of states used definition of learning disability consistent with that of Public Law 94-142, and that sixty-four percent of states follow the identification criteria. She concluded that "there was more consensus than controversy" (p.12) among the various states.

The population of students so defined and identified, is certainly heterogeneous. Nevertheless, Cone, Wilson, Bradley and Reese (1985) have highlighted certain broad characteristics of learning disabled students. Based on a study of Iowa students K-12 identified as learning disabled, Cone and his colleagues concluded that the students were initially identified in elementary school with a male-female ratio of approximately 3 to 1. Reading recognition and spelling surfaced at the primary level as discrepant achievement areas. Reading comprehension and arithmetic problems surfaced at the intermediate level. However, at the secondary level, reading comprehension and arithmetic problems are as serious as the reading recognition and spelling problems.

In general, achievement across all basic skill areas became increasingly discrepant as the sample population ascended in grade level. Also, as grade level increased there was a noted decline in full scale IQ, which appeared to be a function of a decline in verbal IQ.
These findings are of particular relevance to a consideration of the learning disabled at the secondary level. Lindsey and Kerlin (1979) reported that learning disabled adolescents experienced more reading comprehension problems that did a group of learning disabled elementary students; Trites and Fiedorowicz (1976) reported that deficits tended to grow large with age relative to age and grade placement; Yule (1973) reported that learning disabled students continued to experience less success in reading, spelling and math than did a corresponding group of slow learners; Edginton (1975) observed that the learning disabled take longer than normal learners to achieve comparable educational levels. Meyen and Lehr (1981) concluded that "learning problems are persistent" (p.20); and that the most obvious characteristic of learning disabled adolescents is their history of poor school performance. Repeated failures can, moreover, affect motivation to learn (Wong, 1980), and contribute to passivity in learning (Torgeson, 1975).

Gregory, Shanahan and Walberg (1986) conducted a national survey of twelfth grade learning disabled students mainstreamed in regular classes. They concluded that the most striking characteristics manifested by this group are academic deficits and high rates of other handicapping conditions. In addition, learning disabled students evidenced problems with adjustment, self esteem and motivation. Nevertheless, individual learning
disabled students do well within the mainstream. Given that preliminary child-count data project an increase in the school age learning disabled population, Gregory and his colleagues concluded that increasing attention needs to be paid to educational practice which accommodates and takes note of learning disabled student characteristics.

**Teacher Attitudes to Mainstreaming**

With the passage of Public Law 94-142 the momentum towards mainstreaming increased, making the dichotomous relationship of regular and special education no longer viable (Chiappone 1984; Morrison, Lieber and Morrison, 1986). Public Law 94-142 was passed to provide for those groups that had formerly been excluded: namely handicapped children who had not previously received education in schools, and those students with learning disabilities who had received an inadequate education (Ryor, 1978).

Specific provisions of the federal law, revolving around the concept of the least restrictive environment, mandated the co-operation of personnel in the education of handicapped children. The federal regulation requires public schools to ensure that, to the maximum extent appropriate, handicapped children are educated with those who are not handicapped. Gillet has observed that the majority of students identified as learning disabled spend at least fifty percent of their school day in regular classes (Gillet, 1986).
Mainstreaming as a concept, a positive and worthwhile goal (Bogdan, 1983; Stainback and Stainback, 1985) cannot be effected without adequate understanding of regular educators' attitudes and needs (Hudson, Graham and Warner, 1979). Regular classroom teachers are amongst those least likely to be consulted directly about the plans for setting up new services or changing old systems (Gross and Gipps, 1985). Yet a crucial determinant of mainstreamed programs is the attitude and characteristics of teachers involved.

It is probable that teacher attitudes and characteristics are important determinants of the extent to which children are placed in special programs, and it also seems likely that they will be crucial in determining the success (or failure) of mainstreaming provisions (Smart, Wilton and Keeling, 1980, p. 218).

Fullan (1982) postulated that the process of educational change is multidimensional in that three aspects are implicated to varying degrees: materials, teaching practices and individuals' beliefs. He suggested that these three aspects of change are "dynamically inter-related" in that beliefs guide and are informed by teaching strategies and activities; and the effective use of materials depends on their articulation with beliefs and teaching approaches.

Fullan further suggests that alterations in materials are more easily achieved than changes in teaching practices, while changes in beliefs or attitudes represent the most difficult challenge of all.
Before changes in attitudes can be effected, prevailing attitudes must be understood. Stainback and Stainback (1985) assert that research into attitudes towards mainstreaming is important in providing cues to what is needed to help those involved become more accepting.

The measurement of attitudes, those organized predispositions to think, feel, perceive and behave toward a cognitive object (Kerlinger, 1973), is a subtle and complex task. Attitudes have been the subject of research by social psychologists for many years. Triandis (1971) synthesized the wide range of definitions and directions and offered a classification of attitude which included three components: cognitive, affective and behavioural. The cognitive component is made up of the ideas built into the attitude through a person's own perception of the world; the affective component is the emotional component, how a person "feels" about an issue; and the behavioural component is a measure of the overt actions and habits of the individual. The three components thus have to do with "knowing about", "feeling about", and "acting on the basis of", respectively.

Within the educational community, statements about the need for research on teacher attitudes toward mainstreaming abound (Hudson, Graham and Warner, 1979; Wang and Algozzine, 1983; Pedhazur Schmelkin, 1981; Christenson, Ysseldyke, Wang and Algozzine, 1983). Surveys conducted of teacher federations and
associations reveal general acceptance of the mainstreaming concept (Ryer, 1978; Flynn, Gacka and Sundean, 1978; Csapo, 1981). However, many issues of concern have surfaced, centering around insufficient preparation, feelings of inadequacy and perceptions of the handicapped student as "disruptive" (Hudson, Graham and Warner, 1979), as prejudicial to standards (MacMillan, Myers and Yoshida, 1978; Riegel, 1983) and as demanding more time (Thurlow, Graden, Greener and Ysseldyke, 1983; Ivarie, Hogue, Brulle, 1984).

To measure six categories of teacher needs and attitudes in relation to teaching mainstreamed exceptional students, Hudson, Graham and Warner (1979) developed a 28 item questionnaire which was distributed to 151 teachers in Missouri and Kansas. The six categories investigated were: attitudes, time, materials, skills, support services and training. In response to category one, attitude,

> While a majority of the teachers were willing to have an exceptional child placed in their classroom, there was moderate agreement that such a placement would negatively affect teaching effectiveness and be a disturbance (p. 60).

Teachers responded negatively to the categories of time, materials, support services and training. That is they felt they did not have sufficient time, the necessary materials, or support services to work effectively with mainstreamed exceptional students. They strongly agreed, however, that they had the skills to teach the mainstreamed exceptional student,
although the majority of teachers believed that "additional training would aid them in teaching exceptional children in the classroom" (p.61). These expressed attitudes and perceived needs were found not to be related to the teacher classification variables of locale, educational degree and teaching level.

Larrivee and Cook (1979) in a study of 941 regular classroom teachers, K-12, investigated the effect of fixed environmental variables (such as grade level taught, class size, school size, school setting) as well as teacher-perception variables (such as degree of success experienced, level of administrative support and availability of support services) on teacher attitude toward mainstreaming.

Of the environmental variables, grade level taught was found to have a strong relationship to teacher attitude, with attitude becoming increasingly less positive with ascending grade level. The most negative attitude toward mainstreaming was exhibited by junior high school teachers. Larrivee and Cook concluded that at the secondary level, attention would be required at the affective level, before behavioural or skill development could be focused on.

Of the teacher perception variables, teacher perception of success had the most important effect. This variable also exhibited positive correlation with availability of support services and level of administrative support.
The determination of teacher perception of success as significant is consistent with the results of other investigations. Berman and McLoughlin (1977) undertook a study of 100 Title III Elementary and Secondary Projects, concluding that the most important characteristic determining the effectiveness of change agent projects, was the teachers' sense of success or efficacy. Gibson and Dembo (1982) suggested that teachers' beliefs in their abilities to successfully instruct students, may account for individual differences in effectiveness. Teacher perception of success is itself, however, a function of many other variables such as information level, knowledge attainment, skill acquisition, contact and experience.

