INTERORGANIZATIONAL COORDINATION IN A MANDATED RELATIONSHIP: A CASE STUDY

by
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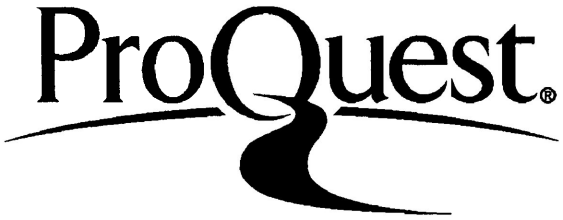
A Thesis submitted in partial fulfillment
of the requirements for the Degree of Master
of Education at Lakehead University.

Thunder Bay, Ontario

1984



ACKNOWLEDGEMENTS

This case study was completed as an M.Ed. thesis at the Faculty of Education, Lakehead University. It was made possible through the support, encouragement, and cooperation of many persons. I would like first to express my gratitude to the members of my thesis committee--Dr. Jim Angus, Dr. Janet Webster, and Dean Geoffrey Weller. Each provided guidance and many valuable observations. I am especially indebted to Dr. Jim Angus for his supervision as chairman of the committee. A special thanks goes to Dean John Stapleton who encouraged me to begin working on this thesis and to Dr. Janet Webster whose support helped me complete it. I would also like to acknowledge the support of my colleagues and the staff at the Faculty of Education, Lakehead University, who frequently offered encouragement. I want to thank all those who participated in this research by answering questions. Their cooperation made this study possible. Special mention is given Helen Hirvasoja who typed and retyped this rather lengthy document. Finally, I want to thank my husband, Keith, and my three children, Steven, Warren, and Michelle for their support and cooperation.

ABSTRACT

The purpose of this case study was to address the problem of interorganizational coordination in a mandated relationship. Past research had found that the characteristics of the linkage between organizations was likely to vary depending on whether the base of the relationship was voluntary or mandated. The relationship between public health and educational organizations for the provision of immunization services to schoolchildren was chosen for analysis as the base of the relationship had recently changed with the passing of the Immunization of School Pupils Act, 1982. Accordingly, the present study was designed to answer one major question: How will the change in the base of the relationship from voluntary to mandated influence the pattern of linkages between the Thunder Bay Board of Health and the Thunder Bay School Boards?

Marrett's model (1971), which focused on the problem of linkages between organizations, provided the conceptual framework for this study. She proposed that relationships might vary on four dimensions: degree of formalization, degree of standardization, degree of intensity, and degree of reciprocity. The case study was

designed to be exploratory and primarily descriptive in nature. Twenty-one semi-structured informant interviews and several documents provided the data for this investigation. The change in linkage dimensions was analysed utilizing Marrett's model. The findings of the present study revealed that change occurred in all four linkage dimensions but failed to demonstrate major changes.

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CHAPTER 1

INTRODUCTION

Interorganizational relationships involve the linking together of organizations for a variety of reasons. Organizations which are highly specialized and autonomous, may develop linkages to assist each other in achieving goals which have importance not only for each organization but also for society.

One aspect of interorganizational relationships which has attracted the attention of researchers is coordination. Interorganizational coordination has unique characteristics which differentiate it from other forms of interorganizational behavior such as cooperation, conflict, and competition. Mulford and Rogers (1982) defined interorganizational coordination as:

> the process whereby two or more organizations create and/or use existing decision rules that have been established to deal collectively with their shared task environment. (p. 12)

This definition emphasizes that the decision rules can be established by a third party or created by the participating organizations. Thus, an interorganizational relationship may be voluntary or involuntary. Mandated relationships are involuntary, governed by rules and regulations which specify

the roles and responsibilities of each organization in the relationship.

In summary, organizations may be joined voluntarily or by a legal mandate and be involved in the process of interorganizational coordination for the attainment of organizational and societal goals.

Statement of the problem

The purpose of this case study was to investigate the problem of interorganizational coordination in a mandated relationship. The relationship between the Thunder Bay District Health Unit, the Lakehead Board of Education and the Lakehead District Roman Catholic Separate School (RCSS) Board was investigated. One aspect of the relationship between these organizations involves the provision of immunization services to schoolchildren. The immunization program changed from voluntary to mandated with the passing of The Immunization of School Pupils Act, 1982. It was proposed that a study of the immunization program both before and after the passing of this legislation was appropriate for an investigation of interorganizational coordination in a mandated relationship.

Interorganizational coordination seems to involve linkages between organizations. Marrett (1971) suggested that the study of "relational properties"--the characteristics of the linkage--was one of the important aspects of interorganizational relationships. Hence the

problem of linkages between the organizations was studied. The study of linkages at this point in time was appropriate as the Immunization of School Pupils Act, 1982 functioned to change the base of the relationship between the organizations from voluntary to mandated.

Background of the problem

Organizations can be joined together for several reasons. Hall (1982) described four bases for interaction which range along a continuum from ad hoc to legal mandate. Only when a legal mandate exists does a relationship become involuntary. Until the Immunization of School Pupils Act, 1982 was passed, school boards had the legislated right to refuse public health programs (Public Health Act, 1982, Section 132). This right no longer exists regarding immunization programs. Thus, a brief discussion of the historical development of this relationship seems appropriate to the present study.

Historically, linkages between public health and educational organizations have existed to protect and enhance the health of schoolchildren. To provide health services, public health units need the support and cooperation of schools to gain access to schoolchildren. The health of pupils is also a concern of education because of the knowledge that a reciprocal relationship exists between health and education. Without good health, children cannot benefit fully from education as illness interferes with

learning, working, and happiness. Thus, public health and educational organizations have developed linkages because of specific dependencies--the need for healthy pupils and the need for access to clients.

The relationship between public health and educational organizations for the control of communicable diseases is long standing. In 1882, the Charter of the Ontario Board of Health referred to its responsibility to distribute to schools "sanitary literature and special practical information relating to the prevention and spread of contagious and infectious diseases" (cited in Reynolds, 1973, p. 114). Over the years, the means of controlling communicable diseases gradually changed as medical knowledge increased. Preventive measures requiring the cooperation of public health and educational personnel included:

(a) enforcing quarantine regulations for infected children and their siblings;
(b) closing schools during severe epidemics;
(c) regular inspection of buildings, staff, and pupils; and
(d) providing free innoculations in the schools as vaccines became available.

It is apparent that the prevention of communicable diseases among schoolchildren has required a linkage between public health and educational organizations for a long time.

Immunization has proven to be of immense value to society in its fight over communicable diseases. Through

worldwide availability and use of efficient vaccines, the total eradication of smallpox has been accomplished (Wehrle, 1980). Sever (1982) reported that less than 10 cases of polio are confirmed annually in the United States. In 1974, the United States embarked on a national "Measles Elimination Program" whereby immunization for measles was made compulsory for school attendance. It has been claimed that this program has virtually eradicated measles from the United States (Anthony et al., 1979; Krugman, 1979; Robbins et al., 1981).

In Ontario, immunization has historically been a voluntary matter. General practitioners played a special role in encouraging and providing immunization especially in the preschool years. Public health units maintained immunization by providing boosters at recommended intervals through the child's school years. Nevertheless, annual surveys conducted by the Ministry of Health indicated that approximately twenty percent of children entering school for the first time were not adequately immunized. In addition, the number of cases of vaccine-preventable diseases had been increasing in recent years--approximately 10,000 in 1977; 12,000 in 1978; and 16,000 in 1979 (Ministry of Health, Note 1). It seems likely that concern for the immunization levels of schoolchildren, coupled with the success of the American legislation, led the Ontario government to develop the present legislation.

The Immunization of School Pupils Act and Regulation 23 received Royal Assent on July 9, 1982. This Act equipped the Ontario Medical Officers of Health with the legal backing to eradicate the following six communicable diseases; Measles, Mumps, Rubella, Tetanus, Diptheria, and Poliomyelitis. This legislation has made immunization compulsory for children to attend school. Any child who is not properly immunized can be suspended from school with the exception of children who have obtained either a prescribed "statement of medical exemption" or a "statement of religious belief" (Immunization of School Pupils Act, 1982, Section 3). The legislation has effectively made immunization compulsory rather than voluntary.

It seems reasonable to argue that the Immunization of School Pupils Act, 1982 has interorganizational implications. Firstly, it has altered the base of the relationship between Boards of Health and Boards of Education from voluntary to mandated. Hall (1982) argued that "the presence of a strong and enforced mandate leads to relationships of a different form than those which evolve from ongoing exchanges" (p. 254, 255). As a consequence, a change in coordination is anticipated.

Secondly, the Immunization of School Pupils Act has altered the domain of the organizations. Domain refers to an organization's area of operation (Warren, 1972). The Act stipulates for example that the Medical Officer of Health by

written order may require a pupil to be suspended for a period of 20 school days for failing to comply with immunization standards (Section 4). Suspension of pupils has historically been a domain controlled exclusively by educational officials. Now, suspension can be initiated under special conditions by the Medical Officer of Health. Therefore, the Immunization of School Pupils Act has altered the domain of the organizations.

Thirdly, the Immunization of School Pupils Act has imposed several responsibilities on both organizations. For example, public health officials must maintain a prescribed record of immunization for each pupil (Section 8) and provide a written order when suspension is required (Section 3). Educational officials must notify public health of all pupil transfers (Section 11) and ensure that suspensions are carried out (Section 3). Thus, the responsibility of ensuring that schoolchildren are properly immunized is a joint responsiblity of local Boards of Health and Boards of Education.

To summarize, the Immunization of School Pupils Act has altered the base of the relationship; has altered the domain of each organization; and has imposed specific responsibilities on each organization. Therefore, this new legislation has interorganizational implications.

Conceptual framework

In this section, the conceptual model which guided the

research questions, data collection, and data analysis is briefly outlined. With the passing of the Immunization of School Pupils Act, 1982 the base of the relationship between public health and educational organizations for the provision of immunization services changed from voluntary to mandated. Hall, Clark, Giordano, Johnson and Van Roekel (1977) suggested that relationships between organizations are likely to vary depending on the base of the relationship. In order to study interorganizational coordination in a mandated relationship, a model was needed which would highlight the mechanisms used to integrate the participating organizations. Marrett's model (1971) served this purpose as her model focused on the linkage characteristics of the relationship.

Linkage dimensions were first proposed by Marrett (1971) in her study of voluntary relations between social welfare organizations. Marrett's interorganizational model focused on "relational properties"--the characteristics of the connection between organizations. In her model, the unit of study is the relationship--its characteristics and changes--rather than the individual or comparative properties of the interacting organizations. Marrett defined, provided measurable indicators and proposed the likely relationships between four dimensions:

(a) degree of formalization;

(b) degree of standardization;

(c) degree of intensity; and

(d) degree of reciprocity.

Definition of variables

It is appropriate at this juncture to define the variables crucial to an understanding of the conceptual model used as a framework for the present study.

Degree of formalization

The first dimension, degree of formalization, provides a general understanding of the structure used to authorize the existence of the relationship. Schermerhorn (1981) defined formalization as "the degree to which the IOC is given official recognition by participants" (p. 89). Marrett identified two indicators of formalization--agreement and structural formalization.

Agreement formalization. Agreement formalization is defined as "the extent to which a transaction between two organizations is given official recognition and legislatively or administratively sanctioned" (Aldrich, 1979, p. 273). Understandings, agreements, and laws are the structural mechanisms used to authorize the existence of an interorganizational relationship.

