A STUDY OF TEACHER MISASSIGNMENT AMONG SECONDARY SCHOOL TEACHERS IN NEWFOUNDLAND AND LABRADOR

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A STUDY OF TEACHER MISASSIGNMENT AMONG SECONDARY SCHOOL TEACHERS IN NEWFOUNDLAND AND LABRADOR

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ABSTRACT

The purpose of this study was to determine the prevalence of teacher misassignment among secondary school teachers in Newfoundland, and to identify relationships existing between misassignment and a number of selected personal, professional, and situational characteristics. In particular, three aspects of misassignment were examined: misassignment in terms of teachers' subject fields of specialization, their teaching preferences, and the school organizational division orientations of their training programmes.

A questionnaire prepared by the researcher was utilized to solicit data from the sample. Approximately seventy per cent of the questionnaires forwarded to the subjects were returned fully completed and entirely usable for analysis. The data treatment entailed the assignment of misassignment scores to individual teachers reporting indicating their declared degrees of subject-field and teacher-preference misassignment. School division misassignment was determined by a tabulation of teachers who had not studied high school methods in their teacher training programmes.

The data analysis revealed that the three aspects of teacher misassignment examined were prevalent in varying degrees. In terms of the assignment descriptions employed in the various misassignment scales, the findings indicated that of the teachers reporting, over half were assigned to residual subject areas of specialization either entirely or in addition to the areas of their majors or minors, approximately

twenty-five per cent had not prepared professionally to teach secondary students, and over ten per cent were assigned entirely incongruently with any subject field of preference.

The findings further revealed that although teacher-preference misassignment was not significantly related to any of the variables considered, both subject-field and school-division misassignment were significantly related to these variables in the majority of cases. Subject-field misassignment, in particular, was found to be greater for teachers with lower rather than higher teaching grades; for teachers without high school methods than for those with high school methods; for teachers with few rather than many courses in their majors; for teachers who spent small rather than large proportions of their teaching time in their major assignments; and for teachers who taught more than two different courses in the school programme. Subject-field misassignment was also greater in the smallest towns, in central high schools compared to senior high schools, and in schools employing fewer than sixteen teachers.

The incidence of school-division misassignment was found to be greater for female teachers than for male teachers, for teachers with low rather than high teaching grades, for teachers with few rather than many courses in their major fields of specialization, and in both the central and the junior high schools than in the senior high schools.

An informal comparison of the degrees of misassignment found suggested that subject-field misassignment was prevalent to the greatest extent, school-division misassignment, though also extensive, was somewhat less acute, and teacher-preference misassignment was the least prevalent of the three aspects examined.

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Especially, recognition is due to Mr. Dominic A. Rousseau whose research is replicated in the present study and who generously offered many helpful suggestions during the preliminary stages of the research.

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CHAPTER I

INTRODUCTION

I. BACKGROUND OF THE STUDY

Misassignment of teachers has become increasingly and widely recognized as a problem for school administrators, teachers, and the teaching profession generally. Specific adverse effects have been demonstrated on various facets of education, such as, efficiency of instruction, pupil achievement, teacher morale, and teacher claims to professional status. A number of studies have been done, mainly in the United States, examining a variety of aspects of the problem. Specifically, a great amount of attention has been given to teacher recruitment and selection, teacher qualifications, and teacher placement and assignments.

With respect to misassignment, the main consideration, both in the literature generally and in the research, has been the matching of assignment to the particular preparation of the teacher. Each year administrators have to assign and reassign teachers to teach courses in their schools. Often, for a variety of reasons, lack of congruity between the assignments and the particular qualifications and inclinations of teachers results. Most of the reported studies have investigated the problem from this point of view and have determined the nature and extent of prevalence of misassignment in specific localities. Generally,

researchers describe these studies as being preliminary in nature, and recommend follow-up studies to investigate in more detail the causes of and possible solutions to misassignment as identified in these specific geographical areas.

This section of Charter I presents a review of the related research and literature identifying and describing the misassignment problem, and reviews the specific background for the present study.

Definitions of Misassignment

There is no one definition in the literature which completely identifies misassignment. However, almost every writer, either directly or by implication, gives a prescription for "proper" or "efficient" assignment. The following statement by W. A. Yearger is representative:

> Teachers should be assigned in accordance with their preparation, certification status, and peculiar fitness, with the desires of all reasonably satisfied in the assignment. . . . reassignment should be made with the consent of the teacher.[1]

Virtually every writer noted in the bibliography makes reference to factors affecting the efficiency of assignments which support part or all of this definition. A definition reported by Dominic A. Rousseau is an example of one such reference, but which, in addition, extends the definition to encompass what is generally considered to constitute misassignment. Rousseau writes that the National Education Association of the United States defines proper assignment as,

> . . . one in which the teacher's education in subject matter and methodology, his experience, and his physical and psychological

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[1]W. A. Yearger, Administration and the Teacher (New York: Harper and Brothers, 1954), 469.

condition are appropriate for maximum effectiveness in his teaching situation: misassignment constitutes any violation of the conditions of proper assignment.[2]

W. R. Tracey, concerning himself with career management for teachers, suggests, as necessary for maximum efficiency of assignments, three factors which are most pertinent to misassignment as it was considered in the present research. Misassignment can be considered to exist where there is lack of adherence to the following factors:

1. Teachers should be limited to assignments for which they are adequately prepared.

2. The interests and wishes of teachers should be considered.

3. Assignments should be restricted to the organizational level (i.e. "elementary, junior high school, or senior high school") for which the teacher has prepared.[3]

The Problem of Misassignment

That misassignment is a problem has been demonstarted by a variety of research studies, mainly in the United States and Britain. In a review of the literature on teacher competency, W. L. Ackerman cites several studies done in the United States which indicate that the teacher's knowledge of his subject matter is significantly related to teaching efficiency.[4] As these studies have demonstrated, it follows

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[2]Dominic A. Rousseau, "The Assignment and Misassignment of Secondary School Teachers in Alberta" (unpublished Master's thesis, The University of Alberta, 1970), 10.

[3]William R. Tracey, "Needed: A Career Management System for Teachers," American School Board Journal, CXLIV, No. 4 (1964), 20.

[4]W. L. Ackerman, "Teacher Competence and Pupil Change," Harvard Educational Review, XXIV, No. 4 (Fall, 1954), 273-289.

that the assignment of teachers outside their major areas of specialization must adversely affect teaching efficiency.

Similar findings have been made by a number of other researchers in the United States. C. F. Faber, in research which examined the relation between teacher qualifications and school district quality, found that for twenty schools studied, there was a direct relationship between the qualifications of teachers to teach in their particular assignments and expert ratings of the school districts in which these schools were located.[5] Also in the United States, two studies by Stephen Romine, 1949 and 1958, showed that the need for more efficient utilization of teaching personnel increased over that ten-year period.[6] This would seem to suggest that at least a decade ago, the problem was very evident, and the situation, rather than improving, was growing increasingly worse.

In Britain, Anatonia Trauttmansdorff, in 1965-66, carried out an extensive study on Britain's teaching force to provide statistical information concerning their qualifications, training, and range of subjects taught. He found that misassignment was prevalent to a marked degree, and reported in particular that misassignment was especially acute in the subject areas of mathematics and English.[7]

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[5]C. F. Faber, "Teacher Qualifications and School District Quality," The Journal of Educational Research, LVIII, No. 10 (August, 1965), 471.

[6]Stephen Romine, "Teaching Assignments and Instructional Loads in Secondary Schools," National Association of Secondary School Principals, XLII, No. 241 (November, 1958), 55.

[7]A. Trauttmansdorff, "Not Trained for the Job: Statistics on Staffing," Times Educational Supplement, (November 15, 1968), 1085.

In Canada, Dominic Rousseau's study on the misassignment of secondary school teachers in Alberta is the only research that could be found which is directly related to the problem. Although Rousseau found that the typical Alberta teacher was assigned at least to his minor area of specialization, he did discover a number of significant relationships between misassignment and a variety of personal, professional, and situational variables.[8] His general findings substantiated the belief of educators in Alberta that considerable misassignment was prevalent in the secondary schools of the Province.

The precise nature of the misassignment problem is well documented. Most writers on this topic agree that misassignment limits the quality and efficiency of instruction and education generally. Some point out a variety of other more specific adverse effects which contribute to the seriousness of the misassignment problem. For example, Tracey suggests that because reshuffling of normally permanent assignments is typically based on necessity (if not on expediency or desperation) rather than on planning, too often misassignment results. "The inevitable consequences," he contends, "are low teacher morale and inferior performance of duty."[9] Romine points out that in smaller schools where misassignment is generally greater,

> . . . teachers more frequently have assignments involving two or more fields, and these combinations may be difficult to find when teacher replacement becomes necessary. Teacher turnover is also greater in these smaller schools; hence, administrators face a real challenge in maintaining a staff well qualified for the

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[8]Rousseau, 90.

[9]Tracey, CXLIV, No. 4, 19.

assignments which are to be made.[10]

David E. Koontz, concerning himself mainly with the beginning teacher, makes reference to a number of facets of the misassignment problem. His thesis is that "one of the most faulty areas of administrative thinking in American education today has been the misassignment of the beginning teacher."[11] Koontz sees, as the cause of the great loss of beginning teachers, poor assignment policies leading to disillusionment and dissatisfaction. Bad assignment, he contends, has the effect of leaving a teacher unprepared and in a bad mood to deal with kids. Reinforcing his claim that the problem is not small, he cites a study which apparently has shown that the cost in the United States of recruiting one teacher is $500 to $1000. The implication, of course, is that misassignment costs the profession not only teachers, but also dollars.

Other writers, as well as Koontz, linking misassignment to teaching load, have pointed out yet another aspect of misassignment leading to teacher dissatisfaction. G. C. Gordon reports a study by McLaughlin and Shea (1960) which found that load was the most important source of teacher job satisfaction in California elementary schools.[12] In Koontz's words, a beginning teacher is "turned off" by observing, as he found, that the more experienced and higher paid teachers have a

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[10]Romine, XLII, No. 241, 58-59.

[11]David E. Koontz, "Misassignment: A New Teacher's Burden," The Clearing House, XLI, No. 5 (January, 1967), 271.

[12]G. C. Gordon, "Conditions of Employment and Service in Elementary and Secondary Schools," Review of Educational Research, XXXIII, No. 4 (October, 1963), 384.

better and lighter teaching assignment than he.[13]

Ford and Allen listed several causes of misassignment, including: (1) the difficulty of getting qualified teachers in rural areas, (2) too broad programmes attempted in rural and smaller schools for the resources and teachers available, (3) inadequate evaluation of a candidate's teaching credentials at the time of assignment, and (4) the often sudden need to fill positions because of unexpected resignations.[14] These writers as well emphasize, as one drastic effect of misassignment, the disillusionment of new teachers so that they leave the profession altogether.

The following statement from an article by James Scamman and R. P. Manatt, based on a doctoral thesis on the problem by Scamman, succinctly illustrates the significance of the problem:

> The proper or efficient assignment of teachers to subject matter areas has been of concern to educators for many years and has been thought to have widespread consequences for the student, teacher, administrator, and education in general. As society has become more complex, the demand for better educated citizens has risen, and as the scope of knowledge has grown at an increasing rate, there has been a need for as much information as possible concerning all phases of education. Teacher assignment has been one important facet of the total educational structure which has great effect on the teacher, student, and society.[15]

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[13]Koontz, XLI, No. 5, 271.

[14]Paul M. Ford and Wendell C. Allen, "Assignment and Misassignment of Teachers," NEA Journal, LV, No. 2 (February, 1966), 41.

[15]James Scamman and R. P. Manatt, "Assignment and Teacher Preparation," The Journal of Educational Research, LX, No. 10 (July-August, 1967), 469.

Overview of Research Findings Regarding The Prevalence of Misassignment

The research relating most directly to misassignment has used three general approaches, including that to be used in this research. This approach, the one most commonly used, consists basically of examining the degree of congruity between the particular assignments of teachers and their subject fields of specialization and preference. A second common approach is an examination of teaching loads to determine where teachers are misassigned to teach an overburden of subjects or courses. A third, and less common approach, consists of a statistical analysis of teacher qualifications to determine areas in which there are few or many teachers adequately prepared to teach the subjects offered in the schools.

Various types of analyses have been made on the data in these studies which affect the manner in which findings are reported. In this sub-section of the review, general findings of a number of pertinent studies will be presented in terms of the characteristics and variables, including subject areas, which researchers have studied in relation to assignment-misassignment.

First of all, some significant relationships have been discovered between the degree of misassignment and a number of personal, professional, and situational characteristics. Among the professional characteristics that have been studied are teaching experience, extent of teacher preparation or training, and the number of courses held by teachers in their major areas of specialization. Except in the case of the last of these, the number of courses held by teachers in their

majors, there is considerable evidence that these characteristics are definitely related to misassignment. Research done by the Special Committee on the Assignment of Teachers (1963) of the National Commission on Teacher Education and Professional Standards (NCTEPS), C. F. Faber, Dominic Rousseau, and a number of researchers reviewed by Scamman and Manatt, attests to the inverse relationship between misassignment and the extent of teacher preparation.[16] The research reports examined by the writer divide evenly on the variable of teaching experience. S. A. Lindstedt and J. A. Johnson both report that for more experienced teachers, misassignment is less likely, while Scamman and Manatt and Rousseau were unable to find any significant relationship between experience and assignment-misassignment.[17]

The most significant relationships were found between misassignment and situational variables. Researchers invariably found that misassignment decreased as school size or school enrollment increased.[18]

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[16]Ford and Allen, LV, No. 2, 41; Faber, LVIII, No. 10, 471; Rousseau, 89; and Scamman and Manatt, LX, No. 10, 469-471.

[17]S. A. Lindstedt, "Teacher Qualifications and Grade X Mathematics Achievement," Alberta Journal of Educational Research, VI, No. 3 (June, 1960), 76; J. A. Johnson, "A Study of the Teachers and Their Assignments in Minnesota Secondary Schools" (unpublished Doctor's thesis, University of Colorado, 1956); Scamman and Manatt, LX, No. 10, 469; and Rousseau, 89.

[18]Romine, XLII, No. 241, 58; Johnson; Rousseau, 90; P. O. Brunsvold, "The Relationship Between Selected School District Variables and Teacher Assignment Based on Preparation" (unpublished Doctor's thesis, University of Iowa, 1966); J. P. Scamman, "Teacher Assignment and Academic Preparation in Iowa High Schools" (unpublished Doctor's thesis, Iowa State University of Science and Technology, 1965); and W. C. Schloerke, "Preparation and Assignment of Secondary School Teachers Within Large Michigan High Schools" (unpublished Doctor's thesis, University of Michigan, 1964).

