MAINSTREAMING OF MILDLY MENTALLY HANDICAPPED CHILDREN: OBSTACLES AS PERCEIVED BY THE REGULAR CLASSROOM TEACHER

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by

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ABSTRACT

The basic purposes of this study were (1) to develop a questionnaire that would assess the obstacles present in the provision of educational services to mildly mentally handicapped children in a regular classroom; (2) to investigate the obstacles to the provision of educational services to mildly mentally handicapped children in a regular classroom for a specific teacher population through the use of the questionnaire; (3) to determine if a relationship exists between these perceived obstacles and certain personal and situational variables.

A questionnaire consisting of 26 items, covering ten (10) categories, was developed by the researcher and administered to a population of regular class teachers. Teachers were asked to rate their perception of each item as an obstacle to the delivery of educational services to mildly mentally handicapped students in a mainstreamed setting.

Through an examination of response patterns, the degree to which each item was considered an obstacle was determined. Items were then ranked accordingly.

Comparisons were made betwen teacher responses with reference to the personal and demographic data gathered,

namely: gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children.

To examine the relationship between each of the selected variables and perceived obstacles in educating mildly mentally handicapped children in a mainstreamed setting, a one-way analysis of variance was employed.

The following conclusions were reached: (a) a significant number of teachers felt that there are obstacles to the education of mildly mentally handicapped children in a regular classroom; (b) the category most frequently perceived as a potential obstacle was "Learning Environment"; (c) the obstacles selected as most critical were "Present pupil-teacher ratio" and "Increase in the stress level"; (d) teacher training programs for regular class teachers are in need of revision if teachers are to be adequately prepared for mainstreaming; (e) in general, obstacles that were more closely related to actual teacher classroom performance were rated as more critical; (f) teachers perceived the attitudes of parents of regular children toward mainstreaming as a greater potential obstacle than the attitudes of others involved in the process; (g) the variable gender was significantly related to teacher perceptions in two

obstacle categories; (h) the variable teaching level was significantly related to teacher perceptions in one obstacle category; (i) the variable teaching experience was shown to be significantly related to teacher perception in each of the ten (10) obstacle categories as measured by the questionnaire.

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INTRODUCTION AND STATEMENT OF THE PROBLEM

I. INTRODUCTION

Since the turn of the century when the first special classes were established, segregated special classroom environments have been the most favored pattern for the delivery of education to exceptional children.[1,2] In recent years, there has been increasing doubt concerning the validity of segregated special classes.[3,4,5,6] The self-contained special class is no longer the primary form of education for the handicapped[7]. Presently the emphasis is on the mainstreaming of these students into the regular education program.[8,9]

As a consequence of the CELDIC Report, One Million Children, (Canada, 1970); The Education of All Handicapped Children Act (United States, 1975); and The Warnock Report (Great Britain, 1978) the education of children with special needs has been given new directions.

Of particular importance is the similarity of the views of these reports on mainstreaming. All three called for the abolition of segregated classes for children with emotional or learning disorders. Specifically, the CELDIC Report called for the abolition of most segregated special education classes and stated that the segregation of children into special classes is neither necessary nor desirable.[10] It went on to recommend that "Educational authorities should minimize the isolation of children with emotional and learning disorders and plan programs for them that as far as possible retain children within the regular school curricula and activities".[11] This report also recommended that, "Classroom organization should be flexible to permit the child with an emotional or learning disorder to receive special instruction or treatment outside of the classroom and return to it at any time as a member in good standing".[12]

It should be noted, however, that while the impetus for mainstreaming in the U.S. came from the courts and state governmental policies,[13,14,15,16] it became popularized in Canada as a result of the changing attitudes in the North American educational community about educating the special needs student. As a consequence of U.S. actions a 1977 report by the Manitoba Teachers' Society notes that there has been "a

reversal of the trend to educate students with special needs in segregated classrooms and acceptance of a mainstreaming philosophy."[17] Reacting to recent changes made by Government in The Education Act of that Province, the Manitoba Teachers' Report stated that it was clearly the philosophy of the changes enacted to indicate "that students with special needs are to be mainstreamed".[18] At its Annual General meeting of that year, the Manitoba Teachers' Society adopted the following resolution:

> That provided it is in the best interests of the students, the preferred alternative be the least restrictive environment ranging from intensive care situations to the regular classroom setting and that there be flexibility of movement from one alternative to another.[19]

Further evidence of the extent to which a mainstreaming philosophy has been accepted by Canadian educational authorities is apparent from an examination of a number of major reports published by several agencies, provincial governments, and teacher organizations.

A 1971 report, published by the Canadian Council for Exceptional Children entitled, Standards for Education of Exceptional Children in Canada, declared that "The current emphasis on universal education and the right of every child to be educated to the maximum of his ability means that every

teacher will frequently, and may continuously, have exceptional children as members of his class".[20]

The findings and conclusions of a joint Atlantic provinces report, Special Education Report to the Ministers of Education of the Atlantic Provinces, published in 1973, reflect the same philosophy. The first recommendation of the report was:

> That the governments of the Atlantic Provinces recognize and endorse the right of all handicapped persons to be educated to the maximum of their potential and develop a comprehensive range of services and programs sufficient to meet the educational needs of all handicapped persons.[21]

The report goes on to recommend that," Wherever possible and practical, handicapped persons be educated in regular school programs".[22]

The author of a white paper published by the Government of New Brunswick in 1974, entitled Opportunities for the Handicapped, observed that while special classes may be required for a few educable mentally handicapped children, the majority should be helped in the regular classroom.[23]

The Government of Saskatchewan in 1977, in its manual of legislation, regulations, policies, and guidelines regarding special education, stated that:

> When integration in a regular class setting is possible and profitable, it should be the predominant mode of education.[24]

A 1978 report, prepared by researchers at the Ontario Institute for Studies in Education for Ontario's Commission on Declining School Enrollments, noted that although Ontario lacked supportive legislation, the notion of integration was current in the Province and that there was a strong trend away from self-contained special education classrooms.[25] In addition it was reported that the September 1969 report of the Minister of Education indicated a greater emphasis within the Province on the integration of exceptional children into regular classes.[26]

In the same year the Montreal Teachers' Association Task Force on Special Education recommended that "Integration should be a goal at every level of the educable mentally handicapped program".[27]

A report issued by the Federation of Women Teachers' Association of Ontario in 1979 pointed to the same trend towards mainstreaming and indicated that this trend was not confined to Ontario.[28]

A 1980 report commissioned by the British Columbia Teachers' Federation revealed that 65 percent of British Columbia teachers anticipated the placement of special needs

children in their classrooms in the following two years.[29] The Report pointed out, however, that anticipation does not imply readiness for or acceptance of mainstreaming.

The 1982 Annual General Meeting of the Newfoundland Teachers' Association strongly supported the notion of mainstreaming. In relation to the mainstreaming concept the report read, "We strongly feel that under the right conditions it would not only be possible but educationally desirable".[30]

II. STATEMENT OF THE PROBLEM

MacMillan, Jones, and Myers have observed that much of this interest in and commitment to mainstreaming have been generated by legal, philosophical, and social concerns.[31] As a result of this focus, noted Kaufman et al., the organizational, administrative and instructional components of mainstreaming programs have not been given adequate attention.[32]

Cruickshank has commented that many educators have leaped on the bandwagon of mainstreaming without thoroughly examining the underlying educational issues.[33] The fear that we are failing to develop our approach to mainstreaming with a full recognition of the barriers or obstacles that must be overcome, has also been expressed by the United States Deputy Commissioner of Education.[34] The need to consider the various factors or obstacles which could potentially negatively affect the education of a handicapped child in the regular classroom has also been noted by Gickling and Theobald.[35]

Clearly the message that emerges is that a philosophical commitment to the concept of mainstreaming on the part of

educators is insufficient to assure success. Efforts must be made to identify key issues or obstacles to any attempt at mainstreaming.[36] In fact, the failure to do so may subject many teachers and children to a painful educational experience.

III. PURPOSES OF THE STUDY

The basic purposes of this study were (1) to develop a questionnaire that would assess the obstacles present in the provision of educational services to mildly mentally handicapped children in a regular classroom;(2) to investigate the obstacles present in the provision of educational services to mildly mentally handicapped children in a regular classroom for a specific teacher population through the use of the questionnaire. The obstacles examined came under the general headings of: the nature of mainstreaming, the nature of the mildly mentally handicapped and learning style, attitudes, resource and support systems, teaching techniques, learning environment, curriculum, classroom management, evaluating student progress, and administration; (3) to determine if a relationship exists between these perceived obstacles and certain personal and demographic variables, namely: gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children.

IV. QUESTIONS TO BE ANSWERED

Specifically the intention of the researcher was to answer the following questions:

1. What are the views of regular classroom teachers in a selected Newfoundland School District towards potential obstacles to mainstreaming under the following ten categories?

    1. The Nature of Mainstreaming
    2. The Nature of the Mildly Mentally Handicapped and Learning Style
    3. Attitudes
    4. Resource and Support Systems
    5. Teaching Techniques
    6. Learning Environment
    7. Curriculum
    8. Classroom Management
    9. Evaluating Student Progress
    10. Administration

2. What is the relationship between obstacle perception and certain personal and demographic variables, namely: gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children?

V. DELIMITATIONS AND LIMITATIONS

In interpreting the data of this study the following delimitations and limitations should be considered:

1. This study is delimited to an investigation of the major obstacles to the delivery of instruction to mildly mentally handicapped children in a mainstreamed setting.

2. This study is delimited to an investigation of regular classroom teachers' perceptions regarding the major obstacles to the delivery of instruction to mildly mentally handicapped children in a mainstreamed setting.

3. The study is delimited to six specific teacher variables, namely: gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children. Due to the relatively small size of the population, information regarding class or school size was not gathered. The researcher recognizes, however, that such variables may be important when surveying a larger and more varied population.

4. The interpretation of the study is limited because perceived and actual obstacles may not coincide.

5. Since only one school district was surveyed, any generalizations for the whole province must be made cautiously.

VI. OVERVIEW OF THE STUDY

The population of the study consisted of all teachers in the regular classroom setting under the jurisdiction of the Conception Bay South Integrated School Board for the year 1982-83. The population consisted of one hundred and eight (108) regular classroom teachers. Guidance counsellors, administrators, program co-ordinators, librarians, music and physical education specialists, and special education teachers were not included in the population. Due to the relatively small size of the population, it was decided to survey the entire group.

The population consisted of thirty-six (36) teachers from the Primary level, twenty-six (26) from the Elementary level, and forty-six (46) from the Junior-Senior High level.

A questionnaire was developed by the researcher after a review was made of the literature and after consultation with knowledgeable persons in the field of special education. The questionnaire was administered to all regular classroom teachers in the district. Teachers were asked to rate their perception of each potential mainstreaming obstacle on a Likert-type scale.

It was the researcher's hope that information generated from this study would serve to heighten the awareness of those

planning a mainstreaming program and aid them in effecting changes in implementation to better meet the needs of the students involved.

The primary analysis consisted of descriptive tabulations and the use of a one-way analysis of variance to determine the level of significance between the ten (10) category means and each of the variables: gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children.

