

PREPARATION FOR MAINSTREAMING:
SELF-PERCEIVED COMPETENCE OF THE
REGULAR CLASSROOM TEACHER

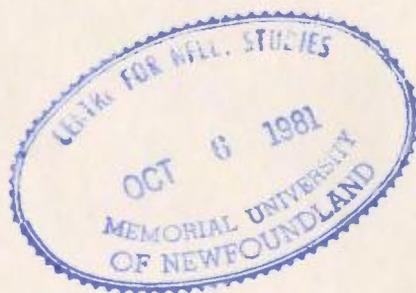
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PREPARATION FOR MAINSTREAMING:
SELF-PERCEIVED COMPETENCE OF THE
REGULAR CLASSROOM TEACHER

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by
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A Thesis submitted in partial fulfillment
of the requirements for the degree of
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ABSTRACT

The first purpose of the study was to investigate the regular teacher's perception of his ability to teach mildly mentally handicapped children within the regular classroom. Specifically the question to be answered was whether the teacher saw himself as competent in specific designated skills that have been rated by experts in the field of special education as important for successful integration. The second purpose of the study was to determine if a relationship existed between perceived competence and certain personal and situational variables.

A questionnaire consisting of 50 items, 5 in each of 10 categories, was developed by the researcher and administered to a random sample of teachers who were asked to rate their ability to perform certain tasks according to a Likert-type scale.

A total score was computed for each teacher and category means were computed for teachers at each grade level. Comparisons were made between groups of teachers on the bases of: level of teaching experience, level and type of professional training, grade level taught and type of support services available. Item scores were computed by totalling and averaging responses across teachers, to examine the relationship between each of the selected variables and perceived competence in educating mildly mentally handicapped children, by means of cross tabulation and chi squared tests for significance of difference.

The following conclusions were reached:

(a) The majority of regular classroom teachers perceive themselves to be inadequately prepared in some of the skills seen by the experts as important for successful integration. (b) Primary teachers rated themselves as most adequately prepared. (c) Teachers generally perceive themselves as least prepared in competencies that are required for individualization of instruction, program development and coordination of services. (d) Level of professional training was associated with perceived competence across all grade levels. In the Primary grades years of experience was an equally important indicator of perceived competence, while in Junior High School, type of support services available was associated with responses to the greatest number of items on the questionnaire.

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM.

Introduction

Writing in 1977, Macmillan and Semmel made the observation:

"Today the battle cry in education is for mainstreaming and although there may be some serious implications, the question is no longer whether to mainstream but rather how most effectively to mainstream" (p. 1).

For the past forty years appropriate arrangements for providing for the educational needs of the educable mentally retarded student has been an issue in special education. As early as 1932 Bennett, cited in Chaffin (1974), questioned whether or not provision of special classes for the mentally retarded was the appropriate approach to providing for such students. Beginning in the 1960's, due in part to the pervasiveness of Dunn's (1968) authority in the controversy over what constitutes the most efficacious method of instruction, the primary issue has been placement in a special class located in the public school versus placement in the regular classroom itself. The question most frequently asked was: Should educators continue to advocate special classes in the face of inconclusive research as to their effectiveness and the accompanying cost of their maintenance? (Burden 1971). In the 1970's the question seems to have been answered by an increasing trend away from self-contained special classes as the predominant organizational arrangement, in favour of an integrated approach. As a result many mentally retarded children who previously attended special classes will be returned to regular grades, and many more who would have been placed in special classes are no

longer being so segregated but are remaining as members of the regular classroom and as participants of the class program.

A background of public apathy characterized the debate previous to 1970, however this recent trend toward integration of the physically and mentally handicapped is a response to the increasingly vocal and articulate demands of the disabled themselves, an awakening public conscience and a social climate that deplores the derogatory effects of labeling and stigma and the denial of basic civil rights. (Wolfensberger, 1972) The powerful impact of the normalization principle has had a profound effect on attitudes toward, and provision for, the handicapped. These influences provided the impetus in Canada for the CELDIC Report 1970, the amendment of Section 10 of the Education Act in Britain in 1976, the Warnock Report 1978 and policies embodied in Public Law 94-142 in the United States of America.

The demand for integrated special education is a part of a wide-ranging social and educational development. Gear and Gable (1979) noted that "Thus at all levels mainstreaming the exceptional child is being advocated and in some instances mandated" (p. 36).

Increasingly there is professional concern for how teachers, special and regular, are affected by and reacting to the impetus toward integration. Evaluation studies of the impact of integration, through comparison of mainstreaming programs, pose many of the same problems posed by efficacy studies to evaluate the effects of special class placement (Grickling and Theobald, 1975). Between-group designs assume homogeneity within a given program (the precise curricular and instructional components of what is called mainstreaming) while in fact program diversity is the rule, not the exception. (Guerin and Szatlucky, 1967).

Macmillan, Jones and Meyers (1976), cited in Macmillan and Semmel (1977), found as well major differences reported concerning who was integrated, the amount of time spent in regular class, the teaching strategies used and support services available.

In the 1970's special education has attracted more controversy and attention than at any time in the past. The strongest pressures for integration have come from the handicapped themselves, especially those groups backed by organized parent groups and voluntary organizations. The strongest resistance seems to come from teachers in the special schools or special classes within the schools. This is understandably so since the debate has been often polarized between special class placement and regular class placement (Galloway and Goodwin, 1979). Recent studies have begun to focus on the diversity of need, more flexible organization of regular classrooms, alternative forms of special education, and, more recently, on the need for a policy of integration.

The assumption behind the movement to integrate is, that given the desire, facilities and reasonable professional preparation, the average teacher can learn to educate the exceptional children in the regular classroom with the support and consultative services of special education personnel. Cautions that there is need for more than hopeful optimism that the child will be assimilated without the knowledge of and provision for the changing role of the teacher and the basic conditions that make mainstreaming work, have been voiced by Berry, Throne and Mercer (1973) cited in Kaufman and Lewis, 1974; Birch, 1978; Macmillan and Semmel, 1977; Martin, 1974; Middleton and Cohen, 1978; and

reasonable chance of success at this time " (Trask, 1980). This reference to integration of the trainable mentally retarded is nonetheless relevant for the educable mentally retarded, since the degree of handicap is not necessarily indicative of the level of planning needed, nor the likelihood of acceptance in the regular stream. "Feasibility depends on the state of the art in educational technology and instructional processes. Availability and portability of instructional materials and staff are more important than severity of the impairment " (Birch, 1978, p. 20).

As more handicapped children are being placed at the regular school setting, concerned teachers and parents are questioning not only the advisability of such a move but also the adequacy of planning. Even if adequate preparation has been made with regard to support personnel, materials, peer acceptance and class size, the question still remains "Is the teaching staff prepared and solidly behind an integrated school?" (Karagianis and Nesbit, 1979, p. 5).

Whereas the demand for integration of exceptional children has come from forces external to the regular school system, it seems inescapable that it is the regular system which must respond and change to meet the demands that will be made on it. Much of the literature since 1970 is devoted to the direction this change should take. The main issues have been teacher biases, stigmatization of the handicapped, the ability of untrained teachers to work with the handicapped and the implications for adjustment and revision of teacher training programs.

That corresponding changes in teacher behavior are both necessary and inevitable and demand the reconstruction of the curricula of teacher

Reynolds and Birch, 1977. According to Birch (1978) the basic conditions all involve the regular classroom teachers' knowledge of, and attitude toward handicapped children's needs and cooperation with special educators.

Newfoundland has accepted in principle the position of integration. Government has passed legislation that has revised the Education Act so that School Boards must take more responsibility for the education of the physically and mentally handicapped children - many of whom are presently segregated in public institutions. Recommendation 8:35 of the Task Force on Education 1979 advocates that arrangements be made wherever possible for integration of handicapped students. The Annual Report of the Avalon Consolidated School Board 1978 states "The basis for such a movement is understandable and the board has already co-operated with the government in placing some students and are presently discussing additional areas where the board can help" (p. 25).

Integration at all levels requires careful planning to ensure success. Concerns that without proper planning "the move will be made in an atmosphere of uncertainty and frustration that could seriously impair its eventual success," have been voiced in an editorial in The Evening Telegram (St. John's, Newfoundland, March 28, 1980) in reaction to a public meeting of the parents and faculty of Pine Grove School (a special school for mentally retarded children) with the Minister of Education; and correspondence in The Daily News (St. John's, Newfoundland March 24, 1980) from a spokesman for the parents and teachers of that school emphasizes the need for planning, feeling that "the level of planning by both government and school board is not sufficient to offer any

education programs to include special education is summarized by Birch (1978) as a need for decentralized regular classrooms, more consultation in the classroom, toleration of a broader range of differences within the classroom and the development of new skills by regular teachers as well as more collaboration between classroom teachers and other school staff.

Realizing the limited effect of revised teacher education programs on those directly responsible for the implementation of integration, viz. those currently in the field, and since the ability of untrained teachers to work properly with the handicapped is being questioned, many educators have suggested that the immediate need appears to be for in-service education for teachers who have no training in special education (Alexander and Strain, 1978; Birch, 1978; Macmillan, Jones and Meyers, 1976; Middleton, Morsink and Cohen, 1978).

The fear that we are failing to develop our approach to mainstreaming with a full recognition of the barriers that must be overcome, has been expressed by the United States Deputy Commissioner for Education of the Handicapped, as a concern not only "that training and experience for teachers has not kept pace with efforts to mainstream but also that much of the training that is provided will be skill orientated and fail to respond to the feelings, attitudes and anxieties of teachers" (Martin, 1978, p.152)

Concerns for adequate preparation are being expressed by special educators, administrators and by the teachers themselves. "A major question concerns the willingness and ability of those in the regular

education program to make these changes " (Keough and Levitt, 1976, p. 8). "It is the teacher who provides the critical variable" (Thrumann, Langley and Wood, 1976, p. 94). Whether or not a teacher will provide an appropriate educational program for a handicapped child will depend on a number of factors including special skill acquisition, experience with exceptional children and the teacher's self-perceived ability to teach a particular child. "Identifying the relative impact of each of these variables on a teacher's perceived ability to provide appropriate educational experience for special children is warranted" (Carpenter and Robson, 1979, p. 321).

This study directs itself toward the regular teacher's perception of his ability to teach mildly mentally handicapped children, with the realization that teaching is a complex and multifaceted activity reflecting the need to learn not solely to repair a personal inadequacy. Training must facilitate normal development of the constantly changing role of the teacher, due not only to technological advances in materials, curricula and methodology but also in response to changes in educational philosophy and the need to accommodate new groups of students (Skrtic, Knowlton and Clark, 1979). Bandura (1977) observed:

It is hypothesized that expectations of personal efficacy determine whether coping behavior will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences. (p. 99)

We need to ask: Does the teacher see himself as competent to teach special children, all or some, under what circumstances, and in what ways the desired differs from the actual circumstances? For without attempts

to examine the roadblocks that exist in general education to the implementation of the principle of integration, we may subject many teachers and children to a painful and frustrating educational experience in the name of progress.

Without substantive change in attitude, in instructional programming and in priorities for allotting resources, the movement will neither benefit the individuals it is intended to serve nor have an impact on the larger society" (Morsink, 1978, p. 44).

It is the writer's hope that this study will shed some light on the issues and provide a segment of local evidence which will be of value and assistance in assessment of readiness for mainstreaming the mildly mentally retarded, as seen by the receiving teachers.

Concerns About Established Practices

During the past decade increasing discontent with segregated classes for the mentally retarded has led to the establishment of alternative educational programs designed to retain the mentally retarded in the regular class with support services. The present emphasis on mainstreaming stems from (a) the equivocal results of efficacy studies comparing the special class and integrated students in achievement, emotional and social development; (b) the cultural bias of diagnostic instruments used to identify retarded children; (c) an awareness of the debilitating effects of labelling and (d) legislation growing out of the larger issue of discrimination and basic civil rights.

Kirk (1964) cited in Kaufman and Lewis (1974) concluded from the

results of efficacy studies comparing the desirability of special and regular classes, that mentally retarded children achieve more academically in the regular class, but appeared better adjusted socially in the special class. The paradox of the efficacy research was realized when Johnson (1962) questioned, why with supposedly better materials and teachers, children in special classes were not superior academically. But MacMillan (1971), cited in Chaffin (1974), noted that it was the timeliness regarding the social climate of Dunn's comments and his prominence among special educators that contributed to his being such an important influence in reversing a trend toward the proliferation of self-contained classes. MacMillan expressed concern not with the recommendation but for the fact that "an abrupt and unorderly change from self-contained classroom to total integration can be dangerous". Emphasizing the need for high quality research, he stated "the larger issue and the one which is debated and researched could prove fruitful is, to what extent and under what circumstances can a wide range of individual differences be accommodated in the regular class" (MacMillan cited in Chaffin 1974, p. 3).

This concern has been shared by many educators (a more detailed review of the literature is contained in Chapter II) and as programs for integration are being developed and implemented attention is being given to problems and issues in the evaluation of educational treatment. Attention is directed toward such variables as the amount of time spent in the regular class, participation in instructional activities, social involvement with non-handicapped peers, and the assessment of teacher ability and willingness to accommodate the handicapped child.

Present Trends

Melcher (1971), cited in MacMillan et al. (1976), cautioned against assuming that the teachers will be enthusiastic about the return of the hard-to-teach to the classroom. Shotel, Iano and McGattigan (1972), cited in MacMillan et al. (1976), in a study which measured teachers' attitudes toward mainstreaming, noted the need for strategies to encourage success and confidence among the regular educators.

There will be no advantage to integration unless the result is a worthwhile social and educational experience for pupils and teachers, - the benefits are not guaranteed by organization alone. There is evidence to indicate that the special student cannot return to or remain in the regular class as it now exists. Wildercore (1974), cited in Schworm (1976), expressed the opinion that even with support services many classes become custodial, since teachers are not prepared to cope with children who require specialized instructional modes and evaluation procedures to determine the kind of involvement the child needs. Hawitt and Watson (1975), cited in Keogh and Levitt (1976), surveyed 1000 elementary teachers and found that although the majority felt the exceptional child was better off in the regular classroom than in a self-contained one, few felt confident in meeting their needs. These findings were consistent with those of McGinty and Keough (1975), cited in Keough and Levitt (1976), who developed a questionnaire to determine what teachers think they need to know to teach exceptional children in the mainstream. "Replies from almost 400 teachers demonstrated that there was considerable agreement as to what they thought was needed and almost unanimous

agreement that they did not know it" (Keough and Levitt 1976, p. 7). Grickling and Theobald (1975) found that 85% of the regular teachers they queried felt that they lacked the necessary skills to teach exceptional children.

In his guidelines for mainstreaming MacMillan (1978) suggested that if mainstreaming is going to be a reality that is going to remain with us, there is need for the regular teacher to have some background in at least the mildly handicapped learner, whether through initial training or in-service. Larsen (1975) in a study of the influence of teacher expectation on school performance of the handicapped suggests that "the teacher should be assisted to overcome the instructional deficiencies present in her own style" (p. 11). He felt that insufficient research has been conducted to fully substantiate the ultimate usefulness of mainstreaming. In order to provide quality instruction for all children through professionals prepared by colleges of education, programs today and in the future must assure that the instructional problems encountered in the transition to the least restrictive alternative model are recognized as researchable questions meriting the investment of effort by the broad community of educational researchers (Morsink, 1975, p. 74).

Newfoundland Situation

According to a report in the Evening Telegram (April 11, 1980) the Newfoundland Teachers Association is not convinced that integration of the mentally and physically handicapped is a good thing. The anxiety of educators in the regular school is understandable when one

The Purpose of the Study

This study is designed to gather institution-specific data to determine regular classroom teachers' self-perceived ability to provide appropriate educational experiences for mildly mentally handicapped children, and to determine if a relationship exists between perceived competence and certain personal and situational variables; viz. level and type of professional training, number of years of teaching experience, grade level taught, experience with exceptional children, and type of support services available to the school.

Major Hypotheses

The following null hypotheses will be investigated in this study:

1. In urban Newfoundland school systems there will be no relationship between perceived teacher competence for mainstreaming mentally retarded children and grade level taught.
2. In urban Newfoundland school systems there will be no relationship between perceived competence and prior training in special education courses.
3. In urban Newfoundland school systems there will be no relationship between perceived competence and level of professional training.
4. In urban Newfoundland school systems there will be no relationship between perceived teacher competence and type of support services available.

recalls that for the last ten years, since the Warren Report, they have been told that some children are so special that they require special class placement and now, as a reaction against segregation and labelling, and while much controversy still exists about the validity of efficacy studies comparing children in self-contained classrooms with children under different mainstreaming setups, they are being told that the best place for these children is in the regular class.