In addition, Rousseau found that in Alberta, misassignment was greater in junior high schools than in senior high schools, for teachers who spent comparatively little time teaching in their major areas of specialization, and for teachers who taught comparatively many courses a week.[19]

Only one study was located which found any significant relationship between misassignment and any of the personal characteristics of age, marital status, and sex. J. A. Johnson found that in Minnesota secondary schools, women were more frequently assigned to teach in areas other than the areas of their majors than were men.[20] However, in Alberta, Rousseau found no relation between misassignment and either age, sex, or marital status, and he is supported in at least one of these findings by Scamman and Manatt who found in one study no relationship between age and misassignment.[21]

The greatest attention in the studies done on misassignment has focused on specific subject areas. The great majority of researchers have found that in general misassignment is greatest in the academic areas and least in the special subject areas, such as, art, music, and vocational subjects. However, a review of the study reports shows that there are many variations in the findings, and agreement is not always unanimous. The academic subjects of English, mathematics, science, and social studies frequently had the greatest incidence of misassignment, as reported in studies done by Ford and Allen, Scamman, Trauttmansdorff,

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[19]Rousseau, 90.

[20]Johnson.

[21]Rousseau, 90; and Scamman and Manatt, LX, No. 10, 469.

Rousseau, and Brown and Osbourn (reported by Gordon).[22] Subjects most often with the least incidence of misassignment were art, music, vocational education, and health and physical education.[23] Foreign languages generally fitted somewhere in the middle. Ford and Allen reported a study which showed comparatively great misassignment in foreign languages, while Scamman and Manatt reported studies by Kinney and Romine which showed that a large percentage of teachers teaching foreign languages had subject area majors and at least minors in the particular languages which they taught.[24]

Implications Reported in Studies

In general, the implications noted by researchers and writers on misassignment focus mainly on the strength of research of this nature in pointing out the seriousness of the problem, and in prodding administrators to seek measures which might reduce misassignment in their schools. Most of the recommendations, therefore, have been made in the form of suggestions of procedures and practices which the various authors feel would alleviate the situation.

One of the longest lists of suggestions is that presented by Ford and Allen in an Article in which they quote a number of recent

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[22]Ford and Allen, LV, No. 2, 41; Scamman; Trauttmansdorff, Times Educational Supplement, 1085; Rousseau, 89; and Gordon, XXXIII, No. 4, 385.

[23]Scamman and Manatt, LX, No. 10, 469; and Rousseau, 89.

[24]Ford and Allen, LV, No. 2, 41; and Scamman and Manatt, LX, No. 10, 469.

studies of assignment and misassignment of teachers.[25] They recommend the following:

1. The enforcement of better certification laws.

2. The better coordination of offerings at the universities to build up areas of teacher preparation deficiencies. (Elsewhere, Allen speaks of the need to control teacher training programmes and the setting of standards for teacher training programmes.)[26]

3. The more efficient initial selection of teachers involving the use of the multi-interview technique in hiring and the establishment of more explicit statements of requirements for positions.

4. The more efficient placement and assignment of teachers once they are hired in the system. This measure should involve greater control of assignments and might include practices such as using experienced teachers to work with beginning or less experienced teachers, transfers within and between districts, inservice education, team teaching with those teachers who for various reasons sometimes must be misassigned, and stricter adherence to such important factors in making assignments as teacher preference, the requirements of the curriculum, the best utilization of the total staff, and the attainment of a balance in teaching quality throughout the district. Allen further suggests that the central office staff, principals, department chairmen, and individual teachers should be directly involved in these processes.

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[25]Ford and Allen, LV, No. 2, 41-42.

[26]W. C. Allen, "Assignment and its Relationship to Teaching Expertness," Journal of Secondary Education, CXLIX, No. 4 (October, 1964), 19.

A great many other writers and researchers have made suggestions and recommendations in a similar vein, and in some cases have suggested other measures. Johnson, for example, recommends that more thorough guidance and counseling of teachers during the pre-service period is required.[27] Koontz suggests that beginning and less experienced teachers should be given lighter loads than the more experienced teachers. This, he says, might be compensated for by requiring the benefiting teachers to up-grade or instruct summer courses during the summer period.[28] Romine recommends that much of the misassignment which usually prevails might be eliminated by a careful analysis of the qualifications of teachers already in a system and the subsequent reassignment of many.[29]

Finally, it is felt by the researchers that initial research designed to determine the prevalence of misassignment and general relationships with various characteristics should be followed up by more detailed research to determine cause-effect relationships and to test suggested measures for reducing or eliminating the problem. Schindler, for example, says of his study of misassignment in Nebraska that it should form ". . . a bench mark against which future studies . . . can be measured, and it should lend direction to the problem of up-grading the certification standards of secondary school teachers in Nebraska."[30]

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[27]Johnson.

[28]Koontz, XLI, No. 5, 271.

[29]Romine, XLII, No. 241, 59.

[30]W. A. Schindler, "Teacher Preparation in Assigned Subjects in Nebraska Secondary Schools Accredited by the NCACSS, and in Nebraska Approved Secondary Schools" (unpublished Doctor's thesis, University of Nebraska Teachers College, 1963).

Interestingly, most of the research deals primarily with secondary school teachers. Generally the researchers recommend that similar research is needed at other school levels as well.

Specific Background of the Study

This research was primarily a replication of the previously mentioned study of misassignment in Alberta secondary schools by Dominic A. Rousseau. Mr. Rousseau studied two aspects of misassignment: subject-field misassignment, and teacher-preference misassignment. The present study examined, in addition, one other aspect of the misassignment problem which is of particular significance in this province. In Newfoundland, teachers are required to prepare under one of three programmes--secondary, elementary, or primary--which are designed to prepare teachers to teach especially in one school division. Since the possibility of lack of congruency between the school-division orientations of teachers and their actual assignments is great, it was considered appropriate that this aspect of misassignment should be part of a study of this nature.

Specifically, this research took the form of a survey designed to furnish preliminary information on misassignment in Newfoundland secondary schools. It is intended that the findings serve as a basis for more detailed research in the future to determine cause-effect relationships as well as test suggested measures for alleviating the problem. It is hoped that a more immediate effect will be the provision of impetus to school administrators to take stock of their present assignment practices, and where necessary, to seek more effective means

of carrying out the assignment function in their school systems.

II. PURPOSE OF THE STUDY

The purpose of the study was to determine the prevalence of three aspects of misassignment among secondary school teachers in Newfoundland, and to identify relationships which existed between teacher misassignment and selected personal, professional, and situational characteristics.

Specifically, the research examined the following three aspects of misassignment:

1. Misassignment in terms of incongruity between the teaching assignment and the teacher's subject field of specialization--referred to as subject-field misassignment.

2. Misassignment in terms of incongruity between the teaching assignment and the teacher's subject field of preference--referred to as teacher-preference misassignment.

3. Misassignment in terms of incongruity between the teaching assignment to teach secondary students and the actual school-division orientation of the teacher's preparation programme--referred to as school-division misassignment.

The research determined the prevalence of these three aspects of misassignment among secondary school teachers in Newfoundland, and further amplified the absolute findings thus obtained by the identification of relationships existing between the three aspects of misassignment and the following personal and professional characteristics of teachers, and selected situational characteristics.

Personal Characteristics of Teachers

1. Sex
2. Marital status
3. Age

Professional Characteristics of Teachers

1. Preparation, as indicated by the teaching grade certificate held
2. Training programme orientation
3. Extent of major field of specialization, as indicated by the number of university courses held
4. Total years teaching experience
5. Teaching experience in the teacher's present school

Situational Characteristics

1. Size of community, as indicated by the latest population statistics
2. Grade class of school
3. Size of school, as indicated by the number of teachers
4. Denominational type of school
5. Subject areas of major assignments
6. Teaching time in major assignment
7. Number of courses taught by the teacher

For operational purposes, six sub-problems were posited in the form of the following research questions:

1. What is the mean degree of subject-field misassignment among Newfoundland secondary school teachers?
2. What is the mean degree of teacher-preference misassignment among Newfoundland secondary school teachers?

3. What number and percentage of Newfoundland secondary school teachers have been professionally prepared to teach in a school division other than secondary?

4. What significant differences in subject-field misassignment exist among appropriate categories of each characteristic proposed for study?

5. What significant differences in teacher-preference misassignment exist among appropriate categories of each characteristic proposed for study?

6. What significant differences in frequency distributions of school-division misassignment exist among appropriate categories of each characteristic proposed for study?

III. NEED FOR THE STUDY

In Section I of this chapter, specific references were made to a number of research studies which indicated the existence and significance of the misassignment problem. Moreover, the research findings reported in the review clearly illustrated those areas in which the problem has been found to be most acute. It has been shown, for example, that misassignment tends to be more prevalent in small rather than large communities, in small rather than large schools, and among lower qualified teachers rather than among those more highly qualified.

In Newfoundland, the situational conditions implicit in these analyses are perhaps typical. Newfoundland is predominantly a province of small communities having the great majority of its schools located in towns of populations less than 3,000. Also, in spite of the current

trend towards consolidation, because the population is in fact quite widely spread out, the majority of schools in the province can still be considered relatively small. Teacher qualifications have improved tremendously over the last decade. However, the data reported on the questionnaires for this study indicated that, even among the secondary school teaching force, relatively the most qualified segment of the entire teaching force in the Province, the majority of teachers held less than five years of teacher training beyond junior matriculation.

In light of these facts, it would seem logical to suggest that misassignment is likely to be prevalent to a marked degree in the secondary schools of Newfoundland. However, to date in Newfoundland, research in this area is virtually non-existent. More alarmingly, educators generally have not been particularly vocal concerning the problem. A review of the NTA Journal over recent years reveals virtually no comment directly on the problem from either teachers or administrators. On the other hand, in personal conversations with prominant educators throughout the Province, one senses that there is an awareness indeed that the problem does exist and that its effects are generally detrimental.

It is considered that a first step toward the eventual achievement of more efficient assignment of teachers is the determination of the prevalence of misassignment and the identification of relationships which might exist between misassignment and certain relevant factors, particulary situational factors. In view of the absence of research to accomplish these objectives in Newfoundland, it is considered that a definite need exists for the present research. Moreover, the findings

should satisfy the need for a stimulus, as well as provide a partial basis, for immediate corrective action in this administrative area.

IV. DELIMITATIONS AND SCOPE OF THE STUDY

As previously explained, the research was in part a replication of an existing study with respect to both the aspects of the problem considered, and the particular methodology employed. Since it was felt that this methodology, and the subject-field aspect of misassignment in particular, were not suitable for application to primary and elementary teachers, the present study was confined, as was Rousseau's, to only secondary school teachers.

Moreover, it was felt that Rousseau's misassignment scales, which were used in this research, were not appropriate for secondary teachers who taught grades other than secondary in addition to their secondary grade assignments. Rousseau, in fact, limited his study to only those teachers who were teaching ten or more hours a week in secondary grades. Since it was not possible to determine in advance the extent of particular grade assignments of teachers in schools comprising other divisions in addition to secondary, it was considered appropriate to confine the present study to only those teachers teaching in schools that were exclusively secondary. This, in fact, included in the population at least seventy per cent of all secondary teachers in the Province.

It was not possible also to ascertain the extent of the actual teaching assignments of principals, librarians, counselors, and other primarily non-teaching personnel. Consequently, principals were excluded from the population at the outset, and all other non-teaching

personnel identified on the returned questionnaires were excluded from the sample prior to tabulation of the data.

Since this research was an initial endeavour in the problem area, it was considered appropriate to limit the study to the main purpose of determining preliminary information concerning the general prevalence of misassignment. The survey technique by means of a questionnaire was considered most feasible in view of the absence at this time of any research knowledge on which to base a more in-depth study. Consequently, only criteria which could be measured objectively by analyzing factual data from the respondents were considered suitable for inclusion. The study was confined to a consideration of only three aspects of the problem which it was felt could be measured objectively from the data reported in the questionnaires. The conclusions reached must therefore be considered relevant only to misassignment as defined in this study.

V. DEFINITIONS OF TERMS

The following is a list of definitions of terms as they were used in the thesis.

Secondary school. A school which accommodates exclusively any combination of grades from grade seven to grade twelve.

Class of school. All schools involved were considered in three classes, as indicated by the grades accommodated--senior high school, accommodating no grade lower than grade nine; junior high school, accommodating no grade higher than grade nine; and central high school, accommodating all the secondary grades.

Denominational type of school. All public schools in Newfoundland are administered under four denominational types of school boards--Roman Catholic, Pentecostal, Seventh-day Adventist, and Integrated serving all other Protestant denominations. Thus, all schools may be categorized by denominational type in accordance with the denominational type of school board under which it is administered.

Subject area teacher. A teacher of a given subject area was defined as one whose major teaching assignment was in that subject.

Major field of specialization. The subject field in which a teacher has completed his greatest number of university academic courses.

Minor field of specialization. The subject field in which a teacher has completed his second greatest number of university academic courses.

Residual subject field(s) of specialization. Any subject field(s) other than a teacher's major or minor field of specialization.

Teacher (subject-field) preference. The subject field in which a teacher most prefers to teach.

Major (field of) assignment. The subject field in which a teacher spends the single greatest amount of his teaching time.

Minor (field of) assignment. The subject field in which a teacher spends the second greatest amount of his teaching time.

Residual (field(s) of) assignment. Any assignment field(s) other than a teacher's major or minor field of assignment.

School division. This refers to the organizational division of public school education into three types, secondary, elementary, and primary. Thus, schools, teachers, and teacher training programmes may

be classified according to their respective orientations toward one of these three school divisions.

Misassignment. Assignment which lacks optimum possible congruity, as determined by the mensuration instruments used in this study, with teacher subject field of specialization, teacher preference, and the school-division orientation of the teacher training programme.

VI. ORGANIZATION OF THE THESIS

There are four chapters in this report. Chapter I, representing a minor departure from the normal format, includes in Section I a review of the related research and literature in addition to the specific background of the present study. The chapter follows with a detailed statement of the problem and specification of the research questions, a discussion of the need, delimitations, and scope of the study, a list of definitions of terms, and the present overview of the thesis.

Chapter II presents the design of the study. In it are described the mensuration scales used to measure misassignment, the questionnaire, the sample, the operational procedure, and the methodology for treatment of the data.

The findings regarding the general prevalence of misassignment and the relationships which exist between misassignment and a variety of characteristics are presented in Chapter III.

Chapter IV contains a final statement of the conclusions, implications, and recommendations emanating from the study.

The questionnaire used in the study is appendixed to the thesis.