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CHAPTER II

REVIEW OF RELATED LITERATURE

I. INTRODUCTION

This chapter contains a review of the literature concerning the obstacles to the delivery of instruction to mildly mentally handicapped children in a mainstreamed setting under the following categories:

1. The Nature of Mainstreaming
2. The Nature of the Mildly Mentally Handicapped and Learning Style
3. Attitudes
4. Resource and Support Systems
5. Teaching Techniques
6. Learning Environment
7. Curriculum
8. Classroom Management
9. Evaluating Student Progress
10. Administration

II. THE NATURE OF MAINSTREAMING

Many writers have attempted to provide a definition of mainstreaming. Keough and Levitt suggested that "In the broadest sense mainstreaming refers to the instruction of pupils within the regular educational setting."[1]

Cruickshank and Johnson suggested that for some mildly handicapped children, mainstreaming means full-time placement in a regular class with little outside support while for some severely handicapped children, mainstreaming means full-time placement in a special class.[2]

Perhaps the most widely accepted definition is the one put forward by the Council for Exceptional Children at its 1976 International Conference. This definition has subsequently been officially adopted by the Manitoba Teachers' Society[3] as well as the Canadian Teachers' Federation.[4] It is as follows:

> Mainstreaming is an educational placement procedure for exceptional children, based on the conviction that each such child should be educated in the least restrictive environment in which his or her educational and related needs can be satisfactorily addressed.

But if effective mainstreaming programs are to be implemented, noted Souers, the roles, relationships and responsibilities of each teacher must be clearly defined.[5] Gottlieb also noted the lack of clearly conceptualized and articulated goals for mainstream education.[6]

A review of the literature by Schultz revealed that regular classroom teachers are confused regarding their roles and responsibilities.[7] Pugach has observed that regular class teachers are uncertain of their role in relation to the

development of an Individualized Educational Plan for each student.[8] Other writers have noted the changing role and increase in responsibility for regular classroom teachers in such areas as: teaching technique, curriculum, classroom management, and student evaluation practices.

When one considers, then, the fact that "The regular classroom teacher is likely to be the principal provider of instruction to mildly mentally handicapped students,"[9] such confusion is very likely to be an obstacle to effective instruction. Uncertainty also exists over the educational rationale for mainstreaming. Concern has been expressed by Dardig that regular classroom teachers may not be aware of the potential benefits of a mainstreaming experience for both handicapped and non-handicapped students.[10] Dardig has suggested that mainstreaming provides the handicapped students with the opportunity to learn many adaptive social behaviors by observing and imitating their peers. He also maintained that it increases the potential for the handicapped student to achieve more highly in various academic areas as a consequence of highly motivating social reinforcers available in the regular class. For the non-handicapped student, Dardig has suggested that through mainstreaming students can learn to interact normally with handicapped individuals and perhaps

develop a greater sensitivity to others that will carry over into the home and community setting.[11] Similarly, Nyquist has pointed to the intellectual gains of mainstreamed children and the increase in the children's ability to deal with other people as well as their ability to cope with their handicap.[12]

III. THE NATURE OF THE MILDLY MENTALLY HANDICAPPED AND LEARNING STYLE

While it would be unreasonable to expect every regular class teacher to become an expert in understanding and dealing with a wide variety of handicapped conditions, it would be helpful if each teacher knew as much as possible about the particular handicap affecting the students in his/her class.[13] The necessity for regular class teachers to have some background on, at least, the mildly mentally handicapped learner has been noted by MacMillan et al.[14] A similar observation has been made by Harasymiw and Horne.[15] Brooks and Bransford have also indicated the necessity for regular class teachers to possess "a basic understanding of the needs and characteristics of the exceptional child".[16] Rader has noted the importance of regular classsroom teachers in mainstream settings having a thorough knowledge of the

cognitive, affective, and psychomotor characteristics of the handicapped students with whom they must interact.[17]

Differences in such learning characteristics as test orientation and attention span between regular and mildly mentally handicapped students have been reported by Meyen and Lehr.[18] Willard has referred to the regular class teacher's lack of understanding concerning these differences: "Some of our regular classroom teachers are having difficulty in accepting the capabilities of the educable mentally handicapped pupils."[19] Personal interaction problems, including those between the handicapped child and his peers and the handicapped child and his teacher, have also been noted by Meyen and Lehr.[20]

The results of a survey conducted by Norbert of elementary, middle, and high school regular class teachers, regarding their perceptions of problems resulting from mainstreaming revealed that there is a need for regular class teachers to be given more information on the needs and problems of handicapped students. The study revealed that:

1. Seventy-five percent of the respondents felt that they did not have adequate training to teach handicapped students.
2. Forty-three percent indicated that they had not prepared special materials or lessons to meet the needs of the handicapped students.

3. Forty-two percent did not know what an Individualized Educational Plan (IEP) was.

4. Forty percent were not aware of various classifications of handicaps.

5. Twenty-nine percent indicated that they had not altered their teaching plans or methods to meet the needs of the handicapped students.[21]

IV. ATTITUDES

Historically, society's response to the needs of the handicapped has been, "They are different, they trouble us in deep, unexplainable, irrational ways, and we would like to see them somewhere else, not cruelly treated, of course, but out of sight and mind".[22] The presence of prejudice toward the handicapped has also been observed by Alexander and Strain.[23] Similarly, Moore and Fise have emphasized that as the mainstreaming movement gains momentum, teachers' perceptions of handicapped children and their attitudes toward mainstreaming become increasingly important to evaluate.[24] For, "As the front-line implementor", reported Sokalyk, "the classroom teacher is perhaps the most vital force in determining the outcome of a policy of mainstreaming".[25] Similarly, Umasky and Cryan recognized that "Teachers' attitudes toward mainstreaming and handicapped children may be a critical factor for the success of the approach".[26]

Aware of the potentially negative consequences of the poor attitudes of teachers toward the handicapped and mainstreaming, Martin, speaking in his role as U.S. Deputy Commissioner for Education of the Handicapped, cautioned:

> I am concerned today about the pell-mell and I fear naive, mad dash to mainstream children, based on our hopes of better things for them. I fear we are failing to develop our approach to mainstreaming with a full recognition of the barriers which must be overcome. First is the question of the attitudes, fears, anxieties and possible overt-rejection, which may face handicapped children, not just from their schoolmates but from the adults in the schools. Principal and teachers after all are only human. Their attitudes are created by their experience and most have no formal training or experience with the handicapped child.[27]

Mitchell, writing in The High School Journal, stated her belief in the importance of teacher attitudes as follows:

> The attitude of the teacher regarding the exceptional student and his skill development, the adjustment of content of instruction and the classroom environment or ecology which will include exceptional children, may be a far more potent and important variable in the successful integration of exceptional students into regular classrooms than any administrative or curricular scheme.[28]

Vacc and Kirst have also noted that teacher attitudes and behaviors are contributing variables in the milieu in which children must function. Accordingly, it is important to gather information about teachers' attitudes on mainstreaming.[29] Gickling and Theobald also contended that, if mainstreaming is to be successful, teacher attitudes toward working with the handicapped must be assessed.[30] Milbauer emphasized the importance of attitude assessment when she noted that where mainstreaming is working, "One of the key factors is attitude -- especially teacher attitude."[31] Shotel et al offered the following on teacher attitudes, "If handicapped children are to be integrated into regular classrooms for even a part of the school day, the attitude of regular classroom teachers toward these children emerges as a major concern."[32] Doll, in an article that appeared in the Mental Retardation Bulletin, added further emphasis to the importance of teacher attitudes. He stated, ". . prior to integrating... the child into the regular classroom one should assess the attitudes and opinions of the regular classroom teacher."[33] "Ideally," said Valletatti, "before placing a special child in any class, the attitudes and values of the teacher should be carefully and precisely delineated."[34]

In an investigation of the attitudes of regular class teachers toward mainstreaming, Barngrover found that the overall attitudes of teachers were generally positive.[35] Gullotta likewise found that regular classroom teachers were accepting of their handicapped students.[36] Guerin and Szatlocky interviewed special and regular teachers, school psychologists, and administrators from eight school districts representing small city, rural, and urban settings. Results showed that all but one administrator had a positive attitude toward the program.[37] The results of Stephens' and Braun's investigation revealed that 61 percent of the teachers indicated a willingness to mainstream and 39 percent would not be willing. Demographic data revealed that those teachers who had taken courses in special education were more willing to accept handicapped children into their classes.[38] Gickling and Theobald reported that in their study of regular class teacher attitudes toward mainstreaming handicapped children, 40 percent strongly opposed mainstreaming handicapped children while forty percent were in favour. An additional 20 percent were marginally committed to mainstreaming, if the situation arose.[39]

Results of a study by Norbert revealed 46 percent of the teachers surveyed did not want to be involved with mainstreamed students, 32.9 percent were not sure, and only 20.5 percent were willing.

Results such as these may be interpreted as a negative response to mainstreaming.[40]

The importance of the handicapped student having a positive attitude towards mainstreaming has been noted by Holcomb and Corbett.[41] Bradfield et al. reported that mainstreamed handicapped students improved in their attitude towards school as a consequence of being mainstreamed.[42] Willard, also, reported that pupils who were mainstreamed developed a more positive attitude toward school.[43] A review by Gottlieb of investigations that compared the self-concepts of educably mentally handicapped children who attended special classes with educably mentally handicapped children who attended regular classes revealed that handicapped children who were partially mainstreamed and partially segregated were found to have significantly higher self-concept scores than did comparable children who were totally segregated.[44]

The success of mainstreamed students also depends to a large extent upon the understanding, cooperation, and attitude of their parents. Available literature concerning the attitude of mainstreamed children's parents toward mainstreaming is both scant and contradictory. Geiser reported that parents are complaining that their children are not getting the services and placement that they need,but rather what is available.[45]

Willard, however, reports that parents are generally in favour of mainstreaming.[46]

Nyquist has suggested that the parents of both regular and mainstreamed students need to be prepared for mainstreaming. Parents who do not understand what is happening in a school can convey needless fears and misunderstandings to their children. The parents of a non-handicapped child may be concerned that undue amounts of time will be spent on the handicapped child, while the parents of the handicapped child may be fearful about the child's movement from the protected special class environment.[47]

The impact of mainstreaming on the attitudes of the non-handicapped is also significant. Rapier et al. conducted a study to investigate whether normal children's attitudes toward physically handicapped children change after exposure to them. The authors reported that with exposure the attitudes of the normal children became more positive.[48] Similarly, Peterson found normal children's exposure to educably mentally handicapped children resulted in an increased positive attitude toward the handicapped.[49] Bradfield et al. reported that the inclusion of handicapped children in a regular class tended "to benefit not only the special child but the majority of children in the classroom as well."[50] Burton and Hirshoren, however, argued that mildly handicapped students are socially excluded

by their non-handicapped peers.[51] Scranton and Rye a man suggested that the sociometric studies of various types of handicapped children in regular classrooms indicate less acceptance of the handicapped in comparison to normal peers.[52] Such a negative attitude on the part of regular students toward their handicapped peers is not surprising. Tunick et al. observed that the idea of expecting non-handicapped students of any school to support and accept handicapped peers may be considered highly presumptuous and unrealistic.[53] Creating an attitude of acceptance by regular education students toward their handicapped peers must be recognized as a basic element of any mainstreaming effort.[54]