The final report by the Task Force on Education (1979) appointed by the provincial government of Newfoundland and Labrador, supports integration wherever feasible. There are cautions, however, against the return of exceptional children to the regular classroom, in the face of lack of supportive evidence on the benefit of mere proximity, without attention to the attitudes and competencies of receiving teachers. To alleviate problems in this area, inservice instruction is being advocated by educators and teacher training institutions are being urged to prepare prospective teachers for their eventual role. (Report of the Task Force on Education 1979).

The attitudes of teachers toward mainstreaming will play a vital part in determining the success of any mainstreaming program. For integration to work requires a "grassroots consensus and a spirit of co-operation." One of the questions educators must deal with if they are to establish an effective program that will meet the need of each child is "Is the teaching staff prepared and solidly behind an integrated school?" (Karagianis and Nesbit, 1979, p. 5).

5. In urban Newfoundland school systems there will be no relationship between perceived teacher competence and years of teaching experience.

6. In urban Newfoundland school systems there will be no relationship between perceived teacher competence and experience with teaching mentally retarded children.

Limitations

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

1. This study is limited to the investigation of self-perceived teachers' competency with reference to six specific variables: grade level taught, training in special education, level of professional training, model of mainstreaming available in the school, experience with retarded children, number of years teaching experience.

2. The relationship between perceived strengths and weaknesses and essential teacher competencies is limited to the discrepancy as defined and measured by the instrument chosen for the study.

3. The interpretation of the study is limited by the realization that perceived and actual competence may not coincide.

4. It is conceivable that the results of the study may reflect the attitudes of teachers responding to an abstract problem; that the teacher will respond the same way when faced with a handicapped child in the classroom is yet to be established.

Overview

The following is an overview of the design of the study. A more detailed account is reported in Chapter Three.

The population from which the sample was drawn consists of the total teachers in the regular classroom setting under the jurisdiction of the Avalon Consolidated School Board for the year 1979-80. The subjects consisted of 120 teachers, 30 each from Primary, Elementary, Junior High and High School randomly selected from the population described above.

A questionnaire was developed by the researcher following a review of the literature and consultation with experts in the field of special education. The questionnaire was administered to all teachers in the sample. Teachers were asked to rate their ability to perform each task according to a Likert-type scale.

The main analysis consists of comparisons between levels of perceived competency across grade levels and statistical analysis of data to determine if any relationship existed between perceived competence and certain teacher and situational variables: number of years teaching experience, type and level of professional training, grade level taught and experience with exceptional children.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This chapter will contain a review of the literature of special education under the following headings:

1. Critical issues underlying integration
2. Attitudes of teachers toward mainstreaming
3. Professional implications of mainstreaming

Critical Issues Underlying Integration

The total number of mentally retarded children, defined by I.Q. and educational need, is approximately three per cent of the population; of these, two and one half per cent fall into the category of educable mentally retarded (EMR) (The report of the Commission on Emotional and Learning Disorders in Children, 1970 - The CELDIC Report). Discussion and persuasive arguments regarding the necessity to provide for the special educational needs of these children occupied much of the literature prior to the 1960's, culminating in the setting up of special schools or special classes housed in regular elementary or secondary schools. The basic intention of this model was that in the special class the children grouped with their peers would receive instruction on their developmental level, within appropriate curriculum content under the expertise of specially trained teachers. This administrative arrangement was in contrast to programs that were organized around consultative-services or regular grade placement.

The controversy of special class versus regular class placement dominates the literature of special education during the 1960's. The reader is referred to Chaffin (1974) for a brief historical review of the debate regarding the appropriateness of special class placement for the mentally retarded.

In general, results of studies imply that it is erroneous to consider integration and segregation as mutually exclusive alternatives. Even when it can be demonstrated, no real conclusions can be drawn from explanations of better attainment in regular classrooms, without consideration of program emphasis and the possibility that dull children selected for special classes have been selected because they have additional problems (Thurstone 1957, cited in Galloway and Goodwin, 1979).

Inconclusive results of efficacy studies, increasing social awareness of the debilitating effect of widespread labeling, stigmatization and discriminatory testing of minority groups have brought pressure from the handicapped themselves, backed by well-organized parent groups, civil rights advocates, educators and legislators and have resulted in court decisions mandating that as far as possible handicapped children be educated with their normal peers. In Britain in 1976 the Education Act was amended so that section 10 now requires

... that handicapped children are to be educated in country and voluntary schools, in preference to special schools, unless this would be impracticable or incompatible with the provision of efficient instruction in the schools (in other words against the educational interest of the children concerned) or involve unreasonable public expenditure.
(Newsletter, National Council for Special Education June 1977, p. 5)

any educational body or authority within Canada
for the Education of such children;
(The Schools Act p. 4724)

Much of the support for integration, though it evolved from the concern of the general public has been most visibly reflected by action and interpretation of judges and lawmakers. Integration of the handicapped dominated the literature of the 1970's. Three interrelated terms: normalization, mainstreaming and integration have come to signify the major shift in attitude toward the provision of education for the mentally retarded (Karagianis and Nesbit, 1979).

Chaffin (1974) in a review of administrative arrangements that have emerged as models for integration noted that four publications: Berry (1972), Birch (1974), Deno (1974), and Kneinberg and Chou (1973) contained a total of thirty different alternative systems for delivering special education services to exceptional children. Although often grouped together under the rubric mainstreaming, variation in format used in program description and imprecise terminology had made comparison of programs and empirical studies on a number of seemingly important variables impossible (Chaffin 1974). Thus educators in the face of inconclusive evidence from efficacy studies and in a vacuum of research as to the best alternatives to self-contained classroom are left with the task of deciding how best to meet the spirit of the least restrictive environment, as mandated by PL 94 - 142.

Though mainstreaming may be considered a natural historical evolution, the pace of change has been accelerated by events which are outside of education and over which educators could exert little influence. MacMillan, Jones and Meyers (1976) expressed the opinion

Extending this trend, the Report of the Committee of Enquiry into the Education of Handicapped Children and Youth 1978 (the Warnock Report) outlined three levels of integration necessary to meet the needs of handicapped children. Under government policies embodied in Public Law 94-142 in the United States of America, fully implemented in September 1978, state responsibility regarding integration is clearly defined:

... states must establish procedures to assure that, to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped and that special classes, separate schooling or the removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in the regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (Education for All Handicapped Children Act 1975 P. L. 94-142, Section 612)

The CELDIC Report 1970 in Canada recommended the abolition of most segregated special education. Following the Report of the Task Force on Education (1979), the government of Newfoundland and Labrador recently amended Section 12 of the Schools Act which, under Duties and Powers of School Boards, which stated:

12. Subject to this Act and the regulations, every School Board shall

- (a) organize the means of elementary or secondary education, or both, within its district, and provide, furnish and keep in good order and condition schools designed for the teaching of elementary or secondary grades, or both;

by adding immediately after paragraph (a) the following paragraph (a.1)

- (a.1) organize the means for instructing children who for any physical or mental cause may require special classes either by the establishment of special classes in its schools or by making arrangements with another School Board or with

that:

special education professors, the courts, legislatures, and state department personnel have in essence said that they have an idea - mainstreaming mildly handicapped learners - and have said to teachers, 'you work out the details' (page 4).

They caution that a full recognition of the barriers that are to be overcome and careful planning is necessary "lest failures at implementation are interpreted by some as evidence of the invalidity of the principle" (p. 4).

In the interpretation of what constitutes the least restrictive environment, mainstreaming has dominated the literature of special education, and has acquired an aura of magic as the ultimate solution to the education of the handicapped. This is due in no small part to its pervasiveness and the elusiveness of its definition, from a term used synonymously with integration and normalization, to a particular arrangement that advocates the return of all children to the regular class.

As a measure of the growing interest in mainstreaming, related articles in professional journals have steadily increased since 1967. One hundred and twenty-one articles related to mainstreaming concepts were identified in special education journals from January 1970 to March 1975 by Meisgeier (1976) in preparation for a review of Critical Issues Underlying Mainstreaming, contrasted with 23 such articles in the previous five years.

The ERIC Resources in Education (RIE) and Current Index to Journals in Education (CIJE) files contain approximately 19,000 citations on education of the handicapped/exceptional child and on

mainstreaming/regular class placement (ERIC Clearing House Responses to P.L. 94 - 142).

In recent studies there is emphasis on the level of integration desired. The Warnock Report (1978), a recent British document, distinguishes between locational, social and functional integration. Locational integration refers to the sharing of the same site though not necessarily implying the sharing of facilities and neither does it imply the social mixing between pupils - that is implied in the second level, viz. social integration. The fullest form of integration, functional integration, occurs when handicapped children share the same educational programs with ordinary pupils; thus it makes more demands on the school staff and can only occur when locational and social integration have already been achieved (Galloway and Goodwin 1979, p. 59). Cope and Anderson (1977) with reference to the physically handicapped, have described the alternative forms of special education which might theoretically be available. (See figure 1.) Galloway and Goodwin (1979) suggest that with modifications the range of provision might also apply to Educable Sub-Normal (Moderate) and maladjusted children. In this model separate schools and classes are envisaged as having an important place in a continuum of service, where integration is the desired outcome, with no child being placed higher on the continuum than is necessary. The model also envisions that the education program should be monitored regularly and that the child should be returned to the regular classroom as soon as possible (Birch 1978).

Figure 1. Range of Educational Provision Available to Physically Handicapped Pupils

-
1. Ordinary class, no special help.
 2. Ordinary class + ancillary help on the care side.
 3. Ordinary class as base + 'resource room' part-time.
 4. Special class (base) part-time, ordinary class part-time.
 5. Special class full-time.
 6. Day special school formally linked (e.g. same campus) to ordinary school.
 7. Day special school, no such link.
 8. Residential special school.
-

The pervasiveness of the normalization principle and the need for a policy of integration have directed attention to consideration of the factors which affect the outcome of the decision to integrate a particular child: (a) various administrative arrangements, (b) the significance of the effects of teacher attitude toward integration and the variables associated with attitude formation and change, (c) readiness of the classroom teacher, and (d) implications for teacher education.

Attitudes Toward Mainstreaming

For a review of studies in which certain child characteristics have been shown to influence teacher behaviour, the reader is referred to Larson (1970). For a detailed review of studies focussing on teacher behaviour as it relates to positive or negative perceptions of students, and attitudes toward mainstreaming the reader is referred

to a review of the literature in which Horne (1979) reviewing studies using teacher populations concluded that the results of studies that have been done support the view that professionals may be expected to hold negative attitudes toward mainstreaming. Alexander and Strain (1978) in a similar review of educators' attitudes toward mainstreaming found that the regular classroom teachers, particularly those with little or no experience, do not favour integrating the mildly handicapped children into the regular class setting. The studies reviewed noted that the regular class teachers may be "less than accepting" of the special child introduced into their class. Included in the review were studies which documented the effect the teachers' attitudes (both positive and negative) have on the student, noting that the research indicates a close relationship between teacher expectation for the learner and the teacher's treatment of the learner. This view is supported by Birch, 1978 ; Grickling and Theobald, 1978; Hirshoren and Burton, 1979; Johnson and Cartright, 1979 ; Martin, 1974 ; and Macmillan, Jones and Meyers, 1976 . In 1972 Shotel, Iano and McGettigan found that teachers preferred learning disabled to emotionally disturbed students and least preferred the educable mentally retarded. Warner and Turner (1969) and Coombs and Harper (1976), cited in Horne (1979), found educable mentally retarded to be more acceptable than learning disabled students though results were difficult to interpret due to difficulty with definition of the term "learning disabled" students.

Warner and Turner (1969) found significant correlation between the attitudes professionals and students possessed toward disabled groups and their educational background or work experience.

Distinct differences in the effect of these variables were reported by Candell and Togn (1965), cited in Horne (1979), who found that teachers with experience in teaching the retarded held most positive attitudes; those with regular classroom experience followed; and the least positive attitudes were held by inexperienced college students. Anthony (1972), cited in Horne, reviewing several attitudinal studies concluded that providing information or contact experience alone will not affect attitudes but that both elements must be present. Glass and Meckler (1972) reported elementary school teachers held most positive attitudes toward regular class placement and viewed themselves as more able to teach mildly handicapped children.

Moore and Fine (1978) in a study of regular and special class teachers' perceptions of normal and exceptional children and the teachers' attitudes toward mainstreaming, found that teachers apparently believe that the lack of intellectual ability is a greater handicap than behavioural, sensory or physical handicaps. Fifty to seventy-two per cent of the teachers believed they were able to assist in the education of handicapped children, with the exception of the mentally retarded, for whom no teacher believed he was capable of assisting in developing educational programs in the classroom.

Diverting attention from the roadblocks that exist in general education, to the implementation of the principle of integration, Graham, Hudson, Burdick and Carpenter (1980) felt that the willingness of regular and special educators to accommodate the mainstream principle was of primary importance.

Even with the knowledge of methodological weaknesses, the Rosenthal Effect is widely acknowledged and the significance of the effects of teacher attitudes has prompted researchers to explore the variables associated with attitude formation and change. Thruman, Langley and Wood (1976) felt that the success of integration is in part contingent upon the attitudes of the individuals directly involved, and Wolfensberger in the first text on normalization published in Canada by the National Institute on Mental Retardation (1972) felt that attitudes toward mentally retarded people have a profound effect on the way they are treated and stressed the importance of working toward attitude change.

Professional Implications - Restructuring the Education Program

Graham et. al. (1980) noted that even when regular teachers believed that mainstreaming was appropriate and effective, they did not feel that they possessed adequate mainstreaming skills nor that communication between the regular class and support systems was adequate. This view is supported by the authors of the CELDIC Report (1970) who felt that the crux of the problem lies in the teacher's knowledge about children's characteristics and his perception of himself as a person capable of facilitating change: but "everywhere we are discouraged by how inadequately trained most teachers feel themselves to be" (p.129). They felt that the training of the regular teacher has done little to help him recognize, understand and work with individual differences in children or prepare him for those aspects of

(summarized earlier works of Birch 1975; Boot 1975 and Zawadski 1974); and Yager, Howey and Joyce 1977. Macmillan, Jones and Meyers (1976) expressed the opinion that teachers will require some background concerning the mildly handicapped learner and that certification standards for regular teachers must include information on and experience with the mildly handicapped. Glass and Meckler (1972) found that trainees in an elementary teachers' workshop viewed themselves as more competent to teach the mildly handicapped after the experience. Harasym and Horne (1976) found that teachers' opinions and attitudes toward mainstreaming can be modified through in-service programs, so that they are less anxious about teaching although biases remain unchanged. Redden (1976) suggested the need for pre-service program. Middleton, Morsink and Cohen (1979) collected institution-specific data to provide meaningful implications for the revision of a particular teacher training program. Their findings suggest the need for new preservice training that emphasizes mainstreaming within the context of individual differences.

With a national policy which calls for handicapped children to be educated wherever possible with their normal peers, a need for a new appraisal of the formula for training educators has been recognized by Denmark 1978; Harvey 1978; Kennedy 1978; Martin 1978; Morsink 1978; Schlechty and Turnbull 1978; Weisenstein and Gall 1978; Yager, Howey and Joyce 1977. Sargent (1978) surveyed all state teacher certification agencies as to the extent of requirements for mandatory preparation of regular classroom teachers to work with the handicapped. Eighteen states and the District of Columbia had adopted requirements and ten states had similar requirements pending. Many colleges of Education in the U.S.A.

the teacher's role that have to do with working with other people, especially with professionals and parents (CELDIC Report 1970). As a part of the formative planning to assist in the implementation of P.L. 94-142, the Division of Personnel Preparation of the Bureau of Education for the Handicapped, in a September 1976 publication, listed four broad priority areas, including special education training for the regular classroom teachers (Harvey and Siantz 1979).

Teacher education is viewed as an important factor in successful integration. Forness (1979) felt that when only poorly prepared and resistant staff are available, mainstreaming may be an unwise decision and that the decision to mainstream a given child should be based on several factors; among them, identifiable teacher competency. This view is supported by Gear and Gable (1979); Shores, Burney and Wiegerink (1976); in a review by Redden and Blackhurst (1978) and Yager, Howey and Joyce (1977).