Structural formalization. Structural formalization is defined as "the extent to which an intermediary organization coordinates the relationship between two or more organizations" (Aldrich, 1979, p. 274). Informal get togethers, interorganizational committees, and interagency

councils are examples of structural mechanisms which may be established to coordinate the activities of interacting organizations.

Degree of standardization

The second dimension, degree of standardization, is defined as "the degree to which procedures for IOC are specified" (Schermerhorn, 1981, p. 89). Unit and procedural standardization were identified by Marrett (1971) and Aldrich (1979) as two indicators of standardization. Compliance standardization was suggested by Gottfredson and White (1981) as a possible third indicator of standardization.

Unit standardization. The units standardized can vary from one relationship to another. The agreement may be more or less explicit about such units as the types of resources exchanged, their quality, price or amount. Agreements which do not involve an exchange of resources may be more or less explicit about the roles and responsibilities of each participating organization. In this study, unit standardization was defined as the extent to which the roles of each organization are clearly delineated.

Procedural standardization. Procedural standardization refers to the extent to which the procedures established to guide the interaction between organizations are clearly delineated (Marrett, 1971, p. 94). A procedure refers to a set of established forms or methods for conducting work.

Procedures may be written or unwritten. They may be clearly delineated, requiring no clarification, or poorly defined, subject to a great deal of variation. In this study, procedural standardization was defined as the extent to which each organization is guided by a set of fixed, clearly delineated methods for performing work.

Compliance standardization. Gottfredson and White (1981) suggested that compliance--the tendency to yield to a request or demand--may be more or less clearly delineated. They suggested that compliance can be achieved by stipulating penalties for noncompliance; by establishing enforcement procedures; or by the presence of a strong moral and social obligation to comply. In this study, compliance standardization was defined as the extent to which compliance is clearly delineated.

Degree of intensity

The third dimension, degree of intensity examined the activities of the relationship and measured the size of the resource investment and the frequency of interaction. Marrett (1971) defined intensity as "the extent of involvement required" (p. 91) to maintain the relationship. Marrett identified two indicators of intensity--the size of the resource investment and the frequency of interaction. In this study, these indicators have been labelled resource intensity and interaction intensity.

Resource intensity. Resource intensity is defined as "the magnitude of an organization's resources that are committed to a relation" (Aldrich, 1979, p. 275). Both tangible and intangible resources are considered important to an understanding of interorganizational relationships; however, White (1974) commented that most research tends to be limited to the measurement of tangible, quantifiable resources. This dimension was used in this study primarily to differentiate between the size of the resources committed at two different time frames--before and after the passing of the Immunization of School Pupils Act, 1982.

Interaction intensity. Interaction intensity was defined as the kind and number of contacts made between organizational personnel. The types of contact may include informal face to face meetings, telephone calls, written communication or formal meetings. This variable is concerned with the communication process between participating organizations.

Degree of reciprocity

The fourth dimension, degree of reciprocity, was used to determine the symmetry of the relationship and was concerned primarily with the balance of power in respect to control over resources and control over determining or influencing the terms of the relationship. Marrett (1971) defined reciprocity as "the degree of mutuality in the relationship" (p.93) and suggested two indicators for its

measurement--resource and definitional reciprocity.

Resource reciprocity. Resource reciprocity is defined as "the degree to which the resources in a transaction are mutually exchanged" (Zeitz, 1975, p. 65). The direction of resource flows between organizations can vary. The flow can be symmetrical, with both organizations sending and receiving resources relatively equally, or asymmetrical, with one organization providing the majority of the resources needed to maintain the interaction.

Definitional reciprocity. Definitional reciprocity is defined as "the extent to which the terms of the interaction are mutually reached" (Marrett, 1971, p. 93). This indicator is directly associated with the process of interorganizational decision making. Interorganizational relationships can vary in the extent to which participating organizations jointly establish the terms of the agreement.

Marrett (1971) also suggested that "power balance" could be another indicator of reciprocity but decided to exclude it from her model. She concluded that power balance is problematic from a measurement point of view and that her two indicators of reciprocity may in fact capture the power symmetry dimension. However, it is clear from a review of later literature that the measurement of reciprocity and power has remained problematic to researchers. Thus, three additional indicators have been incorporated into this study which may be helpful in analysing power balance.

Degree of power balancing operations. This variable was suggested by Emerson's (1962) power-dependence theory. Emerson argued that the power of one organization, A, over another organization, B, is a function of B's dependence upon A. Emerson described four ways in which B, the low-power organization can act to equalize or balance the power in the relationship. He called these ways of equalizing power "power balancing operations" and demonstrated that any action B can take to equalize the imbalance of power must fall into one of four categories. In this study, degree of power balancing operations was defined as the extent to which the low-power organization used an action to equalize the power imbalance.

Degree of Satisfaction. Both Benson, Kunce, Thompson, and Allen (1973) and Hall, et al. (1977) included measures of satisfaction in their studies of interorganizational coordination. They found that satisfaction was related to coordination and dissatisfaction was related to conflict. Hall (1982) also stated that "conflict was related to power differences" (p. 262). These findings suggested that power asymmetries may be identified by investigating the degree of satisfaction. In this study, degree of satisfaction was defined as the extent to which organizational personnel are satisfied with (a) the immunization program and (b) the legislation.

Study approach

This thesis was a case study aimed at understanding interorganizational coordination between three organizations involved with providing immunization services to schoolchildren. This case study was concerned with determining the nature of the interaction in two different time frames--before and after the passing of the Immunization of School Pupils Act, 1982. Marrett's (1971) model was used as a basis for analysing the change which occurred when the base of the relationship moved from voluntary to mandated.

Research questions

Utilizing the four dimensions suggested by Marrett (1971) in her model, the following questions were established to direct the investigation. How will the change in the base of the relationship from voluntary to mandated between the Thunder Bay Board of Health and the Thunder Bay School Boards influence:

(a) degree of formalization;

(b) degree of standardization;

(c) degree of intensity; and

(d) degree of reciprocity?

Sub-questions

Degree of formalization

1. To what extent was the degree of formalization altered?

.1 Was there a change in the extent of official sanction given?

1.2 Were new coordinating mechanisms established?

Degree of standardization

2. To what extent was the degree of standardization altered?

2.1 Were new roles, procedures, or policies established?

2.2 How clear, precise, and unambiguous are the rules governing the relationship?

2.3 To what extent is compliance specified?

Degree of Intensity

3. To what extent was the degree of intensity altered?

3.1 Was there a change in the resources invested by each organization?

3.2 Was there a change in the frequency of interaction?

Degree of reciprocity

4. To what extent was the degree of reciprocity altered?

4.1 Has resource reciprocity changed?

4.2 Has definitional reciprocity changed?

4.3 Is there evidence of the presence of power balancing operations?

4.4 To what extent are the organizations satisfied with the program?

4.5 To what extent are the organizations satisifed with the legislation?

Justification of the study

A study of this nature has both theoretical and

practical implications. Theoretically, interorganizational relationships are a valid and useful area of study. Hall (1982) stated that "we clearly need an expanded data base from a broader range of organizations" (p. 264). Few research studies dealing with the interaction between health and education organizations have been identified. An exception is a recent study by Andrews (1978) who examined cooperation between post-secondary institutions and hospitals for the training of respiratory technologists. To date, no interorganizational study of mandated interaction between public health and educational organizations has been located.

Benson (1982) argued that interorganizational analysis should be directed towards the study of policy sectors where research explores coordination under constraints imposed by higher authorities. The boundaries of each policy sector are traditionally differentiated by names such as health, education, and community and social services. The immunization program is an example of a joint program which crosses two ministerial boundaries (health and education) requiring coordination at the local level.

Practically, the change in public health legislation is probably the largest external factor to affect this relationship in the near future. New public health legislation, the Health Protection and Promotion Act, was passed in April 1983 and proclaimed in June 1984. Analysis

of this Act indicated that a new direction in public health can be expected. Public health units now have a clear mandate to provide a package of core services to every community. This study of interorganizational coordination in a mandated relationship may be useful to both educational and health officials who will soon need to consider other services besides immunization.

Delimitations of the study

The relationship between the Thunder Bay District Health Unit, the Lakehead Board of Education, the Lakehead District RCSS Board is multifaceted. With the cooperation of the School Boards, the Thunder Bay District Health Unit provides several health services to schoolchildren including dental, hearing, visual, and scoliosis programs. This study was clearly delimited to the examination of one aspect of the total relationship, specifically the immunization program.

Although several aspects of interorganizational coordination could have been chosen for study, this research was delimited to the study of linkage dimensions as outlined by Marrett (1971). An examination of the interaction between the local organizations and their provincial governing bodies was excluded from the study.

Limitations of the study

It is recognized that by limiting the study to organizations in one city, the results may not be applicable to similar organizations in other cities. However, there are certain features of this study which may increase the generalizability of the results. The Immunization of School Pupils Act, 1982 affects all public health and educational organizations in Ontario. The constraints imposed on organizations in Thunder Bay are the same for all areas of the province. In addition, all public health units in the province are guided by the Health Protection and Promotion Act, 1983 and all educational organizations in the province are controlled by the Education Act, 1983. It is likely that some differences in relationships will exist throughout the province as these organizations respond to local needs. However, since these organizations are governed by the same legislation, it is likely that they share similar ideological and structural features. Therefore the results from this study, although limited to public health and educational organizations in Thunder Bay, may provide a framework for understanding similar interorganizational relationships elsewhere.

Another limitation of this study was its use of perceptions of respondents as a means of measuring linkage dimensions. The perceptions of an individual are based on what he thinks the situation is from his life orientation and hence distortion is possible. In several instances,

analysis of documents assisted in validating the perceptions of the respondents.

Assumptions

Interorganizational theorists have maintained for some time that linkages between organizations are influenced by general environmental conditions such as legal, political, economic, cultural, and demographic factors (Hall, 1982). Thus, interorganizational researchers should attempt to establish some degree of control over environmental conditions. By studying the relationship between public health and educational organizations in one city, it is assumed that the possible influence of general environmental conditions on the linkages dimensions is equated across all the organizations studied (Tucker, 1978).

Litwak and Hylton (1962) argued that interorganizational analysis differs from intraorganizational analysis in its basic assumptions about conflict and authority. It is assumed that conflict exists between organizations which may or may not hinder their ability to work together in a cooperative venture. It is also assumed that interorganizational relationships operate under conditions of unstructured authority. The local Board of Health and Boards of Education operate under separate authority structures within their particular policy sector. Therefore, the relational properties of this relationship were

explored assuming that conflict and unstructured authority exist.

Organization of the study

This thesis is divided into five chapters. Chapter 1 is devoted to an introduction of the research problem. Chapter 2 deals with a review of the pertinent literature. Chapter 3 contains a description of the methodology. The research findings are presented in Chapter 4 and Chapter 5 contains the discussion and conclusions.

Summary of Chapter 1

Chapter 1 was devoted to an introduction of the case study. The research problem, the conceptual framework and the variables to be considered were presented. The research questions which guided the case study, the limitations, delimitations, assumptions, and justification for the study were reported. A review of the literature pertaining to the research problem is presented in the succeeding Chapter.