The attitudes of the parents of regular class students and the community in general are also of concern. Given the profound influence of parents' attitudes on their children's beliefs, the impact of negative attitudes toward mainstreaming by parents of regular students must not be discounted. Jones et al. suggested that parents feel that mainstreaming may impact negatively upon the adjustment and achievement of the regular class pupil, and that the time teachers take to provide instruction to the mainstreamed student makes the teacher less accessible to regular students.[55] A study of the integration of handicapped students into the regular classes of the Calgary Board of Education also

indicated, "the possibility of negative attitudes towards integration from parents of non-handicapped children."[56]

V. RESOURCES AND SUPPORT SYSTEMS

Given the substantial demands being made on regular class teachers as a consequence of mainstreaming, an increased need for inservice that addresses the issues surrounding mainstreaming is evident. MacMillan et al.[57] and Linder[58] have indicated the need for such inservice. Payne and Murray reported that urban and suburban principals ranked inservice as the number one need of regular teachers who are asked to meet the needs of the handicapped child.[59] The results of an investigation by Gickling and Theobald designed to investigate the organizational approaches used to prepare both regular and special education personnel to work together on behalf of a mainstreaming effort, revealed that less than 20 percent of regular secondary teachers, 35 percent of regular elementary teachers, 28 percent of secondary special teachers, and 16 percent of elementary special teachers indicated that their school systems were providing programs to inform them about exceptional children.[60] Pocklington has also observed that "Suitable, broadly conceived inservice programmes have not always been forthcoming...."[61]

To be effective in working with handicapped students, teachers should be knowledgeable about the duties and responsibilites of various professional and non-professional personnel. Hundert has taken the position "...that accommodation of handicapped children in a regular class may depend on some form of support services."[62] Jones et al. have noted that a coordinated effort between the regular classroom teacher and the supportive personnel available in the school or district is critical to a successful mainstreaming program.[63] Cruickshank has also called for itinerant teachers to support the regular classroom teacher.[64] Keough and Levitt have taken the position that in order for many exceptional children to achieve success in school, ongoing help as a supplement to regular instruction is required, and that these specialized services must be available and functional in regular classes.[65] The importance of adequate professional support personnel is emphasized by Mandell and Strain. In an analysis of factors related to the attitudes of regular classroom teachers toward mainstreaming mildly handicapped students, they found availability of a resource teacher to be a significant predictor of a positive attitude toward mainstreaming.[66] Similar findings have been reported by Larrivee and Cook.[67]

The importance of the non-professional teaching staff to the successful implementation of a mainstreaming program has been recognized by Allan[68], Morgan[69], and Hegarty[70]. In outlining the requirements for a program of mainstreaming, Cruickshank has stated that an appropriate number of teacher aides in a regular classroom must be provided.[71]

VI. TEACHING TECHNIQUES

> The teacher, in dealing with a broader range of needs and abilities, must develop a broader repertoire of teaching techniques and effectively apply those techniques to a specific situation and to a specific student.[72]

In a mainstreamed setting the regular classroom teacher is expected to conduct group as well as individualized instruction. The teacher, suggested Meyen and Lehr, must be knowledgeable about a broad range of curricula and methodologies.[73] He must, as Rader indicated, be able to identify a student's academic deficiencies.[74] Hundert took the position that it is unrealistic to expect a handicapped child to be permanently cured of all problems after remediation in a special class. In all likelihood, residual difficulties mild enough to be handled in the regular class will be present. The regular class teacher, however, must make adjustments in instruction and classroom routine to accommodate these

difficulties.[75] The importance of recognizing that the mainstream instructional setting may extend beyond the regular class and may involve a resource room and/or tutorial instruction on an individual basis, has been emphasized by Meyen and Lehr.[76] The importance of such accommodation by the teacher has also been emphasized by Jones et al.:

> The second condition that must exist for instructional integration to occur is for the regular class teacher to be willing to modify instructional practices to accommodate a child whose learning style or ability may be seriously discrepant from the remaining students in the class.[77]

At the heart of such a diagnostic/prescriptive teaching approach is the individualized educational program, or IEP. Abeson and Zettel defined such a program as:

> A written statement for each handicapped child developed in any meeting by a representative of the local educational agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of specially designed instruction to meet the unique needs of handicapped children, the teacher, the parents or guardians of such child, and whenever appropriate, such child, which statement shall include (A) a statement of the present levels of educational performance of such child, (B) a statement of annual goals, including short-term instructional objectives, (C) a statement of the specific educational.

> services to be provided to such child and the extent to which such child will be able to participate in regular educational programs, (D) the projected date for initiation and anticipated objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved.[78]

The critical role of the regular classroom teacher in the IEP process has been emphasized by Hasazi et al., "As instructional managers, classroom teachers will coordinate the various resource services and personnel needed to implement an individualized education program."[79]

Teachers, however, may not be prepared for this responsibility. A study by Schultz, designed to determine systematically what issues were being raised by elementary classroom teachers involved in mainstreaming, found that 20.8 percent of those surveyed listed planning for individual differences as their main concern or obstacle.[80] Semmel and Semmel have also suggested that the lack of skills on the part of teachers for the development and implementation of IEPs may serve as an obstacle.[81]

A review by Johnson and Cartwright of mainstreaming literature related to teacher competency issues, revealed that teachers were often ill prepared in terms of knowledge.[82] Research conducted by Jones et al. concluded that a majority of regular class teachers feel that they are not prepared to teach handicapped children.[83] Concern that regular class teachers may not possess sufficient knowledge and skills appropriate for mainstreaming has also been voiced by Hegarty[84] as well as Keough and Levitt.[85]

Vacc and Kirst have suggested that part of the responsibility for educating teachers to be effective in the mainstreamed classroom lies with the teacher preparation program.[86] Similarly, Owen reported that many teachers were not ready to meet the needs of the special child within the regular classroom. He concluded that, "Regular classroom teachers need adequate university preparation...in the most appropriate techniques for working effectively with a handicapped child."[87] This position is supported by Brooks who observed that, "The present courses of study for the preparation of the regular classroom teachers do not include those experiences necessary to cope with the educational problems of exceptional children, nor do they allow students in training to come to a basic understanding of the needs and

characteristics of the exceptional child."[88] A similar position has been taken by Wiens.[89]

Despite these calls by prominent educators for a re-evaluation of training programs, surprisingly little revision appears to have been made. In a 1982 survey of Special Education coursework in school psychology training programs in 303 United States colleges and universities Sullivan and McDaniel found that of the school psychology training programs surveyed, 25 percent did not require any courses specifically designed to develop knowledge of exceptional children and another 23 percent required only one course.[90] A similar 1982 investigation of Special Education in pre-service teacher education programs in Canada by McCutcheon revealed that, on the basis of information received following an inquiry to Ministers of Education, Nova Scotia was the only Province in the country where definite provision was being made for all prospective teachers to develop the skills to cope with the educational problems of exceptional children.[91]

VII. LEARNING ENVIRONMENT

The integration of handicapped children into the regular class has implications for a number of learning environment factors. One such learning environment factor frequently noted

is the effect mainstreaming has on teacher workload, particularly as it relates to pupil-teacher ratio.[92] Calls for new formulae for class size limits have come from such writers as Allan,[93] Brooks,[94] Morgan,[95] and Hundert.[96]

Class Size

Although few studies have supported the assumption that class size is related to the effectiveness of instruction for children, Meyen and Lehr have noted that a reduced pupil-teacher ratio has long been considered a necessary ingredient for education of the mildly handicapped.[97] Freeman et al. suggested that:

> A common belief of teachers, students, and parents is that appropriate education is extremely difficult for any child in a 1:30 or 1:35 teacher-pupil ratio. Increase this by two or three special needs students and the situation becomes impossible. While no magic ratio exists, common sense seems to indicate that a 1:12 or 1:15 ratio would increase the likelihood of a more appropriate educational experience for both teacher and child.[98]

Cruickshank, in outlining the requirements for a successful mainstreaming program, also noted the need for pupil-teacher ratio changes:

> When there is a normalization program put in place, school administrators must provide for an appropriate reduction in teacher-pupil ratio to make possible individualized instruction which will be required.[99]

Stress

The sense of "strain" and "frustration" often experienced by regular classroom teachers involved in mainstreaming has been noted by Brooks[100] and Yaffe.[101] Bensky et al. have postulated that this increase in the stress level of regular class teachers is a consequence of the increased demands being made on them as a result of mainstreaming.[102] The findings of a study conducted by Bensky et al., designed to investigate stress and its relationship to educators, confirmed that regular class teachers are indeed finding mainstreaming stressful.[103] The results of a study of integration of handicapped children into regular classes conducted by the Calgary Board of Education also recognized the potential for an increase of stress for regular class teachers involved in mainstreaming.[104]

Space

Children with special needs often have various requirements with respect to accommodation space.[105] The importance of physical facilities to a successful mainstreaming program has also been stressed by Meyen and Lehr.[106] In terms

of the mildly mentally handicapped student; it is necessary to examine space available for withdrawal or undistracted small group work. For example, if a child is in need of speech therapy, a quiet undistracted area to work in is required.

Liberman has suggested that the first step in the procedures leading toward mainstreaming should be an evaluation of the physical characteristics of the classroom. Factors such as sound levels, lighting, design, and size must be evaluated and modified when necessary.[107] Cruickshank has declared that the guiding principle in considering physical space requirements for mainstreamed children should be that "The exceptional child with whatever disability cannot ever be left behind because of environmental limitations over which he or she has absolutely no control."[108]

VIII. CURRICULUM

In addition to utilizing traditional curriculum materials within a mainstreamed classroom, the regular class teacher will need to select additional materials that will enable each handicapped student to fully participate. Classroom teachers must also be knowledgeable about new curriculum materials; for

traditional or present curriculum materials may not always be appropriate for a student's individualized educational plan. Rader has noted that it may also be necessary for the regular class teacher to modify or develop new curriculum materials to meet the student's specific needs.[109] The importance of having curriculum materials that match up with students' instructional levels and learning styles has been emphasized by Liberman.[110] McLoughlin and Kershman have noted that "The teacher's ingenuity in adapting materials and designing alternate forms of activities for children can enhance children's growth and development."[111] The need for curriculum development as well as curriculum modification for mainstreamed children has also been recognized by Geiser,[112] Gottlieb,[113] and Jones et al.[114] Wener, and O'Shaugnessy, however, have cautioned that teachers may not be ready to adopt the role of curriculum developers. To suggest that teachers should do so, is an unreasonable request in terms of the current allocation of time, skills, and energy available for such activities.[115] Williams and Algozzine have pointed out that teachers fear that they do not have the curriculum expertise necessary to provide appropriate programs for mainstreamed children.[116]

IX. CLASSROOM MANAGEMENT

In addition to meeting the needs of the regular students, teachers in a mainstreamed classroom must have the ability to organize classrooms for instructional purposes and to manage them effectively to meet the needs of the mainstreamed students. Chief among the logistical problems suggested is the need for the classroom teacher to develop a flexible time schedule that allows for the intellectual, physical and social needs of all students.[117] The scheduling of mainstreamed students has also been recognized as an obstacle to mainstreaming by such writers as Allan[118] and Martin.[119] Liberman has observed that:

> Scheduling handicapped children into and out of regular classrooms and special education services is another one of those incredible problems that have been slightly overlooked by the advocates of mainstreaming.[120]

The problems associated with scheduling special needs students have been summarized by Schultz as follows:

(1) too much time spent traveling to room assignments.