SUMMARY

A considerable number of research studies, mainly in the United States, have demonstrated the existence and significance of a misassignment problem, particularly among secondary school teachers. Specifically, researchers, concerning themselves with such related matters as teacher recruitment and selection, teacher qualifications, teaching load, and teacher placement and assignments, have demonstrated that a great deal of misassignment of various types is widely prevalent, and in all likelihood has significant adverse effects on a variety of facets of education.

The present research was primarily a replication of a study of assignment-misassignment among secondary school teachers in Alberta, conducted by Dominic A. Rousseau in 1969-70. The study determined the prevalence of subject-field, teacher-preference, and school-division misassignment among secondary school teachers in Newfoundland, and in addition, identified relationships existing between these three types of misassignment and a number of selected personal, professional, and situational variables. The need for the research appears evident in view of the significance of the problem and the absence of any research to date directly on the problem in Newfoundland.

The study was confined to only secondary school teachers who taught in schools that were exclusively secondary. This included in the population approximately seventy per cent of all secondary teachers in the Province. The findings were further limited by the particular delimitation of the problem, and by the necessarily limited effectiveness of the survey-questionnaire technique employed.

CHAPTER II

DESIGN OF THE STUDY

This study entailed a survey of a random sample of the entire population of Newfoundland secondary teachers teaching in secondary schools as defined. The methodology consisted of the solicitation of data from the sample by means of a questionnaire, the application of instruments to measure misassignment, and the statistical analysis of the data thus obtained. This chapter contains a detailed statistical description of the sample, based on data reported on the returned questionnaires, and a description of the methodology and research procedure.

I. INSTRUMENTATION

In this section are described two instruments employed in the research: mensuration scales to measure degrees of misassignment, and, the questionnaire used to solicit data from the sample.

The Misassignment Scales

The study was specifically designed to utilize mensuration scales used by Dominic A. Rousseau in his study of assignment-misassignment of secondary school teachers in Alberta (1970). Rousseau devised two scales designed specifically to measure the degrees of subject-field and teacher-preference misassignment, and successfully carried out

two tests for validity on these scales prior to their use in that study.

School-division misassignment, an additional aspect of misassignment examined in the present research, was not considered by Rousseau in his study, and no particular instrument exists for its mensuration. Due to the nature of this facet of the problem, it was not considered necessary to devise a similar special instrument for its mensuration since degrees of school-division misassignment could be suitably determined by statistical means other than a specific instrument. For this purpose, since only secondary grades were involved and only two obvious assignment possibilities existed, teachers who had studied high school methods were considered to be properly assigned, and all others were considered to be misassigned.

Rousseau's subject-field misassignment scale, referred to by him as Misassignment Scale M-1, assigns a score from 1 to 6 to each individual teacher indicating the level of congruity between his particular teaching assignment and his professional preparation. As stated by Rousseau, "This scale purports to measure the degree of congruity between the teacher area of specialization and the assignment of the teacher."[1] Rousseau further explains that, on this scale, a score of 6 indicates the highest possible degree of congruity between teacher preparation and teaching assignment. Thus, a score of 1 represents the highest possible degree of subject-field misassignment. The M-1 Scale, as used in this research, is as follows:

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[1]Dominic A. Rousseau, "The Assignment and Misassignment of Secondary School Teachers in Alberta" (unpublished Master's thesis, The University of Alberta, 1970), 49.

SUBJECT-FIELD MISASSIGNMENT SCALE M-1

Score	Assignment Relative to Preparation
6	Assigned to only major field of specialization
5	Assigned to major and minor fields of specialization exclusively
4	Assigned to only minor field of specialization
3	Assigned to residual field(s) of specialization in addition to major, plus or minus minor
2	Assigned to residual field(s) of specialization in addition to minor
1	Assigned to only residual field(s) of specialization

The teacher-preference misassignment scale is similarly constructed. This scale, referred to by Rousseau as Misassignment Scale M-2, assigns a score from 1 to 4 to each individual teacher indicating the level of congruity between his particular teaching assignment and his subject field of preference. The M-2 Scale, as used in this research, is as follows:

TEACHER-PREFERENCE MISASSIGNMENT SCALE M-2

Score	Assignment Relative to Preference
4	Assigned to a single field congruently with preference
3	Assigned to major and minor fields congruently with preference for major assignment
2	Assigned to major and minor fields congruently with preference for minor assignment
1	Assigned to field(s) incongruently with any preference

A score of 4 on this scale represents the highest possible degree of congruity between teacher preference and the teaching assignment, and a score of 1 represents the highest possible degree of teacher-preference misassignment.

To test the validity of the misassignment scales, Rousseau used two tests. He describes the validation procedure and results as follows:

> A complete printout of the population was obtained which gave the individual responses to the items on major and minor fields of specialization, major and minor fields of assignment, and field of preference. In addition, the individuals' misassignment scores were indicated. Approximately fifty cases of each of the misassignment scales were compared with the particular qualifications of the teachers. All of the cases assigned correct misassignment scores to the teachers.
>
> . . . . . .
>
> As a final test of the validity of components of the scales, an analysis of the variance was completed using as a predictor variable the number of university courses that the teacher had obtained in his major field of assignment. The test indicated that the greater misassignment occurred where the number of university courses was low.[2]

The data from this variance test, presented in Table 1 on the next page, suggest that the two measures of teacher misassignment are valid.[3]

The Questionnaire

For the purpose of soliciting information required for the research, a questionnaire similar in detail to Rousseau's was constructed and administered to the sample. Mr. Rousseau used data derived from an instrument employed by E. W. Ratsoy in a study done for the Alberta Advisory Committee on Educational Studies, 1969.[4]

The questionnaire for this study consisted of multiple choice

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[2] Ibid., 52-53. [3] Ibid., 53-54. [4] Ibid., 23.

and completion items requiring objective factual responses to furnish objective data on teacher qualifications and professional preparation, teacher preference, and relevant personal, professional, and situational characteristics. Since the questionnaire asked for only factual information, and was based on an instrument which had been used with apparent success for similar purposes, face validity is claimed for the instrument.

TABLE 1

SUBJECT-FIELD AND TEACHER-PREFERENCE MISASSIGNMENT RELATIVE TO THE NUMBER OF COURSES HELD BY TEACHERS IN THEIR SUBJECT FIELDS OF MAJOR ASSIGNMENTS

Number of Courses in Major Fields of Assignments	Sub-fld Misassignment	Tea-pref Misassignment
	Means	Means
A. $<$ 2	3.40	2.38
B. 3 - 4	4.18	2.68
C. 5 - 6	4.65	2.96
D. $>$ 6	4.77	3.10
Total	4.32	2.83
Statistical Tests (α = .05)	**Values**	
F	309.8	193.1
Significance	.001	.001
Scheffé Comparison of Means	A - B A - C A - D B - C B - D	A - B A - C A - D B - C B - D C - D

As a further check to ensure that respondents would be able to answer all questions as accurately as possible, a trial was carried out

soliciting comments on any items presenting difficulty. The Questionnaires for this pilot administration were completed by approximately twenty-five secondary school teachers from two school districts in St. John's. Subsequent to this study, several minor changes, as suggested by the respondents, were made to the questionnaire. Perusal of the returned questionnaires for the main study revealed no apparent difficulties of respondents in answering all items on the questionnaire. Approximately seventy per cent of the three hundred questionnaires mailed to the subjects for the study were returned with all items completed and apparently correct. It was assumed in this study that all responses on the returned questionnaires were accurate and represented valid data from the sample.

II. THE SAMPLE

The sample for the study was drawn from a population of teachers teaching in Newfoundland secondary schools as defined in this research. As explained previously, the population was delimited to include only teachers who taught in schools that were exclusively secondary. Because of the uncertainty of the actual teaching assignments of principals and other primarily non-teaching personnel, principals were excluded from the population in advance of the sample selection, and all other non-teaching personnel identified on the returned questionnaires were excluded from the sample prior to the tabulation of the data. As a result of this delimiting process, the population included some 1,900 teachers representing approximately seventy per cent of the total secondary school teaching force in the Province.

The sample consisted of three hundred teachers randomly selected from the population with the aid of a table of random numbers.[5] This number represented approximately ten per cent of the entire secondary school teaching force. Identification data on members of the population were ascertained from the March, 1971 attendance reports from the schools concerned to the Department of Education.

Questionnaires were received from 212 subjects. Of these questionnaires, one did not contain sufficient information for the assignment of misassignment scores, and two others were from specialists who were not assigned to regular classroom teaching in their schools. These questionnaires were not used in the study. Of the remaining 209 questionnaires, 200 were fully completed and entirely usable, and nine, which contained various omissions of pertinent data on the teachers concerned, were usable for most analyses.

Statistical Description of the Sample

To facilitate the analysis of the data, the responses on the questionnaires were examined to determine appropriate categories for comparison of the various characteristics considered in the study. This process consisted largely of a tabulation and examination of the frequencies of responses on all pertinent items, and the subsequent grouping of subjects to form sub-groups of reasonable size for meaningful comparison.

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[5]Charles E. Clark, Random Numbers in Uniform and Normal Distribution with Indices for Subsets (San Francisco: Chandler Publishing Co., 1966).

The results of this examination are contained in this subsection of the Chapter. The categories illustrated in the tables were those used in the data analysis identifying relationships existing between the degrees of misassignment and the various characteristics and variables considered in the study.

In addition to these primary analyses, certain pertinent variables from among the group of professional characteristics of teachers are presented in terms of a variety of personal and situational characteristics identified on the returned questionnaires. It is considered that the relationships suggested by this latter analysis should provide further insights into the ultimate findings of the study.

Personal Characteristics of Teachers

All respondents to the questionnaires reported on the personal characteristics of sex, marital status, and age. Table 2 presents the frequencies of responses on these characteristics, and illustrates the particular categorizations of subjects employed in the data analysis.

The data reported in this table suggest that the secondary school teaching force in Newfoundland is predominantly male and is relatively young. Of the teachers responding, 72.2 per cent were male, and 60.3 per cent were under thirty years of age. Of interest concerning the ages of Newfoundland secondary teachers is the fact that only 13.8 per cent were over the age of thirty-nine years. These data differ markedly from those reported elsewhere in Canada. Rousseau, for example, in his study of misassignment in Alberta, 1970, reported that for a sample which included about seventy per cent of the entire Alberta

secondary school teaching force, 33.1 per cent were over forty years of age and only 44.7 per cent were under the age of thirty-one.[6]

TABLE 2

CATEGORIZATIONS OF SUBJECTS BY SEX, MARITAL STATUS, AND AGE

Characteristics	Categories	Frequencies of Responses	
		Number	Per Cent
A. Sex	Male	151	72.2
	Female	58	27.8
Total		209	100.0
B. Marital Status	Married	143	68.4
	Single	66	31.6
Total		209	100.0
C. Age	< 25 yrs	56	26.8
	25 - 29 yrs	70	33.5
	30 - 39 yrs	54	25.9
	40 + yrs	29	13.8
Total		209	100.0

Professional Characteristics of Teachers

On the 209 usable questionnaires received from the sample, all items relating to professional characteristics were completed, except in one instance. One teacher did not report his number of years experience in his present school. The frequency distributions of responses on the

[6]Rousseau, 144-145.

professional characteristics, and the particular categorizations of subjects employed in this research for analyses based on them, are presented in Tables 3 and 4.

TABLE 3

CATEGORIZATIONS OF SUBJECTS BY PREPARATION, AND BY EXTENT OF MAJOR FIELDS OF SPECIALIZATION

Characteristics	Categories	Frequencies of Responses	
		Number	Per Cent
A. Preparation By Teaching Grade Certificate	0 - 2	34	16.3
	3 - 4	82	39.2
	5 - 7	93	44.5
Total		209	100.0
B. Extent of Major By Number of University Courses	0 - 2½	26	12.4
	3 - 4½	54	25.8
	5 - 6½	66	31.6
	7+	63	30.2
Total		209	100.0

Teacher preparation, and extent of major fields of specialization. Table 3 illustrates the extent of preparation of teachers and the extent of teachers' major fields of specialization. A tabulation of the individual responses indicated that the average teaching grade certificate held by all teachers in the sample was beyond grade four (4.2). Specifically, 44.5 per cent held a certificate of grade five or higher, and only 16.3 per cent held certificates lower than grade three. In light of these figures, it is probably the case that well over fifty per cent of all secondary school teachers in Newfoundland hold a minimum of

one Bachelor's degree.

The data on extent of major fields of specialization paralleled those on teacher preparation. In this case, 61.8 per cent of the subjects had received five or more full-year courses in the fields of their majors, and 30.2 per cent held seven or more. Of the 209 respondents, only twenty-six (12.4 per cent) held fewer than three courses in their major fields of specialization.

TABLE 4

CATEGORIZATIONS OF SUBJECTS BY TOTAL YEARS TEACHING EXPERIENCE, AND YEARS TEACHING EXPERIENCE IN TEACHERS' PRESENT SCHOOLS

Characteristics	Categories	Frequencies of Responses	
		Number	Per Cent
A. Total Years Teaching Experience	1 - 2	46	22.0
	3 - 5	47	22.5
	6 - 12	75	35.9
	13 +	41	19.6
Total		209	100.0
B. Years Teaching Experience in Present School	1	65	31.3
	2 - 3	78	38.0
	4 - 5	35	16.8
	6 +	29	13.9
Total		208	100.0

Teaching Experience. Table 4 presents the categorizations of subjects on two aspects of teaching experience. The data on total years teaching experience were suggestive again of a relatively young teaching force since 44.5 per cent of the teachers reporting had less than six

years experience. Also consistently with the data regarding age, relatively few teachers--19.6 per cent with more than twelve years experience--had been teaching for a great many years. The data on experience in teachers' present schools indicated a relatively mobile teaching force. It is probably significant that only 30.7 per cent had taught in their present schools for more than three years, and only 13.9 per cent had taught in their present schools for more than five years.

Situational Characteristics

Size of community. The categorizations of subjects on the seven situational characteristics are presented in Tables 5, 6, 7, and 8. Table 5 contains the frequencies of responses from the three classes of communities considered in the thesis. These data support a generalization previously made that the majority of Newfoundland secondary schools are located in small towns. As illustrated in the table, 55.9 per cent of all teachers reporting were teaching in schools located in communities with populations less than 3,000, and a further 20.8 per cent were teaching in towns whose populations did not in fact exceed 7,500.