CHAPTER 2

REVIEW OF THE LITERATURE

This study was concerned with the examination of interorganizational coordination in a mandated relationship. It was proposed in Chapter 1 that Marrett's model (1971) would be used as the basis for analysing the characteristics of the relationship between the Thunder Bay District Health Unit, the Lakehead Board of Education, and the Lakehead District RCSS Board. Hence, the purpose of this chapter is to review the literature on interorganizational coordination, Marrett's model, and linkage dimensions.

This chapter is divided into three sections. In the first section, the major theoretical model underlying interorganizational analysis will be discussed. In the second section, the literature on coordination in a mandated relationship will be presented. In the final section, Marrett's model and linkage dimensions will be discussed.

Open systems perspective

The open systems perspective has been identified as the fundamental framework for the study of interorganizational relationships. Early researchers approached the study of organizations through a closed systems perspective. They explored intraorganizational properties as a means of explaining the behavior of

organizations. In recent years, researchers have begun to look outside the organization realizing that organizations are influenced by factors beyond their boundaries. Complex organizations are viewed as open rather than closed systems. In an open systems perspective, the emphasis has shifted to the organization-environment interface.

Other organizations are part of this environment. Thus, organizational researchers have increasingly become interested in analysing interorganizational relationships. Hall et al. (1978) stated the reason for this increasing involvement:

> as the analysis of organizations themselves moved to a more open systems approach, it became immediately apparent that other organizations are a critical part of the environment of any organization. (p. 294)

Resource dependence (Aldrich, 1979) has been suggested as a concept for understanding the development and continuation of interorganizational relationships. Organizations to achieve their goals and objectives need a supply of resources. It is the need for resources which frequently stimulates interaction between organizations. Clark (1965) posited that if organizations were self-sustaining entities, there would be little need for interorganizational analysis.

Considerable attention has been given the topic of environmental forces and conditions important to organizations interacting with each other. For example, Hall (1982) identified the following environmental factors:

technological, cultural, economic, political, demographic, and legal. Legislation is one environmental factor which may have an impact on an interorganizational relationship. Public organizations, because they rely on government as a source of funds and authority, consider laws governing their operations as particularly important (Gottfredson & White, 1981).

Interacting organizations can not ignore changing environmental pressures. When a new law is passed relevant to particular organizations a response must be made to ensure compliance with the legislation. Terreberry (1968) hypothesized that:

> organizational change is largely externally induced and that system adaptability is a function of ability to learn and perform according to changing environmental contingencies. (p. 610)

Terreberry was suggesting that organizations tend to respond to changing environments by change or adaptation mechanisms. Interorganizational coordination is viewed as a means available to decision makers for dealing with changing environmental conditions.

In summary, the trend to conceptualize organizations as open and adaptive systems necessitates a closer examination of interorganizational relationships and environmental factors affecting their interaction. An open systems perspective demands a closer look at interorganizational coordination.

Interorganizational coordination

Coordination is one concept frequently used in the study of interorganizational relationships. Interorganizational coordination has unique characteristics which differentiate it from other forms of interorganizational behavior. Coordination, when viewed as a process, occurs within a framework of formal and standardized rules and procedures. Coordination is often difficult to achieve as it threatens the autonomy of an organization. This implies that organizations involved in coordination will have difficulty choosing the course of action they wish to pursue. When coordination is successful, goals are achieved which could not have been attained by organizations working independently.

The key characteristic which differentiates interorganizational coordination from other behaviors is joint decision making. The literature identifies several reasons why joint decision making is desirable. Litwak and Hylton (1962) suggested that one assumption underlying interorganizational analysis is that conflict between organizations is a given factor. Organizations may be willing to carry out the intent of the legislation but may find some of the specifics unsatisfactory. By bringing organizational personnel together to discuss the implementation of a new program, inevitable anxieties can be managed and realistic alternatives can be created. Thus, the

decision making process can prevent or minimize conflict. Stated more positively, joint decision making seems necessary to ensure the development or continuation of harmonious, mutually satisfying interactions.

Coordination occurs when organizations are able to make adjustments to satisfy both organizations. White (1974) suggested that decision makers will search for a course of action that will be acceptable to their own organization and will satisfy constraints imposed by external contingencies. The number and the scope of the decision issues may be limited, however, within the confining boundaries of the legislation (Benson, 1982). Joint decision making is a "satisficing" process rather than a "maximizing" process (Warren, 1967, p. 413). In other words, joint decisions rarely satisfy the organizations completely but tend to produce results acceptable to the participating organizations.

Coordination in a mandated situation is likely to vary from coordination in a voluntary relationship. Whetten (1981) suggested that this is the strongest form of coordination. This contention is supported by other interorganizational theorists (Hall et al., 1977; Zeitz, 1975). The central authority establishes system-wide goals and policies, and control is achieved through laws and regulations which impose constraints or demands on participating organizations. Unlike voluntary relationships

which seem to evolve as a result of resource dependencies (Aiken & Hage, 1968; Aldrich, 1979) or power dependencies (Cook, 1977) mandated linkages acquire funds and authority through the "political economy" (Benson, 1975, 1982). Thus, in mandated relationships many of the linkage dimensions are predetermined.

A study by Hall et al. (1977) provided additional information on the differences between voluntary and mandated relationships. They found that in legally mandated situations a positive assessment of the organizations involved is important for coordination, conflict is disruptive, and power issues are apparently resolved. In voluntary relations, they found that a positive assessment of the organizations involved, frequent contact, and person-to-person contact were important for coordination. Their conclusion regarding power in a mandated relationship is particularly relevant to this study. Hall et al. (1977) stated that:

> When the basis of interaction is a legal mandate, the power issue is apparently resolved to the extent that it does not become part of the pattern. This is not to say that there are not power differences but that these have apparently been accepted by the parties involved and are no longer an issue. (p. 470)

Their findings suggested that in a mandated situation power asymmetries may be present but power struggles are unlikely.

In summary, it is apparent that relations between organizations can vary depending upon the base of the

relationship. It is appropriate at this time to review the literature on Marrett's model (1971) which was used in this study for investigating interorganizational coordination in a mandated relationship.

Marrett's interorganizational model

Literature in the field of interorganizational theory has frequently given attention to linkages between organizations. In a pioneer paper, Marrett (1971) concluded that a study of relational properties which focuses on the linkages between organizations was a useful methodological approach for gathering data on interorganizational relationships. As Marrett's model guided this investigation, it is appropriate at this time to describe her model in some detail.

Marrett (1971) described four linkage dimensions. As indicated in Chapter 1, these are degree of formalization, degree of standardization, degree of intensity, and degree of reciprocity. Two indicators of each dimension are delineated, thus eight variables are proposed for describing the characteristics of the linkage. Since Marrett was interested in suggesting the possible relationship between the variables, she proposed two models (see Table 1). Marrett suggested that voluntary cooperative programs should strive to achieve the second model. The size of the resource investment was considered to be the key predictor. She hypothesized that if the resource investment was high, then

Table 1

Marrett's interorganizational model

Dimension	Model 1	Model 2
Formalization		
Agreement formalization	low	high
Structural formalization	low	..[a]
Standardization		
Unit standardization	low	high
Procedural standardization	low to medium	high
Intensity		
Resource intensity	low	high
Interaction intensity	low to medium	
Reciprocity		
Resource reciprocity		high
Definitional reciprocity	low to medium	high

[a]Wide variation possible. No specific prediction made for this variable.

Source: modified from Marrett (1971, p. 95)

agreement formalization, unit and procedural standardization would be high, and resource reciprocity would be present. She concluded that in voluntary relationships, the second model would be difficult to achieve as organizations are hesitant to make these kinds of commitments and investments. Marrett (1971) commented: "If this is indeed the case, then additional research is needed not so much on the first model, as on the constraints to the realization of the second model" (p. 97).

Since Marrett's (1971) conceptual paper, the nature of the interorganizational transactions and the structural characteristics of the relationship with other organizations have become important variables for interorganizational analysis. Andrews (1978) used Marrett's dimensions in his study of four programs involving linkages between post-secondary institutions and hospitals for the training of respiratory technologists. Andrews researched the patterns of the linkages and related these to the effectiveness of the four programs. Andrews found that none of the four programs demonstrated the characteristics of Marrett's second model. The study demonstrated that different linkage patterns are closely associated with different program outcomes. For the purpose of this study, it is important to note that Marrett's dimensions have been successfully utilized in a study dealing with health and educational organizations.

Other interorganizational theorists have found Marrett's dimensions applicable in their studies. Aldrich (1979) used Marrett's linkage dimensions to predict behavior on a set of intraorganizational variables. He stated that "the dimensions are useful as an accounting scheme for monitoring and analysing interorganizational relations" (Aldrich, 1979, p. 273). Schermerhorn (1981) in a conceptual article on interorganizational development stated that "practitioners need to know the dimensions along which interorganizational structures and processes may vary and how these dimensions affect interorganizational performance" (p. 89). Schermerhorn pointed out that there is a need to (a) understand contextual factors which influence the dimensions (b) have the ability to describe alternative designs and (c) understand how contextual factors and alternative relational patterns affect conflict and satisfaction. Lastly, Van de Ven and Ferry (1980) concerned with developing "an operational theory on the formation and functioning of interorganizational relationships" (p. 307) used some of Marrett's dimensions to monitor change in relations. In their conceptualization, change in relations between community organizations can be externally induced by a legal mandate which stimulates interaction between the organizations. Van de Ven and Ferry (1980) suggested that observing variations in relational properties is a useful device for monitoring the "growth, adaptation or dissolution

of an interorganizational relationship" (p. 316). It is appropriate at this point to examine the linkage dimensions in greater detail.

Linkage dimensions

Formalization

The first dimension, degree of formalization, has been considered an important variable by several interorganizational theorists for understanding the structure which guides the behavior of interacting organizations (Aldrich, 1979; Gottfredson & White, 1981; Marrett, 1971). Hall et al. (1977) argued that differences between relationships may exist depending on whether the relationship is mandated, standardized by some form of agreement, or simply voluntary and informal. Therefore, agreement formalization is an important indicator of formalization.

The research on agreement formalization has identified several ways in which the structure of interorganizational relationships can vary. Interorganizational theorists view agreement formalization as a continuum extending from ad hoc arrangements to laws and regulations. A relationship that is legislatively mandated exhibits the highest degree of formalization (Zeitz, 1975). The low end of the continuum is represented by understandings (Gottfredson & White, 1981) or ad hoc arrangements made with other organizations on a temporary or intermittent basis (Aldrich, 1979). Marrett

(1971) suggested that in the social welfare setting, informal, tacit arrangements occur frequently while formal agreements are less common. Gottfredson and White (1981) defined understandings as "mutual expectations that are never explicitly stated but which may be mutually acceptable" (p. 473). Situated between the two extremes are agreements. Gottfredson and White (1981) defined an agreement as "the explicit specification of a mutually accepted rule for future behavior" (p. 473). The form of these agreements can vary from "brief oral agreements, through informal written agreements or letters, to notarized contracts or deeds" (Gottfredson & White, 1981, p. 480). Thus, interorganizational theorists seem to agree that an interorganizational relationship may be authorized by understandings, agreements, or laws.