To meet the changes occurring in the regular classroom teacher's role in response to legislation to provide an education for all handicapped children in the least restrictive environment, corresponding changes in teacher education are both necessary and inevitable. (Reynolds 1978). "The broadened range of tasks resulting from the inclusion of the handicapped as a primary responsibility of regular education is understood as having implications for the training of all educators" (Morsink 1978, p. 44).

Training either through revised teacher education programs or in-service has been recommended by Alexander and Strain 1974; Berry 1974; Gear and Gable 1979; Kaufman and Lewis 1974; Reynolds and Birch 1977

are assisted by Deans' Grants funded by the Bureau of Education for the Handicapped, to provide leadership and management in program change for mainstreaming (Weisenstein 1978).

The CELDIC committee (1970) noted the need for teacher training to acquaint all teachers with characteristics of exceptional children. "The committee regards changes in the training of teachers as having high priority in the recommendation it is making" (p. 82-83). "Throughout our field visits and discussions, dissatisfaction with the quality of teacher training has recurred like a background refrain. In particular we deplore the ignorance of many teachers about the characteristics, causes and treatment of learning and adjustment difficulties" (p. 135). The committee feels that the training of the regular teacher has done little to help him recognize, understand and work with individual differences in children or prepare him for those aspects of the teacher's role that have to do with other people especially professionals and parents. In their report they recommended the abolition of most segregated special education. "But to close special education classes without preparing the regular classroom teacher to the child's needs would be folly: to expect the teacher to assume this responsibility without adequate training and community support would be unthinkable" (p. 142).

The Report of the Task Force on Education Newfoundland, (1979) recommends "That all teachers in 'receiving schools' be involved in sufficient in-service education to create an awareness of and sensitivity to characteristics of the exceptional child" (rec. 8:37 p. 163).

This view is shared by educators in Great Britain who felt that the implementation of Section 10 of the 1976 Education Act would require

careful preparation. "It poses questions for ordinary schools in terms of organization, resources and curriculum and for teacher training"

(Newsletter, National Council for Special Education, June 1977, p. 6).

CHAPTER III

METHODOLOGY

Introduction

This study deals with the regular classroom teacher's perception of his or her competence in skills necessary for successful integration of mildly mentally handicapped students into the regular classroom.

This chapter is concerned with:

1. locale of the study and the population from which the sample was drawn,
2. salient features of the sample,
3. construction and nature of the instrument used to collect the data.
4. processes of data collection; and finally
5. treatment of the data to answer questions posed by the study.

Locale of the Study

The educational region of the study covered that portion of the Avalon peninsula that encompasses the towns of St. John's, The Goulds, Mount Pearl and New Town, Portugal Cove, St. Phillips, Pouch Cove and Bell Island. During the school year 1979-80 there were 621 teachers employed in the 30 schools under the jurisdiction of the Avalon Consolidated School Board (Annual Report, 1979).

Population of the Study

The population of the study consisted of all full-time teachers (exclusive of supervisory staff and specialist teachers) from a list supplied by the business administration office of the Avalon Consolidated School Board. Included in the sample were all male and female teachers, at all levels of experience and training, in schools operated under the board at primary, elementary, junior high and high school levels.

Table 1 shows the number of teachers in the population by type of teaching position.

The Sample

Thirty teachers were randomly selected (from a list provided by the Avalon Consolidated School Board administration office) from each of the primary, elementary, junior high and high school levels for a total of 120 teachers. Of these, 105 or approximately 88%, returned the questionnaire. From Table 3 it can be seen that approximately 10% of the teachers in the sample had less than 5 years' experience, and approximately 67% had over 10 years' experience.

TABLE 3

Teachers in the Sample by Years of Experience

Years of Experience	The Sample	
	Frequency	Percent
1 - 5	10	9.52
6 - 10	25	23.81
11 - 16	31	29.52
16+	39	37.15
Total	105	100.00

Approximately 17% of the sample had a Masters Degree or higher (see Table 4), while approximately 9% had no degree.

TABLE 1

Teachers in the Population by Type of Teaching Position

Type of Teaching Experience	Number of Teachers
Administrative Staff	117
Regular Teaching Staff	431
Special Education	44
Guidance & Counselling	14
Remedial Reading	15
Total	621

TABLE 2

Teachers in the Population by Teacher Qualifications

Teacher Qualifications	Number of Teachers
Grade VII Certificate	107
Grade VI Certificate	185
Grade V Certificate	174
Grade IV Certificate	97
Grade III Certificate	27
Grade II Certificate	21
Grade I Certificate	10
Total	621

The mean teaching grade was 5.2.

(Annual Report of the Avalon Consolidated School Board, 1979)

TABLE 4
Teachers in the Sample by Level of Professional Training

Level of Professional Training	The Sample	
	Frequency	Percent
Masters +	4	3.81
Masters	14	13.33
Bachelors	78	74.29
No Degree	9	8.57
Total	105	100.00

Level of professional training increased with grade level taught, as can be seen by the following table.

TABLE 5
Teachers by Professional Training and Grade Level Taught

Grade Level Taught	The Sample			
	Frequency	Percent With No Degree	Percent With Bachelors	Percent With Masters
Primary	26	26.92	69.23	3.85
Elementary	27	7.41	88.89	3.70
Junior High	24	0.00	83.33	16.67
High School	28	0.00	57.14	42.86

From Table 6, it can be seen that approximately 90% of the sample had no experience in teaching exceptional children.

TABLE 6

Teachers by Experience With Exceptional Children

Grade Level	The Sample		
	Frequency	Number With Experience	Percent With Experience
Primary	26	5	19.23
Elementary	27	1	3.85
Junior High	24	4	16.67
High School	28	0	0.00

TABLE 7

Type of Support Services Available

Type of support Services	The Sample	
	Frequency	Percent
Separate special education class	39	37.14
Resource room	12	11.43
Itinerent teacher	7	6.67
Special class & resource room	12	11.43
Special class & itinerent	3	2.86
Special class, resource & itinerent	5	4.76
Itinerent & resource room	2	1.90
No support services	25	23.81

It can be seen from Table 7 that 56% of the teachers in the sample were drawn from schools where separate special education classes were operating, either as the only administrative arrangement to provide

support services, or as one of several administrative arrangements.

From Table 8, it can be seen that approximately 21% of the sample had at least one course in special education while less than 6% had more than two courses in Special Education, and approximately 79% had no courses in Special Education.

TABLE 8

Number of Teachers by Courses in Special Education

Number of Courses	The Sample	
	Frequency	Percent
1	5	4.76
2	11	10.48
3	2	1.90
4	2	1.90
5	0	0.00
5+	2	1.90

Nature and Construction of the Instrument

The first step in developing the questionnaire for this study was to isolate competences which are needed in programming for mentally retarded children. Lists of compelling statements were gleaned from the literature of special education and from formal and informal discussion with regular educators.

Instruments which were useful in formulating items on the essential teacher competence for successful integration of mildly handicapped students are listed below.

Sources for Instrument

- Middleton, E.J.; Morsink, G. and Cohen, S. (1979) Program Graduate Perception of Potential Problem Areas.
- Haisley, F.B. and Gilberts, R.D. (1978) Individual Competencies Needed to Implement PL 94-142.
- Redden, M.R. An Investigation of Mainstreaming Competencies of Regular Elementary Teachers.
- Gear, G.H. and Gable, R.K. (1979) Educating Handicapped Children in the Regular Classroom: needs assessment in teacher preparation.
- Weisenstein, G.R. and Gall, M.D. (1978) Adapting Teacher Education to Include Mainstreaming: Dean's Grant project.
- From the CBC Clearing House on Teacher Education (1978) Responses to PL 94-142: Institutional Changes for Preservice Teacher Preparation.
- Carpenter, Robert L. And Robinson, Donald L. (1979) PL 94-142 Perceived Knowledge, Expectations and early implementation.
- Haisley, F.B. and Bilberts, R.D. (1978) Individual Competencies Need to Implement PL 94-142.

From these sources a list of competency statements emerged. An initial questionnaire was constructed to measure the self-perceived competencies of regular classroom teachers to teach mentally retarded children in the mainstream setting. One hundred and ten competency statements were assigned to one of ten categories, which completed the following declarative stem:

1. Assess Needs

Study the data presented on each mentally-handicapped student, perform further formal and informal testing and systematically observe the student in a variety of situations.

2. Set Goals

Set long and short term goals for each student and the class as a whole.

3. Coordinate Services

Coordinate the efforts of support personnel with regard to the special students in his or her class.

4. Integrate Learning Experiences

Integrate learning activities provided by school support staff (special education, etc.)

5. Provide a Supportive Classroom Climate

Provide a climate that facilitates adjustment to mainstreaming and builds a positive self-concept and acceptance by regular students.

6. Develop Programs

Develop a broad enough program to meet the diversity of educational needs through a wide variety of teaching activities.

7. Implement a Variety of Teaching Strategies

Develop and utilize a wide variety of teaching procedures and strategies to provide for individual differences in the ways children learn.

8. Evaluate Progress

Develop an ongoing system of evaluation that provides feedback for assessment and further planning.

9. Utilize Resources

Adapt and/or utilize available material resources to enrich classroom learning activities.

10. Have a Professional Knowledge of Mental Retardation

Have a good professional knowledge of the qualitatively-different characteristics of the mentally retarded learner.

Competency statements were reviewed by persons who have expertise in program planning for students with special needs. The researcher sorted the statements into 10 categories and colleagues were asked to judge how well each item represented the assigned area. Briefly, the instructions requested: (a) Rank order the competencies with respect

to the degree of relevance the competency has to the assigned category.

(b) Indicate redundancy and/or ambiguous statements within the category. Based on the judged relevance of the statements to the assigned category and having deleted redundant and rewritten ambiguous statements, a questionnaire of 75 items was retained.

The professional judgement of experts in the field of special education was sought to determine the importance to effective teaching of each of the competency statements within the designated category. Five judges (two directors of special education, one at the provincial and one at the school board level) and three teachers (one each in Guidance, Remedial Instruction, and Special Education class instruction) were asked to rank order competencies within each category from most to least important. Specifically, instructions were:

The purpose of the questionnaire is to obtain your professional judgement as to the importance of each competency statement in terms of effective teaching behaviour in a mainstream setting. Competency statements have been categorized under ten headings, described in detail on page 3. Within each category please rank order competencies according to importance for effective teaching - ranging from 1 (one) for most important, to least important.

A median ranking was obtained and items that showed most variability in the rating of the experts were rejected.

The competency statements were rank-ordered on the basis of consensus among the experts. The five competencies showing least variability in the opinion of the experts in each area were used to define the category. The resulting instrument was composed of 50 items, which clearly defined 10 categories. (See Appendix A.)

The final questionnaire consisted of those 50 items (5 from each category) presented in random order, on which teachers were asked to rate the extent to which they felt their present training had prepared them to perform each task, according to a Likert-type scale ranging from 5 (excellent) to 1 (very inadequate). Specifically, the directions were:

Contained in the questionnaire are competency statements gleaned from the literature of special education and from formal and informal discussion with regular and special educators.

The purpose of this questionnaire is to ask you to rate the extent to which your present training prepared you to perform each task, according to a Likert-Scale ranging from 5 (excellent) to 1 (very inadequate).

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate
1 Very Inadequate

Reliability

In this study, reliability was determined by the measure of two applications on the same test, on a representative sample of teachers (i.e. those completing the final questionnaire). Twelve items selected randomly from the final questionnaire were distributed to the 30 teachers from the original sample, two weeks after the initial questionnaire was collected. Nineteen teachers returned the questionnaire. The rho rank correlation between the test, retest scores was .89.

Validity

Three interrelated types of validity are usually considered in the process of validation: content, construct and criterion-related validity. Only rarely is just one of them important, and it is the intended use of the test that determines the kind of evidence that is required. (Kerlinger, 1973)

Content Validity. The definition of what is to be measured was accomplished by (a) defining a universe of skills and (b) selecting a representative sample of items to represent these skills. The extent to which the test matches the universe can seldom be expressed in precise quantitative terms. In order to ensure that the content of the items sample the class of situations about which conclusions are to be drawn, experts were asked to judge the appropriateness of the type of items included and the completeness of the items samples.

Construct validity. According to Cromback (1949), construct validity is set apart by its preoccupation with the theory behind the test rather than its successful prediction. Competencies for mainstreaming were determined on the basis of the theory that in order for the regular classroom teacher to successfully integrate a given child, either (a) needs must be compatible or (b) individualization of instruction, personalized programmes and materials, support personnel and knowledge of the characteristics of mental retardation and the qualitatively different ways a mentally retarded child learns are essential for successful instructional experiences to be provided.

Criterion related validity. Given a choice between self-report and behavioural measure of the same phenomenon, researchers will chose the

behavioural measure (Howard, Schmeck and Bray 1979), and when using self-report, most often the validity of a self-report measure is determined by utilizing a behavioural measure as a criterion. However, in many areas of research, behavioural measures are unavailable or difficult to obtain. What criterion can be used, for instance, to validate a measure of teacher effectiveness? It is even more difficult to obtain a criterion measure of teacher self-report of perceived competence.

When self-report instruments are used, the research subjects themselves serve as raters. In using self-report instruments, the researcher assumes that the individuals rating themselves have an internalized standard for judging the level of function with regard to the particular domain (Brokenshire, 1979).

When we attempt to measure attitudes or self-concept, we require an instrument that is insensitive to tendencies to report socially desirable answers (Gordon, 1966; cited in Brokenshire). However, in this study, no attempt is made to differentiate between those who answer in a socially acceptable way and those who do not. Brokenshire (1979) says "any technique for assessing self-concept must be based on the expectation that the subject will answer truthfully," particularly so because lie scales themselves are often invalid. This questionnaire was designed to elicit the teacher's perception of himself as competent or incompetent, without threat from supervisory personnel, and in the context of appropriateness of his or her training, need for in-service and/or support services, i.e. what I presume to be non-threatening conditions.

Collection of the Data

The main purpose of the study was to determine what factors were associated with the regular classroom teachers' perception of self-efficacy as it relates to professional preparation in competencies needed for successful integration of mildly handicapped children, as defined by the instrument. A nine-page questionnaire, cover letter and face information were devised, which asked regular classroom teachers to rate, on a scale of 5 to 1 (excellent to very inadequate), the extent to which their professional training prepared them for 50 selected competencies (five in each of 10 categories), presented in random order.

To adequately analyze the effect of the variable grade level taught, a sample of 120 teachers - 30 in each of the four grade levels: primary, elementary, junior high, and high school - was needed.

During a one-week period, the questionnaire was administered to 120 teachers. No attrition occurred. The sample therefore could be perceived as representing teachers in urban Newfoundland.

It was decided to use a questionnaire rather than a personal interview as a survey instrument (a) because of the greater allotment of time necessary for the interview, both from the standpoint of the researcher and the teacher, and (b) the nature of the desired response (re: self-perceived competence) suggested that the tendency to give socially acceptable answers would be reduced if a written questionnaire were used.

Except in the case of schools in three outlying areas (when a total of 16 questionnaires were mailed, to be returned by mail), the

questionnaire was delivered by hand to the teachers, through the courtesy of the school business offices, on May 1, 1980. Completed questionnaires were returned (in a sealed envelope) to the school offices for pick-up on May 5 or 6. Where necessary, a return visit was made on May 8, at which time a stamped self-addressed envelope was left for each teacher who had not returned the questionnaire. No follow-up was made on the 16 questionnaires that were mailed out. It was assumed that teachers as professionals could make their decisions as to participation in the study, under what was presumed to be non-threatening conditions. Of the 16 questionnaires mailed out, 10 (62.5%) were returned. Of the entire sample, 88% returned the questionnaire (87% Primary, 90% Elementary, 80% Junior High, and 93% High School).

Treatment of the Data

All of the 50 items in the ten categories were randomly assigned to form the essential competencies questionnaire. Rating himself on a scale of 5 to 1 (ranging from excellent to very inadequate), the highest possible score a respondent could obtain was 250. Such a score could be interpreted to mean that the teacher perceived himself as excellent in all of the described behaviours. The lowest possible score of 50 could be interpreted to mean that the teacher was unable to perform any of the selected skills. On each of the 10 sub-tests that defined a category, the highest possible score was 25, and lowest possible was 5.

A total score and ten category means were computed for each teacher. Comparisons were made between groups of teachers with

various levels of teaching experience, levels and type of professional training, grade level taught and support services available.