TABLE 5

CATEGORIZATION OF SUBJECTS BY SIZE OF COMMUNITY

Size of Community By Population	Frequencies of Responses	
	Number	Per Cent
> 20,000	47	23.3
3,000 - 20,000	42	20.8
< 3,000	113	55.9
Total	202	100.0

Grade class, size, and denominational type of school. Table 6 contains the categorizations of subjects on the situational characteristics regarding the grade class, size, and denominational type of school concerned. As illustrated, the majority of teachers (52.2 per cent) were teaching in central high schools accommodating all the secondary grades. Only 16.2 per cent taught in junior high schools, and the remaining 31.6 per cent were teaching in senior high schools.

TABLE 6

CATEGORIZATIONS OF SUBJECTS BY GRADE CLASS, SIZE, AND DENOMINATIONAL TYPE OF SCHOOL

Characteristics		Categories	Frequencies of Responses	
			Number	Per Cent
A.	Grade Class of School	Senior High	66	31.6
		Central High	109	52.2
		Junior High	34	16.2
	Total		209	100.0
B.	Size of School By Number of Teachers	1 - 9	53	25.6
		10 - 15	80	38.6
		16 - 25	48	23.2
		26 +	26	12.6
	Total		207	100.0
C.	Denominational Type of School	Roman Catholic	67	33.2
		Protestant	135	66.8
	Total		202	100.0

The size of schools was determined by the number of professional educators, including principals, specialists, and teachers, who were

regularly employed in the school. A total of 207 of the usable questionnaires contained the pertinent information on this variable. The data revealed that the great majority of teachers (64.2 per cent) were employed in relatively small schools employing fifteen or fewer teachers. Only 12.2 per cent taught in schools employing more than twenty-five teachers, and a spot check of the questionnaires indicated that these schools were located largely in the cities of St. John's and Corner Brook.

Newfoundland is divided for administrative purposes into four denominational types of school districts: Roman Catholic, Pentecostal, Seventh-day Adventist, and Integrated, the latter serving all other Protestant denominations. The Pentecostal and the Seventh-day Adventist school districts comprise comparatively few schools so that of the 202 teachers identified by schools on the returned questionnaires, only nine were teaching in schools of these two types combined. Consequently, for purposes of this research, teachers from all Protestant schools were considered in one combined group and were compared with all teachers from Roman Catholic schools making up a second group. As illustrated in Table 6, the data revealed that 66.8 per cent of all teachers reporting taught in Protestant schools, and the remaining 33.2 per cent taught in Roman Catholic schools.

Subject areas of major assignments. In order to compare subject areas in the research, a working definition was determined to specify the various types of subject teachers. Two definitions were originally devised and compared for effect in the preliminary analysis of the data. The first definition defined a given subject teacher as one whose major assignment was in that particular subject. The second definition

defined a given subject teacher as one whose major or minor assignment was in that particular subject. On comparison, following the analysis of the data, it was found that the results were virtually the same regardless of which definition was employed. Consequently, the first definition only was retained for use in the final analysis of the data.

TABLE 7

CATEGORIZATION OF SUBJECTS BY SUBJECT AREAS OF MAJOR ASSIGNMENTS

Subject Areas	Frequencies of Responses	
	Number	Per Cent
English	56	25.6
Social Studies	40	18.2
Mathematics	65	29.7
Science	20	9.1
French	18	8.3
Special Areas	20	9.1
Total	219	100.0

Table 7 presents the categorization of subjects by the subject areas of teachers' major assignments. Because of the sparcity of numbers in some subjects, such as, physical education, music, and the different sciences, certain related subjects were grouped to form combined subject areas. It was found that there were fifty-six English teachers teaching English literature and/or English language or related studies; forty social studies teachers teaching history, geography, and/or economics; sixty-five mathematics teachers; twenty science teachers teaching any of physics, chemistry, biology, and earth science;

eighteen French teachers; and twenty teachers teaching a variety of special subjects including physical education, home economics, music, art, industrial/vocational arts, and religion. No teacher reported a foreign language as his major or minor assignment.

Teaching time in major assignments, and number of courses taught. The categorizations of subjects according to the proportion of their teaching time spent in their major assignments, and the number of different courses they teach are presented in Table 8. The data reported on these variables indicated that the majority of teachers were teaching in their major assignments for a relatively large proportion of their teaching time, and most assignments included relatively few courses.

TABLE 8

CATEGORIZATIONS OF SUBJECTS BY PROPORTION OF TEACHING TIME IN MAJOR ASSIGNMENTS, AND THE NUMBER OF DIFFERENT COURSES TAUGHT BY TEACHERS

Characteristics	Categories	Frequencies of Responses	
		Number	Per Cent
A. Teaching Time in Major Assignment	< 50%	41	20.5
	50 - 74%	71	35.5
	75% +	88	44.0
Total		200	100.0
B. Courses Taught by Teacher	1 - 2	41	19.6
	3 - 4	89	42.6
	5 - 6	40	19.1
	7 +	39	18.7
Total		209	100.0

As illustrated in Table 8, 79.5 per cent of the teachers reporting were teaching in the subjects of their major assignments for fifty per cent or more of their teaching time, and 44 per cent were so assigned for seventy-five per cent or more of their time. Equally suggestive of a relatively healthy state of assignments, 62.2 per cent of all teachers taught fewer than five different courses, and only 18.7 per cent taught more than six different courses. A perusal of the questionnaires indicated that those teachers who were teaching a number of different courses were usually teaching related courses or more than one course in the same subject.

Professional Characteristics of Teachers Relative to Teachers' Personal Characteristics and Selected Situational Characteristics

This sub-section contains a series of tables presenting breakdowns of the various professional characteristics of teachers according to the personal and situational characteristics examined. It was felt that such a breakdown should be suggestive of relationships which could further illuminate the findings presented later in the report. For convenience, the various personal and situational characteristics are grouped in combined tables so that each table contains breakdowns on a single professional characteristic relative to a series of other variables. As was done in the preceding tables, all data presented represent frequencies of responses on the items concerned.

A breakdown in terms of the personal characteristics of teachers was given for only one of the professional variables considered, namely, the extent of teacher preparation. It was felt that there were probably

no further important relationships between the personal characteristics and any of the other professional characteristics examined.

TABLE 9

FREQUENCIES OF RESPONSES ON TEACHER PREPARATION RELATIVE TO THE PERSONAL CHARACTERISTICS OF TEACHERS

Characteristics	Categories	Frequencies of Responses on Teaching Grade Held			
		0 - 2	3 - 4	5 - 7	Total
A. Sex	Male	19	58	74	151
	Female	15	24	19	58
Total		34	82	93	209
B. Marital Status	Married	19	56	68	143
	Single	15	26	25	66
Total		34	82	93	209
C. Age	< 25 yrs	14	28	14	56
	25 - 29 yrs	10	23	37	70
	30 - 39 yrs	6	20	28	54
	40 + yrs	4	11	14	29
Total		34	82	93	209

Teacher preparation relative to teachers' personal characteristics. Table 9 presents the professional variable, teacher preparation, relative to the personal characteristics of teachers. With respect to the characteristics of sex and marital status, it appeared that male teachers were more highly qualified than females, and married teachers tended to be more highly qualified than single teachers. On the characteristic of age, while no age group had predominantly low qualifica-

tions, the highest age groups, as was expected, tended to hold higher teaching grades. In fact, for all age groups over twenty-four years, approximately fifty per cent or more of the teachers in each case held qualifications of the highest level considered, grade five or higher.

Teacher preparation relative to selected situational characteristics. The breakdowns of teacher preparation relative to the seven situational characteristics are contained in Table 10. Predictably, qualifications were generally considerably higher in the cities and larger towns, and in the larger schools. In particular, of the teachers reporting, 70.2 per cent of those in the two cities of St. John's and Corner Brook, 50 per cent of those in the larger towns, and 66.2 per cent of those from schools employing sixteen or more teachers held a grade five or higher teaching grade certificate. Contrasting with these findings, only 10.1 per cent of the teachers in the cities and larger towns compared to 23 per cent of those in the smallest towns, and only 8.1 per cent of the teachers in schools employing over fifteen teachers compared to 28.3 per cent of the teachers teaching in schools employing fewer than ten teachers held the minimum qualifications of grade two or lower.

In the earlier analysis (Table 6, page 36) it was shown that the majority of teachers taught in central high schools, and less than a third taught in junior high schools. It is interesting to note, however, that the central high school teachers, as well as the junior high school teachers, were considerably lower qualified than teachers in the senior high schools. Of the latter group, 69.7 per cent held grade five or higher, while 33.9 per cent of those in central high schools, and only

29.4 per cent of those in junior high schools held equivalent qualifications. Of special interest is the fact that in the senior high schools, only three per cent of the teachers employed held lower than grade three qualifications.

TABLE 10

FREQUENCIES OF RESPONSES ON TEACHER PREPARATION RELATIVE TO SELECTED SITUATIONAL CHARACTERISTICS

Characteristics	Categories	Frequencies of Responses on Teaching Grade Held			
		0 - 2	3 - 4	5 - 7	Total
A. Size of Community by Population	> 20,000	2	12	33	47
	3,000 - 20,000	6	15	21	42
	< 3,000	26	50	37	113
Total		34	77	91	202
B. Grade Class of School	Senior High	2	18	46	66
	Central High	26	46	37	109
	Junior High	6	18	10	34
Total		34	82	93	209
C. Size of School by Number of Teachers	1 - 9	15	21	17	53
	10 - 15	13	41	26	80
	16 - 25	3	17	28	48
	26 +	3	2	21	26
Total		34	81	92	207
D. Denominational Type of School	Roman Catholic	15	27	25	67
	Protestant	18	52	65	135
Total		33	79	90	202

TABLE 10--Continued

Characteristics	Categories	Frequencies of Responses on Teaching Grade Held			
		0 - 2	3 - 4	5 - 7	Total
E. Subject Area of Major Assignment	English	15	15	26	56
	Social Studies	5	15	20	40
	Mathematics	11	24	30	65
	Science	4	9	7	20
	French	0	10	8	18
	Special Areas	1	12	7	20
Total		36	85	98	219
F. Courses Taught by Teacher	1 - 2	4	15	22	41
	3 - 4	15	36	38	89
	5 - 6	6	17	17	40
	7 +	9	14	16	39
Total		34	82	93	209

The distribution of teachers by qualifications relative to denominational type of school was surprising in that the data indicated a tendency for teachers in the Protestant districts to be more highly qualified than those in Roman Catholic districts. As illustrated in Table 10, 51.5 per cent of the Protestant teachers compared to 37.3 per cent of the Roman Catholic teachers held the maximum qualifications, while only 13.3 per cent of the Protestants compared to 22.4 per cent of the Roman Catholics held the minimum qualifications of grade two or lower. An examination of the individual data from the questionnaires suggested that the Roman Catholic schools probably employed a relatively large proportion of teachers who were members of religious orders and

who held rather low qualifications. The information reported for this study was not sufficient to suggest further possible reasons for this phenomenon.

The data further revealed that there were higher proportions of teachers with maximum qualifications teaching in the subject areas of social studies, English, mathematics, French, special areas, and science in that order. Specifically, the percentages for these subjects were 50, 46.4, 46.2, 44.4, 35, and 35 respectively. These figures would appear to indicate that science and the special subject areas are not as well staffed as other areas. However, further analysis of the data in this table indicates that 95 per cent of the special subject area teachers, and 80 per cent of the science teachers did hold a minimum of grade three teaching certificate. Viewed in this way, the remaining subject areas of social studies, English, mathematics, and French were staffed with teachers holding a minimum of grade three in the proportions of 87.5 per cent, 73.2 per cent, 83.1 per cent, and 100 per cent respectively. Thus, it can be generalized that, while science teachers generally are the least qualified group, all groups, including science teachers, are relatively well qualified holding in at least 73.2 per cent of all cases a minimum of grade three qualifications.

There did not appear to be any significant relationship between the number of different courses taught by teachers and their particular qualifications. Apparently, the number of courses particular teachers are assigned to teach in the school programme is governed by factors other than teachers' general levels of qualifications. There was no indication that favouritism was prevalent in this matter, as one might

have speculated. A possible reason for this may be the fact that most schools are relatively small, and all teachers generally probably must be assigned to teach many courses as a matter of necessity.

Extent of major fields of specialization relative to selected situational characteristics. The findings based on the distribution of responses on extent of major field of specialization relative to situational characteristics, illustrated in Table 11, by and large paralleled those described regarding teacher preparation. This was to be expected since there necessarily was a high correlation between the general level of preparation and the number of university courses teachers had received in their major fields of specialization.

TABLE 11

FREQUENCIES OF RESPONSES ON EXTENT OF MAJOR FIELDS OF SPECIALIZATION RELATIVE TO SELECTED SITUATIONAL CHARACTERISTICS

Characteristics	Categories	Frequencies of Responses on Number of University Courses Held				
		0 - 2½	3 - 4½	5 - 6½	7+	Total
A. Size of Community by Population	> 20,000	2	6	13	26	47
	3,000 - 20,000	5	9	17	11	42
	< 3,000	19	37	33	24	113
Total		26	52	63	61	202
B. Grade Class of School	Senior High	0	14	22	30	66
	Central High	20	31	33	25	109
	Junior High	6	9	11	8	34
Total		26	54	66	63	209

TABLE 11--Continued

Characteristics		Categories	Frequencies of Responses on Number of University Courses Held				
			0 - 2½	3 - 4½	5 - 6½	7+	Total
C.	Size of School by Number of Teachers	1 - 9	11	16	18	8	53
		10 - 15	11	24	27	18	80
		16 - 25	2	12	14	20	48
		26 +	2	1	6	17	26
	Total		26	53	65	63	207
D.	Denominational Type of School	Roman Catholic	12	14	21	20	67
		Protestant	14	38	43	40	135
	Total		26	52	64	60	202
E.	Subject Area of Major Assignment	English	11	10	14	21	56
		Social Studies	2	9	15	14	40
		Mathematics	10	18	21	16	65
		Science	2	8	5	5	20
		French	0	6	9	3	18
		Special Areas	2	6	5	7	20
	Total		27	57	69	66	219
F.	Courses Taught by Teacher	1 - 2	4	6	17	14	41
		3 - 4	10	30	21	28	89
		5 - 6	6	9	18	7	40
		7 +	6	9	10	14	39
	Total		26	54	66	63	209

There were several minor differences, however. In the former analysis it was found that teachers employed in Protestant districts tended to hold higher qualifications than those in Roman Catholic districts. Yet, with one minor exception, in terms of the number of

university courses held by teachers in their major areas of specialization, there was no apparent difference between the two groups of teachers.

In the case of the number of courses taught by teachers, the breakdown on extent of major field of specialization indicated surprisingly that those teachers teaching seven or more courses tended to have more courses in their majors. However, for other categories of this variable, there was little apparent difference between them relative to the extent of major fields of specialization.