The second indicator of formalization, structural formalization, is related to coordination. The need to identify the mechanism which operates to coordinate the activities of organizations has been identified by several authors (Aldrich, 1979; Hall, 1982; Marrett, 1971). Similarly, Mulford and Rogers (1982) stressed the need to identify:

> the organizational entity, and more specifically the person, board or staff within the entity responsible for coordinating the activity of autonomous organizations. (p. 27)

Based on Reid's study (1964) of interagency coordination, Marrett (1971) proposed that unmediated, unstructured coordination represents an informal structure. Informal relations are therefore mediated through informal get togethers where participating organizations get together periodically to discuss mutual concerns. Marrett further proposed that a formal structure would exist when an intermediary handled the interaction. Examples of interorganizational mediators include formally appointed coordinators which serve both organizations, interorganizational committees, interagency councils, and federations. Hence, coordination of a relationship may take place through a variety of structures.

Whetten (1981) suggested a more extensive categorization of coordination structures. He described three types of coordination structures--mutual adjustment, alliance, and corporate. The mutual adjustment structure, the weakest form of coordination, tends to be present when coordination focuses on specific cases. In this situation, coordination generally involves professionals or supervisory personnel at the service delivery level rather than the top administrative level. In a corporate structure, the strongest form of coordination, there is a central administrative structure that establishes system-wide goals and policies. For example, social service organizations are coordinated through the Ministry of Community and Social

Services, health organizations through the Ministry of Health, and educational organizations through the Ministry of Education. Control of system organizations can be achieved through laws and regulations or through sanctions such as the distribution of funds and manpower. Situated between these two extremes are alliance structures, which according to Whetten are coordinated by interorganization committees, councils, federations, or alliances. Marrett's description of informal and formal mediating structures seems to parallel Whetten's mutual adjustment and alliance structures.

Marrett (1971) suggested that agreement and structural formalization should be directly related. This contention was supported by Andrews (1978) who found that the program characterized by the most formalized agreement also demonstrated the highest level of coordination. In addition, two of the four programs he studied were characterized by tacit, informal agreements and a low level of coordination. Therefore, it seems plausible to argue that an intermediary structure is likely to exist only if an explicit agreement is present to guide the participating organizations. However, this relationship between agreement and structural formalization must be considered tentative as other writers (Clark, 1965; Hall et al., 1977) suggested that highly formalized relations may not require a coordinating mechanism. Similarly, Gottfredson and White (1981) proposed

that highly explicit, elaborate agreements or laws may provide sufficient rules to guide organizations, thus making coordination mechanisms unnecessary. Thus, the question as to whether agreement and structural formalization are directly related remains unanswered.

Standardization

Standardization is a well documented phenomenon which has been accepted by several interorganizational theorists (Aldrich, 1979; Gottfredson & White, 1981; Hall, 1982; Marrett, 1971). Marrett (1971) and Aldrich (1979) proposed that formalizaton and standardization are different dimensions. Similarly, Gottfredson and White (1981) argued that formalization refers to the form of the agreement between participating organizations whereas, standardization refers to the terms of the agreement and determines whether these terms are specific or vague. In contrast, Andrews (1978) argued that standardization should be considered an additional indicator of formalization rather than a separate linkage dimension. For the purpose of this study, standardization was considered a separate dimension.

The major task of researchers is to identify what indicators of standardization exist and how they might be measured. Unit and procedural standardization were identified by Marrett (1971) and Aldrich (1979) as two indicators of standardization. Compliance standardization, suggested by Gottfredson and White (1981) as a possible

indicator of standardization, was also explored in this study.

The first indicator proposed by Marrett (1971), unit standardization, involves the specification of the units exchanged in the relationship. Marrett (1971), Zeitz (1975) and Aldrich (1979) are clearly referring to relationships involving the exchange of resources when they suggest that unit standardization is measured by "the fixedness of the units of exchange" (Marrett, 1971, p. 94). However, both Gottfredson and White (1981) and Hall et al. (1977) argued that some relationships do not involve an exchange of resources. Since organizations interact in a variety of ways, a variety of agreements may exist. Gottfredson and White (1981) suggested several types of agreements such as domain agreements, price-fixing agreements, coalition agreements to pool resources, agreements to coordinate overlapping services, and exchange agreements dealing with resources or services. Particularly germane to this study are domain agreements in which the units that might be standardized are not material resources but could be the roles, responsibilities or tasks of each organization. This contention is supported by Hall et al. (1977) who stated that in mandated relations "a more Durkheimian division of labor in which the interdependencies are maintained" (p. 470) seems to be operating. Therefore, the units considered in this study were the roles of each organization.

Consequently, unit standardization was defined as the extent to which the roles of each organization are clearly delineated.

The second indicator proposed by Marrett (1971), procedural standardization, involves the specification of procedures established to guide the interaction (Hall, 1982). Low standardization would be present when rules or procedures vary considerably as might occur in ad hoc case coordination (Marrett, 1971). High standardization would be present when similar procedures have been used over a period of time. The rules and procedures are generally written and the transaction may involve the use of forms. Marrett (1971) noted that in some relationships, procedures may be unwritten and yet be clearly understood by participating organizations. Similarly, Gottfredson and White (1981) suggested that standardization may be present even though procedures are unwritten.

A third indicator, compliance standardization, was suggested by Gottfredson and White (1981). In their discussion of standardization, they noted that agreements might vary on the degree of specificity regarding penalties for noncompliance and procedures to judge compliance. They proposed that compliance standards may be written or unwritten. Gottfredson and White (1981) further proposed that a stong moral and social obligation to comply may substitute for explicit compliance statements. In this

study, questions regarding compliance standardization were included on the interview guide. The purpose of these questions was to explore the possibility that compliance standardization might be a useful third indicator of standardization.

Most research demonstrates a positive relationship between formalization and standardization. For example, Litwak and Hylton (1962) suggested that once coordinating mechanisms exist, standardization is required. Thus, interorganizational committees and councils generally establish written terms of reference, rules, and procedures which become relatively fixed over time. Similarly, Andrews (1978) found that the the joint program demonstrating the highest degree of formalization also had developed well documented and detailed written information which clearly delineated each organization's responsibility and the procedures to be followed. These examples support Marrett's (1971) contention that when relations are based on official agreements, standardization will probably be present.

Standardization seems to be important to coordination. Aiken et al. (1975) indicated that a higher degree of coordination can be achieved when joint programs are linked in a highly formalized and standardized manner. Hall et al. (1977) found that in mandated relationships which demonstrated coordination as opposed to conflict, the legislation clearly specified the roles, responsibilities,

and obligations of the participating organizations. It is anticipated therefore that mandated relationships will tend to demonstrate a high degree of structural formalization, unit and procedural standardization.

Intensity

Interorganizational relationships can vary in the degree of formalization and standardization and on the extent of involvement required to maintain the interaction. Intensity is a measure of the strength of the linkages and indicates the investment organizations make to the relationship. Marrett (1971) suggested two indicators for measuring intensity. These were size of resource investment and frequency of interaction.

The first indicator, size of resource investment, is determined by measuring the magnitude of resources allocated by participating organizations. The underlying implication of this variable is that a high resource investment requires a strong commitment to the interorganizational relationship. In addition, Marrett (1971) indicated that organizations are hesitant to invest substantial resources unless they are confident of the success of the program. Measuring the resource investment of public organizations to a relationship frequently poses problems to researchers. As defined by Reid (1975) resources of an organization are "the instruments an organization employs to achieve its goals" (p. 119). Both tangible and intangible resources are

considered important to understanding interorganizational relationships. Tangible resources such as money, physical space, equipment, personnel, clients, services, and information have received attention in interorganizational literature as well as intangible resources such as prestige, autonomy, authority, and good will. Since no inclusive list of potential resources exists, it is the researcher's responsibility to identify and measure the kind and amount of resources committed by each organization to the relationship. White (1974) commented that most research tends to be limited to the measurement of tangible, quantifiable resources. Consequently, this study was restricted to the measurement of tangible resources.

The second indicator, frequency of interaction, refers to the amount of contact between organizations (Marrett, 1971). Benson et al. (1973) used a similar measure which they called the "extent of agency interaction" (p. 4). This variable is concerned with the communication process between interacting organizations. Researchers since Marrett tend to measure not only the frequency of interaction but also the type of contact (Hall et al., 1977; Van de Ven & Ferry, 1980). In addition, Aldrich (1979) argued that the purpose of the contact and the authority level at which contact takes place are also important factors. These writers suggested that the most intense relationship involves top administration personnel meeting frequently in a formal

situation for the purpose of negotiating agreements or planning programs. In this study, the frequency and type of contact was measured.

Frequency of interaction may be associated with resource intensity and the change process in interorganizational relationships. Marrett (1971), Aldrich (1979) and Van de Ven and Ferry (1980) all suggested that frequent interactions are related to higher resource investments. The greatest frequency of interaction will occur when both organizations perceive high benefits from interacting or if high resource investment critical to the organization's mission is required. Thus, a strong linkage between frequency and resource investment was suggested in the literature. Both Van de Ven and Ferry (1980) and Whetten (1981) suggested that interaction will increase when change is externally induced. Both writers commented that communication was the most critical factor for promoting coordination when a relationship changes from voluntary to mandated. One would therefore expect a more intense relationship when a change in the relationship has been mandated as more frequent interaction might be necessary to work out the details of the linkage.

Reciprocity

The fourth dimension, degree of reciprocity, refers to the symmetry of the transaction between organizations (Marrett, 1971). The term reciprocity implies that

interorganizational relationships should be mutually beneficial and approximately equivalent (Gouldner, 1960). Thus, each organization expects to make a resource commitment and expects to be an equal partner in decision making. Marrett (1971) and Aldrich (1979) suggested two indicators for measuring reciprocity--resource reciprocity and definitional reciprocity.

Resource reciprocity emerged as an important variable from Levine and White's (1961) discussion of exchange. Marrett (1971) clearly limited the discussion to the measurement of tangible elements such as staff, funds, services, and clients. Other writers (Levine & White, 1961; Zeitz, 1975) note that transactions between public organizations frequently involve exchanges "in kind" rather than the flow of tangible resources found in the private sector. A flow of tangible resources such as funds, staff, or services in one direction may be balanced by a flow of intangible resources such as autonomy, authority, good will or support in the other direction. There appears therefore, to be some controversy regarding the type of resources used to measure resource reciprocity.

Resource reciprocity has been a variable of interest in interorganizational studies. Baty, Evan, and Rothermel (1971) examined faculty personnel flows and found that the flow was not reciprocal. Similarly, Andrews (1978) who examined funds, facilities, and staff work load found

variability in the flow of resources among the four programs he studied. In one program, Andrews (1978) found that relative resource reciprocity was asymmetrical. This affected definitional reciprocity because the program with the most resources tended to dominate the activities. Thus, resource reciprocity appears to be related to Marrett's second indicator of reciprocity which she labelled definitional reciprocity.

Definitional reciprocity is defined as "the extent to which the terms of interaction are mutually reached" (Marrett, 1971, p. 95). This indicator is directly associated with the process of interorganizational decision making. The underlying implication is that organizations prefer to interact with organizations in situations where there is give and take and where adjustments are made to satisfy each organization. Definitional reciprocity seems to vary along a continuum extending from unilateral to joint decision making.

Lack of reciprocity is associated with power in interorganizational relationships. Power has been viewed in a variety of ways by interorganizational theorists. One theme is based on resources, with power being viewed as the possession of resources. An organization controlling vital resources can use this power to gain compliance of others (Aldrich, 1979). In this view, power lies in asymmetrical resource reciprocity. Power when viewed as possession of

valued resources has also been related to decision making. The organization holding power can decide what are issues and what are not issues In addition, if organization A is dependent on organization B for needed resources then B may be able to exert more influence throughout the decision making process. Understandably, Marrett (1971) concluded that reciprocity is a critical dimension in interorganizational relationships.