Item scores were computed by totalling and averaging responses across teachers, to examine the relationship between each of the selected variables and perceived competence in educating mildly mentally retarded children by means of cross-tabulation and chi squared tests for significance of differences.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

On the assumption that in order for the mentally handicapped child to benefit from instruction that is offered in the regular class, at least three conditions must be met: (a) needs must be compatible, (b) teachers must be willing and able to modify instructional practices to accommodate discrepant learning styles and abilities, and (c) there must be a co-ordinated effort between teacher and support personnel. This study attempted to determine the self-perceived ability of the regular teacher to provide appropriate instruction for the mildly mentally retarded learner. Teachers participating in the study were asked to examine 50 competences (five in each of ten categories), and to rate their ability to perform the task on a Likert-type scale - ranging from 5 (excellent) to 1 (very inadequate).

The purpose of this investigation was to determine if relationships exist between personal and situational variables and teachers' perception of self-efficacy when teaching mildly retarded children. The results of the study are presented and discussed in this chapter.

This chapter deals with the number and percentage of teachers rating themselves as prepared or unprepared to perform 50 specific tasks; and the relationships of grade level taught, experience and professional preparation of teachers and type of support services available, to the teachers' perception of competence.

The results of the teacher questionnaire are presented, and the

meaning of these results discussed.

Teacher competence was determined in two ways: (a) by the number of teachers rating themselves as adequately prepared (a score of 3 or higher) to perform a task, and (b) by the ranking of competencies according to the mean rating for each category.

The first method presents a general picture of the perceived competence among classes of teachers, while the second highlights areas of competence and perceived needs.

Results

Perceived competence. Tables 9, 10, 11 and 12 show the frequency of respondents who selected each option on the rating scale in each of the grade levels: Primary, Elementary, Junior High, and High School grades.

Item Analysis

A mean for each item and a composite score for each category was computed by hand with the use of a Novus calculator. A mean of three or above three was used to suggest perceived adequacy and a mean of below three to suggest perceived inadequacy. (See Table 13).

TABLE 9

Primary Teachers' Perceived Competence

Respondent	FREQUENCY				
	Very Inadequate	Inadequate	Adequate	Good	Excellent
1	2	25	11	10	2
2	1	13	36	0	0
3	4	27	18	1	0
4	0	4	17	23	6
5	4	7	22	16	1
6	19	10	7	11	2
7	0	1	11	23	15
8	6	5	19	17	3
9	1	20	23	6	0
10	0	0	2	16	32
11	0	0	8	15	27
12	9	13	28	0	0
13	7	43	0	0	0
14	2	8	22	8	10
15	3	5	11	20	11
16	12	28	10	0	16
17	0	0	7	43	0
18	1	12	28	9	0
19	0	3	35	12	0
20	36	12	2	0	0
21	39	10	0	0	1
22	1	13	13	19	4
23	8	3	15	9	15
24	1	9	38	2	0
25	19	13	9	7	2
26	0	4	12	34	0

TABLE 10

Elementary Teachers' Perceived Competence

Respondent	F R E Q U E N C Y				
	Very Inadequate	Inadequate	Adequate	Good	Excellent
1	12	15	17	6	0
2	30	17	3	0	0
3	12	27	10	1	0
4	0	0	30	19	1
5	0	2	23	23	2
6	0	24	24	2	0
7	2	20	28	0	0
8	21	5	13	6	5
9	0	0	23	25	2
10	1	21	26	1	1
11	6	15	26	3	0
12	2	3	31	14	0
13	45	3	2	0	0
14	0	1	49	0	0
15	8	15	17	10	0
16	1	17	23	8	1
17	0	1	43	6	0
18	8	31	11	0	0
19	10	9	27	4	0
20	0	24	17	9	0
21	0	22	19	9	0
22	1	18	29	2	0
23	12	22	12	4	0
24	2	15	22	11	0
25	1	10	25	11	3
26	0	5	31	14	0
27	15	15	15	5	0

TABLE 11
Junior High Teachers' Perceived Competence

Respondent	F R E Q U E N C Y				
	Very Inadequate	Inadequate	Adequate	Good	Excellent
1	0	9	14	22	5
2	16	17	17	0	0
3	15	17	8	9	1
4	7	27	14	2	0
5	9	19	19	2	1
6	1	25	17	7	0
7	0	15	30	5	0
8	0	28	22	0	0
9	7	23	18	2	0
10	0	0	16	31	3
11	11	31	8	0	0
12	49	0	2	1	0
13	10	9	18	10	3
14	5	17	27	1	0
15	0	16	27	7	0
16	0	12	21	16	1
17	12	13	15	5	5
18	8	3	8	12	19
19	11	32	7	0	0
20	11	15	20	4	0
21	2	6	25	16	0
22	0	8	15	18	9
23	0	4	25	19	2
24	14	10	19	7	0

TABLE 12
High School Teachers' Perceived Competence

Respondent	F R E Q U E N C Y				
	Very Inadequate	Inadequate	Adequate	Good	Excellent
1	1	16	17	16	0
2	1	3	10	6	30
3	7	29	12	0	2
4	0	2	13	4	31
5	24	19	7	0	0
6	0	29	21	0	0
7	10	29	11	0	0
8	18	3	9	4	16
9	0	2	29	19	0
10	9	25	9	1	6
11	10	16	14	8	2
12	1	16	27	6	0
13	0	27	23	0	0
14	2	8	11	28	1
15	7	18	22	3	0
16	2	6	16	18	8
17	0	7	6	16	21
18	7	17	12	14	0
19	0	31	15	4	0
20	0	2	28	20	0
21	1	35	14	0	0
22	0	0	50	0	0
23	0	2	25	20	3
24	8	10	32	0	0
25	0	11	13	25	1
26	2	22	17	9	0
27	3	17	21	5	4
28	1	45	4	0	0

TABLE 13
 Category Mean Ratings and Standard Deviations

Category	Primary		Elementary		Junior High		High School	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1. Needs Assessment	2.98	-.01	2.82	.20	2.73	.09	2.88	.02
2. Set Goals	3.08	.09	2.73	.11	2.85	.21	2.87	.01
3. Coordinate Services	2.84	-.15	2.37	-.25	2.41	-.23	2.75	-.11
4. Integrate Learning Experience	3.08	.09	2.72	.10	2.61	-.03	2.83	-.03
5. Supportive Climate	3.32	.33	2.88	.26	2.88	.24	3.21	.35
6. Develop Programs	2.82	-.17	2.45	-.17	2.52	-.12	2.69	-.17
7. Provide Variety of Experience	3.12	.13	2.76	.14	2.82	.18	3.05	.19
8. Evaluate Progress	2.82	-.17	2.54	-.08	2.64	.00	2.94	.08
9. Utilize Resources	3.04	.05	2.62	.00	2.52	-.12	2.84	-.02
10. Professional Knowledge	2.81	-.18	2.29	-.33	2.39	-.25	2.53	-.33
	$\bar{X} = 2.99$		$\bar{X} = 2.62$		$\bar{X} = 2.64$		$\bar{X} = 2.86$	
	$S^2 = .03$		$S^2 = .04$		$S^2 = .03$		$S^2 = .04$	
	Mdn = 3.01		Mdn = 2.58		Mdn = 2.53		Mdn = 2.86	

Table 13 shows the mean rating for each category by Grade Level taught and the group as a whole. The mean rating by Primary teachers in five of the 10 categories was above three, indicating perceived competence— (2) Set Goals, (4) Integrate Learning Experiences, (5) Provide a Supportive Climate, (7) Provision of a Variety of Learning Experiences, and (9) Utilization of Resources—while none of the category means were rated three or above by either Elementary or Junior High School teachers and only two categories were rated above three by High School teachers—(5) Provide a Supportive Climate and (7) Provide a variety of Experiences.

The analysis of the category means of all the teachers in the sample reveals that in no category was the mean rating three or above, suggesting perceived inadequacy in all areas.

The median score for Primary teachers was 3.01 as compared to 2.86 for High School teachers, 2.63 for Junior High School teachers and 2.58 for Elementary School teachers.

Of the entire group of teachers surveyed only six indicated that they perceived themselves as adequately or better prepared in all 50 items presented in the questionnaire (three teachers in the Primary grades, two in Elementary grades and one in High School).

Table 14 shows the frequency, per cent and rank order of responses to items within each category with respect to perceived adequacy or inadequacy.

TABLE 14

Frequency, Per Cent and Rank Order of Responses by Category

Item No.	Competency	Rank	Teachers' Adequacy		Teachers' Inadequacy	
			freq.	%	freq.	%
1. Assess Needs						
27		11	73	69.5	32	30.5
35		1	94	89.5	11	10.5
49		41	50	47.6	55	52.4
47		35	59	56.2	46	43.8
44		18	70	66.7	35	33.3
2. Set Goals						
22		13	72	68.6	33	31.4
3		16	70	66.7	35	33.3
20		15	70	66.7	35	33.3
25		10	75	71.4	30	18.6
46		12	73	69.5	32	30.5
3. Coordinate Services						
19		50	24	22.9	81	77.1
31		17	70	66.7	35	33.3
26		21	68	64.8	37	35.2
24		29	64	61.0	41	39.0
30		45	44	41.9	61	58.1
4. Integrate Learning Experience						
23		4	81	77.1	24	22.9
29		27	66	62.9	39	37.1
18		23	67	68.8	38	36.2
7		37	52	49.5	53	50.5
13		31	63	60.0	42	40.0
5. Provide a Supportive Climate						
33		5	80	76.2	25	23.8
34		7	77	73.3	28	26.7
36		28	65	61.9	40	38.1
32		3	82	78.1	23	21.9
41		33	60	57.1	45	42.9

TABLE 14 (Continued)

Item No.	Competency	Rank	Teachers' Adequacy		Teachers' Inadequacy	
			freq.	%	freq.	%
6. Develop Programme						
48		46	41	39.0	64	61.0
6		19	70	66.7	35	33.3
42		43	45	42.9	60	57.1
12		14	71	67.6	34	32.4
9		36	57	54.3	48	45.7
7. Provide a Variety of Experiences						
14		9	75	71.4	30	28.6
11		26	66	62.9	39	37.1
4		38	51	48.6	54	51.4
1		6	77	73.3	28	26.7
2		22	68	64.8	37	35.2
8. Evaluate Progress						
43		32	61	58.1	44	41.9
45		30	63	60.0	42	40.0
10		44	44	41.9	61	58.1
50		8	75	71.4	30	28.6
28		20	68	64.8	37	35.2
9. Utilize Resources						
8		42	48	45.7	57	54.3
37		39	50	47.6	55	52.4
15		25	66	62.9	39	37.1
17		24	66	62.9	39	37.1
16		34	59	56.2	46	43.8
10. Have Professional Knowledge of Mental Retardation						
38		2	89	84.7	14	15.3
21		49	33	31.4	72	68.6
39		40	50	47.6	55	52.4
5		48	38	36.2	67	63.8
40		47	39	37.1	66	62.9

In only two categories — (2) Set Goals and (5) Provide a Supportive Climate — did more than 50 per cent of all teachers in the sample perceive themselves to be competent in all of the competencies within the category.

In five categories — (1) Assessment of Needs, (2) Set Goals, (4) Integrate Learning Experiences, (5) Provide a Supportive Climate, and (7) Provide a Variety of Learning Experiences — over 47 per cent of the teachers surveyed perceived themselves as prepared in all competencies that comprised the category.

Table 15 shows the Teacher Competencies rank-ordered with respect to frequency and per cent of teachers who perceived themselves to be competent in each task.

TABLE 15

Teacher Competencies Rank-ordered With Respect to Frequency and Per Cent of Teachers Who Perceive Themselves to be Competent in Each Task

Item	Adequate	Per Cent	Item	Adequate	Per Cent
* 35	94	89.5	* 11	66	62.9
* 38	89	84.7	* 29	66	62.9
32	82	78.0	36	65	61.9
* 23	81	77.0	24	64	61.0
* 33	80	76.2	* 45	63	60
1	77	73.3	13	63	60
* 34	77	73.3	* 43	61	58.1
50	75	71.4	41	65	57.1
* 14	75	71.4	16	59	56.2
25	75	71.4	47	59	56.2
* 27	73	69.5	9	57	54.3
46	73	69.5	7	52	49.5
* 22	72	68.6	4	51	48.6
12	71	67.6	* 37	50	47.6
20	70	66.7	39	50	47.6
* 3	70	66.7	49	50	47.6
* 31	70	66.7	* 8	48	45.7
44	70	66.7	42	45	42.9
* 6	70	66.7	10	44	41.9
28	68	64.8	38	44	41.9
26	68	64.8	* 48	41	39.1
2	68	64.8	40	39	37.1
18	67	63.8	5	38	36.2
17	66	62.9	* 21	33	31.4
15	66	62.9	* 19	24	22.9

* Items ranked most important in each category by experts

Table 15 Interpretation

Of the 50 items presented, only 10 elicited a response of at least adequate or better preparation (3, 4 or 5) from 70% or more of the total number of teachers in the sample. While 14 items elicited a response of inadequate preparation (1, 2) by over 50% of all teachers surveyed.

Of the 20 items in the questionnaire ranked as most important by experts in the field of special education, 6 of the 20 items elicited a response indicating adequate or better preparation by 70% or more of the teachers in the sample, while 5 items elicited a response indicating inadequate preparation by more than 50% of the sample.

In seeking an explanation for perceived inadequacy in these areas, an item by item analysis elicited the information that items rated consistently low by all teachers were related to individualization of instruction or specific knowledge of mental retardation. Over and above any relationship to level of perceived competence and the teacher variables examined in this study, the teacher's self-perceived ability to teach a mentally retarded child is probably coloured by such considerations as class size, inaccessibility of materials, time and administrative restraints and the quantity and quality of immediate and long term support available to the teacher. Unsolicited comments by teachers attest to this statement. (See Appendix C)

Significant Relationships Between Perceived Competence and Teacher and Situational Variables

A median for the entire group was computed by the use of a Novus calculator and the number of persons above and below the median according to grade level taught was determined. By means of a sign test, data were analyzed to determine if the groups were essentially a part of the same population. (See Table 16)

TABLE 16

Contingency Table Showing the Relationship Between Grade Level Taught and Number of Items Which Exceed the Group Median

	Primary	Elementary	Junior High	High School	All Levels
Exceed	34	19	12	21	86
Did not exceed	16	31	38	29	114
Total Number of Items	50	50	50	50	200

$\chi^2 = 18.00$

Critical $\chi^2 = 5.99; df = 3; \alpha = .05$

There is no significant relationship between perceived competence and grade level taught as measured by the instrument employed in this study.

Although teachers in the primary grades rated themselves higher than the median score of the entire group of teachers surveyed on a significant number of items, the number of teachers in the primary grades who perceived themselves to be adequately or better than adequately prepared was not significantly different from the group as a whole.

The groups of teachers expressing most confidence in their ability ranked according to median scores were: Primary, High School, Junior High School and Elementary School teachers.

With the use of a computer data were analyzed by means of cross tabulation and chi square tests, to discover relationships between the perceived competence and grade level taught, experience, professional training and type of support services. Fisher's Exact Test was applied where cell frequencies were small.

Tables 18-22 show the relationship between perceived competence and teacher variables.

There is a significant relationship between the median rating of the group and the grade level taught. Primary teachers rated themselves significantly higher than the median for the group while elementary, junior high and high school teachers rated themselves significantly lower than the group median.

Table 17 shows the relationship between grade level taught and perceived competence.

TABLE 17
Contingency Table Showing the Relationship Between
Grade Level Taught and Perceived Competence

Perceived Competency	Grade Level Taught				
	Primary	Elementary	Junior High	High School	All Levels
Yes (Average rating 3 or above)	12	7	7	10	36
No (Average rating below 3)	14	20	17	18	69
Total	26	27	24	28	105

$$\chi^2 = 2.1$$

$$\text{Critical } \chi^2 = 5.9991; \text{ df} = 3; \alpha = .05$$

TABLE 18 (Continued)

Category 2. <u>Set Goals</u>	VARIABLES				
Set long and short term goals for each student and the class as a whole.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs. More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience
1. Plan with special education teachers to determine common goals for the student.					
2. Set goals to pace each student's growth according to his needs and abilities.					
3. Specify goals and objects in clear terms.	.0080				
4. Involve parents in planning and setting goals for students.		.0008			
5. Reassess goals and make changes in programs on the basis of education outcomes.					