Total teaching experience relative to selected situational characteristics. Table 12 contains a breakdown of the total years teaching experience of teachers relative to five selected situational characteristics. On grade class of school, except in the case of junior high schools in which teachers showed a slight tendency to have comparatively more years experience, there were no apparent differences between classes. The data indicated that in the three classes, senior high schools, central high schools, and junior high schools, 54.4 per cent, 53.2 per cent, and 64.7 per cent respectively had six or more years of teaching experience. As was apparent from the breakdown of ages of teachers, there were relatively few teachers in any case who had been teaching for more than twelve years.

There was a tendency for smaller schools to have teachers with relatively much experience. For example, of the teachers in schools employing fewer than ten teachers, 58.7 per cent had six or more years experience. In contrast to this, only 34.6 per cent of the teachers in schools employing more than twenty-five teachers had equivalent experience.

TABLE 12

FREQUENCIES OF RESPONSES ON TOTAL YEARS TEACHING EXPERIENCE RELATIVE TO SELECTED SITUATIONAL CHARACTERISTICS

Characteristics	Categories	Frequencies of Responses on Total Years Teaching Experience				
		1 - 2	3 - 5	6 - 12	13+	Total
A. Grade Class of School	Senior High	10	20	25	11	66
	Central High	30	21	36	22	109
	Junior High	6	6	14	8	34
Total		46	47	75	41	209
B. Size of School by Number of Teachers	1 - 9	11	11	15	16	53
	10 - 15	23	15	31	11	80
	16 - 25	8	8	23	9	48
	26 +	4	13	5	4	26
Total		46	47	74	40	207
C. Denominational Type of School	Roman Catholic	19	16	16	16	67
	Protestant	26	31	57	21	135
Total		45	47	73	37	202
D. Subject Area of Major Assignment	English	20	6	20	10	56
	Social Studies	6	8	16	10	40
	Mathematics	13	18	22	12	65
	Science	3	6	9	2	20
	French	2	7	5	4	18
	Special Areas	4	6	5	5	20
Total		48	51	77	43	219
E. Courses Taught by Teacher	1 - 2	9	8	20	4	41
	3 - 4	12	25	32	20	89
	5 - 6	12	5	15	8	40
	7 +	13	9	8	9	39
Total		46	47	75	41	209

There were 128 teachers who taught in schools employing from ten to twenty-five teachers. The majority of these teachers had from six to twelve years of experience.

Although it appeared evident from the data reported on the questionnaires that teachers in Roman Catholic schools were relatively older than those in Protestant schools, the proportions of teachers relative to teaching experience suggested that the average number of years experience for teachers in Roman Catholic schools was in fact lower than that for teachers in Protestant schools. Of the Protestant teachers, 58.7 per cent, compared to 47.8 per cent of the Roman catholic teachers, had six or more years teaching experience. However, the largest segment of the Protestant teachers, amounting to 42.2 per cent, fell in the 6 - 12 years of experience category.

The data revealed no apparent differences between subject areas of major assignments on the experience variable. In terms of the number of courses taught by teachers, there appeared to be a tendency for teachers with less than three years experience to be assigned to teach many courses in the school programme. In all other cases, the findings were similar indicating that the greatest proportion of teachers, regardless of the number of courses they were teaching, had between six and twelve years of experience.

III. OPERATIONAL PROCEDURE

The study was conducted in a number of stages over a period of several months during 1971-72. The complete project entailed a variety of separate activities which are referred to here as the operational

procedure. These activities in order of occurrence were as follows:

1. The names and addresses of all teachers in the population were compiled from the March, 1971 attendance reports from the schools concerned to the Department of Education.

2. The entire list of names in the population were assigned numbers, and three hundred teachers were randomly selected to form the sample for the study.

3. A preliminary draft of the questionnaire was constructed and administered to approximately twenty-five teachers employed in two school districts in St. John's, Newfoundland. In this administration of the questionnaire, comments were solicited from the subjects for possible improvements to the instrument.

4. The final questionnaire for the main study was prepared incorporating some minor changes as suggested by the respondents in the pilot study.

5. The questionnaire was administered and collected by mail. For these purposes, the following correspondence was employed:

a) A letter was sent to superintendents whose districts were represented in the sample notifying them that the research would be carried out.

b) A letter was sent to the principals of all schools represented in the sample explaining the nature of the research, and requesting their support by encouraging teachers selected from their schools to complete and return the questionnaires.

c) A letter was sent to all teachers in the sample notifying them that they had been selected as subjects for the study. This

letter also explained the nature of the research and requested their cooperation and assistance.

d) The questionnaires were mailed to the subjects May 20, 1971. Two weeks following this date, on June 3rd, a follow-up letter was mailed to each subject in an effort to obtain some questionnaires that had not been received by that date.

6. Individual data on the questionnaires were collated in a preliminary form to facilitate the data analysis, and statistical tests were performed on the data with the aid of a computer programme available at Memorial University of Newfoundland.

7. Following completion of the study and the writing of the report in August, 1972, an abstract of the findings and recommendations was prepared and mailed to all superintendents and principals of schools from which subjects for the sample had been selected.

IV. TREATMENT OF THE DATA

The data treatment, consisting of several kinds of statistical analyses, was conducted in two stages. Preliminary to stage one of the treatment, all individuals responding were assigned subject-field and teacher-preference misassignment scores by the application of the mensuration instruments previously described. Stage one, then, consisted of the computation of subject-field and teacher-preference misassignment means, and a tabulation of the number and percentage of teachers misassigned in terms of the school-division orientations of their preparation programmes. These data represented the mean degrees of subject-field and teacher-preference misassignment, and the degree of

school-division misassignment respectively of the aggregate of teachers in the sample.

No further treatment of these data was undertaken at this stage. However, in the report of the data analysis, findings with respect to subject-field and teacher-preference misassignment were further illustrated by a tabular presentation and discussion of the frequency distributions of scores for the entire sample.

In stage two of the data treatment, degrees of each of the three aspects of misassignment were analyzed in terms of the personal and professional characteristics of teachers and certain situational characteristics. In the case of subject-field and teacher-preference misassignment, two statistical tests were applied to determine the significance of apparent relationships with each characteristic examined. First, an analysis of the variance was made by the use of the Fisher test for heterogeneity of variance. Secondly, where a significant difference at the .05 level was obtained in the Fisher test, Scheffé's Multiple Comparisons test was used to determine significant differences between means at the .05 level.[9]

To determine whether the observed frequencies of school-division misassignment were indicative of significant relationships between misassignment and each characteristic considered, the Chi Square test of independence was employed.[10] The .05 level of significance was applied to all tests.

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[9]G. A. Ferguson, Statistical Analysis in Psychology and Education (Toronto: McGraw-Hill Book Co., Inc., 1966), 281-297.

[10]Ibid., 200-204.

SUMMARY

This chapter described the instruments used in the research and the methodology for the treatment of the data. Mensuration scales devised and tested by Dominic A. Rousseau in his study of misassignment in Alberta (1970) were used to measure subject-field and teacher-preference misassignment, and a tabulation of teachers who had not studied high school methods in their training programmes was employed to indicate the degree of school-division misassignment.

The questionnaire used for the survey was devised by the researcher and refined in a pilot study carried out in two school districts in St. John's. Approximately seventy per cent of the original three hundred subjects in the sample returned the questionnaires.

Relationships between misassignment and the various characteristics were tested for significance at the .05 level by the use of the one-way analysis of variance (Fisher), the Scheffé Multiple Comparison of Means test, and the Chi Square test of independence.

A statistical breakdown of the data on the returned questionnaires revealed that the secondary school teaching force was predominately male and relatively young, and a large majority were married. The average qualifications held by all teachers was beyond grade four, and by and large, teachers had few years of teaching experience.

Most teachers were teaching in relatively small schools located in small communities of less than 3,000 population. Over half of the teachers taught in central high schools, and over half taught in schools located in Protestant school districts. The subject areas of English and mathematics accounted for the majority of teachers reporting, and

most teachers spent large proportions of their teaching time in their major assignments teaching all together relatively few different courses in the school programme.

Further analysis showed that qualifications tended to be higher for teachers who were male, older, married, and Protestant, and for those in the cities and larger towns, in senior high schools, and in the larger schools generally. The subject areas of social studies and English appeared to have the highest qualified teachers, while science and special area teachers appeared to be the least qualified.

CHAPTER III

ANALYSIS OF THE DATA

Chapter III presents the data analysis and the findings of the study. The findings are presented in five sections: Section I contains the analysis and findings regarding the overall levels and general prevalence of misassignment; Sections II, III, and IV present the findings regarding relationships revealed by the data between misassignment and the selected personal, professional, and situational characteristics respectively. The final section of the chapter presents a summary of the complete findings of the study.

I. THE GENERAL PREVALENCE OF MISASSIGNMENT

In terms of the aggregate of the sample, the data analysis indicated that misassignment of each of the three types examined--subject-field, teacher-preference, and school-division misassignment--was prevalent in varying degrees among Newfoundland secondary school teachers. The overall means for subject-field and teacher-preference misassignment were 3.56 (1 - 6 scale) and 2.98 (1 - 4 scale) respectively, and the tabulation for school-division misassignment showed that 25.4 per cent of the teachers reporting had not studied high school methods in their preparation programmes (see page 26 for illustrations of the misassignment scales). The tables in this section illustrate specifically the distributions of scores on the various misassignment scales.

The overall mean of 3.56 on the subject-field misassignment scale is indicative of a considerably high degree of subject-field misassignment. With reference to the assignment descriptions employed in the scale, this mean suggests that a relatively large number of teachers were assigned to residual subject areas of specialization. Table 13 illustrates that, in fact, of all the teachers reporting, 10.5 per cent were assigned to residual areas entirely; a further 43.6 per cent were assigned to residual areas in addition to the areas of their major and minor fields of specialization. Hence, it is considered that a total of 54.1 per cent were seriously misassigned in varying degrees.

TABLE 13

FREQUENCY DISTRIBUTION OF SCORES ON THE SUBJECT-FIELD MISASSIGNMENT SCALE M-1

Subject-field Misassignment Scores	Frequencies of Responses	
	Number	Per Cent
6	35	16.7
5	29	13.9
4	32	15.3
3	58	27.8
2	33	15.8
1	22	10.5
Total	209	100.0

Table 14 illustrates the distribution of scores on the teacher-preference misassignment scale. On this criterion, although the overall mean of 2.98 was fairly low, teachers appeared to be comparatively better assigned since 76 per cent of the aggregate were assigned to their major

assignment fields congruently with their preferences for these fields. A further 12 per cent were assigned to their major and minor fields congruently with declared preferences for their minors. Only 12 per cent of all the teachers reporting were assigned entirely incongruently with any preference.

TABLE 14

FREQUENCY DISTRIBUTION OF SCORES ON THE TEACHER-PREFERENCE MISASSIGNMENT SCALE M-2

Teacher-preference Misassignment Scores	Frequencies of Responses	
	Number	Per Cent
4	44	21.0
3	115	55.0
2	25	12.0
1	25	12.0
Total	209	100.0

The tabulation illustrating the degree of school-division misassignment is presented in Table 15. As indicated, a total of fifty-three teachers were misassigned in this respect. Of this total, amounting to 25.4 per cent of the sample, forty-one indicated that they had studied elementary methods, one that she had studied primary methods, and eleven that they had not prepared professionally to teach in any particular school division.

It is recognized that the three types of misassignment do not necessarily lend themselves to direct comparison, and no attempt was made in this research to effect such a comparison. However, on an informal basis, through a consideration of the actual assignment

descriptions employed in the scales, some general notion of comparison can be derived. It is considered on this basis that subject-field misassignment is prevalent to a considerably great degree, school-division misassignment, though also extensive, is perhaps somewhat less acute, and teacher-preference misassignment is the least prevalent and serious of the three types.

TABLE 15

FREQUENCIES OF RESPONSES ON THE SCHOOL-DIVISION ORIENTATIONS OF TEACHERS' PREPARATION PROGRAMMES

School-division Orientations	Frequencies of Responses	
	Number	Per Cent
None[a]	11	5.3
Primary	1	0.5
Elementary	41	19.6
Sub-total	53	25.4
High School	156	74.6
Total	209	100.0

[a]These teachers had studied under various arts and science programmes, and had not received any professional training to teach.

A comparison of these findings with those made by Rousseau in Alberta is of interest. In his study of Alberta secondary school teachers, Rousseau found an overall mean of 4.32 on the subject-field misassignment scale (1 - 6 scale).[1] This mean, considerably higher than

[1]Dominic A. Rousseau, "The Assignment and Misassignment of Secondary School Teachers in Alberta" (unpublished Master's thesis, The University of Alberta, 1970), 58.

that found in the present research, led Rousseau to conclude that the typical Alberta secondary school teacher was assigned either to his major or minor area of specialization entirely, or to both his major and minor areas exclusively.[2] Thus, a higher degree of misassignment is prevalent in Newfoundland than was found to be prevalent in Alberta in 1969-70.

The overall mean on teacher-preference misassignment found in this study compared much more favourably with that found by Rousseau in Alberta. These means were 2.98 and 2.83 (1 - 4 scale) for Newfoundland and Alberta respectively.[3] Although the difference is probably not statistically significant, actually in Newfoundland a smaller proportion of the teachers were found to be assigned incongruently with their preference than was the case in Alberta.

Rousseau posited a number of reasons for the degrees of misassignment which he found. Some of the most interesting of these included the inability of the non-city districts to attract highly qualified teachers and at the same time offer programmes which are comparable to those found in city schools; the fact that English departments in schools are usually so large that there is an excessively great demand for English teachers, some of whom must be taken from other subject areas; and the fact that many teachers who have specialized in English at university may, because of a conflicting preference, choose to teach in other subject fields.[4] Undoubtedly, these and other reasons suggested by Rousseau apply in the Newfoundland case as well.

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[2] Ibid., 59. [3] Ibid., 58. [4] Ibid., 60 & 64.

In light of the apparent difference between the degree of subject-field misassignment and the degree of teacher-preference misassignment found in this study, a further reason may be posited for the comparatively high degree of subject-field misassignment in Newfoundland. It would appear that administrators are willing to tolerate a high degree of subject-field misassignment in order to provide teachers with assignments in the areas of their preferences which evidently conflict in many cases with their subject areas of specialization. If this is indeed the case, there is an implication here for improvement of assignment practices by administrators. It is also probable that subject-field misassignment could only be reduced under present circumstances at the expense of teacher-preference assignment.

There may be an implication here as well for administrators and others involved in the selection and training of student teachers at university. It may be the case that insufficient guidance is provided for student teachers when they plan their training programmes. Apparently, student teachers while at university are permitted to specialize in subject areas other than those in which they prefer to teach, or for which there is a demand for teachers in the schools.