Connard, Dill and Hill (1985) conducted a study to investigate "Teachers' Perceptions of their Competence for Integrating Handicapped Adolescents." Participants in the study were preservice students qualifying for secondary teacher certification and cooperating teachers who worked with the students during their final practicum experience. Students and teachers were asked to respond to a questionnaire developed to gather information pertaining to their knowledge of the constructs of mainstreaming, their attitudes to and experience with handicapped learners, and their perceived level of preparation for dealing with mainstreamed students.
Four areas of secondary education were investigated: vocational education, general education, fine arts education and health education. Seventy-five percent of respondents in the four areas of secondary education perceived themselves as having inadequate to no knowledge about the concept of integration; while respondents in vocational and fine arts education had some experience with handicapped learners, over 80 percent of student teachers and cooperating teachers had no experience with handicapped learners. All respondents perceived themselves as inadequately prepared for mainstreaming. Connard, Dill and Hill (1985) concluded that continuing efforts in pre-service and in service education were needed to facilitate the "mainstreaming of handicapped students beyond the elementary level".

The effect of in-service training on teacher attitudes was investigated by Larrivee (1981). Three groups of regular classroom teacher at the elementary level were compared. A random sample was compared with a group of teachers who received intensive in-service training sessions over a one year period, and a second group who received regular monthly in-service training sessions during the whole year. The teachers receiving concentrated training exhibited the most highly positive attitudes towards mainstreaming. Moreover, the most significant difference among the three groups of teachers was reflected in responses to the statement that regular
teachers possess a great deal of the expertise necessary to work with handicapped learners. While 65% of the intensively trained group agreed, only 29.5% of the moderately trained group and 26.8% of the non-trained group agreed.

Significant shifts in attitude following course work in special education have been demonstrated in a number of other studies (Amer, 1984; Winzer, 1984; Sanche, Haines and Van Hesteren, 1982; Leyser, Abrams and Lipscombe, 1982). In the latter two studies, course work was combined with practicum experience in working with handicapped students within the mainstream. Johnson and Cartwright (1979) compared the effects of experience and information alone with the effect of experience and information combined. While information alone was effective in improving attitudes, the combination of information and experience was the more effective.

Amer's study (1984), conducted with practising elementary and secondary educators, indicated that three factors influence regular teachers' attitudes: formal course-work in special education, grade level taught, and communication and sharing of responsibilities with special educators. Formal course work in special education not only contributed to a more positive attitude toward the mainstreaming concept, but to a more informed approach to the attempted identification of academic and behaviour problems observed in the classroom. However,
course work did not appear to lead to in-class strategies which would enhance the learning of handicapped students.

nearly 85% of all educators indicated that they provided almost no specific accommodations for special students who were mainstreamed into their classes (p.19).

Nevertheless more than half of the teachers expressed a desire to improve the opportunity for handicapped students to succeed in the regular setting.

Pedhuzar Schmelkin's study (1981) indicated that while teachers support the socio-emotional rationale for mainstreaming, they are less positive about the "academic costs of mainstreaming", the term used to designate the possible detrimental effects of mainstreaming on the conduct of the regular classroom, and on the academic progress of both normal and handicapped students. Morrison, Leiber and Morrison (1986) have suggested that regular classroom teachers do not yet see themselves as full partners in the education of handicapped students.

While much of the research points to the need for clearer role articulation, and for greater co-operation between the special educator and the regular classroom teacher, Safran and Safran (1985) have urged that attention be paid to "the potential repercussions of differing contexts upon attitude formation (20)."
Gibson and Dembo (1984), Safran and Safran (1985) and Mitman (1985) have drawn attention to the contextual aspects of schooling, those demands that the academic classroom impose not only on the students who are part of that class but on teachers who conduct it. Alley and Deshler (1979) acknowledged the constraints of the academic classroom in their development of learning strategies, which, while giving learning disabled students generalizable information about how to learn, also help students and the regular classroom teacher address the mis-match between skill level and classroom expectations for performance.

Instruction that is more academically oriented and tightly managed fits a traditional model. Mitman (1985) suggests that it may be that more traditional teaching is associated with the belief that lower achieving students cannot be helped through any special teaching methods. Moreover, effective academic teachers may unconsciously disadvantage lower achieving students because they focus on giving the majority of students appropriate and efficiently paced instruction and they perceive the participation of lower achieving students as interfering with this goal.

Mitman conducted a study with third grade teachers in California, in which teachers' perceptions and attitudes were assessed through questionnaires and observed teacher
interactions with higher and lower achieving students. Teachers, who in their classrooms show more concern for lower achieving students, also tended to have more flexible and accurate perceptions of those students. However, those same teachers were rated significantly lower on their quality of teaching. Mitman concluded that while the two sets of skills may be difficult to combine, teacher training programs aimed at facilitating the optimal treatment of lower achieving students, must begin to take account of "specific contexts" (p.160). Kauffman, McCullogh and Sabornie (1984), and Kokoszka and Drye (1981) advocate that special and regular educators share joint responsibility for judging the degree of match between student characteristics and classroom demands.

Another variable that may affect attitudes towards handicapped students is the identification component itself. While Lieberman (1985) claims that a child categorized by special education has a better chance in regular education than if he had not been categorized, a number of studies suggest this is not so (Foster and Ysseldyke, 1976; Gillung and Rucker, 1977; Hallahan and Kauffman, 1982; Nelson, Greenough and Jansen, 1984).

In a study conducted with student teachers, Gillung and Rucker (1977) found that the label held in spite of the fact that the student characteristics belied the label. Even after improved behaviours were recorded by student teachers, initial negative predispositions remained unchanged.
Knoff's 1984 study, however, suggests that labelling does not significantly impinge upon teachers' attitudes to students who are mainstreamed. Using the Rucker-Gable Educational Programming Scale, Knoff surveyed both regular and special education teachers in New York, a categorical labeling state, and Massachusetts, a non-categorical labelling state. The attitude data failed to reveal any significant differences between the two states. Knoff concluded that general knowledge of special education categories in the past decade may have mitigated some of the negative responses to handicapping condition labels.

Huberman and Crandall's study (1983) indicates that teachers' commitment to an innovation such as mainstreaming only develops after they actually begin to experience the innovation. To encourage that commitment teachers' perceptions of and attitudes to those mainstreamed must be measured and evaluated. (Hudson, Graham and Warner, 1979; Amer, 1984; Stainback and Stainback, 1985).

Attitude change within the educational context is seen as the focus of the general process of staff development (Schiffer, 1980; Gross and Gipps, 1985) Measurement of attitude and the variables which affect attitude is a precursor to appropriate staff development.
Summary

The definition of handicap accompanying Public Law 94-142 included "children with specific learning disabilities" (Garrison, 1978). Both in the United States and in Canada, schools were adjured to provide appropriate education to the learning disabled student in the least restrictive environment. The majority of students identified as severely learning disabled, spend at least fifty percent of their school day in regular classes (Gillet, 1986). Teacher attitudes to mainstreamed severely learning disabled students are important determinants of the success or failure of the mainstreaming provision. Measurement of teacher attitudes is a precursor to appropriate staff development.
CHAPTER III - METHODOLOGY

Introduction

The specific purposes of the study were to measure teacher attitudes and the variables which affect attitudes towards mainstreamed severely learning disabled students at the junior high school level. Additionally, the study of teacher attitudes and the variables which affect attitudes, would, it was hoped, provide insight into the predisposition and behaviour of classroom teachers who carry a great deal of the responsibility for the successful integration of the exceptional student. Moreover, from the study, information about curricula and in-service direction can be extrapolated so that a framework of support for classroom teachers could be developed.

The purposes of this chapter are to describe how and where the data were collected. The development of the questionnaire and the statistical methodology are also described.

Context of the Study

The study was carried out in the school district of North Vancouver. At the time of the study, the North Vancouver school district provided educational programs for just over 15,000 students in 38 schools. The school district employs approximately 900 teachers, and operates with a budget of over 50 million dollars.
In accordance with Ministry of Education Guidelines, the District provides a number of special education programs, among them programmes for the Severely Learning Disabled. These programmes, designated to serve the student who fulfills the Severe Learning Disability criteria (see Appendix A), are funded through Function III (Special Education), and are informed by the principle of "least restricted environment".