TABLE 18

Level of Significant* Relationships Between Perceived Competence and Teacher Variables
in the Primary Grades

Category 1. Assess Needs	VARIABLES				
Study the data presented on each mentally-handicapped student, perform further formal and informal testing and systematically observe the student in a variety of situations.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Be skilled in interviewing parents and professionals working with the child to gather information concerning his needs and abilities.					
2. Interpret background information from permanent records to determine a student's needs and abilities.	.0078	.0297			
3. Conduct task analysis to identify basic skills necessary to achieve specific curriculum objectives.					
4. Administer and interpret formal diagnostic tests to determine areas of deficiency.		.0008			
5. Use criterion-referenced tests to evaluate student's present level of academic functioning.					

* $\alpha \leq .05$

TABLE 18 (Continued)

Category 3. <u>Coordinate Services</u>	VARIABLES				
Coordinate the efforts of support personnel with regard to the special students in his or her class.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Conduct inservice training for school personnel in competencies essential for mainstreaming.					
2. Have preparation in the proper and efficient use of consultants.					
3. Involve parents in implementing the program planned and remedial education necessary for their child.			.0008		
4. Instruct parents in educational techniques which reinforce work done at school.					
5. Be knowledgeable about procedures used in a case conference.	.0526		.0008		

TABLE 18 (Continued)

Category 4: <u>Integrate Learning Experience</u>	VARIABLES				
Integrate learning activities provided by school support staff (Special education, etc.)	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience

1. Co-ordinate the work the student does in the classroom with that done with the special education teacher.
2. Schedule planning time to accommodate the needs of both regular and special students.
3. Organize the classroom so that the teacher is free to avail himself of the help of a variety of specialists.
4. Determine the amount of time the student needs to spend outside the classroom availing of support services.
5. Integrate resource room (remedial) assignment into work in regular class.

TABLE 18 (Continued)

Category 5. <u>Provide a Supportive Classroom Climate</u>	VARIABLES				
Provide a climate that facilitates adjustment to mainstreaming and builds a positive self-concept and acceptance by regular students.	Less than 5 years experience	Vs. Bachelors degree	Courses in Spec. Education	Vs. Separate Spec. Ed. class	Experience with Except. children
	Vs. More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience
1. Prepare members of the class for the entry of special students to the class.					
2. Build a positive self-concept in special students.					
3. Assist in developing programs to help special children gain acceptance in the classroom.					
4. Arrange situations to allow each student to gain positive recognition before the class.	.0492				
5. Assign responsibility to the handicapped child.					

TABLE 18, (Continued)

Category 6. <u>Develop Programs</u>	VARIABLES				
Develop a broad enough program to meet the diversity of educational needs through a wide variety of teaching activities.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arr- angements	Experience with Except. children Vs. No such experience
1. Formulate educational implications from medical, psychological and diagnostic reports into an educational program.					
2. Utilize individual programs to allow students to work at an appropriate level and speed.					
3. Develop a program that is both challenging for regular students and providing optimal experiences for mentally handicapped students.				.0165	
4. Provide a wide variety of learning activities which accomplish similar goals yet allow for individual differences in learning style.		.0425			
5. Develop his/her own curriculum based on the needs and abilities of the children.					

TABLE 18 (Continued)

Category 8. Evaluate Progress

VARIABLES

Develop an ongoing system of evaluation that provides feedback for assessment and further planning.

Less than
5 years
experience

Vs.

More than
5 years

Bachelors
degree

Vs.

Masters.
degree

Courses
in Spec.
Education

Vs.

No courses
in Sp. Ed.

Separate
Spec. Ed.
class

Vs.

Other Arr-
angements

Experience
with Except
children

Vs.

No such
experience

1. Organize a system to collect and record data from which to evaluate student progress toward goal attainment.
2. Develop alternative methods of evaluation to deal with individual differences.
3. Choose the most appropriate tests for evaluative purposes, based on a knowledge of available tests and the inferences which can be made from the results.
4. Have a working knowledge of test and measurement techniques.
5. Prepare reports on the special child for case conferences.

.0276

TABLE 18 (Continued)

Category 7. Implement a Variety of Teaching Strategies

V A R I A B L E S

Develop and utilize a wide variety of teaching procedures and strategies to provide for individual differences in the ways children learn.	Less than 5 ydars experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Develop strategies which allow students to work on the same task but on a different level of ability.					
2. Organize group activities and assignments that allow students to work on several levels of difficulty, with each student working at optimal level.	.0377			.0276	
3. Develop techniques for individual remedial instruction to meet the specific learning of each student.					
4. Structure learning activities to accommodate students with different learning styles.		.0008			
5. Maintain flexible scheduling which allows for periods of extended practice.	.0172				

TABLE 18 (Continued)

Category 9. Utilize Resources	VARIABLES				
Adapt and/or utilize available material resources to enrich classroom learning activities.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience

1. Have a knowledge of available materials and programs for specific skill development.
2. Determine the personnel, material, and equipment requirement for successful instruction.
3. Adapt teaching materials that are appropriate for regular students to the need of special students.
4. Develop materials on the achievement level of the student and in his/her interest range.
5. Develop new materials when available materials are not appropriate to meet goals.

TABLE 18 (Continued)

Category 10. Have a Professional Knowledge of Mental Retardation.

VARIABLES

Have a good professional knowledge of the qualitatively-different characteristics of the mentally retarded learner.

Less than 5 years experience
Vs.
More than 5 years

Bachelors degree
Vs.
Masters degree

Courses in Spec. Education
Vs.
No courses in Sp. Ed.

Separate Spec. Ed. class
Vs.
Other Arrangements

Experience with Except. children
Vs.
No such experience

1. Have a good knowledge of child development.
2. Have a knowledge of the qualitatively different ways in which a mentally retarded child learns.
3. Be knowledgeable about the characteristics of a mentally retarded child.
4. Explain the rationale for integrating mentally retarded children.
5. Have knowledge of the non-intellective factors as determinants of the level at which the retarded function.

TABLE 19

Level of Significant* Relationships Between Perceived Competence and Teacher Variables in the Elementary Grades

Category 1. <u>Assess Needs</u>	VARIABLES				
Study the data presented on each mentally-handicapped student, perform further formal and informal testing and systematically observe the student in a variety of situations.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Be skilled in interviewing parents and professionals working with the child to gather information concerning his needs and abilities.	.0552	.0541		.0552	
2. Interpret background information from permanent records to determine a student's needs and abilities.		.0001			
3. Conduct task analysis to identify basic skills necessary to achieve specific curriculum objectives.					
4. Administer and interpret formal diagnostic tests to determine areas of deficiency.	.0595				
5. Use criterion - referenced tests to evaluate student's present level of academic functioning.		.0541			

* α .05

TABLE 19 (Continued)

Category 4. <u>Integrate Learning Experience</u>	VARIABLES				
Integrate learning activities provided by school support staff (Special education, etc.)	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Co-ordinate the work the student does in the classroom with that done with the special education teacher.					.0075
2. Schedule planning time to accommodate the needs of both regular and special students.					.0054
3. Organize the classroom so that the teacher is free to avail himself of the help of a variety of specialists.					.0051
4. Determine the amount of time the student needs to spend outside the classroom availing of support services.					
5. Integrate resource room (remedial) assignment into work in regular class.					.0054

TABLE 19 (Continued)

Category 3. <u>Coordinate Services</u>	VARIABLES				
	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arr- angements	Experience with Except. children Vs. No such experience
1. Conduct inservice training for school personnel in competencies essential for mainstreaming.					.0401
2. Have preparation in the proper and efficient use of consultants.		.0075			
3. Involve parents in implementing the program planned and remedial education necessary for their child.		.0075			
4. Instruct parents in educational techniques which reinforce work done at school.		.0075			
5. Be knowledgeable about procedures used in a case conference.	.0334				

TABLE 19- (Continued)

Category 2. <u>Set Goals</u>	VARIABLES				
Set long and short term goals for each student and the class as a whole.	Less than 5 years experience	Bachelors degree	courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs. More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience
1. Plan with special education teachers to determine common goals for the student.					
2. Set goals to pace each student's growth according to his needs and abilities.			.0000		
3. Specify goals and objects in clear terms.			.0075		
4. Involve parents in planning and setting goals for students.			.0000		
5. Reassess goals and make changes in programs on the basis of education outcomes.			.0001		

TABLE 19 (Continued)

Category 5. <u>Provide a Supportive Classroom Climate</u>	VARIABLES				
Provide a climate that facilitates adjustment to mainstreaming and builds a positive self-concept and acceptance by regular students.	Less than 5 years experience Vs.	Bachelors degree Vs.	Courses in Spec. Education Vs.	Separate Spec. Ed. class Vs.	Experience with Except. children Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience
1. Prepare members of the class for the entry of special students to the class.					.0175
2. Build a positive self-concept in special students.					.0175
3. Assist in developing programs to help special children gain acceptance in the classroom.					.0075
4. Arrange situations to allow each student to gain positive recognition before the class.					.0001
5. Assign responsibility to the handicapped child.					

TABLE 19 (Continued)

Category 6. Develop Programs	VARIABLES				
Develop a broad enough program to meet the diversity of educational needs through a wide variety of teaching activities.	Less than 5 years experience	Vs. Bachelors degree	Vs. Courses in Spec. Education	Vs. Separate Spec. Ed. class	Vs. Experience with Except. children
	More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arr- angements	Vs. No such experience

1. Formulate educational implications from medical, psychological and diagnostic reports into an educational program.
2. Utilize individual programs to allow students to work at an appropriate level and speed.
3. Develop a program that is both challenging for regular students and providing optimal experiences for mentally handicapped students.
4. Provide a wide variety of learning activities which accomplish similar goals yet allow for individual differences in learning style.
5. Develop his/her own curriculum based on the needs and abilities of the children.

.0390

.0499

TAB LE 19 (Continued)

Category 7. <u>Implement a Variety of Teaching Strategies</u>	V A R I A B L E S					
	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience	
Develop and utilize a wide variety of teaching procedures and strategies to provide for individual differences in the ways children learn.						
1. Develop strategies which allow students to work on the same task but on a different level of ability.						.0001
2. Organize group activities and assignments that allow students to work on several levels of difficulty, with each student working at optimal level.						.0541
3. Develop techniques for individual remedial instruction to meet the specific learning of each student.						.0541
4. Structure learning activities to accommodate students with different learning styles.						.0000
5. Maintain flexible scheduling which allows for periods of extended practice.						

TABLE 19 (Continued)

Category 8. Evaluate Progress	VARIABLES				
Develop an ongoing system of evaluation that provides feedback for assessment and further planning.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs. More than 5 years	Vs. Masters degree	Vs. No. courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience
1. Organize a system to collect and record data from which to evaluate student progress toward goal attainment.					.0541
2. Develop alternative methods of evaluation to deal with individual differences.					.0541
3. Choose the most appropriate tests for evaluative purposes, based on a knowledge of available tests and the inferences which can be made from the results.					
4. Have a working knowledge of test and measurement techniques.					.0541
5. Prepare reports on the special child for case conferences.					.0541

TABLE 19 (Continued)

Category 9. Utilize Resources	V A R I A B L E S				
Adapt and/or utilize available material resources to enrich classroom learning activities.	Less than 5 years experience Vs.	Bachelors degree Vs.	Courses in Spec. Education Vs.	Separate Spec. Ed. class Vs.	Experience with Except. children Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience
1. Have a knowledge of available materials and programs for specific skill development.					
2. Determine the personnel, material, and equipment requirement for successful instruction.					
3. Adapt teaching materials that are appropriate for regular students to the need of special students.			.0075		
4. Develop materials on the achievement level of the student and in his/her interest range.			.0075		
5. Develop new materials when available materials are not appropriate to meet goals.			.0075		

TABLE 19 (Continued)

Category 10. <u>Have a Professional Knowledge of Mental Retardation.</u>	V A R I A B L E S					
Have a good professional knowledge of the qualitatively-different characteristics of the mentally retarded learner.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children	
	Vs.	Vs.	Vs.	Vs.	Vs.	
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience	
1. Have a good knowledge of child development.						.0075
2. Have a knowledge of the qualitatively different ways in which a mentally retarded child learns.						
3. Be knowledgeable about the characteristics of a mentally retarded child.						
4. Explain the rationale for integrating mentally retarded children.						
5. Have knowledge of the non-intellective factors as determinants of the level at which the retarded function.						.0249

TABLE 20 (Continued)

Category 2. <u>Set Goals</u>	VARIABLES				
Set long and short term goals for each student and the class as a whole.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience
1. Plan with special education teachers to determine common goals for the student.				.0179	
2. Set goals to pace each student's growth according to his needs and abilities.					
3. Specify goals and objects in clear terms.					.0137
4. Involve parents in planning and setting goals for students.					
5. Reassess goals and make changes in programs on the basis of education outcomes.				.0121	

TABLE 20

Level of Significant* Relationships Between Perceived Competence and Teacher Variables
in the Junior High School Grades

Category 1. Assess Needs	VARIABLES				
Study the data presented on each mentally-handicapped student, perform further formal and informal testing and systematically observe the student in a variety of situations.	Less than 5 years experience	Bachelors degree Vs.	Courses in Spec. Education Vs.	Separate Spec. Ed. class Vs.	Experience with Except. children Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arr- angements	No such experience
1. Be skilled in interviewing parents and professionals working with the child to gather information concerning his needs and abilities.					
2. Interpret background information from permanent records to determine a student's needs and abilities.					
3. Conduct task analysis to identify basic skills necessary to achieve specific curriculum objectives.					
4. Administer and interpret formal diagnostic tests to determine areas of deficiency.				.0090	
5. Use criterion - referenced tests to evaluate student's present level of academic functioning.				.0018	

* $\alpha = .05$

TABLE 20 (Continued)

Category 3. <u>Coordinate Services</u>	VARIABLES				
Coordinate the efforts of support personnel with regard to the special students in his or her class.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Conduct inservice training for school personnel in competencies essential for mainstreaming.				.0585	
2. Have preparation in the proper and efficient use of consultants.					.0470
3. Involve parents in implementing the program planned and remedial education necessary for their child.					
4. Instruct parents in educational techniques which reinforce work done at school.					
5. Be knowledgeable about procedures used in a case conference.				.0390	

TABLE 20 (Continued)

Category 4. <u>Integrate Learning Experience</u>	VARIABLES				
Integrate learning activities provided by school support staff (Special education, etc.)	Less than 5 years experience	Vs. Bachelors degree	Courses in Spec. Education	Vs. Separate Spec. Ed. class	Experience with Except. children
	Vs. More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience
1. Co-ordinate the work the student does in the classroom with that done with the special education teacher.			.0261		
2. Schedule planning time to accommodate the needs of both regular and special students.				.0033	
3. Organize the classroom so that the teacher is free to avail himself of the help of a variety of specialists.			.0217		
4. Determine the amount of time the student needs to spend outside the classroom availing of support services.				.0263	
5. Integrate resource room (remedial) assignment into work in regular class:					

TABLE 20 (Continued)

Category 5. <u>Provide a Supportive Classroom Climate</u>	VARIABLES				
Provide a climate that facilitated adjustment to mainstreaming and builds a positive self-concept and acceptance by regular students.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arr- angements	No such experience
1. Prepare members of the class for the entry of special students to the class.					.0103
2. Build a positive self-concept in special students.					
3. Assist in developing programs to help special children gain acceptance in the classroom.				.0359	
4. Arrange situations to allow each student to gain positive recognition before the class.					
5. Assign responsibility to the handicapped child.					

TABLE 20 (Continued)

Category 6. <u>Develop Programs</u>	VARIABLES				
Develop a broad enough program to meet the diversity of educational needs through a wide variety of teaching activities.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arr- angements	Experience with Except. children Vs. No such experience
1. Formulate educational implications from medical, psychological and diagnostic reports into an educational program.			.0566		
2. Utilize individual programs to allow students to work at an appropriate level and speed.				.0260	
3. Develop a program that is both challenging for regular students and providing optimal experiences for mentally handicapped students.					
4. Provide a wide variety of learning activities which accomplish similar goals yet allow for individual differences in learning style.			.0229		
5. Develop his/her own curriculum based on the needs and abilities of the children.				.0054	

TABLE 20 (Continued)

Category 7. <u>Implement a Variety of Teaching Strategies</u>	VARIABLES				
Develop and utilize a wide variety of teaching procedures and strategies to provide for individual differences in the ways children learn.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Develop strategies which allow students to work on the same task but on a different level of ability.					
2. Organize group activities and assignments that allow students to work on several levels of difficulty, with each student working at optimal level.			.0432		
3. Develop techniques for individual remedial instruction to meet the specific learning of each student.					.0055
4. Structure learning activities to accommodate students with different learning styles.					
5. Maintain flexible scheduling which allows for periods of extended practice.				.0423	

TABLE 20 (Continued)

Category 8. Evaluate Progress	VARIABLES				
Develop an ongoing system of evaluation that provides feedback for assessment and further planning.	Less than 5 years Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Organize a system to collect and record data from which to evaluate student progress toward goal attainment.				.0273	
2. Develop alternative methods of evaluation to deal with individual differences.					
3. Choose the most appropriate tests for evaluative purposes, based on a knowledge of available tests and the inferences which can be made from the results.					
4. Have a working knowledge of test and measurement techniques.					
5. Prepare reports on the special child for case conferences.					