II. MISASSIGNMENT RELATIVE TO TEACHERS' PERSONAL CHARACTERISTICS

Only one of the misassignment types was found to be significantly related to either of the personal characteristics of sex, marital status, and age. As noted in Table 16, the Chi Square test on the frequency distribution of school-division misassignment indicated that a

significant relationship existed between school-division misassignment and teachers' sex. Specifically, the tabulation of observed and expected frequencies indicated that female teachers were more typically misassigned than were male teachers.

TABLE 16

MISASSIGNMENT RELATIVE TO THE SEX OF TEACHERS

Teachers' Sex	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. Male	151	3.48	3.05	28	38.29
B. Female	58	3.76	2.79	25	14.71
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]			Values		
F		1.27	0.65	--	
χ^2		--	--	9.97	
Significance[b]		NS	NS	$< .01$	
Scheffé Comparison of Means		NS	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

Tables 17 and 18 illustrate the findings relative to marital status and age. While no statistically significant relationships were found with any of the misassignment types, the examination of the raw data suggested some tendencies with respect to school-division mis-

assignment. In particular, there appeared to be slight tendencies for single teachers to be more typically misassigned than married teachers, and for the youngest teachers to be more typically misassigned than the oldest teachers. This suggests the possibility that relatively large proportions of new or beginning teachers in the secondary schools have not prepared specifically to teach secondary students. This could mean that a disproportionate number of student teachers are being channelled into primary and elementary programmes while at university.

TABLE 17

MISASSIGNMENT RELATIVE TO THE MARITAL STATUS OF TEACHERS

Teachers' Marital Status	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. Married	143	3.57	2.89	31	36.26
B. Single	66	3.53	3.18	22	16.74
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]		**Values**			
F		0.03	0.90	--	
χ^2		--	--	2.41	
Significance[b]		NS	NS	NS	
Scheffé Comparison of Means		NS	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

TABLE 18

MISASSIGNMENT RELATIVE TO THE AGE OF TEACHERS

Teachers' Ages	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. < 25 years	56	3.59	3.16	21	14.20
B. 25 - 29 years	70	3.84	2.91	16	17.75
C. 30 - 39 years	54	3.24	2.94	12	13.69
D. 40 + years	29	3.41	2.86	4	7.36
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]		**Values**			
F		1.58	0.20	--	
χ^2		--	--	5.17	
Significance[b]		NS	NS	NS	
Scheffé Comparison of Means		NS	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

III. MISASSIGNMENT RELATIVE TO TEACHERS' PROFESSIONAL CHARACTERISTICS

All but one of the five professional characteristics examined in the research were significantly related to some aspect of misassignment. However, as was the case with the personal characteristics, again no significant relationship was found between any of the professional characteristics and the teacher-preference aspect of misassignment. The specific findings regarding the relationships between misassignment and

each of the professional characteristics are presented and discussed in this section.

Teacher Preparation

The analyses for the three aspects of misassignment relative to teacher preparation are presented in Table 19. As illustrated in the table, significant relationships were found between preparation and each of subject-field and school-division misassignment. No relation was found between preparation and teacher-preference misassignment.

TABLE 19

MISASSIGNMENT RELATIVE TO TEACHER PREPARATION

Preparation, by Teaching Grade Held	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. 0 - 2	34	3.06	2.65	17	8.62
B. 3 - 4	82	3.37	3.00	30	20.80
C. 5 - 7	93	3.91	3.09	6	23.58
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]			**Values**		
F		4.83	0.56	--	
χ^2		--	--	25.33	
Significance[b]		.01	NS	$< .01$	
Scheffé Comparison of Means		A - C	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

Three levels of teacher preparation, based on teaching grade certificates held by the teachers, were determined for the analyses. On subject-field misassignment, the analysis of variance indicated that the group means were heterogeneous. When the Scheffé test was subsequently applied, it was found that, while the mean for the middle group (group B) was not significantly different from either of the other two, the mean for the lowest qualified group (group A) was significantly lower than that for the highest qualified group (group C). These results suggested that subject-field misassignment was greater for teachers who held the lowest qualifications, namely, grade two or lower.

The results of the Chi Square test on the frequency distribution of school-division misassignment also indicated a significant relationship at the .05 level with teacher preparation. An examination of the observed and expected frequencies suggested that a great tendency existed for lower qualified teachers to be more typically misassigned than higher qualified teachers. Specifically, the observed frequencies for groups A and B exceeded the expected frequencies by approximately 100 per cent and 60 per cent respectively. In contrast, the expected frequency for group C was almost four times as large as the observed frequency.

Training Programme Orientation

The findings regarding misassignment relative to the school-division orientations of teachers' training programmes showed that the two groups--teachers with high school methods, and teachers without high school methods--were significantly different in terms of subject-field

misassignment. Teachers who had studied high school methods scored significantly higher on the M-1 Scale than those who had not, indicating that the former group was less typically misassigned than the latter group. No significant differences were found on the teacher-preference aspect of misassignment relative to training programme orientation. However, the raw data indicated that on the M-2 Misassignment Scale also, teachers with high school methods tended to score higher indicating a lower degree of misassignment.

TABLE 20

MISASSIGNMENT RELATIVE TO THE SCHOOL-DIVISION ORIENTATIONS OF TEACHERS' TRAINING PROGRAMMES

Teachers' Training Programme Orientations	n	Subject-field Misassignment	Teacher-preference Misassignment
		Means	Means
A. High School	156	3.69	3.10
B. Non-high School	53	3.17	2.64
Total	209	3.56	2.98
Statistical Tests[a]		**Values**	
F		4.39	1.90
Significance[b]		.04	NS
Scheffé Comparison of Means		A - B	NS

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

Extent of Major Field of Specialization

The extent of teachers' major fields of specialization was indicated by the number of full-year university courses held in the major field. On this variable, the findings paralleled those on the teacher preparation variable indicating generally that both subject-field and school-division misassignment increased as the number of courses held decreased.

TABLE 21

MISASSIGNMENT RELATIVE TO THE NUMBER OF COURSES IN MAJOR FIELDS OF SPECIALIZATION

Number of Courses in Major Fields	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. 0 - 2½	26	3.08	2.69	15	6.59
B. 3 - 4½	54	3.19	2.65	20	13.69
C. 5 - 6½	66	3.68	3.27	11	16.74
D. 7 +	63	3.95	3.08	7	15.98
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]			**Values**		
F		3.36	1.11	--	
χ^2		--	--	20.66	
Significance[b]		.02	NS	< .01	
Scheffé Comparison of Means		NS	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

Specifically, however, in the case of subject-field misassignment, although the analysis of variance indicated heterogeneity at the .02 level of significance, no significant differences at the acceptable .05 level of significance were obtained through the Scheffé comparison of the means. This was somewhat surprising since one would expect a higher correlation between teaching grade levels (which did show significant differences between group means) and the number of courses in major fields of specialization than these data suggest. The Scheffé test did yield, in at least two cases, probabilities of differences which closely approached an acceptable level of significance. The two lowest groups (groups A and B) differed from the highest group (group D) with probabilities of .12 and .07 respectively. (Allan L. Edwards explains that the Scheffé test is in fact a conservative test in that larger differences are required for significance, and he notes that Scheffé suggests that with this test one might consider taking $\alpha = 0.10$ rather than $\alpha = 0.05$.[5]) In light of this, it seems highly probable that the differences referred to here are indicative of significant tendencies at least. One is led to conclude that subject-field misassignment is greater for teachers who have completed relatively few courses in their major fields of specialization.

With respect to school-division misassignment, as the table indicates, the relationship between misassignment and the extent of teachers' majors was highly significant. Examination of the raw data shows clearly that teachers with fewer courses were more typically

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[5]Allan L. Edwards, Experimental Design in Psychological Research New York: Holt, Rinehart and Winston, Inc., 1968), 151.

misassigned than those with comparatively many courses. Of the fifty-three teachers misassigned by school division, approximately two-thirds held fewer than five courses in their majors.

Teaching Experience

Two aspects of teaching experience were considered: the total years of teaching experience, and the number of years experience teachers had in their present schools. Consistently with most studies of assignment-misassignment, no significant relationships were found between either of the experience variables and either subject-field or teacher-preference misassignment. However, in the case of total years experience, certain tendencies were apparent from the raw data, and a significant relationship was found between this variable and the school-division aspect of misassignment.

The rank order of means on both the subject-field and the teacher-preference scales suggested possible tendencies for teachers with relatively few total years experience to be less typically misassigned in both respects. On the subject-field misassignment scale, the means ranged in uninterrupted order from 3.89 to 3.15 (1 - 6 scale); on the teacher-preference misassignment scale, the means ranged also in uninterrupted order from 3.20 to 2.85 (1 - 4 scale). The school-division misassignment tabulation indicated more clearly that in terms of total years experience, there was a marked relationship with school-division misassignment. Teachers with relatively few years total experience were more seriously misassigned than those with many years of experience.

TABLE 22

MISASSIGNMENT RELATIVE TO TOTAL YEARS EXPERIENCE

Total Years of Experience	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. 1 - 2	46	3.89	3.20	18	11.66
B. 3 - 5	47	3.74	2.96	10	11.92
C. 6 - 12	75	3.46	2.93	21	19.02
D. 13 +	41	3.15	2.85	4	10.40
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]			Values		
F		1.94	0.23	--	
χ^2		--	--	7.91	
Significance[b]		NS	NS	$< .05$	
Scheffé Comparison of Means		NS	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

Table 23 indicates that no relationships significant at the .05 level were obtained between school experience and any of the misassignment types. The school experience variable was included in the study at the suggestion of certain prominent educators in the Province who had posited informally that teachers with long tenure would probably be given special consideration in the matter of assignments so that generally they would be better assigned. The results of this study indicate

that, on the contrary, teachers with long tenure were misassigned just as frequently as those with comparatively little experience in their present schools. The raw scores indicated that teachers with the least number of years experience in their present schools tended to be better assigned than were those with long tenure. The highest means on both the subject-field and the teacher-preference misassignment scales were obtained for teachers in their first years at their present schools.

TABLE 23

MISASSIGNMENT RELATIVE TO YEARS EXPERIENCE IN TEACHERS' PRESENT SCHOOLS

Years Experience in Present Schools	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. 1	65	3.89	3.20	21	16.82
B. 2 - 3	78	3.54	2.85	19	19.87
C. 4 - 5	35	3.17	2.89	7	8.92
D. 6 +	29	3.38	2.97	6	7.39
Total	208	3.57	2.98	53	53.00
Statistical Tests[a]			**Values**		
F		1.84	0.37	--	
χ^2		--	--	1.75	
Significance[b]		NS	NS	NS	
Scheffé Comparison of Means		NS	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

IV. MISASSIGNMENT RELATIVE TO SELECTED SITUATIONAL CHARACTERISTICS

The research examined seven situational characteristics which all together defined the conditions under which teachers operated in their various assignments. These characteristics included the type of community by population size, the grade class, size, and denominational type of schools in which teachers were employed, the subject areas of their major assignments and the proportion of their teaching time spent in these assignments, and the number of different courses teachers taught in the school programme. Significant relationships were found between misassignment and the situational characteristics in all but two cases. No aspect of misassignment was significantly related to the denominational type of school, or to the subject areas of teachers' major assignments. Again, no relation was found between the teacher-preference aspect of misassignment and any of the situational characteristics.

Size of Community

Surprisingly, only one misassignment type was significantly related to the size of community in which teachers were teaching. As illustrated in Table 24, the subject-field misassignment mean for city teachers was considerably higher than those for the other two groups. The Scheffé test indicated that the mean for city teachers was significantly higher than that for teachers teaching in towns of populations less than 3,000, and higher than the mean for teachers teaching in the larger towns at a significance level of .10. Although the mean score

for large towns exceeded that for small towns, the Scheffé test indicated no significant difference between them. It is concluded that the significant point of division on this variable is between city teachers and non-city teachers with the latter being more seriously misassigned than the former.

TABLE 24

MISASSIGNMENT RELATIVE TO THE SIZE OF COMMUNITY

Community Populations	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. > 20,000	47	4.19	2.94	8	12.36
B. 3,000 - 20,000	42	3.48	3.48	10	10.93
C. < 3,000	113	3.35	2.81	35	29.71
Total	202	3.57	2.98	53	53.00
Statistical Tests[a]		Values			
F		4.95	1.56	--	
χ^2		--	--	1.63	
Significance[b]		.01	NS	NS	
Scheffé Comparison of Means		A - C	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

The mean scores on the teacher-preference misassignment scale were surprising in that teachers in the larger towns making up the

middle group had the highest mean score. On the basis of the raw data, although neither the Fisher test nor the Scheffé test indicated any relationships significant at the .05 level, it appeared that teachers in the smallest towns and teachers in the cities tended to be more seriously misassigned than those in the larger towns.

The analysis in terms of school-division misassignment indicated that there was no relation between school-division misassignment and the size of the community in which a teacher was teaching. While teachers in the cities were not as frequently misassigned as those in the smallest towns, the Chi Square test indicated that the difference was not significant.

Grade Class of School

The findings with respect to the class of school showed that significant relationships existed in terms of both subject-field and school-division misassignment. Only in terms of the raw data was there a tendency apparent with respect to teacher-preference misassignment. For the three aspects of misassignment, teachers in senior high schools tended to be better assigned than those in the other two classes of schools.

The Fisher test for homogeneity of variance indicated significant differences among the means for subject-field misassignment. When the means were compared in the Scheffé test, it was found that teachers in senior high schools scored significantly higher than those in central high schools. However, although the mean for senior high school teachers was also considerably higher than that for junior high school teachers,

this difference was not found to be significant. Thus, there is a sharp distinction between senior high schools and all other high schools in terms of subject-field misassignment with senior high schools having the least degree of misassignment.

TABLE 25

MISASSIGNMENT RELATIVE TO THE GRADE CLASS OF SCHOOL

Grade Classes of Schools	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. Senior High	66	4.05	3.12	5	16.74
B. Central High	109	3.27	2.92	36	27.64
C. Junior High	34	3.56	2.91	12	8.62
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]			**Values**		
F		5.20	0.22	--	
χ^2		--	--	12.08	
Significance[b]		.01	NS	< .01	
Scheffé Comparison of Means		A - B	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

In terms of school-division misassignment, the Chi Square test indicated a significant relationship with the class of school. Specifically, the observed frequency for senior high school teachers

was less than 30 per cent of the expected frequency, while the observed frequencies for central high school teachers and for junior high school teachers exceeded the expected frequencies by approximately 30 per cent and 50 per cent respectively. Thus, school-division misassignment was greatest in central and junior high schools, and considerably less in senior high schools. These results were not unexpected since of the fifty-three teachers who were misassigned in terms of school division, the great majority had studied elementary methods which are commonly considered to be adequate for teaching junior high school grades.