Marrett also suggested that "power balance" could be another indicator of reciprocity but decided to exclude it from her model. She concluded that power balance is problematic from a measurement point of view and that her two indicators of reciprocity may in fact capture the power symmetry dimension. However, it is clear from a review of later literature that the measurement of reciprocity and power has remained problematic to researchers. For example, Hall and Clark (1975) asked "how do you measure it" and "how do you do anything with it" (p. 157). They suggested that reciprocity may be critical to exchange relationships but is probably of little concern to other relationships as some things are just not exchanged. Hall et al. (1977) in their study of problem youth used a power variable and concluded that "power in a mandated relationship does not appear to be significant" (p. 470). They went on to suggest that major power issues would have been worked out prior to the mandate taking effect. However, it is also possible that some

adjustments involving power asymmetries may occur at the local level (Hall, 1982). Assuming that power asymmetries may be present in interorganizational relationships, it seems appropriate to extend Marrett's model by including measurements of power imbalance.

Emerson's (1962) power dependence theory has attracted the attention of several interorganizational theorists (Hall, 1982; Heskett, Stern & Beier, 1970). Emerson defined power in terms of dependence. The power of organization A over organization B is equal to, and based upon, the dependence of B upon A.

$$P_{ab} = D_{ba}$$

The dependence of organization B upon organization A is (a) directly proportional to B's motivational investment in goals mediated by A, and (b) inversely proportional to the availability of those goals to B outside the A -- B relation. Stated differently, the dependence of the boards of education on public health units is a function of (a) the ability of public health units to satisfy the needs of boards of education, as they are perceived by educational officials, and (b) the ability of boards of education to find equally satisfying relationships elsewhere.

Emerson's theory recognized that social relations involve ties of mutual dependence between the organizations. His theory also recognized the reciprocity of social relations. A power-dependence relation is represented

by a pair of equations:

$$P_{ab} = D_{ba}$$

$$P_{ba} = D_{ab}$$

This reciprocal power provided Emerson with the basis for his power balancing operations. In an unbalanced relation where P_{ab} is greater than P_{ba}, balance can be restored by either an increase in D_{ab} or by a decrease in D_{ba}. Emerson (1962) described four power balancing operations which could be used to equalize or balance the power in the relationship. In power balancing operation No. 1, the low-power organization can increase its power by withholding or postponing its support for the goals mediated by the high-power organization. In power balancing operation No. 3 the low-power organization can increase its power by endeavouring to get the high-power organization committed to goals mediated by the low-power organization. Power balancing operations No. 2 and 4 require that the organizations find alternative sources of satisfying their goals.

It seems feasible to argue that power balancing operations No. 1 or No. 3 may be present in this relationship. The Immunization of School Pupils Act, 1982 provided the Medical Officer of Health with the legitimate right to order the suspension of students who are not fully immunized. However, the suspension of students has always been exclusively contolled by educational officials. It

seems feasible to argue that in respect to suspensions a power imbalance exists. Furthermore, it seems plausible to anticipate that the Medical Officer of Health could encounter resistance from local educational officials when he orders a suspension.

Since Emerson's theory is concerned primarily with ties of mutual dependence which bind actors together in mutually satisfying relations, it seems appropriate to the study of interorganizational relationships in general and this case study in particular. In this study, questions regarding the degree of power balancing operations were included on the interview guide. The purpose of these questions was to explore the possibility that power balancing operations might be a useful indicator of reciprocity.

It was proposed in Chapter 1 that a satisfaction-dissatisfaction measure might provide further insight into the power balance issue. It is well recognized that most interorganizational research tends to emphasize a pro-coordination approach. Consequently, research on dissatisfaction, tension, and conflict is sparce. Hall (1982) stated that "a major reason for this is a pervasive belief that conflict is a process to be avoided" (p. 262). It was proposed that by identifying areas of dissatisfaction in a relationship, power imbalances may be located. Whetten (1981) argued that organizations must be relatively

satisfied with several factors to maintain successful coordination. Two of these factors are a positive assessment of the work done by participating organizations (Hall et al., 1977) and domain consensus (Benson et al., 1973). In this study, questions regarding the degree of satisfaction with (a) the immunization program and (b) the legislation were included on the interview guide. The purpose of these questions was to explore the possibility that degree of satisfaction might be a useful indicator of reciprocity.

Summary of Chapter 2

Chapter 2 was devoted to a discussion of the literature on open systems, interorganizational coordination, Marrett's model, and linkage dimensions. The present study was an attempt to utilize Marrett's eight variables (see Table 1) as a basis for understanding the relationship between the Thunder Bay District Health Unit, the Lakehead Board of Education, and the Lakehead District RCSS Board. In addition, this study sought to explore the notion that compliance standardization, degree of power balancing operations, and degree of satisfaction might be useful additional indicators of standardization and reciprocity. The methodology used to answer the research questions outlined in Chapter 1 will be presented in Chapter 3.

CHAPTER 3

METHODOLOGY

In chapter 1 the major question guiding this research was stated as: how will the change in the base of the relationship from voluntary to mandated between the Thunder Bay Board of Health and the Thunder Bay School Boards influence:

(a) degree of formalization;

(b) degree of standardization;

(c) degree of intensity; and

(d) degree of reciprocity?

This chapter outlines the approach used to arrive at answers to these questions. Specifically, the research design is outlined; the study population is described; methods of data collection are presented; the study variables are operationally defined; and the techniques used to analyse the data are outlined.

Research design

The case study approach was selected due to the exploratory nature of the study Several researchers (Becker et al. 1961; Blau, 1963; Smith and Keith, 1971) indicated that case studies have unique advantages over other research designs. An exploratory case study seeks knowledge through exploring what is happening in the field

and therefore potentially can provide a more in depth understanding of the problem area. Case studies, because of their heuristic nature, are capable of discovering significant variables which can lay the foundation for later scientific testing of hypotheses. Evan (1976) stated that "as a strategy for generating insights and propositions, the case study is invaluable" (p. 356). Consequently, case study findings are frequently used not to test hypotheses but to generate them.

This study was concerned with examining the interaction between participating organizations in two different time frames for the purpose of identifying changes in linkage dimensions occurring when the base of the relationship moved from voluntary to mandated. The study was designed to answer particular questions rather than to test hypotheses.

Study sample

The study focused on three public organizations involved in different ways with providing immunization services to schoolchildren. The three organizations were the Thunder Bay District Health Unit, the Lakehead Board of Education, and the Lakehead District RCSS Board. The study was restricted geographically to the city of Thunder Bay and the immediate surrounding areas, corresponding to the boundaries of the Boards of Education. A brief description of the three organizations indicating their relationship to

the Ontario public health system and the Ontario educational system follows.

Ontario public health system

The Ontario public health system is controlled primarily by the Health Protection and Promotion Act, which received Royal Assent in March, 1983. This new Act, replacing the Public Health Act, 1982 recognized the need for "modernizing the legislative framework for the delivery of public health services in the province" (Grossman, 1982, p. 33). The Thunder Bay District Board of Health is one of 43 boards throughout the province. Its members are appointed to represent the interests of the municipalities within its geographical jurisdiction. The Thunder Bay District Health Unit is administered by a Medical Officer of Health. The head office is situated in Thunder Bay with sub-offices located in Geraldton, Nipigon, Manitouwadge, Marathon, and Schreiber. Public health units are publicly supported with funds coming from the Ontario government and the local municipalities.

Ontario educational system

The Ontario educational system is controlled primarily by the Education Act, 1983. The Lakehead Board of Education and the Lakehead District RCSS Board are two of approximately 170 boards throughout the province. Their members are elected to represent the public's interest in local educational matters. Schools are publicly supported by

funds coming from the Ontario government and local property tax.

The Lakehead Board of Education is administered by a Director of Education who is responsible for the day to day operation of 42 elementary schools and 10 secondary schools. The Lakehead District RCSS Board is administered by a Director of Education who is responsible for the operation of 21 elementary schools and two intermediate schools. There is no secondary panel within the jurisdiction of the Separate School Board in Thunder Bay. Separate school students from Grade 11 to Grade 13 attend secondary schools under the direction of the Lakehead Board of Education. Consequently, there are five trustees elected by separate school supporters to the Lakehead Board of Education.

Methods of data collection

Participant observation, interviews, and the sampling of relevant documents are the research techniques generally used in case studies. The techniques deemed appropriate for this study were semi-structured key informant interviews, and sampling of relevant documents.

Interviews

Informant interviewing is "often the technique chosen to seek information on events that occur infrequently or are not open to direct observation" (McCall, 1969, p. 62) by the researcher. Since data were collected on the linkage dimensions at different points in time (i.e. before and

after the passing of the Immunization of School Pupils Act) the selection of respondents was a critical factor in the success of the study.

In choosing the interviewees for this study, two main principles were considered important. Firstly, staff members who had knowledge and experience with both the past and present immunization programs were deliberately selected. Whetten (1982) stated that "the researcher needs to deliberately sample respondents based on their first hand information" (p. 116) of the data to be collected. Thus, 13 of the key informants (immunization team members and principals) interviewed were directly involved in the delivery of immunization services. In addition, an initial investigation indicated that a joint liaison committee consisting of administrative personnel and board members representing each organization had been formed in March, 1983. The seven members of this committee were interviewed. An additional school board official was interviewed as one of the committee members had been newly appointed in September, 1983. Thus, all 21 respondents were selected on the basis of their first hand familiarity with the immunization program.

Secondly, personnel who occupied positions representing different organizational levels were deliberately selected. Parsons (1976) identified three levels in the heirarchical structure of formal

organizations. These three levels are technical, managerial, and institutional. The 21 people interviewed included:

(a) three board members, each representing one of the three organizations;

(b) five administrative personnel, representing each of the study organizations;

(c) three full-time staff of the immunization team; and

(d) ten principals selected by a proportional stratified sampling technique.

Thus, personnel from all three heirarchical levels were included in the study.

A proportional stratified sampling technique was used to determine which principals were to be interviewed. It was first necessary to exclude six principals from the sampling procedure as they had not been employed as a principal on or before September 1981. These principals would be unlikely to have first hand information of the linkage dimensions prior to the implementation of the Immunization of School Pupils Act, 1982. Secondly, it was deemed essential that the interview sample include both principals who actually experienced suspensions and principals who had not experienced suspensions. Thus, the population of principals was subdivided into the following six subgroups:

(a) elementary principals of the Lakehead Board of Education who experienced suspensions;

(b) elementary principals of the Lakehead Board of Education who experienced no suspensions;

c) secondary principals of the Lakehead Board of Education who experienced suspensions;

(d) secondary principals of the Lakehead Board of Education who experienced no suspensions;

(e) principals of the Lakehead District RCSS Board who experienced suspensions;

(f) principals of the Lakehead District RCSS Board who experienced no suspensions.

Finally, the proportion of principals to be randomly selected was determined (see Appendix A). This sampling procedure ensured that the proportion of principals selected from each group was the same as the proportion of that group in the total population.