TABLE 20. (Continued)

Category 9. Utilize Resources	VARIABLES				
Adapt and/or utilize available material resources to enrich classroom learning activities.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience
1. Have a knowledge of available materials and programs for specific skill development.					
2. Determine the personnel, material, and equipment requirement for successful instruction.					
3. Adapt teaching materials that are appropriate for regular students to the need of special students.					
4. Develop materials on the achievement level of the student and in his/her interest range.			.0420		
5. Develop new materials when available materials are not appropriate to meet goals.			.0001	.0552	

TABLE 20 (Continued)

Category 10. Have a Professional Knowledge of Mental Retardation.

VARIABLES

Have a good professional knowledge of the qualitatively-different characteristics of the mentally retarded learner.

Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
Vs.	Vs.	Vs.	Vs.	Vs.
More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience

1. Have a good knowledge of child development. .0066
2. Have a knowledge of the qualitatively different ways in which a mentally retarded child learns.
3. Be knowledgeable about the characteristics of a mentally retarded child.
4. Explain the rationale for integrating mentally retarded children. .0224
5. Have knowledge of the non-intellective factors as determinants of the level at which the retarded function.

TABLE 21

Level of Significant* Relationships Between Perceived Competence and Teacher Variables
in the High School Grades

Category 1. Assess Needs	VARIABLES				
Study the data presented on each mentally-handicapped student, perform further formal and informal testing and systematically observe the student in a variety of situations.	Less than 5 years experience	Vs. Bachelors degree	Courses in Spec. Education	Vs. Separate Spec. Ed. class	Vs. Experience with Except. children
	More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience

1. Be skilled in interviewing parents and professionals working with the child to gather information concerning his needs and abilities.
2. Interpret background information from permanent records to determine a student's needs and abilities.
3. Conduct task analysis to identify basic skills necessary to achieve specific curriculum objectives.
4. Administer and interpret formal diagnostic tests to determine areas of deficiency.
5. Use criterion - referenced tests to evaluate student's present level of academic functioning.

* $\alpha = .05$

TABLE 21 (Continued)

Category 2. <u>Set Goals</u>	VARIABLES				
Set long and short term goals for each student and the class as a whole.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience

1. Plan with special education teachers to determine common goals for the student.
2. Set goals to pace each student's growth according to his needs and abilities.
3. Specify goals and objects in clear terms.
4. Involve parents in planning and setting goals for students.
5. Reassess goals and make changes in programs on the basis of education outcomes.

TABLE 21 (Continued)

Category 3. Coordinate Services

VARIABLES

Coordinate the efforts of support personnel with regard to the special students in his or her class.

Less than 5 years experience
Vs.
More than 5 years

Bachelors degree
Vs.
Masters degree

Courses in Spec. Education
Vs.
No courses in Sp. Ed.

Separate Spec. Ed. class
Vs.
Other Arrangements

Experience with Except. children
Vs.
No such experience

1. Conduct inservice training for school personnel in competencies essential for mainstreaming.
2. Have preparation in the proper and efficient use of consultants.
3. Involve parents in implementing the program planned and remedial education necessary for their child.
4. Instruct parents in educational techniques which reinforce work done at school.
5. Be knowledgeable about procedures used in a case conference.

.0519

.0560

.0542

TABLE 21 (Continued)

Category 4. <u>Integrate Learning Experience</u>	VARIABLES				
Integrate learning activities provided by school support staff (Special education, etc.)	Less than 5 years experience	Vs. Bachelors degree	Courses in Spec. Education	Vs. Separate Spec. Ed. class	Experience with Except. children
	Vs. More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience
1. Co-ordinate the work the student does in the classroom with that done with the special education teacher.					
2. Schedule planning time to accommodate the needs of both regular and special students.					
3. Organize the classroom so that the teacher is free to avail himself of the help of a variety of specialists.					
4. Determine the amount of time the student needs to spend outside the classroom availing of support services.					
5. Integrate resource room (remedial) assignment into work in regular class.					

0261

TABLE 21 (Continued)

Category 5. <u>Provide a Supportive Classroom Climate</u>	VARIABLES				
Provide a climate that facilitates adjustment to mainstreaming and builds a positive self-concept and acceptance by regular students.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience.

1. Prepare members of the class for the entry of special students to the class.
2. Build a positive self-concept in special students.
3. Assist in developing programs to help special children gain acceptance in the classroom.
4. Arrange situations to allow each student to gain positive recognition before the class.
5. Assign responsibility to the handicapped child.

TABLE 21 (Continued)

Category 6. <u>Develop Programs</u>	VARIABLES				
Develop a broad enough program to meet the diversity of educational needs through a wide variety of teaching activities.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience

1. Formulate educational implications from medical, psychological and diagnostic reports into an educational program.
2. Utilize individual programs to allow students to work at an appropriate level and speed.
3. Develop a program that is both challenging for regular students and providing optimal experiences for mentally handicapped students.
4. Provide a wide variety of learning activities which accomplish similar goals yet allow for individual differences in learning style.
5. Develop his/her own curriculum based on the needs and abilities of the children.

.0436

.0159

TABLE 21 (Continued)

Category 7. <u>Implement a Variety of Teaching Strategies</u>	VARIABLES				
Develop and utilize a wide variety of teaching procedures and strategies to provide for individual differences in the ways children learn.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience
1. Develop strategies which allow students to work on the same task but on a different level of ability.			.0180		
2. Organize group activities and assignments that allow students to work on several levels of difficulty, with each student working at optimal level.					
3. Develop techniques for individual remedial instruction to meet the specific learning of each student.					
4. Structure learning activities to accommodate students with different learning styles.					
5. Maintain flexible scheduling which allows for periods of extended practice.					

TABLE 21 (Continued)

Category 8. Evaluate Progress	VARIABLES				
Develop an ongoing system of evaluation that provides feedback for assessment and further planning.	Less than 5 years experience Vs. More than 5 years	Bachelor's degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Organize a system to collect and record data from which to evaluate student progress toward goal attainment.					
2. Develop alternative methods of evaluation to deal with individual differences.			.0125		
3. Choose the most appropriate tests for evaluative purposes, based on a knowledge of available tests and the inferences which can be made from the results.				.0201	
4. Have a working knowledge of test and measurement techniques.					
5. Prepare reports on the special child for case conferences.					

TABLE 21 (Continued)

Category 9. Utilize Resources	VARIABLES				
Adapt and/or utilize available material resources to enrich classroom learning activities...	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs. More than 5 years	Vs. Masters degree	Vs. No courses in Sp. Ed.	Vs. Other Arrangements	Vs. No such experience
1. Have a knowledge of available materials and programs for specific skill development.					
2. Determine the personnel, material, and equipment requirement for successful instruction.			.0551		
3. Adapt teaching materials that are appropriate for regular students to the need of special students.					
4. Develop materials on the achievement level of the student and in his/her interest range.					
5. Develop new materials when available materials are not appropriate to meet goals.				.0490	

TABLE 24 (Continued)

Category 10. <u>Have a Professional Knowledge of Mental Retardation.</u>	VARIABLES				
	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
Have a good professional knowledge of the qualitatively-different characteristics of the mentally retarded learner.					
1. Have a good knowledge of child development.					
2. Have a knowledge of the qualitatively different ways in which a mentally retarded child learns.					
3. Be knowledgeable about the characteristics of a mentally retarded child.			.0551		
4. Explain the rationale for integrating mentally retarded children.			.0300		
5. Have knowledge of the non-intellective factors as determinants of the level at which the retarded function.					

TABLE 22

Level of Significant* Relationships Between Perceived Competence and Teacher Variables at all Grade Levels

Category 1. <u>Assess Needs</u>	VARIABLES				
Study the data presented on each mentally-handicapped student, perform further formal and informal testing and systematically observe the student in a variety of situations.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Be skilled in interviewing parents and professionals working with the child to gather information concerning his needs and abilities.			.0378		
2. Interpret background information from permanent records to determine a student's needs and abilities.				.0264	
3. Conduct task analysis to identify basic skills necessary to achieve specific curriculum objectives.					
4. Administer and interpret formal diagnostic tests to determine areas of deficiency.					
5. Use criterion - referenced tests to evaluate student's present level of academic functioning.					

* $\alpha \leq .05$

TABLE 22 (Continued)

Category 2. <u>Set Goals</u>	VARIABLES				
Set long and short term goals for each student and the class as a whole.	Less than 5 years experience Vs.	Bachelors degree Vs.	Courses in Spec. Education Vs.	Separate Spec. Ed. class Vs.	Experience with Except. children Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience

1. Plan with special education teachers to determine common goals for the student.
2. Set goals to pace each student's growth according to his needs and abilities.
3. Specify goals and objects in clear terms.
4. Involve parents in planning and setting goals for students.
5. Reassess goals and make changes in programs on the basis of education outcomes.

TABLE 22 (Continued)

Category 3. <u>Coordinate Services</u>	VARIABLES				
Coordinate the efforts of support personnel with regard to the special students in his or her class.	Less than 5 years experience	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
	Vs.	Vs.	Vs.	Vs.	Vs.
	More than 5 years	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience
1. Conduct inservice training for school personnel in competencies essential for mainstreaming.			.0306		.0488
2. Have preparation in the proper and efficient use of consultants.				.0581	
3. Involve parents in implementing the program planned and remedial education necessary for their child.					
4. Instruct parents in educational techniques which reinforce work done at school.			.0048		
5. Be knowledgeable about procedures used in a case conference.	.0022		.0072		

TABLE 22. (Continued)

Category 4. <u>Integrate Learning Experience</u>	VARIABLES					
	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience	
1. Co-ordinate the work the student does in the classroom with that done with the special education teacher.						.0046
2. Schedule planning time to accommodate the needs of both regular and special students.						.0014
3. Organize the classroom so that the teacher is free to avail himself of the help of a variety of specialists.						
4. Determine the amount of time the student needs to spend outside the classroom availing of support services.						
5. Integrate resource room (remedial) assignment into work in regular class.						

TABLE 22 (Continued)

Category 5. <u>Provide a Supportive Classroom Climate</u>	VARIABLES				
	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Prepare members of the class for the entry of special students to the class.	.0036	.0034			
2. Build a positive self-concept in special students.	.0512				
3. Assist in developing programs to help special children gain acceptance in the classroom.		.0025			
4. Arrange situations to allow each student to gain positive recognition before the class.					
5. Assign responsibility to the handicapped child.		.0381			

TABLE 22 (Continued)

Category 6. Develop Programs	VARIABLES				
Develop a broad enough program to meet the diversity of educational needs through a wide variety of teaching activities.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Formulate educational implications from medical, psychological and diagnostic reports into an educational program.			.0663		
2. Utilize individual programs to allow students to work at an appropriate level and speed.					
3. Develop a program that is both challenging for regular students and providing optimal experiences for mentally handicapped students.				.0044	.0009
4. Provide a wide variety of learning activities which accomplish similar goals yet allow for individual differences in learning style.					
5. Develop his/her own curriculum based on the needs and abilities of the children.					

TABLE 22 (Continued)

Category 7. <u>Implement a Variety of Teaching Strategies</u>	VARIABLES				
Develop and utilize a wide variety of teaching procedures and strategies to provide for individual differences in the ways children learn.	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Develop strategies which allow students to work on the same task but on a different level of ability.			.0294		
2. Organize group activities and assignments that allow students to work on several levels of difficulty, with each student working at optimal level.					.0006
3. Develop techniques for individual remedial instruction to meet the specific learning of each student.					
4. Structure learning activities to accommodate students with different learning styles.			.0390		
5. Maintain flexible scheduling which allows for periods of extended practice.	.0392				

TABLE 22 (Continued)

Category 8. Evaluate Progress

VARIABLES

Develop an ongoing system of evaluation that provides feedback for assessment and further planning.

Less than 5 years experience.	Bachelors degree	Courses in Spec. Education	Separate Spec. Ed. class	Experience with Except. children
Vs.	Vs.	Vs.	Vs.	Vs.
More than 5 years.	Masters degree	No courses in Sp. Ed.	Other Arrangements	No such experience

1. Organize a system to collect and record data from which to evaluate student progress toward goal attainment.
2. Develop alternative methods of evaluation to deal with individual differences.
3. Choose the most appropriate tests for evaluative purposes, based on a knowledge of available tests and the inferences which can be made from the results.
4. Have a working knowledge of test and measurement techniques.
5. Prepare reports on the special child for case conferences.

.0280

TABLE 22 (Continued)

Category <u>Utilize Resources</u>	VARIABLES				
	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arr- angements	Experience with Except. children Vs. No such experience
1. Have a knowledge of available materials and programs for specific skill development.					
2. Determine the personnel, material, and equipment requirement for successful instruction.		.0068	.0031		
3. Adapt teaching materials that are appropriate for regular students to the need of special students.					
4. Develop materials on the achievement level of the student and in his/her interest range.					
5. Develop new materials when available materials are not appropriate to meet goals.					

TABLE 22 (Continued)

Category 10. <u>Have a Professional Knowledge of Mental Retardation.</u>	VARIABLES				
	Less than 5 years experience Vs. More than 5 years	Bachelors degree Vs. Masters degree	Courses in Spec. Education Vs. No courses in Sp. Ed.	Separate Spec. Ed. class Vs. Other Arrangements	Experience with Except. children Vs. No such experience
1. Have a good knowledge of child development.			.0042		
2. Have a knowledge of the qualitatively different ways in which a mentally retarded child learns.					
3. Be knowledgeable about the characteristics of a mentally retarded child.		.0068	.0031		
4. Explain the rationale for integrating mentally retarded children.		.0033			.0226
5. Have knowledge of the non-intellective factors as determinants of the level at which the retarded function.					

TABLE 23

Number of Items on the Questionnaire Showing Significant Relationships
to Level of Perceived Competence by Grade Level Taught

Variable	Primary		Elementary		Junior High		High		Total	Mean No
	f.	%	f.	%	f.	%	f.	%		
Years experience	7	14	5	10	1	2	1	2	14	3.50
Professional training	6	12	30	60	6	12	4	8	46	11.50
Courses in Special Education	1	2	1	2	2	4	5	10	9	2.25
Type of support services	1	2	1	2	13	26	3	6	18	4.50
Experience with exceptional children	0	0	1	2	5	10	0	0	6	1.50
Total number of items	17		38		27		13			

Variables Associated with Perceived Level of Competence

On examination of teacher variables when data were grouped according to grade level taught, significant positive correlations were found between level of perceived competence in years of experience in 7 items by Primary grade teachers, 5 by Elementary grade teachers and 1 item each by Junior High and High School teachers.

Significant positive correlations were found between level of perceived competence and level of professional training in 6 items in the Primary grades, 30 in Elementary grades, 6 in Junior High School grades and 4 in High School grades.

Significant positive correlations between level of perceived competence and courses in special education were found in 1 item in Primary grades, 1 item in Elementary grades, 2 items in Junior High School grades and 5 items in High School grades.

Significant correlations between level of perceived competence and type of support services available were found in 2 items in Primary grades, 1 item in Elementary grades, 13 items in Junior High School grades and 3 items in High School grades.

There was no significant correlation between level of perceived competence and experience with exceptional children in the primary grades. Relationships between level of perceived competence and experience with exceptional children was found in only 1 item in the Elementary grades and 5 items in the Junior High School grades. No teacher of the High School grades and only one teacher of the Elementary grades had had experience with exceptional children.

When data were analyzed for the entire sample without reference to grade level taught, responses to 4 items were correlated with years of experience, responses to 7 items were associated with level of professional training, responses to 3 items with courses in special education, responses to 2 items were associated with support services available and on 4 items responses were associated with experience with exceptional children.

Level of professional training, followed by teaching experience appear to be the most important teacher variables to consider in Primary and Elementary grades, when concern for successful integration encompasses teacher self-efficacy. Courses in special education except at the high school level do not appear to be important indicators of perceived competencies in mainstreaming skills. The relationship between years of teaching experience and self-efficacy was stronger in the Primary and Elementary grades than in Junior High and High School grades. The relationship between the presence of special education classes within the school and perceived competency is supported by the literature on special education which contends that in general teachers perceived themselves to be less competent in schools where separate classes for special education students are available. Only in High School grades were courses in special education related to perceived competence and then only on a very few items.