(2) movement of children in and out of classrooms.

(3) inability of teachers to keep track of individual children.

(4) jeopardy to consistency of approach.

(5) proliferation of specialists which results in splintered services and greater scheduling difficulties.

(6) holding children accountable for what they missed while receiving services elsewhere.

(7) not holding children accountable for what they missed while receiving services elsewhere.

(8) conflict between grouping and individual needs.[121]

Another aspect of classroom management involves the behavior of the mainstreamed student. A degree of support for such concerns is found in research conducted by Liberman to determine what issues were being raised by elementary teachers over mainstreaming. Survey results indicated that five point seven percent of respondents expressed concern over the behavior of mainstreamed children.[122] Similarly, a study by Middleton et al. designed to determine university graduates' perception of the need for training in mainstreaming, revealed that ten point eight percent expressed concern over the need to apply behavior management techniques.[123]

X. EVALUATING STUDENT PROGRESS

Another obstacle to a successful mainstreaming program is the monitoring and evaluation of student progress. A need

for systematic and continuous record keeping has been expressed by Hegarty[124] as well as Jones et al.[125] The frequent failure of teachers to evaluate carefully a child's progress and the tendency of teachers to rely on subjective judgments have been noted by Martin.[126] The results of a study by Middleton et al. designed to determine university graduates' perceptions of the need for training in mainstreaming revealed a degree of concern over evaluating student progress.[127] Teacher concern over student evaluation was also reported in the results of a study by the British Columbia Teachers' Federation concerning mainstreaming in that Province.[128] Rader has suggested that in order to evaluate the progress of the handicapped as well as the non-handicapped student, teachers must be knowledgeable concerning the similarities and differences between criterion-referenced evaluation and norm-referenced evaluation. They must also have the skills to develop both types of instruments specifically for their classroom goals.[129]

XI. ADMINISTRATION

Administrative Support

A successful mainstreaming program also requires appropriate administrative support and leadership at the board

as well as the school level. "School boards need to be aware of the common problems that surface with integration, including the types of difficulties the regular teachers encounter, the ways of handling difficulties, and the kinds of inservice and/or upgrading required."[130] McLoughlin and Kershman have suggested that "Administrative support is vital for any program's success."[131] Similarly, the importance of administrative support has been recognized by Herda[132] and Cruickshank.[133] In an examination of a number of mainstreaming programs for mentally handicapped students, Guerin and Szatlocky observed:

> The existence of a central administration with strong positive attitudes toward the integrated program was so characteristic of these programs as to suggest that it was a critical factor in both the program creation and maintenance.[134]

However, such support and leadership is not always forthcoming. A 1980 report on mainstreaming commissioned by the British Columbia Teachers' Federation stated that 22 percent of those teachers surveyed were dissatisfied with the administrative support and leadership.[135] Similarly, a study of the integration of handicapped students into the regular classes of the Calgary Board of Education indicated a lack of adequate administrative support and leadership.[136]

Financial Support

Another potential administrative obstacle to mainstreaming is the lack of financial support. The lack of adequate data to compare the costs of educating handicapped children in self-contained and mainstreamed classrooms has been recognized by Gottlieb,[137] as well as Reynolds and Birch.[138] Despite this fact, however, many writers have postulated that for mainstreaming to be successful, more, not less money is needed.[139, 140] Cruickshank has warned that "We should recognize, that mainstreaming, when adequately programmed, is not less costly than are special education self-contained classrooms."[141] All in all, suggested Keough and Levitt, successful mainstreaming programs may require a greater investment than that required by traditional special education programs.[142] Support for this statement is evidenced in a review of several mainstreaming programs conducted by Chaffin:

> If regular administrators anticipate that mainstreaming efforts will result in a substantial reduction of costs, it is not evident from the program descriptions review that such reductions ensue.[143]

Similarly, Nyquist has warned that mainstreaming is not a cheap and easy panacea for the difficult job of educating the handicapped, and that to send all handicapped children back

into the regular classrooms without adequate teacher preparation, supportive personnel, and individual educational plans, as well as materials, will cause all the children in the schools to suffer.[144]

Unfortunately, however, many administrators view mainstreaming as a cost cutting device. Consequently, "Many of the problems which now exist are a direct result of systems attempting to meet the minimal standards without an adequate financial base."[145]

XII. SUMMARY

This chapter has presented a review of the literature investigating potential obstacles to the delivery of instruction to mildly mentally handicapped children in a regular classroom by regular classroom teachers.

Chief among the obstacles to such a mainstreaming program are the uncertainty that regular class teachers have over the precise nature of mainstreaming and the confusion over what implications such a program has for their roles and responsibilities. A lack of understanding by the regular class teacher concerning differences in the learning characteristics of the mildly mentally handicapped is also identified as a potential obstacle.

The potential impact of negative attitudes by significant groups involved in any mainstreaming program is also explored. Negative attitudes toward mainstreaming by either the regular class teacher, the handicapped children, the parents of the handicapped children, the non-handicapped children, or the parents of the non-handicapped children are viewed as an obstacle to a successful program.

Additional potential obstacles examined are the need for the provision of inservice related to the concept of mainstreaming, and the question of access by the regular class teacher to professional and non-professional support services.

The review also focused on the potential need for regular class teachers to modify their present teaching techniques and expand their teaching skills and knowledge in such areas as the development and use of individualized educational plans, the evaluation of curriculum materials and instructional aids suitable for use with mainstreamed children, the development of curriculum materials to replace available materials which are not appropriate, classroom management, and student evaluation practices.

Several learning environment factors such as class size, scheduling, teacher stress, and physical space requirements of mildly mentally handicapped children are also presented as potential obstacles to a successful mainstreaming program.

The issues of adequate financial support of mainstreaming and the need for appropriate administrative support and leadership at the Board and the school level are also discussed.

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CHAPTER III

METHODOLOGY

I. INTRODUCTION

This study was designed to gather information on teachers' perceptions of the major obstacles to the delivery of instruction to mildly mentally handicapped children in a mainstreamed setting.

This Chapter is concerned with:

1. locale of the study and the population studied
2. construction and nature of the instrument used to collect the data
3. processes of data collection; and finally
4. treatment of the data to answer questions posed by the study.

II. LOCALE OF THE STUDY

The study covered that portion of Conception Bay South which comes under the jurisdiction of the Conception Bay South Integrated School Board. The boundaries of the education district administered by this board are defined as all that area lying between Horse Cove exclusive to Holyrood inclusive. During the school year 1982-83 there were one hundred and eight (108) regular classroom teachers employed in seven schools in this district.

III. POPULATION OF THE STUDY

The population of the study consisted of all full-time regular classroom teachers employed by the Conception Bay South Integrated School Board, according to a list supplied by the board in question. Rather than employ a sampling procedure, it was decided that all regular classroom teachers in the district would be asked to participate in the study. Included in the population were teachers at all levels of experience and training. The teachers were employed at the primary, elementary, junior high, and high school levels. For the purpose of the study, guidance consellors, administrators, program co-ordinators, librarians, music, and physical education specialists as well as special education teachers were excluded from the population.

Of the one hundred and eight (108) in the population, eighty-eight (88) or approximately 82 percent returned the completed questionnaire.

IV. NATURE AND CONSTRUCTION OF THE INSTRUMENT

The questionnaire was developed by the researcher following a review of the literature and consultation with knowledgeable persons in the field of special education and survey questioning. Major sources which were useful in formulating items for the questionnaire are listed as follows:

Rader, B.T. Competencies for Mainstream Teachers: An Analysis, Teacher Education: Renegotiating Roles for Mainstreaming. Grosenick, J., and Reynolds, M. (Eds.), CEC. 1978.

Redden, M. Mainstreaming: Competency Specifications for Elementary Teachers, Exceptional Children, 1978, 44, pp. 615-617.

Calgary Board of Education, A Study of the Integration of Handicapped Students in the Regular Schools of the Calgary Board of Education, 1978.

Middleton, E.J., Morsink, G., and Cohen, S. Program Graduates' Perception of Need for Training in Mainstreaming, Exceptional Children, 1979, 45, 256-260.

Geiser, R.H. The IEP Dilemma: Obstacles to Implementation. The Exceptional Parent, 1979, 9, E14-E16.

Semmel, M. and Semmel, D. The Expanded Role of Regular Class Teachers, McGill Journal of Education, 1979, 14, 327-341.

Allan, J. Integration and Mainstreaming in the Elementary Schools: Facts, Problems and Solutions, The B.C. Counsellor, 1980, 2, 15-27.

British Columbia Teachers' Federation, The G.M.A. Research Findings Related to Mainstreaming, B.C. 1980.

Freeman, R., Gavron, S., and Williams, E. Public Law 94-142: Promises to Keep, Educational Horizons, 1981, 59, 107-112.

Okam, K.A., and Wagner, C.L. Teacher Trainees in the Mainstream: Developing a Model Site, Educational Horizons, 1981, 59, pp. 131-135.

Liberman, L.M. The Nightmare of Scheduling, Journal of Learning Disabilities, 1982, 15, 57, 58.

Schultz, L.R. Educating the Special Needs Student in the Regular Classroom, Exceptional Children, 1982, 48, 366, 367.

From a review of the literature, including the major sources already listed, and from consultations, a list of 26 potential obstacles emerged, each belonging to one of the following categories:

1. The Nature of Mainstreaming
2. The Nature of the Mildly Mentally Handicapped and Learning Style
3. Attitudes
4. Resource and Support Systems
5. Teaching Techniques
6. Learning Environment
7. Curriculum
8. Classroom Management
9. Evaluating Student Progress
10. Administration

The questionnaire consisted of these 26 potential obstacles. Teachers were asked to read each item and circle the appropriate rating, according to a Likert-type scale, to indicate the extent to which they felt each obstacle applied to the delivery of educational services at their present level of teaching assignment. Specifically the directions were:

The following is a list of possible obstacles to the delivery of educational services to mildly mentally handicapped students in a mainstreamed setting. Please read each item and circle the appropriate numeral to indicate the extent to which you feel it applies to the delivery of such educational services at your present level of teaching assignment.

V. VALIDITY

The first step in developing the questionnaire, was to isolate possible obstacles to the education of mildly mentally handicapped children in a regular class. From an examination of the literature concerning mainstreaming and from formal and informal discussions with regular teachers, a list of potential obstacles emerged.

In addition, an extensive review of the literature was conducted to substantiate the importance of each of the possible obstacles contained in the questionnaire.