At the time of the study, there were seven secondary schools in the district, and one alternate secondary school. The alternate secondary school was not included in the study. At the time of the study, Severe Learning Disabilities classes had been in operation in two of the seven secondary schools for three years, in one school for two years, and in another for one. Thus, teachers at the Grades 8, 9 and 10 levels (that is, at the junior high school level) would have had experience with students designated Severe Learning Disabled according to the Ministry of Education definition and criteria. Learning disabled students, while spending part of each school day in the "restricted environment" of the Severe Learning Disabilities classes, are mainstreamed into both academic and elective areas. Choice of areas for regular classroom participation (mainstreaming), is guided by the educational profile and Individualized Educational Plan for each individual student.
Students are enrolled in the Severe Learning Disabilities Programmes through the District's annual screening process which takes place in April and May of each school year. The programmes are district programmes, and while every effort is made to observe geographic boundaries, students eligible for Severe Learning Disabilities placement, do not necessarily attend their nearest neighbourhood secondary school.

Three of the district's secondary schools do not have Severe Learning Disabilities classes. In most instances students who meet severe learning disability criteria, are not registered at such schools. However, students meeting severe learning disability criteria, registered at schools without specifically designated Severe Learning Disabilities classes, would be served by the Learning Assistance teacher through direct service (maximum one hour per day), consultation with regular classroom teachers, and monitoring of student progress.

Thus, all junior high school teachers included in the study, have some knowledge of and experience with students designated Severe Learning Disabled. Teachers at those schools which host Severe Learning Disabilities programmes, would however, have more extensive classroom contact with numbers of students so designated.
Programmes for Severe Learning Disability students operate within the schedule and policies of the host schools. Responsibilities for Severe Learning Disability programme personnel supervision and evaluation reside with each building principal. The programme's personnel share both non-instructional days and parent reporting schedules with the host school. Programme instructional support and consultative services are among the responsibilities of the District's Special Education Department.

Methodology of the Study
To investigate teacher attitudes and the variables which affect attitudes at the junior high school level, a questionnaire was developed and administered to junior high school teachers in the North Vancouver School District. This section of the chapter describes the development of the questionnaire, the data processing and design used in the study.

Development of the Questionnaire
Attitudinal issues and questions used in previous classroom teacher questionnaires and research were reviewed (Hudson, Graham and Warner, 1979; Larrivee and Cook, 1979; Winzer, 1985). Guidelines for constructing questionnaires were followed (Kerlinger, 1973; Borg and Gall, 1979).
The questionnaire consisted of two sections. The first section consisted of the background variables of gender, qualification, subject area, years of experience, special education courses, perceived degree of success, level of administrative support and availability of additional support services were listed. The last three variables were to be responded to on a scale of one to five, with one as very low and five as very high.

The second section of the questionnaire, Teacher Opinions, consisted of fifty likert-type items. These fifty items were reviewed by two special education consultants and two experienced junior high school classroom teachers. Each item was categorized as belonging to one of seven categories: behaviour, curriculum or standards, training, administrative/specialist support, time, regular versus segregated placement, and relationship with parents. Nine of the initial survey items were rejected by the reviewers on the basis of lack of categorical clarity.

Subjects were to respond to each of the opinion items using a four point scale from 1 strongly disagree to 4 strongly agree.

The validity of the instrument's content was established and analyzed by selected university faculty members who are experienced in the areas of learning disabilities and research. The survey instrument was then pilot tested.
The Pilot Study
In October, 1986 an initial form of the questionnaire was distributed in a pilot study to eighteen junior high school teachers in a suburban school district comparable to North Vancouver. The response rate was fifty percent. Reliability was obtained using Cronbach's Alpha.

Analyses of the results indicated where changes should be made. It was determined that a 5 point scale would yield more discriminative power. Moreover, four of the nine respondents noted on their questionnaires that an "indeterminate or don't know" response would have been desirable. The total number of items remained unchanged. The pilot study results proved valuable in redesigning the questionnaire for the final study.

The Final Questionnaire
The final questionnaire was distributed to the seven secondary schools in December, 1986. The questionnaires were distributed through the principal of the school, or by special education personnel. Respondents were assured of anonymity.

Questionnaires could be returned to the investigator by way of intra district mail or collection trays in main offices of the schools.
Each questionnaire was accompanied by a covering letter explaining the purpose of the study and referring to the particular in-school programme which would designate students as Severely Learning Disabled. In this way teachers could more accurately reference mainstreamed students categorized as Severely Learning Disabled. A copy of the questionnaire appears in Appendix B.

**Statistical Methodology**

As each questionnaire was received it was given an identification number next to the school code number. Two hundred and fifty three questionnaires were distributed and one hundred and seventy four questionnaires were returned. This was a return rate of sixty-nine percent.

Missing responses to items in the attitude scale were coded a 3, the mid-point of the scale. There were 51 missing responses from a total of 8526 responses.

**Data Analyses**

Methods of data analyses in this study include: frequency distributions along with calculations of mean and standard deviation, reliability analyses, bi-serial correlation
coefficients, Pearson correlation coefficients, and one-way analysis of variance for estimating the significance of difference among groups.

Frequency distributions of the responses for each item were calculated yielding the percentage of agreement and disagreement for each of the items in the sub-scales.

Reliability analysis of the total number of items was calculated, as well as reliability for each of the sub-scales.

Associations between continuous items were estimated by the Pearson Correlation Coefficients; point-biserial correlation coefficients were computed between variables and sub-scales.

To determine differences in responses between two sets of schools, one-way analysis of variance was conducted.
CHAPTER IV - RESULTS

In this chapter the results of the attitude survey distributed to junior high school teachers will be presented. Data analyses were designed to provide descriptions of the teacher respondents derived from their answers to background variable and teacher opinion statements. Other analyses determined whether the correlation between the personal and professional background variables and attitude was meaningful. In addition, responses to the attitude to mainstreaming scale were analyzed to determine differences in attitude between schools with categorically funded severely learning disability programs, and those schools without such programs.

Results of the study are presented in four sections:
1. Background Variables; 2. Attitude; 3. Correlation of Background Variables with Attitude; 4. Differences between Schools.

1. Background Variables

Eight questionnaire items - gender, qualifications, major subject area, experience, special education courses, overall degree of success, level of administrative support and availability of support services - constitute the background variables.

Gender, Degree and Major Subject Area

Table I presents the distribution and percentages of the responses for the first three Variables.
Table 1

Gender, Degree and Major Subject Area

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Male</td>
<td>121</td>
<td>69.5</td>
</tr>
<tr>
<td>2. Female</td>
<td>53</td>
<td>30.5</td>
</tr>
<tr>
<td>2. Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Bachelor's Degree</td>
<td>66</td>
<td>37.9</td>
</tr>
<tr>
<td>2. Degree plus Graduate Work</td>
<td>108</td>
<td>62.1</td>
</tr>
<tr>
<td>3. Major Subject Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Academic</td>
<td>115</td>
<td>66.1</td>
</tr>
<tr>
<td>2. Elective</td>
<td>59</td>
<td>33.9</td>
</tr>
</tbody>
</table>

Sixty-nine point five percent of the respondents are male; 62.1 percent of the respondents have a post-graduate degree or have completed some post-graduate work; 66.1 percent of the respondents are primarily academic teachers. That is, they teach English, Social Studies, Science or Math.

Background Variables 4 and 5 assessed experience and total number of special education courses.

Experience and Number of Special Education Courses

Table 2 presents the distribution and percentages of the responses for Variables 4 and 5.
Table 2

Experience and Number of Special Education Courses

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-8</td>
<td>20</td>
<td>11.3</td>
</tr>
<tr>
<td>9-15</td>
<td>69</td>
<td>39.7</td>
</tr>
<tr>
<td>16-26</td>
<td>70</td>
<td>40.1</td>
</tr>
<tr>
<td>27-34</td>
<td>15</td>
<td>8.6</td>
</tr>
<tr>
<td>5. Courses in Special Ed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>114</td>
<td>65.5</td>
</tr>
<tr>
<td>1-4</td>
<td>52</td>
<td>29.8</td>
</tr>
<tr>
<td>5-15</td>
<td>8</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Forty-nine percent of the teachers surveyed have more than fifteen years of teaching experience; 65.5 percent have not taken any courses in Special Education.

Overall Degree of Success in dealing with mainstreamed severe learning disabled students, level of administrative support and availability of additional support services were variables 6, 7, 8 respectively. Respondents were asked to use a five point scale from 1 very low to 5 very high. For purposes of reporting responses 1 and 2 have been combined as Below Average, while 4 and 5 have been combined to represent Above Average.