Interpretation of the data must take into consideration (a) the small number of respondents with Masters Degree at the Elementary level, (b) the small number of respondents at any grade level having more than two courses in special education and the probability that these were

introductory survey courses, (c) the fact that no teachers in the High School grades had had experience with exceptional children and only one teacher in Elementary school.

The small number of persons in these cells makes meaningful conclusion from the data and generalization to the population from which the sample was drawn inappropriate in these instances.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The conclusions and recommendations which evolved from the findings are discussed in this chapter. The reader's attention is drawn to the limitations of the study presented in Chapter III as these influence the degree of generalization which is justifiable when viewing the conclusions and recommendations.

Conclusions

1. From the teachers' responses on the questionnaire, one can conclude that the majority of regular classroom teachers perceive themselves to be inadequately prepared in some skills necessary for successful integration of mildly mentally-handicapped children into the regular classroom. (a) Less than 50% of the teachers perceive themselves as adequately prepared or better in 40 of the 50 competencies presented in the questionnaire. (b) Of the 20 competencies ranked as most important by the experts (numbers 1 and 2 in each category), only 6 items elicited a response of adequate or better preparation by 70% or more of the teachers, while 5 items elicited a response of inadequate preparation by more than 50% of the teachers.
2. Teachers generally perceive themselves as best prepared in competencies that teachers have always used, and least prepared in competencies that require individualization of instruction and co-

ordination of effort between teachers and support personnel.

(a) Teachers perceive themselves as best prepared in the following areas: goal setting, provision of a supportive classroom climate, integrating learning experiences, providing a variety of experiences and assessing needs. (b) Teachers perceive themselves as least prepared in the following areas: developing programs, coordinating services, utilizing resources and having professional knowledge of mental retardation.

3. Of the group surveyed, when data were arranged according to grade level, teachers in the Primary grades rated themselves as most adequately prepared.

4. The variable level of professional training was correlated with perceived competence in the greatest number of items showing significant relationships on the questionnaire. In the Primary grades years of experience was an equally-important indicator of perceived competence, and in Junior High School grades, type of support services available was associated with responses to the greatest number of items. The association between type of support services available and perceived competence in teaching mentally-handicapped children is in accord with the literature on special education.

5. Teacher training programs for regular classroom teachers contain too few courses in special education, beyond introductory level courses, to influence the teacher's perception of self-efficacy.

6. Too few teachers in the sample had experience with exceptional children to draw meaningful conclusions with regard to this variable.

Recommendations

1. There is need for an overall policy of integration, with provision for input into mainstreaming plans from the schools themselves, lest failure at implementation be taken as rejection of the principle. The decision to integrate a mentally-handicapped child into the regular classroom should not be based on administrative convenience alone, but on the consideration of several factors, among them the attitudes and self-perceived competence of the teachers.

2. No mainstreaming effort should be attempted without (a) serious attention to ascertaining teachers' perceived personal needs and providing systematic in-service education programs that respond not only to skill training but also the feelings, attitudes and anxieties of teachers, and (b) the development and implementation of organizational arrangement which permits cooperation between support services and regular class teachers to ensure an appropriate coordinated and well-articulated education program.

3. There should be more emphasis on programs for training regular teachers to deal effectively with the mentally-handicapped learner, providing (a) in-depth course work and field experience focussing on developing greater practical skills in individualization of instruction and knowledge of the characteristically different ways a mentally-handicapped child learns, and (b) provincial certification standards for regular teachers which require information on and experience with the mentally-handicapped learner.

4. Training through in-service should be provided before regular teachers are asked to integrate exceptional children.

5. Adequate support services and appropriate class size should be in place before teachers are asked to integrate exceptional children. If we adopt the goal of integration we must offer the hope of realization of the expectations it awakens.

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 many 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 which would ensure an adequate number of respondents in each cell would overcome this difficulty, while enlarging and strengthening the conclusions of the present study.
3. In this study no attempt was made to control the quantity or quality of support services available to teachers. Teachers were asked to rate according to perceived competence with reference to their training. Unsolicited comments suggest that some teachers' responses were coloured by the lack of adequate support services. A similar study in which the variable level of support services was controlled would provide further evidence on the influence of teacher variables on perceived competence.
4. Further research is needed to determine if competencies rated as most important by experts in the field of special education

coincide with teachers' ranking as most important for effective teaching.

5. Further research is needed concerning skills essential to integrated teaching, whether the same skills are necessary at all grade levels, and how these skills might be developed. Since the primary goal of competency-based teacher education programs is improvement in educational services to the mentally-handicapped learner, validation of essential competencies ultimately rests with the demonstrated effect teaching behaviours have on children's development.

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

SELECTED REFERENCES

- Alexander, C. and Strain, P.S. A review of educator's attitudes toward handicapped children and the concept of mainstreaming. Psychology in the Schools, July, 1978, Vol. 15, No. 3, pp. 390-396.
- Bandura, A. Self-efficacy: toward a unifying theory of behavioural change. Annual review of behaviour therapy, p. 99; Reprinted from Psychological Review, 1977, Vol. 84, No. 2.
- Berry, K.E. Mainstreaming: a problem and an opportunity for general education. Focus on Exceptional Children, Vol. 6, No. 6, Nov. 1974.
- Birch, Jack W. Mainstreaming that works in elementary and secondary schools. Journal of Teacher Education, Vol. XXIX, No. 6, Nov. - Dec. 1978, pp. 18-21.
- Bijou, Sidney W. Practical implications of an international model of child development. Exceptional Children, Jan. 1978, Vol. 44, No. 1, p. 6-10.
- Blanton, L.P., Sirko, M.C. and Gillespie, p. 4. Reading and the mildly retarded. Review of research and implications. The Third Review of Special Education. pp. 156-158. Mann, S. Editor.
- Brokenshire, G. Construction and Validation of Student Questionnaire Measuring Attitudes to Self, School and Teacher. Unpublished master's thesis, Memorial University of Newfoundland, 1977.
- Burden, M. The Efficacy of Special Class placement for the Educable Mentally Retarded as Indicated by Measures of Academic Achievement and Social Adjustment. Unpublished master's thesis, Memorial University of Newfoundland, 1971.
- Carpenter, R.L., Robson, D.L. P.L. 94-142: Perceived knowledge, expectations, and early implementation. The Journal of Special Education. Vol. 3, No. 3, 1979. pp. 311-324.
- Chaffin, J.D. Will the real "mainstreaming" program please stand up! (or should Dunn have done it?) Focus on Exceptional Children. Vol. 6, No. 5, Oct. 1974, pp. 1-18.
- Cromback, L.J., Essentials of Psychological Testing. Harper & Row, N.Y. 1949.
- Cope, C. and Anderson, E. Special Units in Ordinary Schools. University of London Institute of Education. May 1977.
- Corrigan, Dean C. Political and moral contexts that produced PL 94-142. Journal of Teacher Education. Nov. - Dec. 1978, Vol. XXIX, No. 6, p. 12-14.

- Harasymyn, S.J. and Horne, M.D. Teacher attitudes toward handicapped children and regular class integration. The Journal of Special Education, 1976, 10, pp. 393-401.
- Harvey, Jasper. Legislative intent and progress. Exceptional Children, January 1978.
- Harvey, T. Future trends in personnel preparation. Exceptional Children, 1976, Vol. 43, pp. 148-150.
- Harvey, J. and Siantz, J. Public education and the handicapped. Journal of Research and Development in Education. Vol. 12, No. 4, 1979.
- Hirshoren, A and Burton, T. Willingness of regular teachers to participate in mainstreaming handicapped children. Journal of Research and Development in Education. Vol. 12, No. 4, 1979.
- Horne, M.D. Attitudes and mainstreaming: a literature review for school psychologists. Psychology in the Schools. January 1979, Vol. 16, No. 1, pp. 41-66.
- Howard, G. Schmeck, R. and Bray, J.H. Internal invalidity in studies employing self-report instrument: a suggested remedy. Journal of Educational Measurement. Vol. 16, No. 2, Summer 1979, pp. 129.
- Johnson, G.O. Special education for the mentally handicapped. Exceptional Children. 29, 1962, pp. 62-69.
- Johnson, A.B. and Cartwright, C.A. The role of information and experience in improving teachers' knowledge and attitudes about mainstreaming. The Journal of Special Education. Vol. 13, No. 4, 1979, pp. 453-462.
- Jones, R.L., Gottlieb, J., Guskin, S. and Yoshida, R.K. Evaluating mainstreaming programs: models, caveats, considerations and guidelines. Exceptional Children. May, 1978, Vol. 44, No. 8, pp. 588-590.
- Juul, Kristen D. European approaches and innovations in serving the handicapped. Exceptional Children. February, 1978, pp. 322-324.
- Karagiannis, L.D., Nesbit, W.C. Perhaps I'll be in Your Class. MUN Printing Services, 1979.
- Kaufman, J.M., Gottlieb, J., Agand, J.A. and Kukie, M.B. Mainstreaming: Toward an explication of the construct. Focus on Exceptional Children. May, 1975, Vol. 7, No. 3, pp. 1-9.
- Kaufman, J.M., and Lewis, C.D. Teaching Children With Behaviour Disorders Charles E. Merrill, Columbus, Ohio, 1974.

- Denemark, G. (Chairman) Beyond the mandate: the professional imperative Journal of Teacher Education. Nov. - Dec. 1978. Vol. XXIX, No. 6, pp. 44-47.
- Dunn, L., 1968. Special education for the mildly handicapped — is much of it justifiable? Exceptional Children, 1968, 35, 5-22.
- Forness, S.R. Clinical criteria for mainstreaming mildly handicapped children. Psychology in the Schools. Vol. 16, No. 4, Oct. 1979, pp. 508-514.
- Fox, Jean, Personal perspectives on educating handicapped children. Journal of Teacher Education. Nov. - Dec. 1978, Vol. XXIX, No. 6, p. 17.
- From the Eric Clearing House on Teacher Education. Responses to PL 94-142 institutional changes for preservice teacher preparation. Journal of Teacher Education Nov. - Dec. 1978. Vol. XXIX, No. 6 pp.77-78.
- Galloway, D.M. & Goodwin, C. Educating Slow-learning and Maladjusted Children: Integration or Segregation. Longman Group Ltd., London 1979.
- Gear, G.H. and Gable, R.K. Educating handicapped children in the regular classroom: needs assessment in teacher preparation. Journal of Research and Development in Education. Vol. 12, No. 4, 1979. pp.36 - 45.
- Glass, R.M. & Meckler, R.S. Preparing elementary teachers to instruct mildly handicapped children in regular classrooms: A summer workshop. Exceptional Children, 1972, 39, 152-156.
- Gottlieb, J. Semmel, M.I. and Veldman, D.J. Correlate of social status among mainstreamed mentally retarded children. Journal of Educational Psychology, 1978, Vol. 70, pp. 396-405.
- Graham, S., Hudson, F., Burdg, N. and Carpenter, D. Educational personnel's perception of mainstreaming and resource room effectiveness. Psychology in the Schools. January 1980, Vol. 17 No. 1, pp. 128-133.
- Grickling, E.E. and Theobald, J.T. Mainstreaming affect or effect. The Journal of Special Education. Vol. 9, No. 3, 1975, pp.317-328.
- Guilford, J.P. Fundamental Statistics in Psychology and Education. McGraw Hill, N.Y. 1942.
- Haisley, F.B., Bilberts, R.D. Individual competence needed to implement PL 94-142. Journal of Teacher Education. Nov. - Dec. 1978. Vol. XXIX, No. 6, pp. 30-33.

- Kehle, T.J. and Guidubaldi, J. The effect of EMR placement models on affective and social development. Psychology in the Schools. Vol. 15, 1978. pp. 275-282.
- Kennedy, Edward M. PL 94-142, poses "Lofty Challenges" Journal of Teacher Education. Nov. - Dec. 1978, Vol. XXIX, No. 6, p. 7.
- Keough, B.K. and Levitt, M.L. Special education in the mainstream: a confrontation of limitations. Focus on Exceptional Children. Vol. 8, No. 1, March 1976, pp. 1-10.
- Kerlinger, F.N. Foundations of Behavioural Research. N.Y. 1973. Holt, Rinehart and Winston.
- Larsen, S.C. The influence of teacher expectation on the school performance of handicapped children. Focus on Exceptional Children Jan. 1975, pp. 1-14.
- MacDonald, F.J. Research and development strategies for improving teacher education. Journal of Teacher Education. Vol. 28, No. 6, 1977, pp. 29-33.
- MacMillan, D.L., Jones, R.L. and Meyers, C.E. Mainstreaming the mildly retarded: some questions, cautions and guidelines. Mental Retardation. Feb. 1976, pp. 3-10.
- MacMillan, D.L., Meyers, E. and Yoshida, R.K. Regular class teacher's perception of transition programs for EMR students and their impact on the students. Psychology in the Schools. Jan. 1978, Vol. 15, No. 1, p. 99-103.
- MacMillan, D.L. and Semmel, M.I. Evaluation of mainstream programs. Focus on Exceptional Children. Vol. 9, No. 4, Sept. 1977, pp. 1-14.
- Martin, Edwin M. Education of the handicapped act and teacher education, Journal of Teacher Education. Nov. - Dec. 1978; Vol. XXIX, No. 6, p. 8.
- Martin, Edwin W., Some thoughts on mainstreaming exceptional children. Nov., 1978, p. 150.
- Meisgeier, C., Issues underlying mainstreaming. Third Review of Special Education. (Man, L. and Sabatino, D. Eds.) Grune and Stratton, N.Y. 1976.
- Middleton, E.J., Morsink, C., Cohen, S. Program graduates' perception of need for training in mainstreaming. Exceptional Children. January 1978, pp. 256-261.

- Miller, T.L. and Sabatino, D.A. An evaluation of the teacher consultant model as an approach to mainstreaming. Exceptional Children. October 1978. pp. 86-91.
- Moore, J. and Fine, M. Regular and special class teacher perception of normal and exceptional children and their attitudes toward mainstreaming. Psychology in the Schools. Vol. XX, No. 2, 1978.
- Morsink, C. (Chairman) Task Force on Education of the Handicapped. Journal of Teacher Education. Nov. - Dec. 1978. Vol. XXIX, No. 6, pp. 44-47.
- Nesbit, W.C. and Karagianis, L.D. The integration of exceptional children. Journal of Education. 1979, Vol. 6, No. 2, p. 26.
- Payne, R. and Murray, C. Principals' attitudes toward the integration of the handicapped. Exceptional Children. October, 1974, Vol. 41, pp. 125-235.
- Redden, M. Mainstreaming Competencies Needed by Regular Elementary Teachers. Unpublished doctoral thesis, University of Kentucky, College of Education, 1976.
- Redden, Martha, Ross and Blackhurst, A. Edward. Mainstreaming, competency specifications for elementary school teachers. Exceptional Children. May 1978, pp. 615-715.
- Reynolds, Maynard C., Basic issues in restructuring teacher education Journal of Teacher Education. Nov. - Dec., 1978, Vol. XXIX, No. 6, pp. 25-29.
- Sargent, L.R. State certification requirements. Journal of Teacher Education. Nov. - Dec. 1978. Vol. XXIX, No. 6, p. 47.
- Schlechty, P.C. and Turnbull, A. Bureaucracy or professional implications of PL 94-142. Journal of Teacher Education. Nov. - Dec., 1978, Vol. XXIX, No. 6, p.
- Schworn, R.W., Models in special education: considerations and cautions. The Journal of Special Education. Vol. 10, No. 2, 1976. pp. 176-186.
- Shaddock, T., Special education and the law in the United States: implications for Australian education. Exceptional Children. July, 1977, Vol. 24, No. 2, p. 61.
- Shaw, S.F. and Gillung, T.B., Efficacy of a college course for regular class teachers of mildly handicapped. Mental Retardation, 1975; Vol. 13, pp. 3-6.
- Skrtic, T.M., Knowlton, H.E. and Clark, F.L. Action versus reaction. Focus on Exceptional Children. March 1979, Vol. 2, No. 1, pp. 1-16.