VI. RELIABILITY

In this study, reliability was determined by the measure of two applications of the same test, on a representative sample of teachers (ie. those completing the initial

questionnaire). Thirteen items, selected randomly from the survey instrument were distributed to 15 percent of the original population, two weeks after the initial questionnaire was collected. The Pearson correlation between the test retest scores was .80. Table 1 is a summary of the test retest scores of the group. Please note that the Pearson Correlation Coefficients were converted to Fisher scores. The Fisher scores were then averaged and the resulting Fisher was converted back into a Pearson correlation coefficient.

TABLE I

A Summary of Pearson correlation scores for the reliability sample.

RESPONDENTS	$T_1 - T_2$
1	.8924
2	.6928
3	.5916
4	.5390
5	.4596
6	.4238
7	.5757
8	.8600
9	.7435
10	.8128
11	.2600
12	.9196
13	.8835
14	.8515
15	.5915
16	.5209
*Average	.800

*Average based on Fisher transformations

VII. COLLECTION OF THE DATA

The main purpose of the study was to determine regular classroom teachers' perceptions of the importance of various potential obstacles to the delivery of educational services to mildly mentally handicapped children in a mainstreamed setting. A four page questionnaire, cover letter, and directions were developed, which requested regular classroom teachers to rate on a scale of 5 to 1 ("Not an Obstacle" to "Most Critical"), the extent to which they felt each possible obstacle applied to their present level of teaching assignment.

To analyze the effect of the level of teaching assignment variable, teachers from the primary, elementary, and junior-senior high school levels were selected.

During a one-week period, the questionnaires were administered to 108 teachers, 82 percent of whom returned the questionnaire (83 percent Primary; 69 percent Elementary, and 72 percent Junior-Senior High).

A questionnaire rather than a personal interview was used as the survey instrument (a) because of the greater allotment of time necessary for an interview, especially from the standpoint of the teacher, and (b) because the nature of

the desired response (re: self-perceived obstacles) suggested that the tendency to give socially acceptable responses could be reduced if the respondent could remain anonymous. A written questionnaire would provide this anonymity.

All questionnaires were delivered by hand to the teachers, by a regular classroom teacher in each of the seven schools involved. These teachers had been previously asked by the researcher to assist with the distribution and collection of the questionnaire. Completed questionnaires were returned (in a sealed envelope) to the teacher assistant for pick up by the researcher one week later. Due to the relatively small population size and the high initial response, the researcher was able to make contact either in person, by phone, or through the school assistant with each teacher who had not returned the qustionnaire. No further follow-up was made on the 20 teachers who did not return their questionnaires.

VIII. TREATMENT OF THE DATA

The personal and demographic data gathered were used to describe the population surveyed. Tables were constructed to describe the population according to: gender, level of teaching certificate, number of courses in Special Education,

level of teaching assignment, years of teaching experience, and experience teaching exceptional children.

All teachers were to respond to the questionnaire on a scale of 5 to 1 (ranging from "Not an Obstacle" to "Most Critical") for each of the 26 potential obstacles listed. In order to examine the pattern for each of the ten (10) obstacle categories, responses for each of the obstacles were computed at each point on the Likert scale used. These figures were then converted to percentages and presented in table form.

A detailed examination of the "Moderate" to "Most Critical" response patterns for each of these tables was then made. The information gathered resulted in the development of a ranking of the potential obstacles to the mainstreaming of mildly mentally handicapped children. Similarly this information was presented in table form.

Comparisons were made between teacher responses with reference to the personal and demographic data gathered, namely: gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children.

To examine the relationship between teacher response and the selected variables, a one-way analysis of variance was employed.

CHAPTER IV

ANALYSIS OF DATA

I. INTRODUCTION

The decision to mainstream is based on the basic assumption that a caring society provides an education system which educates all children according to their abilities and talents, in what has been termed the "least restrictive environment". Proponents of mainstreaming, however, realize that theory and practice do not always coincide. A review of the relevant literature indicates that there are obstacles to the introduction of any mainstreaming program that must be identified and remediated if such a program is to prove effective. This study was designed: (1) to develop a questionnaire that would assess the obstacles present in the provision of educational services to mildly mentally handicapped children in a regular classroom; (2) to investigate the obstacles to the provision of educational services to mildly mentally handicapped children in a regular classroom for a specific teacher population through the use of the questionnaire; (3) to determine if a relationship exists between these perceived obstacles and certain personal and

demographic variables, namely: gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children. Teachers participating in the study were asked to read a list of twenty-six potential obstacles and circle the appropriate rating, according to a Likert-type scale, to indicate the extent to which they felt each obstacle applied to the delivery of educational services to mildly mentally handicapped children in a mainstreamed setting at their present level of teaching assignment.

This chapter contains a description of the population surveyed, the results of the questionnaire, and the comparisons between teachers with reference to the personal and demographic variables named and their responses. The implications of these findings are discussed.

II. PERSONAL AND DEMOGRAPHIC VARIABLES

The population consisted of one hundred and eight (108) full-time primary, elementary, junior high and high school regular classroom teachers, employed by the Conception Bay South Integrated School Board. For the purpose of this study, guidance counsellors, administrators, program co-ordinators, librarians, music and physical education specialists as well as special education teachers were excluded from the population. Rather than employ a sampling procedure, the total population was asked to participate in the study.

Of the one hundred and eight (108) in the population, eighty-eight (88) or approximately 82 percent returned the completed questionnaire. As can be seen from the table, over 64 percent of the teachers responding were female.

TABLE 2

Gender

Gender	Frequency	Percent
Male	32	36
Female	56	64
No Response	20	-
Total	108	100

Table 3 shows the number of teachers in the population by level of teaching certificate. From this table it can be seen that almost the entire population had a Grade IV teaching certificate or higher, with 8 percent having a Grade VII certificate.

TABLE 3

Level of Teaching Certificate

Teaching Certificate	Frequency	Percent
Grade VII	7	8
Grade VI	23	26
Grade V	42	48
Grade IV	15	17
Grade I-III	1	1
No Response	20	-
Total	108	100

Table 4 describes the teachers in the population by the number of courses in special education and shows that over half of the teachers responding had no courses in special education.

TABLE 4

Number of Courses in Special Education

Number of Courses	Frequency	Percent
0	47	53
1-2	34	39
3-5	6	7
6-8	-	-
9-11	-	-
12+	1	1
No Response	20	-
Total	108	100

Table 5 reports the number of teachers in the population by level of teaching assignment.

TABLE 5

Level of Teaching Assignment

Type of Teaching Position	Number of Teachers
Primary	30
Elementary	25
Junior-Senior High	33
No Response	20
Total	108

Table 6 indicates that the respondents consisted of highly experienced teachers. Eighty-seven percent of the population had six or more years teaching experience.

TABLE 6

Years of Teaching Experience

Years of Experience	Frequency	Percent
1-5	11	13
6-10	22	25
11-16	30	34
16+	25	28
No Response	20	-
Total	108	100

From Table 7 it can be seen that despite the high rate of teaching experience in general, only seven teachers or 8 percent of the population had experience teaching exceptional children.

TABLE 7

Experience in Teaching Exceptional Children

Grade Level	Frequency	Number With Experience	Percent
Primary	30	1	1
Elementary	25	4	5
Junior-Senior High	33	2	2
No Response	20	-	-
Total	108	7	8

III. TEACHERS' PERCEPTIONS OF POTENTIAL OBSTACLES TO MAINSTREAMING

In general, the mean response patterns of all the potential obstacle categories presented in Tables 8-17 were skewed in the direction of "Moderate", "Major", or "Most Critical". Such results indicate the high level of concern regular classroom teachers have over the mainstreaming of mildly mentally handicapped children.

A ranking of the potential obstacles to mainstreaming was developed by totalling the "Moderate", "Major" and "Most Critical" mean response percentages for each potential obstacle category. Table 18 presents the results of this tabulation.

From this table it can be seen that "Learning Environment" clearly emerged as the category perceived as being the primary potential obstacle to the mainstreaming of mildly mentally handicapped children. The fact that 91.3 percent of teachers responding perceived this category as either "Moderate", "Major" or "Most Critical", indicates the extent to which this category was perceived as a potential obstacle.

The obstacle category least frequently perceived as a potential concern was "The Nature of Mainstreaming". However, it should be noted that although this category placed last in

the ranking of potential obstacle categories, 61.4 percent of teachers responding indicated that they perceived this category as either "Moderate", "Major", or "Most Critical". Such a result must clearly be taken into account when developing an inservice program for teachers who are to be involved in a mainstreaming program.

Table 8
Teachers' Perceptions of the Nature of Mainstreaming as a Potential Obstacle by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
Lack of understanding of the rationale for mainstreaming	30.7	17.0	23.9	18.2	10.2
Uncertainty over precise role of the regular class teacher in the mainstreaming process	13.6	15.9	25.0	36.4	9.1
$\bar{X}$	22.1	16.5	24.5	27.3	9.6

Table 9
Teachers' Perceptions of the Nature of the Handicap and Learning Style as a Potential Obstacle by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
The regular class teacher's inadequate knowledge concerning the causes of mental retardation.	25.0	14.8	29.5	26.1	4.5
The regular class teacher's inadequate knowledge concerning the learning characteristics of mildly mentally handicapped children	8.0	12.5	23.9	39.8	15.9
$\overline{X}$	16.5	13.5	27.6	32.9	10.2

Table 10
Teachers' Perceptions of Attitudes as a Potential Obstacle by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
Attitudes of regular class teachers toward mainstreaming	10.2	17.0	35.2	27.3	10.2
Attitudes of mainstreamed children towards attending regular classes	14.8	15.9	33.0	30.7	5.7
Attitudes of parents of handicapped children toward mainstreaming	17.0	23.9	26.1	21.6	11.4
Attitudes of parents of regular children toward mainstreaming	11.4	13.6	29.5	31.3	13.6
Attitudes of regular class students toward the mainstreamed child	18.2	15.9	30.7	20.5	14.8
$\bar{X}$	14.3	17.3	30.9	26.3	11.2

Table 11
Teachers' Perceptions of Resource and Support Systems as a Potential Obstacle by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
The provision of mainstreaming related inservice	15.9	11.4	25.0	27.3	20.5
Access to professional support services (psychologists, speech therapists, etc.)	14.8	14.8	22.7	27.3	20.5
Access to non-professional support services (teacher aides, etc.)	12.5	17.0	30.7	29.5	10.2
$\bar{X}$	14.4	14.4	26.1	28.0	17.1

Table 12
Teachers' Perceptions of Teaching Techniques as a Potential Obstacle by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
The development of new or the altering of present teaching techniques by the regular classroom teacher	4.5	17.0	28.4	38.6	11.4
Lack of skills of regular class teachers to deal effectively with mainstreamed children	6.8	8.0	22.7	36.4	26.1
The necessity for regular class teachers to participate in the development and use of an individualized educational plan for each handicapped student	5.7	9.1	19.3	47.7	18.2
$\bar{X}$	5.6	11.4	23.5	40.9	18.6