Size of School

School size was determined by the number of professional educators employed on a regular basis by the school. On this basis, four groups were determined for comparison--schools employing 1 - 9, 10 - 15, 16 - 25, and 26 or more teachers. The analysis and findings with respect to this variable are presented in Table 26.

The results of the Fisher test and the Scheffé test on subject-field misassignment indicated a highly significant relationship between subject-field misassignment and the size of school. Specifically, the rank order of means for the four groups showed a clear progression indicating increasing misassignment as the size of schools decreased. On the Scheffé test, teachers in each of the two groups comprising the smallest schools were significantly more typically misassigned than those in the largest schools. Also, although significant only at the .08 level, teachers in the 16 - 25 group scored considerably lower than those in the 26 + group. These results indicated very strongly that

misassignment was more acute in smaller schools than in the largest schools. It might be pointed out further that, of all the sub-groups of all characteristics examined in the study, only one group mean was higher than the mean of 4.54 (1 - 6 scale) obtained for teachers in schools employing twenty-six or more teachers.

TABLE 26

MISASSIGNMENT RELATIVE TO THE SIZE OF SCHOOL

School Size by Number of Teachers	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. 1 - 9	53	3.11	2.70	11	13.31
B. 10 - 15	80	3.51	2.79	25	20.10
C. 16 - 25	48	3.56	3.58	14	12.06
D. 26 +	26	4.54	3.04	2	6.53
Total	207	3.55	2.98	52	52.00
Statistical Tests[a]		**Values**			
F		5.01	1.92	--	
χ^2		--	--	4.00	
Significance[b]		.00	NS	NS	
Scheffé Comparison of Means		A - D B - D	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

Surprisingly, no significant relationship was found between

school-division misassignment and the size of school. It might have been speculated that comparatively fewer teachers without high school methods would be employed in the larger schools. The Chi Square test indicated, however, that although a tendency existed for the largest schools to have the least incidence of school-division misassignment, the differences overall were not significant at the .05 level of confidence.

Denominational Type of School

Table 27 contains the data on the denominational type of school variable. Earlier, in the description of the sample, it was pointed out that teachers in Protestant schools tended to be more highly qualified than those in Roman Catholic schools. In this chapter, it has been further shown that both subject-field and school-division misassignment were significantly greater for teachers who held relatively lower qualifications. Interestingly, however, none of the present analyses showed significant relationships between any aspect of misassignment and this variable.

Although no significant relationships were found, one interesting tendency was indicated by the raw data. The means obtained on the subject-field and teacher-preference scales indicated that, while Protestant teachers scored higher on the subject-field scale, Roman Catholic teachers scored considerably higher on the teacher-preference scale. This suggests that the tendency for administrators to tolerate higher degrees of subject-field misassignment in favour of lowering teacher-preference misassignment, as was suggested earlier, is more prevalent

in Roman Catholic schools than in Protestant schools.

TABLE 27

MISASSIGNMENT RELATIVE TO THE DENOMINATIONAL TYPE OF SCHOOL

Denominational Type of School	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. Roman Catholic	67	3.40	3.18	29	34.08
B. Protestant	135	3.65	2.87	22	16.92
Total	202	3.57	2.98	51	51.00
Statistical Tests[a]			Values		
F		1.09	0.93	--	
χ^2		--	--	2.29	
Significance[b]		NS	NS	NS	
Scheffé Comparison of Means		NS	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

The raw data on school-division misassignment indicated that teachers in Protestant schools were more frequently misassigned than those in Roman Catholic schools. However, the difference between the two groups was not significant at the .05 level. The actual probability of a significant difference obtained in the Chi Square test exceeded .10. This suggests that any difference between the two groups in terms of school-division misassignment is very slight and in no case significant.

Subject Areas of Major Assignments

Table 28 illustrates the findings relative to the subject areas of major assignments.

TABLE 28

MISASSIGNMENT RELATIVE TO THE SUBJECT AREAS OF MAJOR ASSIGNMENTS

Subject Areas of Major Assignments	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. English	56	4.00	3.45	16	14.06
B. Social Studies	40	3.33	2.55	8	10.05
C. Mathematics	65	3.43	2.97	20	16.33
D. Science	20	3.10	2.70	2	5.02
E. French	18	3.33	2.83	3	4.52
F. Special Areas	20	3.55	2.85	6	5.02
Total	219	3.53	2.96	55	55.00

Statistical Tests[a]	Values		
F	1.56	1.05	--
χ^2	--	--	3.72
Significance[b]	NS	NS	NS
Scheffé Comparison of Means	NS	NS	--

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

The results of the various tests on misassignment in the different subject areas were very interesting in light of the previous

description of the sample with respect to this variable. In Chapter II, it was shown that the average qualifications of science teachers and of special subject teachers were somewhat lower than those of teachers in the other areas. Moreover, it was found in the data analysis, as also previously described, that misassignment tended to be greater for teachers with relatively low qualifications. In view of these findings, one might have expected misassignment to be comparatively great in the areas of science and the special subjects. The findings, however, indicated that on all aspects of misassignment, the differences between subject groups were not significant at the .05 level of significance.

Although no significant differences were obtained in any of the tests performed on the data on this variable, the raw scores on the subject-field and teacher-preference scales did accord with expectations based on the sample description and other findings referred to above. On the subject-field misassignment scale, English teachers scored highest, and all others scored considerably lower with science teachers obtaining the lowest score. Thus, at least on this basis, tendencies for science teachers to be most acutely misassigned and for English teachers to be the most properly assigned were apparent.

On the teacher-preference misassignment scale, the findings, though not indicating significant relationships at the .05 level, were similar. Again, science teachers tended to be comparatively less properly assigned, and English teachers showed the least incidence of misassignment of all groups. No apparent relationships were observed in terms of school-division misassignment; observed frequencies correlated highly with expected frequencies.

Teaching Time in Major Assignments

Three categories of teaching time in major assignments were considered: less than 50%, 50 - 74%, and 75% or more. The analyses and findings with respect to this variable are presented in Table 29.

TABLE 29

MISASSIGNMENT RELATIVE TO THE PROPORTION OF TEACHING TIME IN MAJOR ASSIGNMENTS

Teaching Time in Major Assignments	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. < 50%	41	2.56	2.39	16	10.66
B. 50 - 74%	71	2.90	3.00	16	18.46
C. 75% +	88	4.63	3.27	20	22.88
Total	200	3.59	3.00	52	52.00
Statistical Tests[a]		**Values**			
F		51.61	2.47	--	
χ^2		--	--	3.37	
Significance[b]		.00	NS	NS	
Scheffé Comparison of Means		A - C B - C	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

The findings indicated that teachers who were properly assigned to their major fields of specialization generally spent large propor-

tions of their teaching time in these assignments. A strong relationship between subject-field misassignment and teaching time in major assignments was indicated on both the Fisher and the Scheffé tests. On the Scheffé test, the means for both of the two lowest time categories were significantly lower than that for the highest time category. The mean score of 4.63 (1 - 6 scale) for teachers who taught in their major assignments for seventy-five per cent or more of their teaching time was the single highest mean obtained for any sub-group considered in the study, and the means of 2.56 and 2.90 on the same scale for teachers who taught in their major assignments for less than fifty per cent and for fifty to seventy-four per cent respectively of their teaching time were the two lowest means obtained. There was no significant difference between the means for the two lowest categories. These data indicate that subject-field misassignment was considerably great for teachers who spent less than seventy-five per cent of their teaching time in their major assignments, and significantly less prevalent for those who spent seventy-five per cent or more of their teaching time in these assignments.

Of all the variables considered in the research, the variable of teaching time in major assignments was the most closely related to teacher-preference misassignment. Although not significantly related at the .05 level of significance, a probability of .09 was obtained in the analysis of variance; in one case in the Scheffé comparison of means also, namely, for the difference between the two extreme groups, a probability of .09 was obtained. In view of the fact that the Scheffé test is very conservative, it is probably the case that a significant relationship exists also between teacher-preference misassignment and this variable.

It might be pointed out further that the rank order of the three teacher-preference misassignment means indicated a clear progression of increasing misassignment with a decrease in the teaching time proportion.

The Chi Square test on school-division misassignment indicated that no significant relationship existed between this misassignment type and the teaching time variable. However, here also the raw data showed that a slight tendency existed for teachers in the lowest time category to be more frequently misassigned than were those in the remaining two categories.

Number of Courses Taught

The findings relative to the number of courses taught by teachers were similar to those for teaching time in major assignments. That is, a highly significant relationship was found between subject-field misassignment and the number of courses taught, but no relationship was found with respect to teacher-preference or school-division misassignment that was significant at the .05 level.

With respect to subject-field misassignment, the four group means obtained showed a clear progression from 4.54 for teachers teaching 1 - 2 courses to 3.23 for those teaching 7+ courses. This indicated that misassignment was greater for teachers who taught many courses than for those who taught comparatively few courses. In the Scheffé test, it was found that the mean for teachers teaching only one or two courses was significantly greater than each of the means for the other categories. No other mean differences were significant, indicating that subject-field misassignment was significantly greater for any number of courses

above two.

TABLE 30

MISASSIGNMENT RELATIVE TO THE NUMBER OF COURSES TAUGHT BY TEACHERS

Number of Courses Taught by Teachers	n	Sub-fld Mis'mt	Tea-pref Mis'mt	Sch-div Mis'mt	
		Means	Means	Frequencies	
				O	E
A. 1 - 2	41	4.54	3.29	10	10.40
B. 3 - 4	89	3.38	3.15	21	22.57
C. 5 - 6	40	3.28	2.58	13	10.14
D. 7 +	39	3.23	2.69	9	9.89
Total	209	3.56	2.98	53	53.00
Statistical Tests[a]		**Values**			
F		7.18	1.26	--	
χ^2		--	--	2.14	
Significance[b]		.00	NS	NS	
Scheffé Comparison of Means		A - B A - C A - D	NS	--	

[a]The .05 level of significance was used in all tests.

[b]Each significance value reported in this row applies to the test value immediately above it.

Neither the rank order nor the statistical tests indicated a significant relationship between teacher-preference misassignment and the number of courses taught by teachers. In fact, the mean for teachers teaching more than six courses was greater than that for teachers who taught five or six courses. The highest means for the four groups were

obtained for teachers who taught 1 - 2 and 3 - 4 courses, in that order. No significance whatever was apparent from the data on school-division misassignment since the observed frequencies correlated highly with the expected frequencies. The Chi Square was not significant at the .05 level of confidence.

V. SUMMARY OF THE FINDINGS

The following summary of findings is made preparatory to the statement of general conclusions in the next chapter.

General Findings

In terms of the aggregate of the sample, the data analysis indicated that misassignment of each of the three types examined--subject-field, teacher-preference, and school-division misassignment--was prevalent in varying degrees among Newfoundland secondary school teachers. Generally speaking, subject-field misassignment was found to be prevalent to the greatest degree, school-division misassignment was found to be somewhat less acute, and teacher-preference misassignment was found to be the least prevalent of the three types.

Specifically, overall means of 3.56 (1 - 6 scale) and 2.98 (1 - 4 scale) were obtained on the subject-field and teacher-preference misassignment scales respectively, and a total of 25.4 per cent of the teachers reporting were found to be misassigned in terms of the school-division orientations of their preparation programmes. Based on the assignment descriptions employed in the various scales, these findings meant that a total of 54.1 per cent of the sample were seriously

misassigned in varying degrees in terms of their subject fields of specialization, 12 per cent were assigned entirely incongruently with their preferences for either their major or minor assignments, and 25.4 per cent had not prepared professionally to teach secondary school students.

Findings Regarding Misassignment Relative to Selected Personal, Professional, and Situational Characteristics

Only one of the misassignment types was found to be significantly related to either of the personal characteristics of sex, marital status, and age. The Chi Square test on school-division misassignment data indicated that female teachers were more typically misassigned than were male teachers.

In terms of the professional characteristics of teachers, significantly greater degrees of subject-field misassignment were found for teachers with teaching grades 0 - 2 than for those with grades 5 - 7, and for teachers without high school methods than for those with high school methods. The incidence of school-division misassignment was significantly greater for teachers with lower teaching grades than for those with relatively higher teaching grades, for teachers with few courses compared with those with many courses in their major fields of specialization, and for teachers with few years total teaching experience than for those with comparatively many years. No aspect of misassignment was found to be significantly related to the number of years teaching experience in teachers' present schools. The teacher-preference aspect of misassignment was not found to be related to any of the

professional characteristics, nor, in fact, to any of the three classes of characteristics examined in the research.

For all but two of the situational characteristics examined, significant relationships at the .05 level were found in terms of one or both of the subject-field and school-division aspects of misassignment. No aspect of misassignment was found to be significantly related to either the denominational type of school or the subject areas of teachers' major assignments.

On the remaining five situational variables, in terms of subject-field misassignment, misassignment was significantly greater in the smallest towns than in the cities, in junior high schools than in senior high schools, in schools with less than sixteen teachers compared to the largest schools with more than twenty-five teachers, for teachers who taught less than seventy-five per cent than for those teaching seventy-five per cent or more of their teaching time in their major assignments, and for teachers who taught three or more different courses than for those teaching only one or two courses. School-division misassignment was more frequent among teachers in both central and junior high schools than among senior high school teachers. Again, no significant relationship was found between teacher-preference misassignment and any of the situational characteristics.

CHAPTER IV

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter presents the conclusions, implications, and recommendations suggested by the study. The conclusions are presented in two categories organized respectively in terms of (a) the nature and general prevalence of misassignment found, and (b) the relationships observed between misassignment and the personal, professional, and situational characteristics examined in the research. On the basis of the findings, conclusions, and implications, recommendations are made regarding immediate action to alleviate certain misassignment problems, and for further research in this problem area.

I. CONCLUSIONS

The following conclusions are drawn from the findings of the study:

General Conclusions

1. Misassignment of each of the three types examined--subject-field, teacher-preference, and school-division misassignment--was prevalent in varying degrees among the secondary school teachers of Newfoundland.

2. Subject-field misassignment was prevalent to a considerably high degree; school-division misassignment was perhaps somewhat less

acute; teacher-preference misassignment was the least prevalent of the three types.

3. Over half of the secondary school teaching force were assigned to residual subject areas of specialization either entirely, or in addition to the areas of their major or minor fields of specialization.

4. Approximately twenty-five per cent of the secondary school teaching force had not prepared professionally by studying high school methods in their training programmes to teach secondary students.