Overall Degree of Success, Administrative and Additional Support

Table 3 presents the distribution and percentages for variables 6, 7 and 8 and correlations between Variable 6 and Variables 7 and 8.
Table 3
Overall Degree of Success, Level of Administrative
and Other Support

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Overall Degree of Success</td>
<td>Above Average</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Below Average</td>
<td>42</td>
</tr>
<tr>
<td>7. Level of Administrative</td>
<td>Above Average</td>
<td>48</td>
</tr>
<tr>
<td>Support</td>
<td>Average</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Below Average</td>
<td>51</td>
</tr>
<tr>
<td>8. Availability of Additional</td>
<td>Above Average</td>
<td>72</td>
</tr>
<tr>
<td>Support Services</td>
<td>Average</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Below Average</td>
<td>41</td>
</tr>
</tbody>
</table>

A higher percentage of teachers, 75.9 percent, perceive their level of success with mainstreamed severely learning disabled students as average or better, rather than as low or very low. Similarly, 70.7 percent of teachers ranked level of administrative support as average or better, while 76.4 percent of teachers ranked availability of support services as average or above average. Of the three variables, that which received the highest percentage of responses for the high and the very high category, was availability of additional support services.

Correlations between variable 6 and variables 7 and 8 were computed and were found to be significant at .49 and .40 respectively, at the p = .001 level.
Summary of Information Derived from Background Variables
Of the 174 respondents, 69.5 percent were male and 30.5 percent were female. A majority of the teachers had completed a degree plus graduate work, and a majority taught in an Academic area. More than half of the respondents have taught for more than 13 years; few have taken courses in Special Education. The majority of teachers expressed average or above average level of success with mainstreamed severely learning disabled students, and expressed satisfaction with the availability of administrative and support services.

2. Teacher Opinions
The items within the Teacher Opinion section of the questionnaire were categorized as belonging to one of seven categories or sub-scales. Frequency distribution of the responses for each item was computed yielding percentage of agreement and disagreement, together with the Mean and Standard Deviation. For reporting purposes, individual questionnaire items are recorded within their sub-scales. The sub-scales identified were: Behavior, Curriculum and Standards, Administrative and Specialist Support, Training and Expertise, Parents, Demands on Teacher Time, Regular Class Placement Versus Segregated Class Placement.
Sub-Scale 1 - Behavior

This sub-scale was made up of eleven positively and negatively worded items. Table 4 contains the mean, standard deviation, and percent of responses which indicate item agreement or disagreement.
<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. SLD students take away attention from others</td>
<td>3.95</td>
<td>.96</td>
<td>83.9</td>
<td>12.6</td>
</tr>
<tr>
<td>37. Mainstreamed SLD students require a lot of the teacher's classroom time.</td>
<td>3.73</td>
<td>.89</td>
<td>74.7</td>
<td>15.0</td>
</tr>
<tr>
<td>19. SLD students' behavior requires more patience and tolerance from the classroom teacher.</td>
<td>3.70</td>
<td>1.129</td>
<td>68.4</td>
<td>19.5</td>
</tr>
<tr>
<td>23. SLD students are distracting to others</td>
<td>2.85</td>
<td>1.11</td>
<td>31.6</td>
<td>51.7</td>
</tr>
<tr>
<td>27. SLD students do not try hard enough</td>
<td>2.75</td>
<td>.98</td>
<td>23.0</td>
<td>44.8</td>
</tr>
<tr>
<td>31. SLD students interact poorly with peers</td>
<td>2.72</td>
<td>.90</td>
<td>23.6</td>
<td>51.2</td>
</tr>
<tr>
<td>21. SLD students are more distractable</td>
<td>2.62</td>
<td>1.09</td>
<td>57.5</td>
<td>28.7</td>
</tr>
<tr>
<td>35. SLD students make it difficult to maintain a good working atmosphere.</td>
<td>2.60</td>
<td>1.01</td>
<td>3.5</td>
<td>56.3</td>
</tr>
<tr>
<td>32. SLD students adversely affect tone in the class</td>
<td>2.59</td>
<td>.97</td>
<td>20.7</td>
<td>60.4</td>
</tr>
<tr>
<td>36. SLD students lead to a deterioration in the behavior of regular students.</td>
<td>2.52</td>
<td>.95</td>
<td>17.8</td>
<td>60.9</td>
</tr>
<tr>
<td>30. Most SLD students are not well behaved</td>
<td>2.44</td>
<td>.89</td>
<td>14.4</td>
<td>66.1</td>
</tr>
</tbody>
</table>
Teacher responses indicate that the behavior of severely learning disabled students required more of their time, took away attention from others, and required more tolerance. The behavior of the severely learning disabled student was not seen as particularly significant in terms of other students in the classroom, even though 57.5 percent of teachers agreed that the SLD student is more distractible. Moreover, there was only a 14.4 percent agreement with the statement that most SLD students are not well-behaved.

Sub-Scale II - Curriculum and Standards

This sub-scale was made up of eleven items. Table 5 contains the mean, standard deviation, and percent of responses which indicate item agreement and disagreement.
<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>43. Number of students must be limited.</td>
<td>4.27</td>
<td>.80</td>
<td>88.4</td>
<td>4.6</td>
</tr>
<tr>
<td>47. Greater adjustment of curriculum materials is necessary.</td>
<td>3.95</td>
<td>.75</td>
<td>80.9</td>
<td>18.8</td>
</tr>
<tr>
<td>24. Teachers need to adapt the curriculum.</td>
<td>3.81</td>
<td>.96</td>
<td>79.9</td>
<td>12.6</td>
</tr>
<tr>
<td>48. Mainstreamed SLD students require different instruction.</td>
<td>3.78</td>
<td>.84</td>
<td>72.3</td>
<td>10.4</td>
</tr>
<tr>
<td>22. Mainstreamed SLD students require different texts.</td>
<td>3.64</td>
<td>.89</td>
<td>62.1</td>
<td>10.3</td>
</tr>
<tr>
<td>33. Performance of SLD students should not be graded on the same basis as other students.</td>
<td>3.58</td>
<td>1.08</td>
<td>62.7</td>
<td>20.1</td>
</tr>
<tr>
<td>34. The nature of the learning disability should be taken into account.</td>
<td>3.52</td>
<td>1.11</td>
<td>59.8</td>
<td>19.5</td>
</tr>
<tr>
<td>28. SLD students find content area concepts too difficult.</td>
<td>3.39</td>
<td>1.08</td>
<td>52.3</td>
<td>28.1</td>
</tr>
<tr>
<td>42. It is reasonable to expect program adjustment.</td>
<td>3.27</td>
<td>1.01</td>
<td>46.2</td>
<td>23.7</td>
</tr>
<tr>
<td>29. SLD students slow the pace of lesson presentation.</td>
<td>3.21</td>
<td>1.06</td>
<td>48.2</td>
<td>36.8</td>
</tr>
<tr>
<td>39. Integration compromises academic standards.</td>
<td>2.92</td>
<td>1.06</td>
<td>36.3</td>
<td>44.5</td>
</tr>
</tbody>
</table>
Percentages of agreement in this category with each of those items indicating the need for curriculum adjustment was high. 79.9 percent of teachers agreed that curriculum adaptation was necessary; 80.9 percent agreed that greater curriculum adjustment than that currently employed was necessary; 72.3 percent agreed that SLD students require different instruction. However, only 46.2 percent of respondents felt that it was reasonable to expect that junior high school teachers would adjust their programs.

The highest percentage of agreement was with the question stating numbers of students must be limited. 88.4 percent of teachers agreed that numbers of students must be limited if integration was to be successful.

Item 34 in this category asked whether the nature of the learning disability should be taken into account. While 19.5 percent of the respondents were uncertain, 59.8 percent of teachers agreed with the statement.