Table 13
Teachers' Perceptions of Learning Environment
as a Potential Obstacle
by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
Present pupil teacher ratio	2.3	3.4	6.8	25.0	62.5
Lack of physical space	5.7	9.1	17.0	37.5	30.7
Increase in the stress level of regular class teachers	1.1	4.5	18.2	40.9	35.2
$\bar{X}$	3.0	5.7	14.0	34.5	42.8

Table 14
Teachers' Perceptions of Curriculum as a Potential Obstacle by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
The suitability of curriculum materials and instructional aids to be used in regular class settings with mainstreamed children	4.5	5.7	25.0	46.6	18.2
The development of new curriculum materials by the regular class teacher when available materials are not appropriate	8.0	11.4	27.3	36.4	17.0
$\bar{X}$	6.2	8.5	26.2	41.5	17.6

Table 15
Teachers' Perceptions of
Classroom Management
as a Potential Obstacle
by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
Pupil and/or class scheduling problems	17.0	20.5	33.0	26.1	3.4
Behavior of mainstreamed child	6.8	14.8	33.0	33.0	12.5
$\bar{X}$	11.9	17.6	33.0	29.5	8.0

Table 16
Teachers' Perceptions of
Evaluating Student Progress
as a Potential Obstacle
by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
Evaluating the mainstreamed child	10.2	11.4	46.6	23.9	8.0
$\bar{X}$	10.2	11.4	46.6	23.9	8.0

Table 17
Teachers' Perceptions of
Administration as a
Potential Obstacle
by Response Percentage

N = 88

Potential Obstacles	Not an Obstacle 5	Mild 4	Moderate 3	Major 2	Most Critical 1
School Level Administrative support and leadership	22.7	12.5	23.9	22.7	18.2
School Board Administrative support and leadership	27.3	12.5	26.1	17.0	17.0
Overall financial support	2.3	17.0	20.5	33.0	27.3
$\bar{X}$	17.5	14.0	23.5	24.2	20.8

Table 18

Ranking of the
Potential Obstacles Categories
to Mainstreaming

	Potential Obstacles	%
1.	Learning Environment	91.3
2.	Curriculum	85.3
3.	Teaching Techniques	83.0
4.	Evaluating Student Progress	78.5
5.	Resource and Support Systems	71.2
6.	The Nature of the Handicap and Learning Style	70.7
7.	Classroom Management	70.5
8.	Administration	68.5
9.	Attitudes	68.4
10.	The Nature of Mainstreaming	61.4

A detailed examination of the "Moderate" to "Most Critical" response patterns for each of the twenty-six (26) items contained within the ten (10) potential obstacle categories resulted in the development of a ranking of potential obstacles to the mainstreaming of mildly mentally handicapped children. This ranking was developed by totalling the "Moderate", "Major", and "Most Critical" response percentages for each potential obstacle. The results are presented in Table 19.

From this table it can be seen that the "Present pupil-teacher ratio" and "Increase in the stress level" were perceived as the greatest potential obstacles. When one considers the emphasis that many writers have placed on a reduced pupil-teacher ratio as a necessary ingredient for a successful mainstreaming program, the high frequency by which this item was selected was predictable. Whether or not there is a positive relationship between these items is uncertain. However, it is conceivable that the introduction of mildly mentally handicapped children into the regular classroom, without decreasing the present pupil-teacher ratio, would increase demands made upon teachers and consequently be a source of increased teacher stress.

The item perceived as the least important potential obstacle was "Lack of understanding of the rationale for mainstreaming". Such a result is likely a consequence of the level of professional training of the teachers and their high level of teaching experience. In addition, the numerous articles that have appeared in publications in recent years may have served to make the respondents aware of the potential benefits of mainstreaming. It is important to note, however, that even though this item was ranked last, it was still perceived as a potential obstacle to mainstreaming by 52.3 percent of the teachers.

In surveying the distribution of the items within Table 19, it would appear that teachers tended to perceive those obstacles that were more closely related to their own classroom performance as being greater potential obstacles than those that were not as directly related to their classroom role and were not clearly their responsibility. For example, "The suitability of curriculum materials and instructional aids to be used in regular class settings with mainstreamed children" was perceived by 89.8 percent of the teachers as a potential obstacle and ranked third. "Lack of physical space" ranked sixth and was viewed by 85.2 percent as a potential obstacle.

Conversely, "Pupil and/or class scheduling problems" was perceived by 62.5 percent of the teachers as a potential obstacle. It placed twenty-second in the "Ranking of the Potential Obstacles to Mainstreaming". Similarly, "School Level Administrative support and leadership", as well as "School Board Administrative support and leadership", ranked twenty-first and twenty-third, respectively.

In examining the distribution of the items concerning attitudes, it appeared from the ranking of the items that teachers were most concerned with the attitudes of parents of regular children toward mainstreaming. This item was reported as a potential obstacle by 72.7 percent and ranked fourteenth. It also appeared that they were least concerned with the "Attitudes of parents of handicapped children toward mainstreaming", as this item was ranked twenty-fifth. Perhaps this may be so because teachers perceive that the parents of handicapped children are supportive of the concept of mainstreaming.

Table 19

Ranking of the
Potential Obstacles
to Mainstreaming

	Potential Obstacles	%
1.	Present pupil-teacher ratio.	94.3
2.	Increase in the stress level of regular class teachers.	94.3
3.	The suitability of curriculum materials and instructional aids to be used in regular class settings with mainstreamed children.	89.8
4.	Lack of skills of regular class teachers to deal effectively with mainstreamed children.	85.2
5.	The necessity for regular class teachers to participate in the development and use of an individualized educational plan for each handicapped student.	85.2
6.	Lack of physical space.	85.2
7.	Overall financial support.	80.8

Table 19 (Continued)

	Potential Obstacles	%
8.	The development of new curriculum materials by the regular class teacher when available materials are not appropriate.	80.7
9.	The regular class teacher's inadequate knowledge concerning the learning characteristics of mildly mentally handicapped children.	79.6
10.	Behavior of mainstreamed child.	78.5
11.	Evaluating the mainstreamed child.	78.5
12.	The development of new or the altering of present teaching techniques by the regular classroom teacher.	78.4
13.	The provision of mainstreaming related in-service.	72.8
14.	Attitudes of parents of regular children toward mainstreaming.	74.4
15.	Attitudes of regular class teachers toward mainstreaming.	72.7
16.	Uncertainty over the precise role of the regular class teacher in the mainstreaming process.	70.5

Table 19 (Continued)

	Potential Obstacles	%
17.	Access to professional support services (psychologists, speech therapists, etc.)	70.5
18.	Access to non-professional support services (teacher aides) etc.	70.4
19.	Attitudes of mainstreamed children towards attending regular classes.	69.5
20.	Attitudes of regular class students toward the mainstreamed child.	66.0
21.	School Level Administrative support and leadership.	64.8
22.	Pupil and/or class scheduling problems.	62.5
23.	School Board Administrative support and leadership.	60.1
24.	The regular class teacher's inadequate knowledge concerning the causes of mental retardation.	60.1
25.	Attitudes of parents of handicapped children toward mainstreaming.	59.1
26.	Lack of understanding of the rationale for mainstreaming.	52.3

IV. RELATIONSHIPS BETWEEN PERSONAL AND DEMOGRAPHIC VARIABLES AND TEACHER RESPONSES

Teacher responses were analyzed to see if there were differences between respondents classified by personal and demographic variables. One-way analysis of variance was used to determine statistical significance of differences in response means. The personal and demographic variables used were gender, teaching certificate, training through special education courses, level of teaching assignment, teaching experience, and experience teaching exceptional children. Tables 20-29 present the response mean ratings and ANOVA results for each of the categories.

An analysis of Table 20 revealed a significant relationship at the .05 level between Potential Obstacle Category 1, "The Nature of Mainstreaming" and the variable teaching level. An examination of the relationship between mean scores on "The Nature of Mainstreaming" and teaching level showed that Junior-Senior High teachers perceived this category as a greater obstacle to the mainstreaming of mildly mentally handicapped students than did the Primary or Elementary teachers. A significant relationship at the .00 level was also shown between "The Nature of Mainstreaming" and teaching

experience. It is interesting to note that those teachers with two or fewer years of teaching experience perceived this category as a greater obstacle than did their more experienced colleagues. The level of obstacle perception increased, though not significantly, for those teachers with ten years or more teaching experience compared to teachers with three to nine years teaching experience.

From Table 21 it can be seen that in Category 2, "The Nature of the Handicap and Learning Style", only one variable had a significant relationship to teacher obstacle perception. The variable teaching experience was related to the potential obstacle category at the .00 level. Here also, teachers with two years or fewer of teaching experience perceived this category as a greater obstacle to mainstreaming than did the more experienced teachers. Mean scores for this variable showed an increase in the level of obstacle perception for teachers with ten or more years teaching experience compared with teachers having three to nine years teaching experience.

Table 22 shows that there was only one variable significantly related to Potential Obstacle Category 3, "Attitudes". Again the variable teaching experience was significantly related to the obstacle category at the .00 level. And again, mean scores showed that teachers with two

years or fewer of teaching experience perceived this category as a greater obstacle than the more experienced teachers. In this category, however, the level of obstacle perception did not increase for teachers with ten or more years of teaching experience compared with teachers having three to nine years of teaching experience.

Table 23 shows a significant relationship at the .04 level between Potential Obstacle Category 4, "Resource and Support Systems" and the variable gender. This obstacle category was rated as a greater obstacle by female teachers. Again a significant relationship at the .00 level was shown between the variable teaching experience and this obstacle category. Here also, examination of means for this variable showed that teachers with two years or fewer of teaching experience perceived this category as a greater obstacle to mainstreaming than did their more experienced peers. Similarly, means revealed that there was an increase in the level of obstacle perception for teachers with ten or more years teaching experience compared with teachers having three to nine years teaching experience.

An examination of Table 24, Potential Obstacle Category 5, "Teaching Techniques", Table 26, Potential Obstacle Category 7, "Curriculum" and Table 27, Potential Obstacle Category 8,

"Classroom Management", revealed that, as was found with Table 21, only one variable had a significant relationship to teacher obstacle perception. Once again the variable teaching experience was related to the Potential Obstacle Categories at the .00 level. Similarly, teachers with two years or fewer of teaching experience perceived these categories as greater obstacles to mainstreaming than did those teachers with more experience. Mean scores for this variable in each of these categories indicated an increase in the level of obstacle perception for teachers with ten or more years teaching experience compared with teachers having three to nine years of experience.

Table 25, Potential Obstacle Category 6, "Learning Environment" results are similar to the results of Table 23 in that both gender and teaching experience were significantly related to the obstacle category. Gender had a significant relationship to the category at the .05 level, while teaching experience significance was at the .00 level. As was the case with Table 23, an examination of the means for the variable gender revealed that female teachers rated this obstacle category as a greater obstacle than did male teachers. An examination of the means for the variable teaching experience also showed that teachers with two years or fewer of teaching

experience perceived this category as a greater obstacle than teachers with more teaching experience. Furthermore, means reflected an increase in the level of obstacle perception for teachers with ten or more years teaching experience compared with teachers having three to nine years experience.