The interviews were semi-structured to provide a general understanding of the immunization program both before and after the passing of the Immunization of School Pupils Act; and to provide specific data on the study variables. The interviews were structured in that "the questions, their wording, and sequence were predetermined" (Kerlinger, 1973, p. 481). At the same time the questions were open-ended, "designed to stimulate discussion and place a minimum of restraints on the respondent's answers" (Kerlinger, 1973, p 481).

To ensure a reasonable degree of consistency, an interview guide was prepared (see Appendix B). The interview guide was pretested with four people. This proved to be a valuable research procedure as it enabled the researcher to acquire additional interview experience and to determine the time period necessary to complete the interview. In addition, the pretesting highlighted several probes which were added to the interview guide. These additional probes proved to be needed during the actual interviews and therefore added to the quality of data collected.

All interviews were conducted by the researcher. The interviews were arranged in the following sequence. Access to the three organizations was obtained through a letter to the head administrative officals (see Appendix C). The requirements of each organization for gaining access to the key informants was followed. Each interviewee was contacted to arrange a mutually convenient date, time, and location for the interview. Permission to tape the interview was granted by 17 interviewees. The data collected from the remaining four respondents was recorded on the interview guide.

Analysis of interview data

Interviews tend to produce a substantial amount of data which must be reduced so that the variables can be measured. In this study, data was reduced systematically in a predetermined manner which was tested initially on the

data collected from the pre-tests. During the data collection phase, a written summary of each interview was made at the end of each interview day. At the end of the data collection phase, a summary of the respondents answers was transcribed on to a data sheet which was prepared for each variable (see Appendix D). The responses were then scored using the procedure outlined in Appendix E.

To determine interrater reliability, three people independently scored the interview data. The following percentage of agreement was computed for each variable. The following percentage of agreement was obtained: agreement formalization 100%; structural formalization 95%; unit standardization 90%; procedural standardization 95%; resource intensity 76%; interaction intensity 81%; resource reciprocity 95%; and definitional reciprocity 86%. The differences in scoring were resolved through discussion.

Finally, a summary of interview responses and tables summarizing the scoring for each variable were prepared. This data is presented in Chapter 4.

Selection of documents

Documents are an additional source of data for case studies, especially when they corroborate data collected in interviews. The following documents were gathered and studied to acquire additional data on the study variables:

(a) Immunization of School Pupils Act, 1982 and Regulation 23;

(b) Immunization of School Pupils Amendment Act, 1983;

(c) Public Health Act, 1982;

(d) Health Protection and Promotion Act, 1983;

(e) Education Act, 1983 and Regulations 262 and 268;

(f) Ontario Ministry of Education Memoranda;

(g) Minutes of Lakehead Board of Education, Lakehead District RCSS Board, and Thunder Bay District Health Unit from December, 1983 to May, 1984;

(h) Minutes of the Joint Liaison Committee;

(i) Annual reports of Thunder Bay District Health Unit, 1982, 1983; and

(j) Hansard Official Reports of Debates, Ontario Legislature.

In addition, interviewees were requested to identify and supply other documents such as letters, memos, procedures, or policy statements which provided additional data for the study (see Appendix F).

Analysis of documents

The majority of the documents were collected and examined prior to conducting interviews. This procedure provided the researcher with background information which was used in the preparation of the interview guide. A summary of data collected from documents is presented in Appendix F. Appropriate data from documents is incorporated into the study results presented in Chapter 4.

Operational definitions of study variables

In this section, the definition of each study variable will be reviewed and the procedure used to measure each variable described. Each variable was considered to be a continuum rather than a dichotomy. Three levels of each variable were identified for scoring purposes. The scores of low, medium and high were determined based on past research. In some cases the score of medium was chosen from a range of possibilities identified in the literature review.

Agreement formalization

Agreement formalization is defined as the extent to which the interaction between the organizations is given official sanction (Aldrich, 1979; Marrett, 1971).

Low formalization was recorded when understandings or ad hoc arrangements were the methods used by the organizations to handle their shared task.

Medium formalization was recorded when agreements either written or unwritten were present to guide the behavior of the organizations.

High formalization was recorded when the relationship was guided by a legal mandate.

Structural formalization

Structural formalization is defined as the extent to which an intermediary structure exists which is responsible for coordinating the relationship (Aldrich, 1979; Marrett, 1971).

Low formalization was recorded when the relationship was mediated by contact between service delivery personnel on a school by school basis.

Medium formalization was recorded when the relationship was mediated on a system wide basis by designated administrative personnel or an interorganizational committee.

High formalization was recorded when the relationship was mediated by a designated coordinator or a decision making committee or council.

Unit standardization

Unit standardization is defined as the extent to which the roles of each organization are clearly delineated (Marrett, 1971).

Low standardization was recorded when the roles of each organization were unwritten, not well defined, and frequently changed.

Medium standardization was recorded when the roles of each organization were written or unwritten, well defined but some clarification was needed.

High standardization was recorded when the roles of each organization were written or unwritten, well defined, and required no clarification.

Procedural standardization

Procedural standardization is defined as the extent to which the role of each organization is guided by a set of

fixed, clearly delineated methods for performing work (Marrett, 1971).

Low standardization was recorded when there were no fixed procedures established to guide the activities of each organization.

Medium standardization was recorded when some procedures were well established and fixed but some procedures needed clarification.

High standardization was recorded when the procedures were fixed, routine, and required no clarification.

Resource intensity

Resource intensity is defined as the magnitude (kind and amount) of resources committed by the organization to a relationship (Marrett, 1971).

Low intensity was recorded when the immunization program required no budgetary expense, no staff allocation, and work load was reported as low.

Medium intensity was recorded when the immunization program required budgetary expense, staff were allocated part-time, and work load was reported as moderate.

High intensity was recorded when the immunization program required additional funds, staff were allocated full-time, and work load was identified as high.

Interaction intensity

Interaction intensity refers to the amount of communication between the organizations and is defined as

the kind and number of contacts made between organizational personnel (Hall et al., 1977; Marrett, 1971).

Low intensity was recorded when contact between organizational personnel involved informal, infrequent get togethers for the purpose of acquainting each other with the immunization program and defining mutual expectations.

Medium intensity was recorded when contact extended to formal, prearranged meetings involving administrative personnel for the purpose of exchanging information, expectations, and reconciling differences.

High intensity was recorded when contact between administrative personnel involved joint planning and decision making over critical issues.

Resource reciprocity

Resource reciprocity is defined as the extent to which resources in the relation flow to both parties equally (Marrett, 1971).

Low reciprocity was recorded when there was no exchange of resources on a regular basis.

Medium reciprocity was recorded when the flow of resources was reciprocal but one organization provided more resources than the other.

High reciprocity was recorded when there was a mutual exchange of resources.

Definitional reciprocity

Definitional reciprocity is defined as the extent to

which the terms of the interaction were mutually reached (Marrett, 1971).

Low reciprocity was recorded when the terms of the interaction were developed unilaterally by the public health unit and then were presented to the educational officials for approval.

Medium reciprocity was recorded when there was evidence that all organizations had participated in determining some of the terms of interaction at the local level.

High reciprocity was recorded when there was evidence that all organizations had participated in planning and determining the terms of interaction.

The above eight variables were suggested by Marrett's model (1971). It was postulated in Chapter 1 that additional indicators of standardization and reciprocity would be explored in this study. Thus, questions on compliance standardization, degree of power balancing operations, degree of satisfaction with the program, and degree of satisfaction with the legislation were included on the interview guide. The purpose of these questions was to explore the possibility that the above four variables might provide additional data needed to understand interorganizational coordination in a mandated relationship. It is appropriate at this point to review the definitions of these variables.

Compliance standardization. Compliance standardization is defined as the extent to which compliance was clearly delineated (Gottfredson & White, 1981).

Degree of power balancing operations. Degree of power balancing operations is defined as the extent to which the low-power organization uses an action to equalize the power imbalance (Emerson, 1962).

Degree of satisfaction. Degree of satisfaction is defined as the extent to which organizational personnel are satisfied with (a) the immunization program and (b) the legislation.

It was proposed that these additional variables will not be measured in this study. However, a summary of the interview data collected on these variables will be presented in Chapter 4.

Summary of Chapter 3

Chapter 3 was concerned with reporting the methodology used to answer the research questions outlined in Chapter 1. Specifically, the research design was outlined; the study sample was described; the methodology for collecting data was presented; the study variables were operationally defined; and the techniques used to analyse the data were outlined. The results of the data analysis are reported in Chapter 4.

CHAPTER 4

RESULTS

Chapter 4 is devoted to the presentation of the results of the data analysis. The research findings are based on data collected from 21 interviews and several documents.

A summary of documentary data is presented in Appendix F. Appropriate document data are incorporated into the results. The results for each variable are presented separately.

For the eight variables suggested by Marrett (1971) a summary of the interview responses is reported followed by a table which summarizes the analysis of the scored data. The four additional variables are dealt with in a summary of the interview responses.

Agreement formalization

Pre Act

All respondents agreed that the Thunder Bay District Health Unit was responsible for the immunization program and that no written agreements existed to govern the relationship between the organizations.

No respondent was able to report on how the program was initially established. The following is a sample of responses which indicated that informal, unwritten

agreements existed. "I assume that the educational authorities must have agreed to the program a long time ago." "The program was undoubtedly cleared by administration first." "The health unit does not have the right to access the schools automatically. The Medical Officer of Health informs the Director of Education usually annually of the health unit's planned programs." "Permission for the immunization program is granted routinely as the Boards of Education are philosophically in support of this program." "The Thunder Bay District Health Unit always seeks approval from educational officials first for new programs." "Public health has never initiated new programs without contacting educational officials first."

Post Act

All respondents agreed that the Immunization of School Pupils Act guides the present relationship between the participating organizations.

Summary

The results of the analysis indicated that agreement formalization changed from medium to high.

Table 2

Summary table for agreement formalization

		Pre Act			Post Act		
Personnel	n	% Low	% Medium	% High	% Low	% Medium	% High
Education	15		100				100
Public Health	6		100				100
Total	21		100				100

Structural formalization

Pre Act

All respondents agreed that coordination was achieved primarily at the school level. The school nurse acted as the intermediary between the health unit and the principal. Each school was visited approximately every two weeks by the school nurse. In September, she presented a written outline and explanation of the planned health programs including immunization to the principal and sometimes to the school staff. The schedule for the visit of the immunization team was presented at this time.

Other structural mechanisms were reported; however, no one reported that these structures were used for coordinating the immunization program. Both school boards have a designated administrative staff person who is responsible for liaison with community organizations

including the Thunder Bay District Health Unit. The Lakehead Board of Education staff person has changed frequently in the past and therefore there was no consistency in that Board's liaison program. Ad hoc interorganizational committees existed intermittently in the past for the discussion of particular school health issues but not for immunization.

Post Act

Seventy-six percent (16 out of 21) of the respondents indicated that the Medical Officer of Health assumed responsibility for coordinating the new program. Coordination consisted of ensuring that all educational personnel were aware of the new legislation and the principal's responsibility for enforcing suspensions. Respondents reported that the Medical Officer of Health made presentations to the Lakehead Board of Education, the Lakehead District RCSS Board, and several principals' meetings.

Twenty-four percent (five out of 21) of the respondents reported that no coordination was evident as they were completely unaware of the new legislation prior to November 1983 when the first suspension notices were issued.