Sub-Scale III - Administrative and Specialist Support
This sub-scale is made up of 4 items. Table 6 contains the mean, standard deviation and percent of responses which indicate item agreement and disagreement.
Table 6

Sub-Scale III - Administrative and Specialist Support

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>45. Teachers of SLD classes are aware of various demands on class-room teachers.</td>
<td>3.48</td>
<td>.87</td>
<td>55.1</td>
<td>12.6</td>
</tr>
<tr>
<td>49. Administrators are aware of difficulties accompanying mainstreaming.</td>
<td>2.97</td>
<td>.94</td>
<td>28.4</td>
<td>27.2</td>
</tr>
<tr>
<td>18. Administrators understand the impact of SLD students on the regular classroom.</td>
<td>2.86</td>
<td>.99</td>
<td>27.5</td>
<td>36.2</td>
</tr>
<tr>
<td>44. Integration of SLD students is usually done with adequate preparation.</td>
<td>2.42</td>
<td>.97</td>
<td>12.0</td>
<td>56.4</td>
</tr>
</tbody>
</table>

While there was moderate agreement that teachers of severe learning disabled classes are aware of the demands on class-room teachers, there was substantial disagreement that integration of SLD students is done with adequate preparation. There was also a high percentage of undecided responses to the two questions relating to administrators.

It is interesting to note the discrepancy between the responses to the Administrative/Additional Support Sub-Scale questions and the ratings given to Administrators and Additional Support Services in the first section of the questionnaire. Implications stemming from this discrepancy will be discussed in the next chapter.
Sub-Scale IV - Training and Expertise

This sub-scale was made up of three items. Table 7 contains the mean, standard deviation and percent of the responses which indicate item agreement and disagreement.

Table 7

<table>
<thead>
<tr>
<th>Training and Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Items</strong></td>
</tr>
<tr>
<td>41. Release time for in-service is necessary for teachers to learn more about effective teaching of mainstreamed SLD students.</td>
</tr>
<tr>
<td>15. More training is needed for the integration of SLD students.</td>
</tr>
<tr>
<td>13. Regular teachers do not have the expertise.</td>
</tr>
</tbody>
</table>

This sub-scale is characterized by high percentages of agreement with each of the items: 73 percent of teachers agree that they do not have the expertise; 79.9 percent agree that more training is needed, and 78.1 percent agree that release time is necessary.

Sub-Scale V - Parents

This sub-scale is made up of 2 items. Table 8 contains the mean, standard deviation and percent of the responses which indicate item agreement and disagreement.
Parents of SLD students are no more demanding

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. Interactions between parents of SLD students and classroom teachers are no more demanding than interaction with parents of regular students.</td>
<td>3.09</td>
<td>.95</td>
<td>35.5</td>
<td>30.1</td>
</tr>
<tr>
<td>40. Parents of SLD students have realistic expectations.</td>
<td>2.94</td>
<td>.74</td>
<td>20.9</td>
<td>24.8</td>
</tr>
</tbody>
</table>

The extremely high percentage of undecided responses in this category indicate that the teachers most involved with the parents of SLD students are the specialist teachers. This may be an involvement of which the regular classroom teachers are not aware.

Sub-Scale VI - Teacher-Time

This sub-scale is made up of 2 items. Table 9 contains the mean, standard deviation, and percent of the responses which indicate item agreement and disagreement.
Table 9
Teacher-Time

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. Having SLD students in the classroom leads to more preparation</td>
<td>3.86</td>
<td>.92</td>
<td>78.1</td>
<td>13.2</td>
</tr>
<tr>
<td>time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Because of the integration of SLD students, I will have less</td>
<td>2.25</td>
<td>1.10</td>
<td>41.4</td>
<td>29.3</td>
</tr>
<tr>
<td>time and energy for extra-curricular activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While there is strong agreement with the effect of SLD students on preparation time, approximately only one-third of the respondents felt they would have less time for extra-curricular activities.

Sub-Scale VII - Regular Versus Segregated Placement

This sub-scale is made up of seven items. Table 10 contains the mean, standard deviation and percent of the responses which indicate item agreement and disagreement.
Table 10  
Regular Class Versus Segregated Placement

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Integration of SLD students will foster their emotional growth.</td>
<td>3.68</td>
<td>.83</td>
<td>59.2</td>
<td>4.6</td>
</tr>
<tr>
<td>38. Mainstreaming fosters the acceptance of the strengths and weaknesses of others.</td>
<td>3.37</td>
<td>.89</td>
<td>48.5</td>
<td>15.0</td>
</tr>
<tr>
<td>12. The challenge of being in the regular classroom will provide academic incentive to the SLD student.</td>
<td>2.93</td>
<td>.92</td>
<td>29.3</td>
<td>35.6</td>
</tr>
<tr>
<td>14. Academic growth for the SLD student is most likely to occur in the segregated classroom setting.</td>
<td>2.86</td>
<td>.97</td>
<td>25.9</td>
<td>36.8</td>
</tr>
<tr>
<td>11. The needs of the SLD student can best be served in the integrated classroom.</td>
<td>2.82</td>
<td>1.14</td>
<td>27.6</td>
<td>40.8</td>
</tr>
<tr>
<td>10. All students - SLD and non-SLD - learn best in the regular classroom.</td>
<td>2.82</td>
<td>.97</td>
<td>8.6</td>
<td>60.4</td>
</tr>
<tr>
<td>9. Many of the things done in the regular classroom are appropriate for SLD students.</td>
<td>2.82</td>
<td>.97</td>
<td>29.3</td>
<td>58.1</td>
</tr>
</tbody>
</table>

Responses in this category indicate a degree of uncertainty about the value of integration. 59.2 percent of teachers agree that integration fosters emotional growth, but 60.4 percent disagree with the statement that all students - SLD and non-SLD learn best in the regular classroom. A number of the items yielded a high percentage of undecided responses.
Summary of Sub-Scales

Table 11 contains the mean, mean item, standard deviation, Alpha, standard Item Alpha together with total percentages of agree and disagree for each of the sub-scales.

<table>
<thead>
<tr>
<th>Sub-Scale</th>
<th>Mean</th>
<th>Mean St. Item</th>
<th>Dev.</th>
<th>Alpha</th>
<th>St. Item Alpha</th>
<th>Ave. Percent Agree</th>
<th>Percent Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>32.55</td>
<td>2.95</td>
<td>6.27</td>
<td>.79</td>
<td>.80</td>
<td>38.3</td>
<td>42.6</td>
</tr>
<tr>
<td>11 Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum &amp; Standards</td>
<td>39.38</td>
<td>3.58</td>
<td>4.95</td>
<td>.62</td>
<td>.65</td>
<td>58.9</td>
<td>24.6</td>
</tr>
<tr>
<td>11 Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative and Specialist Support</td>
<td>11.74</td>
<td>2.93</td>
<td>2.69</td>
<td>.67</td>
<td>.67</td>
<td>31.9</td>
<td>34.3</td>
</tr>
<tr>
<td>4 Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training &amp; Expertise</td>
<td>11.79</td>
<td>3.93</td>
<td>1.68</td>
<td>.14</td>
<td>.14</td>
<td>56.5</td>
<td>29.5</td>
</tr>
<tr>
<td>3 Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents</td>
<td>6.04</td>
<td>3.02</td>
<td>1.33</td>
<td>.33</td>
<td>.34</td>
<td>29.0</td>
<td>28.0</td>
</tr>
<tr>
<td>2 Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demands on Teacher Time</td>
<td>7.13</td>
<td>3.56</td>
<td>1.78</td>
<td>.70</td>
<td>.71</td>
<td>59.6</td>
<td>21.2</td>
</tr>
<tr>
<td>2 Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular Class</td>
<td>20.49</td>
<td>2.92</td>
<td>4.40</td>
<td>.74</td>
<td>.74</td>
<td>33.2</td>
<td>36.5</td>
</tr>
<tr>
<td>Placement Versus Segregated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Analyses indicated that no significant effects emerged with the Gender, Degree, Major Teaching Area and Experience Variables. Courses taken in Special Education did, however, have a significant correlation with the Behavior Sub-Scale.

Meaningful correlations emerged with Overall Degree of Success, Level of Administrative Support and Availability of Other Support with a number of the Sub-Scales. The correlations between those three variables and the sub-scales are presented in Table 12.