5. Approximately ten per cent of the secondary school teaching force were assigned entirely incongruently with any subject field of preference.

6. The great majority of those teachers who were misassigned by school division had studied elementary methods in their preparation programmes at university.

Conclusions Regarding Specific Relationships

Statistically significant relationships. The following conclusions were made regarding relationships between misassignment and selected personal, professional, and situational characteristics found to be significant at the .05 level of significance.

1. Teacher-preference misassignment was not significantly related to any of the personal, professional, or situational characteristics examined.

2. Of the three misassignment types, only school-division misassignment was significantly related to the sex of teachers. Specifi-

cally, female teachers were more typically misassigned by school division than were male teachers.

3. No aspect of misassignment was significantly related to either the marital status or the age of teachers.

4. Both subject-field and school-division misassignment were significantly greater for teachers who held low qualifications in terms of teaching grades than for those who held comparatively high qualifications.

5. Teachers who had not studied high school methods in their preparation programmes were more typically misassigned in terms of subject field of specialization than were those who had studied high school methods.

6. Subject-field and school-division misassignment were both significantly related to the extent of teachers' major fields of specialization as indicated by the number of university courses held in these fields. In each case, misassignment increased steadily as the number of courses decreased.

7. Only school-division misassignment was significantly related to total years teaching experience. Specifically, misassignment was greater for teachers with few years of experience compared with those with many years.

8. No aspect of misassignment was significantly related to the number of years experience teachers had in their present schools.

9. Only subject-field misassignment was significantly related to size of community. Teachers in the smallest towns of populations up to 3,000 were more typically misassigned than were teachers in the two

cities of St. John's and Corner Brook.

10. Both subject-field and school-division misassignment were significantly related to the grade class of school in which teachers were teaching. Teachers in central high schools were more seriously misassigned by subject field than those in senior high schools, and teachers in both the central and the junior high schools were more typically misassigned by school division than were those in the senior high schools.

11. Only subject-field misassignment was significantly related to the size of school. In this case, teachers from relatively small schools were more seriously misassigned than those employed in the largest schools.

12. No aspect of misassignment was significantly related to either the denominational type of school or the subject areas of teachers' major assignments.

13. Only subject-field misassignment was significantly related to the proportion of teaching time spent by teachers in their major assignments. Misassignment was found to be greater for teachers who spent small proportions of their teaching time in their major assignments than for those who spent comparatively large proportions of their teaching time in these assignments.

14. Only subject-field misassignment was significantly related to the number of different courses taught by teachers. Specifically, misassignment was greater for teachers who taught any number of courses more than two than for those who taught only one or two courses.

Tendencies apparent from the raw data. In addition to the foregoing conclusions, the following conclusions were made regarding tendencies apparent from the raw data, but which were not proved significant at the .05 level of significance.

1. Subject-field misassignment tended to be greater for:

a) Older teachers compared to younger teachers.

b) Teachers with many years total teaching experience compared to teachers with relatively few years.

c) Teachers with many years experience in their present schools compared to teachers with relatively few years.

d) Teachers in other subject areas (especially science) compared to English teachers.

2. Teacher-preference misassignment tended to be greater for:

a) Teachers with other than high school methods compared to those with high school methods.

b) Teachers in the smallest towns and in the cities, in that order, compared to those in the larger towns of populations 3,000 to 7,500.

c) Teachers in small schools compared to those in larger schools.

d) Teachers spending small proportions rather than large proportions of their teaching time in their major assignments.

3. School-division misassignment tended to be greater for:

a) Single teachers compared to married teachers.

b) Younger teachers compared to older teachers.

c) Teachers in Protestant schools compared to those in Roman Catholic schools.

d) Teachers in the subject areas of English, mathematics, and the special subjects compared to those in the subject areas of social studies, science, and French.

e) Teachers who spent small rather than large proportions of their teaching time in their major assignments.

II. IMPLICATIONS

Assignment-misassignment is a matter of concern for all educators. In particular, administrators and supervisory personnel are concerned since it is their role to ensure that maximum effectiveness of instruction is achieved; teachers themselves are concerned because they are the people most immediately affected by the manner in which actual assignments are made. A great many studies exist which have shown that various types of misassignment may have adverse effects on different facets of education. Some of these effects have been alluded to elsewhere in this report, and based on these, a general need for research in this area was posited. It is considered that the present research is bound to have significant implications for educators at all levels of the educational structure.

Perhaps most prominent among the implications of this study are those which concern administrators and others involved in the selection and training of new teachers. It has been suggested as a result of the findings that a tendency is apparent for school administrators to tolerate high degrees of subject-field misassignment in favour of providing teachers with assignments in their areas of preference. The fact that this practice is necessary, or that it even exists, could

have any of several possible implications. In the first place, it would appear that a fairly large number of secondary school teachers hold specializations in subject fields other than their fields of preference. This could further mean that either these teachers were not given sufficient guidance in the selection of their training programmes while at university, or many teachers do not perceive a need to qualify specifically in the fields in which they prefer to teach. Whatever the case, a need exists for more practical guidance of student teachers to ensure that teachers are selected and trained in accordance with specific demands in the field.

A further implication for the group of educational personnel under discussion is the possible need for a proper balance among the numbers of teachers trained specifically to teach in the various school divisions. Based on this study alone, it is not possible to determine whether such an imbalance presently exists in terms of actual numbers by training. Other research could determine the number of teachers in non-secondary schools who have trained under the secondary school programme. Should the imbalance referred to indeed exist, a need would be apparent for more guidance and control in this area of teacher training as well.

The fact that considerably high degrees of misassignment are prevalent has implications for supervisory personnel. For instance, since over fifty per cent of all teachers in the secondary schools are in fact assigned to residual subject fields of specialization to some extent, the task of supervision in the various subject areas must necessarily be more difficult and complex. As a minimal effort to

alleviate difficulties of this type, administrators and others involved in the hiring and placement of teachers should endeavour in making their selections to achieve greater harmony between prospective teachers' subject fields of specialization and preference, and between the particular qualifications of these teachers and the assignments to be filled.

Finally, as concerns the teachers themselves, misassignment has been found repeatedly in various studies to adversely affect teacher job satisfaction and the efficiency of instruction. It would appear from the results of this study that teachers generally would be well advised to consider carefully as they choose their teacher training programmes. The greatest job satisfaction and optimum efficiency of instruction are more likely to follow when the teacher has specialized in the subject field which he prefers to teach. By so doing, teachers can make themselves optimally prepared academically to organize and instruct particular subjects and particular students, as well as ensure for themselves the greatest likelihood that they will be properly prepared psychologically to relate to the particular students they will eventually teach.

III. RECOMMENDATIONS

Pending the completion of further research, as suggested below, little regarding immediate action to alleviate the misassignment problems revealed by the study can be recommended at this time. However, several pertinent suggestions are made in this section along with a number of recommendations for further research in several of the problem areas suggested by the study.

An important observation has been made regarding the excessive prevalence of subject-field misassignment compared to teacher-preference misassignment. It is not possible, however, on the basis of this study alone to determine whether the one can be reduced without adversely affecting the extent of the other. Since there appears to be a conflict in a great many cases between teachers' fields of preference and of specialization, the best solution for obvious reasons may not be simply to require all teachers to teach in their fields of specialization, even if that were feasible. The most that can be recommended for the present is that administrators, when they recruit new teachers, should make every effort to select only teachers whose areas of specialization and preference coincide. The minimum necessity of hiring teachers appropriately qualified for the particular assignments to be filled goes without saying.

It is further considered that administrators can avoid the necessity to misassign many teachers by properly planning programmes and assignments in their schools well in advance of recruitment and selection periods. With respect to the many teachers already in the school systems and misassigned, it has been suggested by various writers that reassignment within school systems and, in some cases, within and between school districts may be feasible and effective in eliminating many misassignment problems presently existing. It should at least be possible to reassign those teachers currently misassigned by school division to other schools within the same systems for which they are properly prepared professionally.

Although this research did not determine causes of misassign-

ment, the findings regarding relationships existing between misassignment and the various personal, professional, and situational characteristics were in some cases suggestive of certain conditions which tend to be associated with misassignment. For instance, it was shown that misassignment tended to be greater for teachers without high school methods, and for teachers who spent relatively small proportions of their teaching time in their major assignments, but who taught relatively large numbers of different courses. These conditions, of course, are not necessarily causes of misassignment, but are more probably the result of specific decisions by either administrators or the teachers themselves. It would seem logical to suggest that where conditions such as these are permitted to exist, misassignment is likely to occur. Administrators can endeavour to avoid these conditions by hiring only teachers who are specifically trained in secondary education, and by organizing school programmes so that teachers can be assigned to subject areas in which they have specialized.

Finally, based on the findings, conclusions, and suggested implications of this study, a number of problems which require research may be identified. More information is required concerning the particular qualifications of teachers in all school divisions. This study raised an important question which cannot be answered on the basis of this study alone: does there exist an imbalance among the numbers of teachers trained by school division or by subject areas in Newfoundland? The results of research providing the answers to questions of this type could have important implications for those educators involved in teacher training in the Province.

In this study, much information has been generated regarding the relationships existing between misassignment and a variety of characteristics. This information should be useful for future researchers in identifying precisely where excessive degrees of misassignment are prevalent. Utilizing this information, research should be conducted to determine possible causes of various types of misassignment. Based on that research, it should be possible to suggest measures for reducing or eliminating the problem, thus paving the way for even further research to test the effectiveness or practicality of these measures.

This study, as well as all other studies on the problem known to the writer, has examined misassignment only in terms of secondary school teachers. Research appropriately designed is required as well for teachers in the primary and elementary schools of Newfoundland.

The research studies available posit a great many adverse effects of various types of misassignment. However, these effects often vary with locality, and researchers are not always in agreement as to the relative significance or extent of these effects. Research is required to determine the effects and the extent of these effects of misassignment among school teachers in Newfoundland.

Finally, it has been suggested by various writers on the subject that misassignment could exist in terms of a variety of factors and conditions in addition to subject fields of specialization, teachers' preferences, and school-division orientations of training programmes. Various psychological factors including teachers' attitudes, aptitudes, and interests are probably as significant in terms of teaching assignments as any of the more tangible factors such as were examined in the

present study. It is recommended that research be undertaken to examine the prevalence, causes, and effects of other aspects of misassignment that from time to time may be identified or suspected.

APPENDIX

THE QUESTIONNAIRE

GENERAL INSTRUCTIONS

You, a secondary school teacher, are requested to complete all items on this questionnaire. Your careful and prompt reply is essential for the success of the research.

Individual personal information obtained through this instrument will be kept strictly confidential. Your name and address are requested only to facilitate checking. The returned forms will be seen by only myself and my immediate assistants, while the findings of the survey will be submitted in summary form so that individual teachers cannot be identified.

If you have any question about your response to any of the items, please telephone me collect at 576-4726 after 6:00 P.M.

SECTION I

The information requested in this section would be extremely helpful to me in checking responses. However, if you do not wish to identify yourself or your school, please omit this section and complete the remainder of the questionnaire. Please PRINT all responses in this section.

1. Your name: _____
2. Your personal address: _____
3. Name of school: _____
4. School address: _____

SECTION II

Please respond to all of the items following using a statement or a check mark, as appropriate.

1. Your sex: Male ☐ Female ☐ 2. Your age: _____ years
3. Your marital status: Married ☐ Single ☐ Other _____ (specify)
4. Your teaching grade: ☐ < 1 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

NOTE: In items 5 and 6, I want to ascertain the number of courses you have completed in your major and minor fields of specialization. For the sake of consistency, please give the numbers as numbers of full credit or full year courses as opposed to half credits or semester courses. Thus, for example, 12 semester courses should be indicated by 6; 13 semester courses should be indicated by 6½.

5. State the greatest number of university academic courses you have completed in a single subject field: _____ courses
6. State the second greatest number of university academic courses you have completed in a single subject field: _____ courses
7. State the number of years teaching experience you will have at the end of this school year: _____ years
8. State the number of years you will have taught in your present school at the end of this school year: _____ years
9. State the number of different courses you teach: (You may teach more than one course in any one subject.) _____ courses
10. Check the programme under which you studied at university:

High School ☐ Elementary ☐ Primary ☐

11. Check the grades which are taught in your school:

☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

12. State the number of professional educators (teachers, principal, guidance counselors, etc.) employed in your school: ____ educators

13. State the percentage of your time on the job which you spend in classroom teaching: _____ per cent

14. Check the grades in which you teach:

☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

15. If you spend any time in classroom teaching, please respond according to the instructions below in <u>each of the six</u> columns on the next page. Note that you are asked to make six responses in all, once for each of the six columns. Separate instructions are given for each column. Please be careful to respond in the correct column for each set of instructions.

<u>INSTRUCTIONS</u>

Column A -- Check the subject field(s) in which you spend the <u>greatest single amount</u> of your teaching time, and state in the parentheses next to your check mark what percentage of your teaching time that is.

Column B -- Check the subject field(s) in which you spend the <u>second greatest amount</u> of your teaching time.

Column C -- Check <u>all other</u> subject fields in which you spend some part of your teaching time.

Column D -- Check the subject field(s) in which you have completed your <u>greatest number</u> of university academic courses. (This is the subject(s) for which you gave the number in item 5.)

Column E -- Check the subject field(s) in which you have completed your <u>second greatest number</u> of university academic courses. (This is the subject(s) for which you gave the number in item 6.)

Column F -- Check the subject field in which you most prefer to teach.

Responses -- <u>OVER</u>

SUBJECT FIELDS	%	RESPONSES A	B	C	D	E	F
English	( )	☐	☐	☐	☐	☐	☐
History	( )	☐	☐	☐	☐	☐	☐
Geography	( )	☐	☐	☐	☐	☐	☐
Economics	( )	☐	☐	☐	☐	☐	☐
Mathematics	( )	☐	☐	☐	☐	☐	☐
Science	( )	☐	☐	☐	☐	☐	☐
French	( )	☐	☐	☐	☐	☐	☐
_____(specify foreign language)	( )	☐	☐	☐	☐	☐	☐
Art	( )	☐	☐	☐	☐	☐	☐
Music	( )	☐	☐	☐	☐	☐	☐
_____(specify other fine art)	( )	☐	☐	☐	☐	☐	☐
Home Economics	( )	☐	☐	☐	☐	☐	☐
Physical Education	( )	☐	☐	☐	☐	☐	☐
Industrial/ Vocational Arts	( )	☐	☐	☐	☐	☐	☐
Business (Commercial) Education	( )	☐	☐	☐	☐	☐	☐
_____(specify any other subject except 'Education')	( )	☐	☐	☐	☐	☐	☐

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