A Joint Liaison Committee was formed in the spring of 1983. This committee consists of seven members with representation from each organization's administrative staff and Board. Formed to provide a forum for discussion of any

health matter, the immunization program has been discussed at two of its meetings. This committee was initiated by the Medical Officer of Health who perceived a need for ongoing communication especially because of the following new legislation: Bill 82; the Immunization of School Pupils Act; and the Health Protection and Promotion Act. Committee members reported that this committee had not assumed a coordinating role for the following reasons. "The committee was designed for communication purposes not for decision making." "The committee meets on an ad hoc basis, no regular schedule of meetings has been established." "The terms of reference for the committee have not been developed." Members anticipate that in the future the committee may develop recommendations which can be sent to their respective organizations for approval and implementation.

It is interesting to note that three principals reported that they expect this committee to develop policies and procedures relating to immunization and other school health issues. These principals also anticipate that they will be receiving draft policies and procedures by the fall of 1984.

Summary

The results of the analysis indicated that structural formalization changed from low to low to medium. The analysis of post act data indicated that 24% of the

responses were scored as low and 76% of the responses were scored as medium.

The establishment of a joint committee in the spring of 1983 having representation from all participating organizations might indicate a high degree of formalization. However, this conclusion is unwarranted at this time since the committee has not assumed a coordinating role. The fact that five respondents were unaware of the new program prior to the first suspension notices being issued in November 1983 accounts for the 33.3% of the responses which were scored as low.

Table 3

Summary table for structural formalization

		Pre Act			Post Act		
Personnel	n	% Low	% Medium	% High	% Low	% Medium	% High
Education	15	100			33.3	66.7	
Public Health	6	100				100	
Total	21	100			24	76	

Unit Standardization

Pre Act

All respondents agreed that their role in the immunization program was clear, explicit, and routine. The only reported change in the last five years involved the

immunization team nurses only. In 1979, they assumed a more active role in the follow-up of children who had missed getting booster shots at school. This follow-up consisted of writing and telephoning parents to encourage them to have their children's immunization brought up to date. The Thunder Bay District Health Unit was responsible for:

(a) immunizing children in Senior Kindergarten, Grade 6, and Grade 12;

(b) preparing a school visit schedule and coordinating this visit;

(c) maintaining immunization records; and

(d) distributing consent forms.

The Boards of Education were responsible for:

(a) collecting consent forms;

(b) providing adequate space for the immunization team to do its work; and

c) providing access to student information such as school class lists and student transfer information.

Post Act

All respondents agreed that the role of each organization was clearly delineated in the Immunization of School Pupils Act.

Under the Act the Thunder Bay District Health Unit is responsible for:

(a) assessing the immunization status of all school age children in their geographical jurisdiction;

(b) informing the parents of their legal responsibility to have their child's immunization brought up to date;

c) providing the opportunity for children to have their immunization brought up to date;

(d) issuing suspension notices; and

(e) rescinding suspension notices.

The principals are responsible for enforcing each suspension order until they have received notification from the Medical Officer of Health that the suspension has been rescinded.

Several educational personnel assumed responsibilities beyond those specified in the Act. All elementary principals interviewed had contacted the parents of children who had received suspension notices to encourage compliance with the legislation. In addition, some children were actually taken to immunization clinics by school staff. These children were accompanied by a teacher, principal, or attendance counsellor. This action was deemed necessary to prevent lengthy suspensions.

Summary

The results of the analysis indicated that unit standardization was high both before and after the passing of the Immunization of School Pupils Act.

Table 4

Summary table for unit standardization

		Pre Act			Post Act		
Personnel	n	% Low	% Medium	% High	% Low	% Medium	% High
Education	15			100			100
Public Health	6			100			100
Total	21			100			100

Procedural standardization

Pre Act

All respondents agreed that the procedures for immunization were developed by the Thunder Bay District Health Unit who provided the researcher with their documents pertaining to immunization. The procedures were well established and understood by all interviewees. The principals were contacted in September by the school nurse and the year's public health programs were outlined. The date of the immunization team's visit was made available at this time. Since the school nurse visited each school on a regular basis, procedures could be clarified easily.

Although the School Boards had no written policies or procedures to guide educational personnel in performing their responsibilities, all respondents, with the exception of two principals, reported that there was no need for written procedures. A sample of responses follows. "The

school nurse visits regularly, therefore, procedures can be clarified easily." "The procedures are not written but are routine, the principals get appropriate information from the school nurse." "All forms and procedures are developed by the public health staff who review them regularly." "The only changes have involved new vaccines such as MMR in the 1970's and universal consent forms." "Procedures have been the same for so long that no one questions them." The two dissenting principals reported that written procedures would encourage "consistency throughout the system."

Post Act

The researcher was provided with a package of written procedures, letters, and forms used by the Thunder Bay District Health Unit. Similarly, the Lakehead District RCSS Board provided the researcher with two memoranda which had been sent to principals regarding the new legislation. There was no written communication provided by the Lakehead Board of Education.

Public health respondents reported that a different procedure for catch-up of high school students will be developed for next year. In addition, the Thunder Bay District Health Unit is preparing an information kit for principals.

Clearly, the initial stages of implementing the Immunization of School Pupils Act in November 1983 created some confusion regarding procedures. This confusion was

indicated by responses such as "some principals misunderstood the procedures for readmittance following suspensions"; "I had to phone my superintendent for clarification"; and "I phoned other principals to discuss how to handle suspensions."

By January 1984 when the second group of suspension notices were issued, all respondents reported that the procedures had been clarified and that the suspensions were not creating any significant problems.

A variety of procedures were used by educational personnel to encourage compliance. Some principals sent letters to the parents; some telephoned the parents; and high school principals called the students together for a discussion of immunization and the importance of complying. In addition, some students were escorted by educational personnel to the health unit for immunization and in some cases, immunization information was delivered by educational personnel to the health unit.

Six principals reported that the Act and a letter from the Medical Officer of Health which accompanied the suspension notices delineated the procedures to be followed and no further clarification was needed. Conversely, four principals reported that written procedures would be helpful. "Procedures would help to clarify our role in encouraging parents to comply with the legislation." These principals reported that "the educational system should be

handling suspensions in a consistent manner from school to school." Two administrative personnel also reported that a few procedures needed clarification.

Summary

The analysis of the data indicated that procedural standardization changed from high before the Act to medium to high after the Act. Ninety percent of the responses were scored as high for Pre Act data and 43% of the responses were scored as high for Post Act data.

Two distinct patterns were identified from the responses. The educational system, with one exception, had no written policies or procedures to guide their personnel, whereas the public health system had prepared several written letters, documents, procedures, and forms for the immunization program.

Secondly, several factors were identified which account for the lower Post Act score. The Thunder Bay District Health Unit is preparing an information kit for principals to clarify procedures. The procedures for doing the catch-up of high school students have not been developed at this time. In addition, six educational respondents reported that some procedures needed clarification.

Table 5

Summary table for procedural standardization

		Pre Act			Post Act		
Personnel	n	% Low	% Medium	% High	% Low	% Medium	% High
Education	15		13	87		40	60
Public Health	6			100		100	
Total	21		10	90		57	43

Resource Intensity

Pre Act

Funding allocation. All funds for the immunization program were provided by the Thunder Bay District Health Unit. As the immunization program was not a separate budget item, it was not possible to determine the specific amount of funds allocated to the school immunization program.

Staff allocation. Several personnel of the Thunder Bay District Health Unit including the immunization team, the school nurse, and clerical staff were directly involved in the school immunization program. The immunization team was staffed by two full-time nurses and one part-time nurse. The team was supervised by a supervisor of nursing who had responsibility for the administration of the immunization program in addition to other responsibilities.

Respondents reported that no educational personnel were allocated to the immunization program, although the cooperation of principals, teachers, school secretaries, and administrative personnel was needed to support the immunization program.

Work load. In 1982, the immunization team provided a total of 26,373 innoculations, of which 11,859 representing 45%, were given to school age children (Thunder Bay District Health Unit Annual Report, 1982). Each of the 75 schools was visited annually. The time spent in each school varied from one-half day to two days depending on student enrollment. Each visit required four staff members: two immunization nurses; one school nurse; and one clerk.

All educational personnel agreed that the work load and staff time required to support the immunization program was minimal. It was the responsibility of the principal to arrange adequate space for the immunization team to work; to provide access to classrooms for the distribution of consent forms; and to provide access to student enrollment information.

Only immunization team nurses reported contact with parents. Periodically, the nurses would telephone parents of children who had missed the school visit to encourage the parents to get their child's immunization brought up to date.

Facilities/equipment allocated. The Thunder Bay District Health Unit provided office space for the immunization staff, space for immunization clinics, medical equipment needed for immunization, and the innoculations. Thus, funds for facilities and equipment of necessity were part of the annual operating budget.

The principals were responsible for providing adequate space for the immunization team to work on its annual visit to each school. All interviewees reported that it is becoming increasingly difficult for principals to provide suitable space. School health rooms are frequently not large enough for this purpose and large school health rooms are used for educational purposes whenever possible. Respondents reported that immunization has been provided in several locations including the principal's office, the health room, the library, the staff room, the kitchen, and a hallway.

Post Act

Funding allocation. The Thunder Bay District Health Unit received no increased funding to implement the Immunization of School Pupils Act; consequently, some "shifting of staff responsibilities" and "curtailment of the adult immunization program" were needed to compensate for the increased work load required by the school immunization program. In 1983, of the 20,937 total innoculations provided, 15,696 representing 75% were given to school age

age children (Thunder Bay District Health Unit Annual Report, 1983).

All educational personnel agreed that even with lengthy suspensions educational funds would not be affected.

Staff allocation. Health unit respondents reported that an additional part-time nurse was added to the immunization team by shifting staff responsibilities. In addition, clerical staff no longer accompanied the immunization team to the schools, which allowed some of the increased clerical work load to be absorbed by present staff.

Work load. The implementation of the Immunization of School Pupils Act has necessitated a substantial increase in the work load of the staff of the Thunder Bay District Health Unit. This increased work load began in 1982, when the Health Unit assessed the immunization status of 2,296 school children. By September, 1983, the assessment of all 23,283 elementary school children had been completed. Clerical staff had an increased work load attributed to increased paper work, mailings, and transferring immunization records to a new computerized records system. Administrative staff were involved in frequent meetings with the immunization team to establish procedures. All public health respondents reported that it had been a "very difficult and busy two years"; however, the program was beginning to stabilize and their job was becoming easier.

This was attributed to the following factors:

(a) parents and school officials were now aware of the program and their responsibilities;

(b) the catch-up of children attending elementary and intermediate schools was nearly completed; and

c) the catch-up of children attending secondary schools, which will be done in the fall of 1984, is not anticipated to be as difficult due to smaller numbers, fewer schools, and students over 16 will be able to sign their own consent forms.

Public health respondents reported that the actual suspensions proved to be "costly to the Health Unit in respect to the amount of staff time needed to follow-up on noncomplying parents." Difficult suspensions often necessitated the involvement of several staff members including the Medical Officer of Health.

Five public health personnel interviewed reported contact with the parents. The immunization nurses reported that this contact was the most difficult part of the whole suspension process. The nurses indicated that they were unprepared for handling the angry telephone conversations with parents. The nurses also reported that the situation had steadily improved since the initial suspensions in November, 1983 which they credit to increased public awareness of the immunization program and greater experience in dealing with angry parents.

Educational personnel reported a minimal increase in work load attributed to the following factors.