Table 12

<table>
<thead>
<tr>
<th>Sub-Scale</th>
<th>Variable 5</th>
<th>Variable 6</th>
<th>Variable 7</th>
<th>Variable 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses</td>
<td></td>
<td>Degree of</td>
<td>Support</td>
<td>Support</td>
</tr>
<tr>
<td>Behavior</td>
<td>-.23*</td>
<td>-.37*</td>
<td>-.28*</td>
<td>-.31*</td>
</tr>
<tr>
<td>Curriculum &amp; Standards</td>
<td>-.15</td>
<td>-.02</td>
<td>-.04</td>
<td></td>
</tr>
<tr>
<td>Training &amp; Experience</td>
<td>-.00</td>
<td>.04</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>Parents</td>
<td>-.00</td>
<td>.12</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Teacher Time</td>
<td>-.21*</td>
<td>-.10</td>
<td>-.22*</td>
<td></td>
</tr>
<tr>
<td>Reg. versus Segregated</td>
<td>.29*</td>
<td>.27*</td>
<td>.20**</td>
<td></td>
</tr>
<tr>
<td>Placement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at p = .001
** Significant at p = .005
A reading of the table would indicate that those items which have significant effects for overall degree of success similarly demonstrated meaningful correlations for administrative support and availability of other support services. It should be noted that number of Special Education Course taken was significant for behavior only.

**Differences Between Schools**

Questionnaires were distributed to seven secondary schools. Four of the seven secondary schools host categorically funded programs for students designated severely learning disabled. Those schools are designated Group One.

The remaining three schools do not have such programs. Fewer severe learning disabled students would be in attendance, and those who attend would be served through the Learning Assistance Centre. Schools in this category are designated as Group Two schools.

Group Two schools showed a slightly higher percentage of agreement with the Training and Expertise sub-scale. That is, teachers from Group Two schools indicated extremely high agreement with the need for more training and the need for release time for training.

Teachers from Group Two schools were also more strongly in favour of Regular versus Segregated class placement than were teachers from schools with severe learning disability programs.
Table 13

Differences Between Schools

<table>
<thead>
<tr>
<th>Sub-Scale Training and Experience - 3 items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Number</th>
<th>F. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>11.52</td>
<td>1.72</td>
<td>110</td>
<td>11.20</td>
</tr>
<tr>
<td>Group Two</td>
<td>12.25</td>
<td>1.53</td>
<td>63</td>
<td>11.86</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-Scale Regular versus Segregated Placement - 7 items</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Number</th>
<th>F. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>19.96</td>
<td>4.49</td>
<td>110</td>
<td>20.81</td>
</tr>
<tr>
<td>Group Two</td>
<td>21.42</td>
<td>4.12</td>
<td>63</td>
<td>22.46</td>
</tr>
</tbody>
</table>

The results suggest that teachers in those schools which do not have severe learning disability programs perceive strongly the need for in-service about learning disabilities and for further training. They are also stronger in their support of integrated versus segregated placement.

Summary
The results of this study have been organized and discussed under four main headings: 1. Background Variables; 2. Attitude; 3. Correlation of Variables with Attitude; 4. Differences Between Schools.
A questionnaire was distributed to 253 junior high school teachers. One hundred and seventy four questionnaires were returned.
Under the heading Background Variables, eight personal and professional factors were investigated: gender, qualifications, subject area, experience, number of special education courses, overall degree of success, level of administrative support and availability of additional support services.

Correlations were found to be significant between overall degree of success and level of administrative support and availability of additional services.

The Teacher Opinion section of the questionnaire was divided into seven sub-scales. Of the seven sub-scales not one had a mean less than 2.5, the mid-point of the scale. Teachers did not respond in a significantly negative way towards the mainstreaming of severely learning disabled students. Strong positive responses to three of the sub-scales identify areas of teacher concern: namely, training and release time for training, teacher time, and adjustment of curriculum and standards.

Fifty-six point five percent of teachers agreed that training and release time for training were necessary. Fifty-nine point six percent of teachers agreed that mainstreamed severely learning disabled students demanded more teacher time; and fifty-eight point nine percent agreed that adjustment of
curriculum and standards was necessary to accommodate severely learning disabled students in the regular classroom.

Correlation of background variables with the attitude sub-scales was analyzed. While no significant effects emerged with gender, degree, major teaching area and experience, courses taken in special education correlated significantly with the Behavior sub-scale. Overall degree of success, level of administrative support and availability of support services also yielded meaningful correlations with a number of the sub-scales.

Analysis of variance was performed for the two groups of schools, with schools that do not have categorically funded severe learning disability programs showing higher percentages of agreement with Training and Experience sub-scales and Regular versus Segregated placement.
CHAPTER V - CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to measure teacher attitudes and the variables which affect attitudes towards mainstreamed learning disabled students at the junior high school level. In addition, responses were analyzed to determine differences in attitude between schools with categorically funded Severe Learning Disability Programs, and those schools without such programs.

A questionnaire was designed, pilot tested, revised and distributed to junior high school teachers in seven secondary schools. Responses from 174 teachers were analyzed.

The questionnaire was divided into two sections. The first section consisted of personal and professional background variables. Among the background variables a significant correlation was identified between overall degree of success and level of administrative and additional support.

The second section of the questionnaire was the Teacher Opinion or Attitude section. Seven sub-scales or categories were established: Behavior, Curriculum and Standards, Administrative and Specialist Support, Training and Expertise, Parents, Demands on Teacher Time, Regular Class versus Segregated Placement.
Limitations

A limitation, common to all questionnaire studies, is the question of validity of self report. Since no other observations or measurements were used in this study, the only data available is that provided by each person in response to the questionnaire.

In addition, because the sample of junior high school teachers who participated in this study had all had experience with or at least exposure to students designated as Severely Learning Disabled, the results of the questionnaire may not be generalizable to other populations of junior high school teachers who lack such exposure.

Conclusions

This section will deal with the conclusions drawn from the results of the study, with particular reference to the purposes of the study as set out in Chapter I.

The principal objective of the study was to develop a questionnaire to measure the personal and professional factors of gender, qualification, subject area, experience, overall degree of success, levels of administrative and additional support, and the psychological factor of attitude to mainstreamed learning disabled students. In addition it was proposed that the relationship of the background variables to attitude should be examined.
A secondary objective of the study was to determine differences in attitude between schools with categorically determined severe learning disability programs and schools without such programs.

Examination of the data revealed that teachers were not negative towards mainstreaming. While teachers did not respond strongly in favor of regular class placement for severely learning disabled students, the majority of teachers considered that socio-emotional benefits accrue from integrated rather than segregated placement. This rationale for mainstreaming is consistent with the findings of Pedhuzar Schmelkin's study (1981), in which teachers supported mainstreaming on a socio-emotional not academic basis. Teachers in the present study generally expressed uncertainty about the question of academic growth in the regular classroom for the severely learning disabled student. Uncertainty about academic growth is conceivably a consequence of teachers' opinions that they do not have the time or the training or the range of curriculum materials that would enable them to work effectively with the severely learning disabled student in the regular classroom.

In addition, teachers believed that class size needs to be limited if integration is to be successful.
In general, teachers believed that the severely learning disabled student requires more time and attention than other students, and that the time given to the severely learning disabled student was time taken away from other students. They perceived learning disabled students as being more distractible than other students.

However, teachers did not perceive the presence of learning disabled students in the regular classroom as distracting to other students, nor as adversely affecting the tone of the class. Teachers did not perceive the category of learning disabled students as characterized by bad behavior.

Teachers believe strongly that they lack the expertise necessary to work effectively with mainstreamed Severely Learning Disabled students. Such a belief obviously contributed to their strong positive responses to those questionnaire items that dealt with the need for more training and release time for in-service. Teachers also believed that they lack access to appropriate curriculum materials, and that a greater range of materials for use in the regular classroom by the severely learning disabled student was necessary.

In spite of the fact that teachers generally responded positively to levels of administrative and additional support as background variables, questions of administrative understanding of the impact of severely learning disabled
students on the regular classroom were responded to negatively. A conclusion that can be drawn is that when teachers considering their success "in abstract", they rank the level of administrative support as significant. When dealing with specific items relating to classroom management and the severely learning disabled student however, administrative support or understanding is ranked as far less significant. Teachers also believed that they were given insufficient information about students who were mainstreamed into their classes. This would again seem to contradict the ranking of additional support services as high in the background variables. It is possible that greater special education role articulation is necessary, both to and from the specialist teachers.

Among the background variables correlating significantly with attitude were numbers of special education courses taken, overall degree of success, levels of administrative and additional support.

The variable, special education courses, was found to be related to behavior, but to none of the other attitude sub-scales. Overall degree of success, administrative and other support were found to be related to behavior, curriculum and standards, teacher time and regular versus segregated placement.
In contrast to a number of other attitude studies (Larrivee and Cook (1979); Winzer, 1984 b), gender was not found to constitute a variable in expressed attitudes. That is, there was no significant difference in the expressed attitudes of male and female teachers.