- Shores, R.E., Burney, J.D. and Wiegerink, R. Teacher training in special education. A review of research. The Third Review of Special Education. Man and Sabatino (eds.) Grune and Stratton, N.Y., 1976.
- Shotel, J.R., Iano, R.P., and McGettigan, J.F. Teacher attitudes associated with the integration of handicapped children: Exceptional Children, 1972, 38, 677-683.
- Thrumman, S.K., Langley, B. and Wood, T.A. Children with retarded behavior and sensory impairment: A review. The Third Review of Special Education. Grune and Stratton, N.Y., 1976.
- Trask, M. Proper planning needed for mentally retarded. The Daily News. March 24, 1980, p. 4.
- Vacc, N.A. and Kirst, N. Emotionally disturbed children and regular classroom teachers. The Elementary School Journal. March, 1977, pp. 312-320.
- Watkins, M.W. and Brown, R.D. Competency and interpersonal rating of teacher specialities: what teachers think of each other. Psychology in the Schools. January, 1980. Vol. 17, No. 1, pp. 102-106.
- Watts, B.H. Special education in the seventies: promises and problems. Exceptional Children. July, 1977, Vol. 24, No. 2.
- Weisenstein, G.R. and Gall, M.D. Adapting teacher education to include mainstreaming. Journal of Teacher Education. Vol. XXIX, No. 6, Nov. - Dec. 1978, pp. 22-24.
- Yager, S.J., Howey, K. and Joyce, B. Reflections on preservice preparation: Impressions from the national survey. Journal of Teacher Education, 1977. 28(6) 34-37.
- Wolfensberger, W. The Principle of Normalization in Human Services. Toronto: National Institute on Mental Retardation, 1972.
- The Revised Statutes of Newfoundland 1970 - An Act Respecting the Operation of Schools and Colleges in the Province.
- United States Public Law 94-142 Education for all Handicapped Children Act. Washington, 1975.
- D. Lazure and C.A. Roberts (Eds.) The CELDIC Report: One million Children. Toronto: Crainford, 1970.
- Warnock, H.M. Special Education Needs: Report of the Committee of Inquiry into the Education of Handicapped Children and Youth. London, HMSO, 1978.

Crocker, R.K. and Riggs, F.T. Improving the Quality of Education: Challenge and Opportunity Final Report Task Force on Education. St. John's: Government of Newfoundland and Labrador, 1979.

The Annual Report of the Avalon Consolidated School Board, St. John's Newfoundland, 1978.

The Annual Report of the Avalon Consolidated School Board 1969-1979. A Decade of Growth. St. John's, Newfoundland, 1979.

St. John's Evening Telegram, March 28, 1980, p. 6.

St. John's Evening Telegram, April 11, 1980, p. 3.

The Daily News, March 24, 1980, p. 4.

Newsletter, National Council for Special Education, December 1977, Vol. 5, No. 3, Stratford Upon Avon, Warwickshire.

Newsletter, National Council for Special Education, June 1977, Vol. 5, No. 2.

APPENDICES

APPENDIX A

LETTER OF REQUEST TO SCHOOL BOARD

1 Dorset Street
St. John's, Newfoundland
16 April, 1980.

Mr. H. Peddle
Avalon Consolidated School Board
90 Barter's Hill
St. John's, Newfoundland

Dear Mr. Peddle:

Re our conversation of April 16, 1980 in relation to the questionnaire which I propose to use as an instrument for data collection for my thesis on the teacher's perceptions of the appropriateness of their professional training, for teaching in schools that are organized along a mainstream model;

The questionnaire contains competency statements gleaned from the literature of special education and from formal and informal discussion with regular and special education. The initial list has been revised on the advice of my professors and fellow graduate students. In order to obtain a consensus as to the relative importance of each competency on the revised list, experts are being asked to rank order competencies (within 10 categories) according to importance for effective teaching.

The definition of categories is enclosed on a separate sheet.

The final questionnaire will contain only 50 items (10 in each category) which are selected by consensus among experts in the field. No item that does not appear on the list I have enclosed will be included in the questionnaire, nor will any change be made in format, other than order of item presentation which will be randomized.

It is my hope that by submitting to you the questionnaire (though not in its final form) at this time, I will get an early start on the study I propose to do. Thank you for your cooperation.

Sincerely,

Doreen Cuff

APPENDIX B

QUESTIONNAIRE TO TEACHERS

1 Dorset Street
St. John's, Nfld.
14 April 1980.

Dear

Enclosed please find information and materials necessary to fulfil the duties you so kindly agreed to perform for me in connection with a study on integration of mentally-handicapped students, undertaken as partial fulfillment of the requirements for the degree of Master of Education.

Thank you for your willingness to assist me in this undertaking.

Yours sincerely,

Doreen Cuff.

A teacher's perception of himself as a person able to function as a teacher with special children is a function of many variables, such as information level, special skill acquisition, and experience with exceptional children. Identifying the relative impact of each of these variables on a teacher's perceived ability to provide appropriate educational experiences for special children is warranted. Since it is becoming increasingly unpopular to make assumptions about the validity of an educational program or idea without amassing objective systematically-collected data upon its value, this study directs itself to one component of program evaluation, the assessment of needs. It will be directed towards ascertaining training priorities for regular teachers who educate mildly-mentally retarded children (special students) in a mainstream setting. Albert Bandura, in a study on self-efficacy, hypothesized that expectations of personal competence determine whether coping behaviour will be initiated; how much will be expended; and how long it will be sustained in the face of obstacles and aversive experience.

This questionnaire is part of a study to determine the critical competencies necessary for regular classroom teachers who teach in schools that are organized along a "mainstream" model. For the purpose of this study, mainstreaming is defined as the temporal, instructional, and social integration of mildly mentally-handicapped children with normal peers.

Contained in this questionnaire are competency statements gleaned from the literature of special education, and from formal and informal discussion with regular and special educators.

The purpose of this questionnaire is to obtain your professional judgement as to the importance of each competency statement in terms of effective teaching behaviour in a mainstream setting.

INSTRUCTIONS

Competency statements have been categorized under ten headings, described in detail on page 3. Within each category please rank order competencies according to importance for effective teaching — ranging from 1 (one) for most important, to least important.

A separate sheet on which to record your rank ordering is attached.

In a final form of this questionnaire (50 items), teachers will be asked to rate the degree to which they feel their present training prepares them to perform each task (selected by consensus among experts in the field as to importance) according to a Likert scale ranging from 5 (excellent) to 1 (very inadequate).

Within each category each competency statement completes the declarative stem: In order to effectively teach mildly mentally-handicapped students (EMR) who are integrated with regular students in a mainstream classroom setting, the teacher must be able to:

1. Assess Needs
Study the data presented on each mentally-handicapped student, perform further formal and informal testing and systematically observe the student in a variety of situations.
2. Set Goals
Set long and short term goals for each student and the class as a whole.
3. Coordinate Services
Coordinate the efforts of support personnel with regard to the special students in his or her class.
4. Integrate Learning Experiences
Integrate learning activities provided by school support staff (special education, etc.)
5. Provide a Supportive Classroom Climate
Provide a climate that facilitates adjustment to mainstreaming and builds a positive self-concept and acceptance by regular students.
6. Develop Programs
Develop a broad enough program to meet the diversity of educational needs through a wide variety of teaching activities.
7. Implement a Variety of Teaching Strategies
Develop and utilize a wide variety of teaching procedures and strategies to provide for individual differences in the ways children learn.
8. Evaluate Progress
Develop an ongoing system of evaluation that provides feedback for assessment and further planning.
9. Utilize Resources
Adapt and/or utilize available material resources to enrich classroom learning activities.
10. Have a Professional Knowledge of Mental Retardation
Have a good professional knowledge of the qualitatively-different characteristics of the mentally retarded learner.

Questionnaire to Teachers

138.

This questionnaire is part of a study designed to obtain the perceptions of regular classroom teachers as to the appropriateness of their professional training for providing for the educational and psychological needs of exceptional children.

For the purpose of this questionnaire, mainstreaming is defined as the temporal, instructional and social integration of mildly mentally handicapped children (EMR) with normal peers.

Contained in the questionnaire are competency statements gleaned from the literature of special education and from formal and informal discussion with regular and special educators.

The purpose of this questionnaire is to ask you to rate the extent to which your present training prepared you to perform each task, according to a Likert Scale ranging from 5 (excellent) to 1 (very inadequate).

Instructions to Teachers

Each competency statement completes the declarative stem: In order to effectively teach mentally handicapped students who are integrated with regular students, the teacher must be able to:

Please read each statement and circle the appropriate rating.

5 Excellent 4 Good 3 Adequate 2 Inadequate 1 Very Inadequate

Enclosed please find a questionnaire which is being circulated with prior approval of the board, to randomly chosen teachers in the Avalon Consolidated School System. The data collected will be used in the preparation of a thesis on the implications of mainstreaming, which I am presently preparing in partial fulfillment of the degree of Master of Education, at Memorial University.

Awareness of the necessity for a teacher to assume a greater variety of teaching responsibilities has prompted the Task Force on Education to "urge the university to modify teacher education programs to accommodate the changing role of the teacher" (p. 16 Final Report of the Task Force on Education, St. John's, Newfoundland, April 25, 1979). During the Newfoundland Teachers' Association's annual general meeting on April 10, 1980, the N.T.A. expressed concern about the implications of integration without adequate consideration of a wide range of developments that could flow from the policy and a need to assess the impact of integration on Newfoundland teachers. (St. John's Evening Telegram, April 11, 1980).

It is with the belief that some of the obstacles can be foreseen and adverse experience averted, that I request your input into the implications of, and the preparation for, integration of mentally handicapped children. Since it is becoming increasingly unpopular to make assumptions about the validity of an educational program or idea without amassing objective systematically-collected data upon its value, this study directs itself to one component of program evaluation, the assessment of needs. It will be directed toward ascertaining training priorities of regular teachers who educate mildly-mentally retarded children in a mainstream setting.

Because I am leaving on May 10 to join my husband who is at the Harlow Campus, Essex, England, this semester, I would appreciate it if I could pick up the completed questionnaire on May. Realizing that this assumes you will give it priority among your many tasks, I am enclosing a small gift as a token of my appreciation for your cooperation. Thank you for making this project possible.

Sincerely,

Doreen Cuff

Teacher (). No name is required since the questionnaire has been coded for research purposes.

Please circle

(1) 1 - 5 / 6 - 10 / 11 - 15 / 16 +
Teaching experience in years.

(2) Bachelor's / Master's / Master's + / Number courses
in Special Ed.
Level of Professional training.

(3) Primary 1-3 / Elementary 4-6 / Junior High 7-9 / High School 10-11
Grade level taught.

(4) Special Education / Resource Room / Itinerant Services
Self-contained Classroom /
Type of support services available to special students in your school.

(5) Experience teaching mentally handicapped students Yes / No

* * * *

For the purpose of this study:

Special Education is defined as: separate class placement with a fulltime Special Education teacher.

Resource Room is defined as: Regular class placement with Special Education instruction through the services of a special teacher assigned only to your school.

Itinerant Services is defined as: Regular class placement with consultative and/or instructional services from personnel who visit your school (and others under your Board) periodically.

Mildly Mentally Retarded refers to the approximately two and one-half per cent of the population whose I.Q. falls in the 50-79 range.

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate 1 Inadequate
Very

1 2 3 4 5 Integrate resource room (remedial) assignment
into work in regular class

1 2 3 4 5 Develop strategies which allow students to
work on the same task but on a different
level of ability

1 2 3 4 5 Adapt teaching materials that are approp-
riate for regular students to the need of
special students

1 2 3 4 5 Develop new materials when available
materials are not appropriate to meet
goals.

1 2 3 4 5 Develop materials on the achievement level
of the student and in his/her interest
range

1 2 3 4 5 Organize the classroom so that the teacher
is free to avail himself of the help of a
variety of specialists

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate 1 Very Inadequate

1 2 3 4 5

Structure learning activities to accommodate students with different learning styles

1 2 3 4 5

Maintain flexible scheduling which allows for periods of extended practice

1 2 3 4 5

Set goals to pace each student's growth according to his needs and abilities

1 2 3 4 5

Develop techniques for individual remedial instruction to meet the specific learning needs of each student

1 2 3 4 5

Explain the rationale for integrating mentally retarded children

1 2 3 4 5

Utilize individual programs to allow students to work at an appropriate level and speed

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate 1 Inadequate **Very**

1 2 3 4 5 Organize a system to collect and record data from which to evaluate student progress toward goal attainment

1 2 3 4 5 Use criterion - referenced tests to evaluate student's present level of academic functioning

1 2 3 4 5 Develop alternative methods of evaluation to deal with individual differences

1 2 3 4 5 Reassess goals and make changes in programs on the basis of education outcomes

1 2 3 4 5 Administer and interpret formal diagnostic tests to determine areas of deficiency

1 2 3 4 5 Formulate educational implications from medical, psychological and diagnostic reports into an educational program

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate 1 Inadequate
Very

1 2 3 4 5 Involve parents in planning and setting goals for students

1 2 3 4 5 Involve parents in implementing the program planned and remedial education necessary for their child

1 2 3 4 5 Be skilled in interviewing parents and professionals working with the child to gather information concerning his needs and abilities

1 2 3 4 5 Prepare reports on the special child for case conference

1 2 3 4 5 Schedule planning time to accommodate the needs of both regular and special students

1 2 3 4 5 Be knowledgeable about procedures used in a case conference

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate Very
1 Inadequate

1 2 3 4 5

Determine the amount of time the student needs to spend outside the classroom availing of support services

1 2 3 4 5

Have a knowledge of available materials and programs for specific skill development

1 2 3 4 5

Develop his/her own curriculum based on the needs and abilities of the children

1 2 3 4 5

Choose the most appropriate tests for evaluative purposes, based on a knowledge of available tests and the inferences which can be made from the results

1 2 3 4 5

Organize group activities and assignments that allow students to work on several levels of difficulty, with each student working at optimal level

1 2 3 4 5

Provide a wide variety of learning activities which accomplish similar goals yet allow for individual differences in learning style

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate 1 Inadequate

1 2 3 4 5 Conduct inservice training for school personnel in competencies essential for mainstreaming

1 2 3 4 5 Specify goals and objectives in clear terms

1 2 3 4 5 Have a knowledge of the qualitatively different ways in which a mentally retarded child learns

1 2 3 4 5 Plan with special education teachers to determine common goals for the student

1 2 3 4 5 Co-ordinate the work the student does in the classroom with the special education teacher

1 2 3 4 5 Instruct parents in educational techniques which reinforce work done at school

Please read each statement and circle the appropriate rating for the extent to which you presently feel prepared to perform each task.

5 Excellent 4 Good 3 Adequate 2 Inadequate 1 Inadequate
Very

1 2 3 4 5

Conduct task analysis to identify basic skills necessary to achieve specific curriculum objectives

1 2 3 4 5

Have a working knowledge of test and measurement techniques

APPENDIX C

OBSERVATIONS FROM TEACHERS

Mrs. Cuff:

As I began to answer the questionnaire, I realized how inadequate my training is at present when it comes to organizing any kind of program for mentally handicapped children. In addition to my lack of training, my classroom is presently small and overcrowded (33 children of varied intellectual abilities). I couldn't imagine how a handicapped child would cope in such an environment.

Right now I find it a full time job planning programs for the two distinct groups which I now teach. So rather than complete this questionnaire negatively throughout, I thought I should explain myself.

Allow me to say, however, that I am not opposed to the idea of integration. I think it could be a wonderful thing if school classes are small enough to allow teachers the necessary time to spend with these special children.

Dear Mrs. Cuff:

My leaning heavily towards the inadequate category amplifies a personal concern; we are not successfully coping with the individual differences now existing in our classrooms. To meet the needs of the mildly retarded child will require much practical in-service training and great commitment of teachers who already meet more problems than they are trained to handle — broken homes, changing social values, drug abuse.

I believe integration of all children is right and possible. I believe though that teachers must be prepared at the school level.

Dear Mrs. Cuff,

It bothers me to just circle without comment. When I answer on the basis of 'feeling prepared', I do so considering: (1) my teaching load, (2) the hassle of getting your kids and mine to apply themselves to a task, one that they can easily do but are not willing to put the effort into, and (3) because of these non-motivated kids (and I defy the Lord to say that they could be easily motivated).

Feeling totally frustrated and exhausted at the end of my day, with detained students to deal with, I feel it would be difficult to divide my time even further to deal with 'high spirited' remedial kids.

Taking all these things into account, I must answer as I do. I feel I am capable of doing most of these things reasonably well — maybe excellently — but considering all of the demands made upon me for non-teaching chores and even discipline, here goes!!