As was the case with Table 22, Tables 28 and 29: Potential Obstacle Category 9, "Evaluating Student Progress", and Potential Obstacle Category 10, "Administration", show that only one variable, teaching experience, was significantly related to the obstacle categories. This variable was significant at the .00 level to both obstacle categories. Also an examination of the means for that variable showed that teachers with two years or fewer teaching experience perceived these categories as a greater obstacle than did those teachers with more teaching experience. The level of obstacle perception did not increase for those teachers with ten or more years of teaching experience compared with teachers having three to nine years of experience.

In summary, the variable teaching level was found to be significantly related to teacher obstacle perception in only one of the ten (10) obstacle categories. The variable gender was significantly related to teacher response in two categories, while the variable teaching experience showed a

significant relationship to the level of obstacle perception in all of the ten (10) obstacle categories as measured by the questionnaire. An examination of mean scores for this variable revealed that in all categories, teachers with two years or fewer of teaching experience had the highest levels of obstacle perception. In seven categories, mean scores recorded an increase in obstacle perception levels for teachers with ten years or more teaching experience as compared with teachers having three to nine years of teaching experience. However, in the other three categories no such increase was shown. In fact, levels of obstacle perception continued to decrease as teaching experience increased.

This observation suggests that it may not be simply insufficient teaching experience that increases obstacle perception levels. There appear to be critical stages of experience. As teachers gained teaching experience, their obstacle perception levels dropped in all ten (10) categories. However, for those teachers who had reached the stage where they had ten years or more teaching experience, means recorded an increase in obstacle perception levels in seven categories. Should such a finding be interpreted as a reflection of teacher training programs that were in place at the time these teachers received their preservice training? Or, that more experienced

teachers are simply more skeptical and more resistant to change? Clearly, this is an area worthy of further investigation. Further investigation is also needed to determine what factors caused obstacle perception levels in Potential Obstacle Category 3, "Attitudes", Potential Obstacle Category 9, "Evaluating Student Progress", and Potential Obstacle Category 10, "Administration", to decrease as teaching experience increased.

The fact that there was limited significant variable relationship to teacher obstacle perception levels found would seem to imply that several of the selected variables, namely: teaching certificate, training through special education courses, and experience teaching exceptional children are not relevant. However, one must, in interpreting this finding, take into consideration: (a) the small number of respondents; (b) the small number of respondents with a Grade III or IV teaching certificate, compared with those having a Grade V, VI, or VII teaching certificate; (c) the small number of respondents having more than two courses in special education, and the likelihood that these were merely introductory in nature; and (d) the fact that only seven respondents reported having any experience teaching exceptional children.

Thus it is difficult to draw meaningful conclusions from the data that would be generalizable to the total teaching population. This, however, does not diminish the validity of the results or the validity of the survey instrument. For it must be stressed that the results of this survey are the results of an application of the questionnaire, that was developed by the researcher, to a specific teacher population. Consequently, the survey results must be viewed as a profile of the perceptions of the obstacles to the mainstreaming of mildly mentally handicapped children for a specific teacher population. It is expected that subsequent applications of the questionnaire to different teacher populations would yield varying results. Each application would provide an obstacle perception profile for that specific population. It is hoped that those involved in preparing for the introduction of mildly mentally handicapped students into regular classrooms would find such a profile a valuable aid in the development of an appropriate inservice program.

Table 20
Potential Obstacle
Category 1: The Nature
of Mainstreaming

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	3.1875	.7864
	female	3.1161	
teaching certificate	1 - IV	2.8125	.2185
	V - VII	3.2153	
number of special education courses	0	3.1170	.5702
	1 - 2	3.0758	
	3+	3.5625	
present level of teaching assignment	Primary	3.2667	.0505
	Elementary	3.4630	
	Jr-Sr. High	2.7419	
teaching experience	0-2	0.7222	.0000
	3-9	3.6667	
	10+	3.0317	
special education teaching experience	0	2.5343	.4972
	1+	3.0000	

$p < .05$

Table 21
Potential Obstacle
Category 2: The Nature
of Handicap and Learning Style

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	2.9531	.8782
	female	2.9196	
teaching certificate	1 - IV	2.9688	.8684
	V - VII	2.9236	
number of special education courses	0	2.8617	.3043
	1 - 2	2.9091	
	3+	3.9318	
present level of teaching assignment	Primary	2.9500	.9067
	Elementary	2.9815	
	Jr-Sr. High	2.8710	
teaching experience	0-2	0.5741	.0000
	3-9	3.8889	
	10+	3.0238	
special education teaching experience	0	2.3627	.4405
	1+	2.8333	

$p < .05$

Table 22
Potential Obstacle
Category 3: Attitudes

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	3.1750	.1334
	female	2.8571	
teaching certificate	I - IV	2.8875	.6951
	V - VII	2.9917	
number of special education courses	0	3.0128	.3088
	1 - 2	2.8182	
	3+	3.3750	
present level of teaching assignment	Primary	2.9067	.8649
	Elementary	3.0444	
	Jr-Sr. High	2.9727	
teaching experience	0-2	0.6963	.0000
	3-9	2.9222	
	10+	3.0190	
special education teaching experience	0	2.3667	.0995
	1+	2.3667	

$p < .05$

Table 23
Potential Obstacle
Category 4: Resource
and Support Systems

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	3.1250	.0449
	female	2.6310	
teaching certificate	1 - IV	2.7917	.9406
	V - VII	2.8184	
number of special education courses	0	2.8794	.7189
	1 - 2	2.7778	
	3+	2.5417	
present level of teaching assignment	Primary	2.7222	.5340
	Elementary	3.0123	
	Jr-Sr. High	2.7204	
teaching experience	0-2	0.7037	.0000
	3-9	3.0000	
	10+	2.7672	
special education teaching experience	0	2.2778	.7240
	1+	2.5000	

$p < .05$

Table 24
Potential Obstacle
Category 5: Teaching
Techniques

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	2.5313	.5097
	female	2.3988	
teaching certificate	1 - IV	2:5208	.7188
	V - VII	2.4306	
number of special education courses	0	2.4043	.7506
	1 - 2	2.4545	
	3+	2.6667	
present level of teaching assignment	Primary	2.5111	.3323
	Elementary	2.5926	
	Jr-Sr. High	2.4470	
teaching experience	0-2	0.5432	.0000
	3-9	2.5370	
	10+	2.4603	
special education teaching experience	0	1.9706	.4294
	1+	2.3889	

$p < .05$

Table 25
Potential Obstacle
Category 6: Learning
Environment

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	2.1354	.0528
	female	1.7917	
teaching certificate	1 - IV	1.7500	.3615
	V - VII	1.9537	
number of special education courses	0	2.0426	.2214
	1 - 2	1.8182	
	3+	1.4833	
present level of teaching assignment	Primary	1.8222	.7340
	Elementary	1.9630	
	Jr-Sr. High	1.9677	
teaching experience	0-2	0.4198	.0000
	3-9	2.0370	
	10+	1.9153	
special education teaching experience	0	1.5490	.6032
	1+	1.7778	

$p < .05$

Table 26
Potential Obstacle
Category 7: Curriculum

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	2.4219	.8741
	female	2.4554	
teaching certificate	1 - IV	2.6875	.2553
	V - VII	2.3884	
number of special education courses	0	2.5426	.4279
	1 - 2	2.2727	
	3+	2.5625	
present level of teaching assignment	Primary	2.4000	.1482
	Elementary	2.7222	
	Jr-Sr. High	2.2419	
teaching experience	0-2	0.6852	.0000
	3-9	2.5556	
	10+	2.3884	
special education teaching experience	0	2.9755	.6117
	1+	2.2500	

*$p < .05$

Table 27
Potential Obstacle
Category 8: Classroom
Management

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	3.1406	.1756
	female	2.8571	
teaching certificate	1 - IV	2.9063	.8015
	V - VII	2.9722	
number of special education courses	0	3.1596	.0968
	1 - 2	2.7576	
	3+	2.6250	
present level of teaching assignment	Primary	2.8667	.7860
	Elementary	2.9815	
	Jr-Sr. High	3.9602	
teaching experience	0-2	0.7963	.0000
	3-9	3.0278	
	10+	2.9286	
special education teaching experience	0	2.3971	.6565
	1+	2.6667	

*$p < .05$

Table 28
Potential Obstacle
Category 9: Evaluating
Student Progress

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	3.0000	.5911
	female	2.8750	
teaching certificate	1 - IV	3.1875	.2594
	V - VII	2.8611	
number of special education courses	0	2.9787	.5208
	1 - 2	2.7576	
	3+	3.2500	
present level of teaching assignment	Primary	3.0000	.8633
	Elementary	2.8519	
	Jr-Sr. High	2.9032	
teaching experience	0-2	0.7037	.0000
	3-9	2.8889	
	10+	2.9524	
special education teaching experience	0	2.3627	.6265
	1+	2.6667	

$p < .05$

Table 29
Potential Obstacle
Category 10: Administration

N = 88

Personal and Demographic Variables		Mean	*FP
gender	male	2.9375	.5325
	female	2.7679	
teaching certificate	1 - IV	3.0208	.4902
	V - VII	2.8245	
number of special education courses	0	2.9716	.5082
	1 - 2	2.6667	
	3+	2.6667	
present level of teaching assignment	Primary	2.7222	.3547
	Elementary	3.1111	
	Jr-Sr. High	2.6882	
teaching experience	0-2	0.7039	.0000
	3-9	2.8889	
	10+	2.9524	
special education teaching experience	0	2.3268	.5613
	1+	1.94444	

$p < .05$

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. INTRODUCTION

This chapter presents a summary of the survey results, discusses the conclusions and recommendations which resulted, and suggests areas worthy of further study. The reader is cautioned to remember the delimitations and the limitations of the study presented in Chapter I, as these influence the degree of generalization which is justifiable when considering the conclusions and recommendations.

II. SUMMARY

The results of this study clearly indicated that regular class teachers felt that there are obstacles to the delivery of instruction to mildly mentally handicapped children in a mainstreamed setting. The intensity of this feeling is indicated by the fact that approximately 61.4 percent or more of the respondents viewed all of the obstacle categories presented as either a "Moderate", "Major", or "Most Critical" obstacle.

An examination of individual obstacle ratings revealed that teachers perceived "Present pupil-teacher ratio" and "Increase in the stress level" as the greatest potential obstacles. "Lack of understanding of the rationale for mainstreaming" was viewed as the least important potential obstacle. It also appeared that potential obstacles that were more closely related to the teachers' actual classroom performance were generally perceived as being more critical than those obstacles which could be described as general in scope, in that they were not as directly related to teachers' classroom performance and were not clearly their responsibility. For example, the obstacles "The suitability of curriculum materials and instructional aids to be used in regular class settings with mainstreamed children" and "Lack of physical space" were seen as being more critical than such potential obstacles as "Pupil and/or class scheduling problems", "School Level Administrative support and leadership", or "School Board Administrative support and leadership". The distribution of the items concerning attitudes suggested that teachers were most concerned about the attitudes of parents of regular children toward mainstreaming and least concerned with the "Attitudes of parents of handicapped children toward mainstreaming". Such information

obviously has implications for an individual charged with the task of developing an inservice program for teachers who are to be involved in a mainstreaming program.