Moreover, the present study, in contrast to Larrivee and Cook (1979) and Winzer (1986) does not find the attitude of junior high school teachers to be negative towards the mainstreaming of special needs students. As mentioned in the introduction to the section, all of the teachers surveyed had had some experience with severely learning disabled students. As Johnson and Cartwright's study (1979) indicates, experience can lead to attitude change. The teachers surveyed in the present study would each have had some experience with students identified as severely learning disabled.

Data comparing the two groups of schools, those with severe learning disability programs and those without, indicate that teachers in the latter schools feel more positive about regular versus segregated placement, but also feel more strongly their lack of expertise and need for training. The inference that can be drawn here is that those teachers with greater exposure to the severely learning disabled population feel less positive about the students' chances for academic success.
Generally, however, the results of the questionnaire support the speculation that, with additional training, with fewer total students, with more curriculum support and recognition of the difficulties of integration, classroom teachers at the junior high school level in the particular district surveyed, support the mainstreaming of severely learning disabled students.

Recommendations

Recommendations for further study are divided into two main categories: practice and research.

Recommendations for Practice

In-service  The results from this study indicate a definite need for teacher in-service. The teachers surveyed were experienced and well qualified. Many of them would have completed not only basic teacher training but in many instances up-grading of qualifications prior to the introduction of Severe Learning Disability as a category. Formal course work in exceptionality and severe learning disabilities is probably less feasible than training through in-service which would more directly address the issues of categorization, local curriculum development and utilization of administrative and additional support services.
In addition, the respective roles of principal, support personnel and the regular class room teacher could be addressed and articulated through in-school or district in-service.

Recommendations for Research

The results from several sections of the questionnaire suggest further research problems.

1. Empirical studies should be carried out to determine whether attitude to mainstreamed severely learning disabled students can be changed through workshops, seminars, journal and research articles. The relevant items in the questionnaire would provide "before" data: unobtrusive measures of behavior or a similar survey administered several months later could measure the changes effected by specific treatments.

2. The self-report of attitude needs confirmation. It would be of interest to verify the validity of the responses: and further, to identify whether positive responses to the concept and practice of integration were concomitant with the provision of specific accommodations for severely learning disabled students who were mainstreamed.
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APPENDIX A

Ministry of Education Guidelines
3.26 - SEVERE LEARNING DISABILITIES

3.26.1 DEFINITION

The Ministry of Education recognizes the severely learning disabled as pertaining to that 1-2% of children in the schools whose difficulties with learning are so severe as to almost totally impede educational instruction by conventional methods.

Learning disabled children have one universal characteristic: in one or more learning areas, performance consistently falls far short of capabilities in other areas as well as general estimated potential. Given the complex task of defining the learning disabled population and the deficiencies of each of the many definitions currently proposed in the literature, the following definition is advanced by the Ministry of Education:

Children with learning disabilities are those who show a significant discrepancy between their estimated learning potential and actual performance. This discrepancy is related to basic problems in attention, perception, symbolization and the understanding or use of spoken or written language. These may be manifested in difficulties in thinking, listening, talking, reading, writing, spelling or computing. These problems may or may not be accompanied by demonstrable central nervous system dysfunctions.

3.26.2 IDENTIFICATION

Students suspected of being severely learning disabled should be referred for in-depth psychoeducational assessment. Health and developmental information should be included in the assessment. The question of quantifying the discrepancy between ability and achievement is best approached through standard score comparisons.
Parental permission should be obtained prior to any data gathering and the parents should be involved in any program/placement decisions.

3.26.3 PROGRAM

An individualized educational program should be carefully planned for the student with a severe learning disability. The program should include a statement of the student's present levels of educational performance, the long range goals and short term instructional objectives, the services to be provided, the evaluation procedure, the anticipated duration of services and a date for reviewing the program.

Individualized instruction should be provided on an intensive basis, with a view to maintaining or returning the student to the regular classroom as quickly as possible. Each student's program and placement should be reviewed regularly.

Duration of service will vary according to degree of disability and rate of learning. It is recognized that even when students with severe learning disabilities respond well to intensive short term instruction, they may still need ongoing support and monitoring in the regular class. This role of monitoring and support is usually provided by the learning assistance teacher. Other students may require ongoing intensive long term service in a resource room or self-contained class.

School districts should provide for regular evaluation of programs for students with severe learning disabilities. Please consult the Ministry's Evaluation of Special Programs: Resource Materials for information on evaluation.

3.26.4 SERVICE DELIVERY

School districts should examine the least restrictive alternative in planning services for the severely learning disabled. It is recognized that a range of options is necessary in planning appropriate services for such a diverse group as the severely learning disabled. Possible service delivery options include assessment and programming centres, resource rooms, self contained classes as well as itinerant service.
3.26.5 PROGRAM PERSONNEL

Teachers appointed to programs for the severely learning disabled should have the qualifications and competencies expected for learning assistance teachers, as well as, advanced course work in the following areas:

(a) assessment and programming for learning disabilities
(b) language and communications
(c) diagnosis and remediation of mathematics
(d) social skills development and behaviour management
(e) curriculum modification
(f) cooperative planning and consultation

3.26.6 RESOURCES

Severely learning disabled students who have difficulty in using print materials may obtain copies of audio books from the master tapes held by the Provincial Resource Centre for the Visually Impaired. Titles held by the Centre are listed in a catalogue which has been sent to all school districts.

To comply with copyright requirements users of this service must be certified by the school district as "print-handicapped". Forms are available from the Resource Centre and must be signed by the Superintendent of Schools or the Special Education Supervisor.

Inquiries and purchase orders should be addressed to:

Provincial Resource Centre for the Visually Impaired
4196 West 4th Avenue
Vancouver, B.C.
V6R 4J5
3.26.7 FACILITIES


3.26.8 CONSULTATION

The services of the Coordinator, Learning Assistance and Learning Disabilities are available to school districts to assist with learning disability programs. Further information may be obtained from:

Provincial Coordinator
Learning Assistance and Learning Disabilities
Division of Special Education
Ministry of Education
Parliament Buildings
Victoria, B.C. V8V 2M4
Telephone: 387-4611 (Local 205)
3.26 - SEVERE LEARNING DISABILITIES

3.26.1 DEFINITION

The Ministry of Education recognizes that 1-2% of students in the schools will be severely learning disabled. These students experience difficulties with learning that are so severe as to almost totally impede educational instruction by conventional methods. It is anticipated that the mild to moderately learning disabled will be supported at the school level by the Learning Assistance teacher.

The following definition is advanced by the Ministry of Education:

Learning disabilities is a processing disorder involved in understanding or using symbols or spoken language. These disorders result in a significant discrepancy between estimated learning potential and actual performance. Generally, a discrepancy of two or more years on grade equivalent scores or a similar discrepancy on standardized score comparisons is recognized as significant. This discrepancy is related to basic problems in attention, perception, symbolization and the understanding or use of spoken or written language. These may be manifested in extreme difficulties in thinking, listening, talking, reading, writing, spelling or computing.

The defined population is limited to children whose learning difficulty can be clearly identified as a communication disorder. This category does not include children with learning problems primarily resultant from factors such as:

1. Sensory or physical impairments;
2. Mental retardation;
3. Emotional disturbance;
4. Environmental or cultural disadvantage;
5. English as a Second Language;
6. Lack of opportunity to learn: due to irregular attendance or transiency

3.26.2 IDENTIFICATION/PLACEMENT

Students suspected of being severely learning disabled should be referred for an in-depth psychoeducational assessment. Health
and developmental information, including social adjustment data, should also be included in the assessment. Prior to this referral, however, it is essential that sufficient school based data collection be compiled and instructional intervention strategies attempted.

The district screening and placement procedure should be the vehicle to process referrals for the program to ensure consistency with regard to the student population being served.

Parental permission should be obtained prior to any data gathering and the parents should be involved in any program/placement decisions.

3.26.3 PROGRAM

An Individualized Educational Plan (IEP) should be carefully planned for the student with a severe learning disability. The program should include a statement of the student's present levels of educational performance, the long range goals and short term instructional objectives, the services to be provided, the evaluation procedure, the anticipated duration of services and a date for reviewing the program. The program should be developed by the learning disabilities teacher in conjunction with the classroom teacher, learning assistance teacher, other involved school personnel and parent/guardian.

Individualized planning should be provided on an intensive basis, with a view to maintaining the student in/or returning the student to the regular classroom as quickly as possible. Each student’s program and placement should be reviewed regularly.

Duration of service will vary according to degree of disability and rate of learning. It is recognized that even when students with severe learning disabilities respond well to intensive short term instruction, they may still need ongoing support which is usually provided by the learning assistance teacher. Some students may require ongoing intensive long term service in a resource room or a self-contained class.

Student progress should be recorded regularly and stated in objective, as well as subjective, terms.

School Districts should establish program/placement criteria, develop specific program entrance and exit criteria and specify procedures for monitoring or reviewing individual placements.
3.26.4 **SERVICE DELIVERY**

School districts should examine the least restrictive alternative in planning services for the severely learning disabled student. It is recognized however, that a range of options is necessary in planning appropriate services for such a diverse group. Possible service delivery options include assessment and programming centres, resource rooms, self contained classes and itinerant services.

3.26.5 **EVALUATION**

School districts should provide for regular evaluation of programs for students with severe learning disabilities. Please consult the Ministry's *Evaluation of Special Programs: Resource Materials* for information on evaluation.

3.26.6 **PROGRAM PERSONNEL**

Teachers appointed to programs for the severely learning disabled should have the qualifications and competencies expected for learning assistance teachers, as well as, advanced course work in the following areas:

(a) assessment and programming for learning disabilities;
(b) language and communications;
(c) diagnosis and remediation of mathematics and language arts;
(d) social skills development and behaviour management;
(e) curriculum modification;
(f) cooperative planning and consultation.

3.26.7 **RESOURCES**

Severely learning disabled students who have difficulty in using print materials may obtain copies of audio books from the master tapes held by the Provincial Resource Centre for the Visually Impaired at minimal cost. Titles held by the Centre are listed in a catalogue which is available in all school districts.

To comply with copyright requirements users of this service must be certified by the school district as "print-handicapped". Forms are available from the Resource Centre and must be signed by the Superintendent of Schools or the Special Education Supervisor.
Inquiries and purchase orders should be addressed to:

Provincial Resource Centre for the Visually Impaired
4196 West 4th Avenue,
Vancouver, B.C.
V6R 4J5

3.26.8 FACILITIES


3.26.9 CONSULTATION

The services of the Coordinator, Learning Assistance and Learning Disabilities are available to school districts to assist with learning disability programs. Further information may be obtained from:

Provincial Coordinator
Learning Assistance and Learning Disabilities
Division of Special Education
Ministry of Education
Parliament Buildings
Victoria, B.C.
V8V 2M4

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APPENDIX B

Final Study Questionnaire
Section I: Background Variables

Please indicate the number representing your response in the space provided in the right hand margin.

1. Gender 1. M 2. F

2. I have the following qualifications: 1. Bachelors 2. Degree 3. Other plus specify:
   Graduate 4. Work

3. My major subject area is: 1. Academic 2. Elective

4. The number of years I have been teaching part-time or full-time is: (please fill in total)

5. The total number of special education courses I have taken is: (fill in 0 if you have no special education courses)

Please use the following scale to rate the three statements below:

1. very low
2. low
3. average
4. high
5. very high

6. My overall degree of success to date in dealing with mainstreamed SLD students has been:

7. The level of administrative support services has been:

8. The availability of additional support services has been:
Section II: Teacher Opinions

Please respond to the following items with reference to your own experience. There are no right or wrong answers: the best answers are those that honestly and accurately reflect your feelings. Indicate the number representing your response in the space provided in the right hand margin. Select your response from the following alternatives:

1. strongly disagree
2. disagree
3. undecided/don't know
4. agree
5. strongly agree

9. Many of the things done in the regular classroom are appropriate for SLD students. __ 15

10. All students (SLD and non-SLD) learn best in the regular classroom. __ 16

11. The needs of the SLD student can best be served in the integrated classroom setting. __ 17

12. The challenge of being in the regular classroom will provide academic incentive to the SLD student. __ 18

13. Regular classroom teachers do not have the expertise necessary to work with the SLD student. __ 19

14. Academic growth for the SLD students is most likely to occur in the integrated classroom setting. __ 20

15. More training should be provided to teachers for the successful integration of SLD students. __ 21

16. Integration of SLD students will foster their emotional growth. __ 22

17. The extra attention required by SLD students takes away time from other students. __ 23

18. Administrators understand the impact of SLD students on the regular classroom. __ 24

19. The behaviour of SLD students requires more patience and tolerance from the teacher than does the behaviour of regular students. __ 25

20. SLD students are more easily accommodated in the regular classroom than are other special needs students. __ 26
Section II: Teacher Opinions (continued)

21. SLD students are generally no more distractable than are regular students.

22. Mainstreamed SLD students require different textbooks and materials.

23. Having SLD students in the regular classroom is distracting to other students.

24. Teachers need to adapt the curriculum to accommodate SLD students.

25. Having SLD students in the class leads to more preparation time.

26. Because of the integration of SLD students, I will have less time and energy for extra-curricular activities.

27. Most SLD students do not try hard enough to finish assignments.

28. Most SLD students find the concepts in my content area too difficult.

29. Having SLD students in my classroom slows down the pace of lesson presentation.

30. Most SLD students are not well behaved in the classroom.

31. SLD students generally have poor interactions with their peers in the regular classroom.

32. Having SLD students in my classroom adversely affects the tone of the class.

33. The performance of SLD students should not be graded on the same basis as that of regular students.

34. The nature of the learning disability should be taken into account when evaluating the performance of SLD students.

35. It is difficult to maintain a good working atmosphere in regular classes with mainstreamed SLD students.

36. The behavior of regular students deteriorates when SLD students are in the classroom.
Section II: Teacher Opinions (continued)

37. Mainstreamed SLD students require a lot of the teacher's classroom time.

38. Mainstreaming fosters an acceptance of the strengths and weaknesses in others.

39. Integration of SLD students compromises academic standards.

40. Parents of SLD students have realistic expectations of their children's academic potential.

41. Release time for in-service training is necessary for teachers to learn more about effective teaching of mainstreamed SLD students.

42. It is reasonable to expect that junior high school teachers will be able to adjust their programs to accommodate SLD students.

43. The total number of students in the regular classroom must be limited if integration of SLD students is to be successful.

44. The integration of SLD students is usually done with adequate preparation.

45. Teachers of SLD classes are aware of the various demands on the regular classroom teacher who integrates SLD students.

46. The interaction between parents of SLD students and classroom teachers is no more demanding than interaction with parents of regular students.

47. Greater adjustment in curriculum materials is necessary if the classroom teacher is to be successful with mainstreamed SLD students.

48. Mainstreamed SLD students require different instructional procedures than those normally employed in the regular classroom.

49. Administrators are aware of the difficulties that accompany the mainstreaming of SLD students.
APPENDIX C

Letters to Respondents
Dear Pilot Study Participant:

The attached questionnaire is a pilot study for a survey of junior high school teachers' attitude to students with severe learning disabilities who are integrated in the regular classroom.

For the purpose of the survey, severe learning disabled students are those who are members, for part of the school day, of a severe learning disabilities class, or are students who have been designated as severely learning disabled by the Learning Assistance teacher.

Throughout the questionnaire the words severe learning disabled have been replaced by the initials SLD.

I would appreciate completion and return of the questionnaire by October 16 in the stamped addressed envelope which has been provided. You will notice that there is no space for your name so that responses can remain anonymous.

Thank you for your co-operation.

Yours sincerely,

Learning Resource Centre
Balmoral Secondary School
3365 Mahon Avenue
North Vancouver, B.C.
V7N 3T7
Dear Colleague,

The attached questionnaire has been designed to assist in the evaluation of teacher attitudes to severely learning disabled students who are integrated in the regular classroom. Throughout the questionnaire severely learning disabled students are referred to as SLD students.

For the purposes of this study, SLD students are those who are members of ____________ class, or students who have been identified to you by Special Education School or District personnel as students with particular and severe learning difficulty.

I hope the results of the questionnaire will prove of benefit to both teachers and students. Your co-operation in completing the questionnaire, and returning it to me through district mail or via the main office in your school, would be greatly appreciated.

Thank you,

Learning Resource Centre
Balmoral