The results, related to teachers' perceptions of potential obstacles to mainstreaming, reinforced the researcher's beliefs regarding the potential obstacles to mainstreaming mildly mentally handicapped students. They clearly indicated that teachers perceive problems with mainstreaming. However, findings related to teacher responses and their lack of relationship to several variables were somewhat surprising. One would expect that the variables: teaching certificate, training through special education courses, and experience teaching exceptional children would be significantly related to teacher response, in at least one of the categories. This, however, was not the case. In interpreting this result, one must take several factors into consideration: (a) the small number of respondents; (b) the small number of respondents with a Grade III or IV teaching certificate compared to those having a Grade V, VI, or VII teaching certificate; (c) the small number of respondents having more than two courses in special education, and the likelihood that these were merely introductory in nature; and (d) the fact that only seven respondents reported having any experience teaching exceptional children.

The variables that were found to be significantly related to teacher obstacle perception levels were: gender, teaching level, and teaching experience. Gender was significantly related to Potential Obstacle Categories, "Resource and Support Systems", and 6, "Learning Environment". Teaching level was significantly related to Potential Obstacle Category 1, "The Nature of Mainstreaming". Teaching experience showed a significant relationship to the level of obstacle perception in all ten (10) categories measured by the questionnaire. An examination of mean scores for this variable showed that in each category, teachers with two years or fewer of teaching experience had the highest levels of obstacle perception. In seven categories obstacle perception levels increased for teachers with ten years or more of teaching experience as compared to teachers having three to nine years of experience. In the remaining three categories obstacle perception levels decreased as teaching experience increased.

One might suggest that these results are directly related to the population and thus may or may not reflect the results one might obtain if a different population was surveyed.

In summary, the results of this survey indicate that (1) the questionnaire developed by the researcher assesses the obstacles present in the provision of educational services to

mildly mentally handicapped children in a regular classroom; (2) the results of an application of this questionnaire provide a profile of the perceptions of these obstacles for the specific teacher population surveyed; and (3) these results leave limited scope for generalization to other populations.

One cannot make precise statements about which obstacles are most critical and which variables are most significant. One can, however, suggest that administrators who are to be involved in mainstreaming mildly mentally handicapped children would find the completion of the obstacle perception questionnaire by teachers beneficial as a prerequisite to either planning for a mainstreaming program or the development of an inservice program. This questionnaire could also serve as a self-assessment tool by teachers who are planning to become involved in mainstreaming.

III. CONCLUSIONS

The conclusions stated have arisen out of the analysis of data and findings presented in the study:

1. Responses to the questionnaire suggested that regular classroom teachers felt that there are obstacles to the

education of mildly mentally handicapped children in a mainstreamed setting. The response patterns of all obstacle categories presented were skewed in the direction of "Moderate" to "Most Critical".

2. The category most frequently perceived as a potential obstacle was Category 6: "Learning Environment".

3. "Present pupil-teacher ratio" and "Increase in the stress level" were selected as the most critical obstacles.

4. Teachers generally perceived obstacles that were closely related to their own classroom perfotmance as more critical than those obstacles that were more general in scope.

5. Teachers were most concerned with the attitudes of parents of regular children toward mainstreaming than they were with the attitudes of others involved in the process.

6. A significant relationship was found between the variable gender and Potential Obstacle Categories 4, "Resource and Support Systems"; and 6 "Learning Environment".

7. A significant relationship was found between the variable teaching level and Potential Obstacle Category 1, "The Nature of Mainstreaming".

8. A significant pervasive relationship was found between the variable teaching experience and obstacle perception levels.

(a) Teachers with two years or fewer of teaching experience had the highest levels of obstacle perception in all categories as measured by the questionnaire.

(b) Teachers with three to nine years of teaching experience showed a decrease in obstacle perception levels in all categories compared to teachers with two years or fewer of experience.

(c) Teachers with ten or more years of teaching experience showed an increase in obstacle perception levels in seven categories. In the other three, obstacle perception levels continued to decrease.

9. There was no significant relationship found between the variables teaching certificate, training through special education courses, experience teaching exceptional children, and obstacle perception levels as measured by the questionnaire.

IV. RECOMMENDATIONS

The following recommendations are respectfully submitted to facilitate the mainstreaming of mildly mentally handicapped students.

1. That there be an overall policy on mainstreaming at the provincial, board, and school levels.

2. That teacher education programs contain required Special Education courses, and that at least one of these courses address the issue surrounding mainstreaming.

3. That at least one of these courses include a practicum working with mildly mentally handicapped children.

4. That each school board employ a co-ordinator whose sole responsibility would be the supervision of services for handicapped children within that district.

5. That no mainstreaming effort be initiated in a school district without an assessment of the potential obstacles to its implementation. The results of such an assessment could serve as the basis for teacher inservice programs.

6. That parents and students of the school involved in a mainstreaming program be adequately prepared through appropriate information sessions, through the use of films, printed materials, and discussion groups.

7. That a revised formula for class size be developed which would take into account the presence of mildly mentally handicapped children in a regular classroom.

eg. a numerical value system could be employed such as:

1.0 for a regular student
1.5 - 2.0 for a handicapped student

8. That agencies involved in education examine the issue of teacher stress as it relates to the mainstreaming of mildly mentally handicapped students.

V. IMPLICATIONS FOR FURTHER STUDY

1. Since the data-gathering instrument was devised by the researcher, a replication of the study would add strength to the conclusions and recommendations.

2. In instances where relationships did emerge as significant, the extraction of specific conclusions and recommendations was hampered by the small number of respondents in some cells. A stratified sample would ensure an adequate number of respondents in each cell and would overcome this difficulty, while enlarging and strengthening the conclusions of the present study.

3. Further research is needed to determine if the scope of the potential obstacles presented is sufficiently complete. Perhaps the obstacles should be viewed as an initial list that could serve as a point of departure for future efforts that may eventually lead to a more complete list.

4. Further research is needed to determine whether the potential obstacles to the mainstreaming of mildly mentally handicapped children would be the same for the mainstreaming of various other types of handicapped children.

5. The results of the questionnaire may reflect the perceptions of teachers responding to an abstract problem. That teachers will respond the same way when confronted with a mildly mentally handicapped child in the classroom has yet to be established and is an area for further research.

6. Further research is needed to determine what factors contributed to obstacle perception levels being higher, in seven categories, for teachers with ten or more years of teaching experience compared to teachers having three to nine years experience. Further research is also needed to determine what factors contributed to obstacle perception levels being lower for teachers with ten or more years of teaching experience compared to teachers having three to nine years experience in the other three categories.

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APPENDIX

QUESTIONNAIRE TO TEACHERS

January, 1983

Dear Colleague:

Enclosed is a questionnaire concerning possible obstacles to the delivery of educational services to mildly mentally handicapped students in a regular class setting. As mainstreaming becomes an educational reality, it is increasingly important to gather information that will assist us as educators to maximize the benefits of this educational innovation.

The content and distribution of this questionnaire has been approved by the Conception Bay South Integrated School Board. Please note that no individual or school responses will be disclosed by the researcher.

Your co-operation in completing your questionnaire by _____ will be greatly appreciated.

Yours truly,

GEORGE CORBETT

DIRECTIONS

1. Please complete the questionnaire by following the appropriate directions.

2. This page has a code number at the top right hand corner. This is to allow me to keep track of responses. Once your questionnaire has been received the code number will be removed so that no individual can be identified in the analysis of data. This will ensure that all responses remain strictly confidential. If you find this approach unacceptable, simply remove this sheet before handing in your responses.

3. Please place the completed questionnaire in the enclosed envelope, seal it and return it to the person shown on the envelope.

Thank you very much for sharing your valuable opinions.

Personal and Demographic Data

Please supply the following information, in items 1 - 4 circle the numeral that corresponds to your answer.

1. Gender

Male 1
Female 2

2. Teaching Certificate

1 - 3 1
4 2
5 3
6 4
7 5

3. Number of Special Education Courses (1 semester = 1 course)

0 1
1-2 2
3-5 3
6-8 4
9-11 5
12 or more 6

4. Present level of teaching assignment

Primary 1
Elementary 2
Junion-Senior High 3

5. Teaching Experience (State number of years for each level)

Primary..... _____
Elementary ..... _____
Junior-Senior High ..... _____

6. If your special education experience includes teaching mildly mentally handicapped students, please indicate the number of years experience you have teaching such students in

a regular classroom ..... _____
a resource room ..... _____
a self-contained special education class ..... _____
other (please specify) ..... _____

The following is a list of possible obstacles to the delivery of educational services to mildly mentally handicapped students in a mainstreamed setting. Please read each item and circle the appropriate numeral to indicate the extent to which you feel it applies to the delivery of such educational services at your present level of teaching assignment.

	Not an Obstacle	Mild	Moderate	Major	Most Critical
Lack of understanding of the rationale for mainstreaming	5	4	3	2	1
Uncertainty over the precise role of the regular class teacher in the mainstreaming process	5	4	3	2	1
The regular class teacher's inadequate knowledge concerning the causes of mental retardation	5	4	3	2	1
Attitudes of regular class teachers toward mainstreaming	5	4	3	2	1
Attitudes of mainstreamed children towards attending regular classes	5	4	3	2	1
Attitudes of parents of handicapped children toward mainstreaming	5	4	3	2	1
Attitudes of parents of regular children toward mainstreaming	5	4	3	2	1
Attitudes of regular class students toward the mainstreamed child	5	4	3	2	1

	Not an Obstacle	Mild	Moderate	Major	Most Critical
The provision of main-streaming related in-service	5	4	3	2	1
Access to professional support services (psychologists, speech therapists, etc.)	5	4	3	2	1
Access to non-professional support services (teacher aides) etc.	5	4	3	2	1
The development of new or the altering of present teaching techniques by the regular classroom teacher	5	4	3	2	1
Lack of skills of regular class teachers to deal effectively with mainstreamed children	5	4	3	2	1
Present pupil-teacher ratio	5	4	3	2	1
Lack of physical space	5	4	3	2	1
Increase in the stress level of regular class teachers	5	4	3	2	1
The regular class teacher's inadquate knowledge concerning the learning characteristics of mildly mentally handicapped children	5	4	3	2	1

	Not an Obstacle	Mild	Moderate	Major	Most Critical
The suitability of curriculum materials and instructional aids to be used in regular class settings with mainstreamed children	5	4	3	2	1
The development of new curriculum materials by the regular class teacher when available materials are not appropriate	5	4	3	2	1
The necessity for regular class teachers to participate in the development and use of an individualized educational plan for each handicapped student	5	4	3	2	1
Pupil and/or class scheduling problems	5	4	3	2	1
Behavior of mainstreamed child	5	4	3	2	1
Evaluating the mainstreamed child	5	4	3	2	1
School Level Administrative support and leadership	5	4	3	2	1
School Board Administrative support and leadership	5	4	3	2	1
Overall financial support	5	4	3	2	1