(a) Principals reported contact with parents who had received suspension notices to encourage compliance. This contact varied from one contact (letter or telephone call) to three or four contacts.

(b) Three principals reported increased work load because of difficult cases. This work load included contact with parents, public health staff, superintendents, and attendance counsellors.

c) Administrative personnel reported increased work load to discuss the new legislation and to attend meetings.

Summary

The analysis of the data indicated that the Thunder Bay District Health Unit contributed resources requiring budgetary expense. Under the new legislation increased resources were allocated even though no additional funds were received from the Ministry of Health. A significant increase in the percentage of the immunization budget allocated to school immunization was reported. In 1982, 45% of the budget went to the school program and in 1983, 75% of the budget was allocated to the school program (Thunder Bay District Health Unit Annual Report, 1982, 1983).

Educational respondents reported low resource involvement without any budgetary expense. Under the new legislation staff work load increased minimally. This

increased involvement was reported as very necessary to avoid suspensions.

Table 6

Summary table for resource intensity

		Pre Act			Post Act		
Personnel	n	% Low	% Medium	% High	% Low	% Medium	% High
Education	15	100			93	7	
Public Health	6		100				100

Interaction Intensity

Pre Act

All respondents agreed that the contact between organizational personnel was minimal. Since the program had been ongoing for several years procedures were clear and established necessitating infrequent contact. No contact was reported by the three board representatives. Administative personnel reported contact approximately once a year. Service providers reported informal contact to confirm or explain the year's programs.

Post Act

All respondents agreed that contact between public health and educational personnel had increased since the Immunization of School Pupils Act took effect. The increased contact occurred for two reasons--communication of the new legislation and consultation over difficult cases.

All educational personnel agreed that they were unaware of any communication from the Ministry of Education concerning the new legislation. Therefore, the task of communicating the new program to the local educational authorities was the sole responsibility of the Medical Officer of Health. This contact included:

(a) letters and phone calls to administrative staff of both school boards;
(b) presentations to a board meeting of both school boards;
(c) presentations at Joint Liaison Committee meetings;
(d) presentations at principals' meetings; and
(e) letters to principals which accompanied suspension notices.

The Director of Nursing accompanied the Medical Officer of Health to principals' meetings.

Principals of the Lakehead District RCSS Board reported that they had been forewarned of the impending suspensions. They had all received a copy of the Immunization Act, written communication from the Superintendent of Student Services, and a presentation from the Medical Officer of Health at a principals' meeting.

Four principals and one administrative staff person of the Lakehead Board of Education reported no knowledge of the new legislation prior to November 1983. This situation occurred unintentionally, as it had not been possible to arrange a meeting between the Medical Officer of Health and

one group of principals prior to the first suspensions being issued.

The reduction of the data for interaction intensity was difficult due to the substantial amount of data collected. In addition, interviewees were unable to recall frequency of contact accurately. The reporting of increased frequency can be summarized as follows:

(a) seven principals reported more written communication and one or two meetings with the Medical Officer of Health;

(b) three principals reported the above plus phone contact with public health personnel over the handling of difficult cases;

c) educational administrative personnel reported increased contact due to the Joint Liaison Committee, and need to clarify legislation;

(d) immunization nurses reported contact with some principals primarily by telephone regarding difficult cases; and

(e) the highest frequency was reported by the Medical Officer of Health who was involved in the total communication process, and the handling of difficult cases.

Summary

The analysis of the data indicated that interaction intensity changed from low to low to medium. Analysis of Pre Act data indicated that 100% of the responses were scored

in the low category. Analysis of Post Act data indicated that 38% of the responses were scored as medium and 62% of the responses were scored as low. The data indicated a trend towards increased interaction.

Table 7

Summary table for interaction intensity

		Pre Act			Post Act		
Personnel	n	% Low	% Medium	% High	% Low	% Medium	% High
Education	15	100			66.7	33.3	
Public Health	6	100			50	50	
Total	21	100			62	38	

Resource reciprocity

Pre Act

The Thunder Bay District Health Unit was responsible for providing the majority of the resources necessary for the delivery of immunization services. It allocated staff, facilities, and equipment which constituted a budgetary expense to the Health Unit.

In exchange, the educational system provided access to the schoolchildren but no funds were allocated by the educational system.

Post Act

Little change was reported in the flow of resources

between the participating organizations following the passing of the Immunization of School Pupils Act. The Thunder Bay District Health Unit remains committed to providing funds, staff, facilties, and equipment. The educational system is responsible for enforcing suspensions ordered by the Medical Officer of Health. A slight increase in work load was reported by all educational respondents. This increase was attributed to the formation of the Joint Liaison Committee and the need to encourage parents to comply with the legislation.

Summary

The analysis of both pre Act and post Act data on resource intensity (see Table 6) indicated that the Thunder Bay District Health Unit provided the majority of the resources to sustain the program. Thus, it was concluded that this relationship is characterized by medium resource reciprocity.

Definitional reciprocity

Pre Act

All interviewees agreed that the administration of the immunization program was the responsibility of the Thunder Bay District Health Unit. Programs and procedures were developed unilaterally by the Health Unit and then presented to administrative staff of the School Boards for comment and approval.

Post Act

Public health respondents reported that they had input into the development of this legislation in several ways. In 1980, the Society of Medical Officers of Health, with the endorsement of the Pediatric Society, recommended that the government establish compulsory immunization legislation. Public health staff had numerous local meetings to discuss the components of the program. The Ministry of Health provided the health units with guidelines for implementing the legislation. This booklet was reviewed page by page at local meetings. On some occasions clarification was sought from the Ministry of Health. The majority of the forms, letters, and procedures were developed locally at the above mentioned meetings.

All educational respondents reported that they had received no communication from the Ministry of Education regarding this legislation. All respondents reported that the procedures were established by the Health Unit. School officials had no input into the development of the legislation or the procedures prior to receiving the first group of suspension notices.

A trend towards increased input by educational personnel appears to have occurred with the implementation of the new legislation. The details of the working of the Joint Liaison Committee were not predetermined. It is up to the Committee to establish terms of reference and

administrative procedures. In addition, it was through this Committee that the educational system requested that principals receive advance notification of suspensions so that they could help encourage parents to comply with the legislation.

Summary

The analysis of the data indicated that definitional reciprocity changed from low before the Act to low to medium after the Act.

Table 8

Summary table for definitional reciprocity

		Pre Act			Post Act		
Personnel	n	% Low	% Medium	% High	% Low	% Medium	% High
Education	15	100			66.7	33.3	
Public Health	6	100			50	50	
Total	21	100			62	38	

The following table presents the results of the data analysis for the eight variables suggested by Marrett (1971).

Table 9

Summary table of Marrett's linkage dimensions

Dimension	Pre Act	Post Act
Formalization		
Agreement formalization	medium	high
Structural formalization	low	low to medium
Standardization		
Unit standardization	high	high
Procedural standardization	high	medium to high
Intensity		
Resource intensity	medium(ph)[a] low (ed)[b]	high (ph) low(ed)
Interaction intensity	low	low to medium
Reciprocity		
Resource reciprocity	medium	medium
Definitional reciprocity	low	low to medium

[a]public health

[b]education

It was postulated in Chapter 1 that additional indicators of standardization and reciprocity may be helpful to more accurately portray the characteristics of the relationship. Thus, four additional indicators were explored

in this study. These were compliance standardization; degree of power balancing operations; degree of satisfaction with the program; and degree of satisfaction with the legislation. It was proposed in Chapter 3 that these indicators would not be measured, but a summary of the responses would be presented in Chapter 4.

Compliance standardization

Pre Act

All public health respondents reported that the immunization program was not mandatory under the old Public Health Act. Their responses demonstrated a strong moral obligation to provide immunization services. "This public health unit has always considered immunization to be a priority." "Although it actually is voluntary, we consider it to be mandatory."

The responses of educational personnel demonstrated a strong moral and social obligation to cooperate with public health in providing the immunization service. "I don't know if immunization is mandatory but the Education Act implies that schools are expected to cooperate with public health as principals are responsible for the health and safety of the children." "Immunization is probably mandatory under health legislation. We have no right to refuse this program. Immunization is very necessary for the health of the children." "Schools need healthy children to enable them to benefit from education." "Immunization helps to prevent

epidemics thus, preventing large absentee rates from school." "Immunization is an accepted public health procedure--a motherhood issue--that benefits children and society." "Schools have an obligation to cooperate with other agencies for the good of the children." "The Thunder Bay Boards of Education are too small and have too small a tax base to enable them to provide complementary programs and therefore must rely on other public agencies such as the health unit."

In summary, all respondents clearly indicated a strong moral and social obligation to provide the immunization program even though the program was not mandatory for either the Board of Health or the Boards of Education. The voluntary nature of the program was substantiated by documentary evidence (Public Health Act, 1982; Hansard Official Reports of Debates, June 11, 1982, p. 2582, 2583).

Post Act

With the passing of the Immunization of School Pupils Act, the provision of immunization to schoolchildren became mandatory for all Boards of Health and Boards of Education in Ontario. The legislation does not stipulate any penalties for noncompliance.

The collection of statistics and data is the sole responsibility of the Thunder Bay District Health Unit which is required to report weekly to the Public Health Branch of the Ministry of Health. Neither School Board is collecting

statistics related to the implementation of this legislation.

The Immunization of School Pupils Act clearly sets out the roles and responsibilities for the Medical Officer of Health and principals. However, some discretion was exercised locally in implementing the new legislation. A few suspensions were delayed and not carried out exactly as ordered. Public health respondents reported that all cases of suspected delayed suspensions were "referred directly to the Medical Officer of Health." These few cases were considered understandable as the principals are responsible primarily with "keeping the child in school" and "maintaining good rapport with the parents." One principal reported that he had delayed suspending two children for three days.

Public health respondents reported that the Medical Officer of Health allowed "conscientious objectors" to sign the religious exemption form rather than forcing these parents to comply with the legislation.

Degree of power balancing operations

Pre Act

There was no evidence of the presence of power balancing operations. The immunization program had been ongoing since the 1950's. All respondents indicated full support for the program.

Post Act

The possible presence of power balancing operations No. 1 and No. 3 were suggested by the responses. In power balancing operation No. 1, the Boards of Education could increase their power by withholding or postponing their cooperation in implementing the new legislation.

A few principals delayed a few suspensions. This was reported by all public health respondents and one principal. There was no suggestion that this was a serious problem. Public health respondents reported that they did not want to see children suspended unless absolutely necessary. They also reported that these delays only happened in a few cases (no numbers were provided) and that these delays occurred with "difficult, problem cases." The researcher was provided with several examples of difficult cases. "We have worked with this family for a year to achieve regular attendance at school, a suspension might cause absenteeism again." "If this child is suspended we probably won't see him again." "There was a language barrier which took a long time and extra effort to overcome." "A social worker had to work with the family to get compliance." "There was no reason to suspend on Monday when the parents promised to take the child to the immunization clinic on Wednesday."

It could be argued that these delays indicated the presence of power balancing operation No.1. However, since these delays happened with difficult cases, it could also be

argued that they represented concern for the effect of a suspension on a child's education rather than a concern for balancing power.

Secondly, the reaction of the education system immediately following the first group of suspensions could be argued to be an example of power balancing operation No. 3. In power balancing operation No. 3, the Boards of Education could increase their power by requesting changes to the established public health procedures. A meeting of the Joint Liaison Committee was requested by educational officials to discuss the suspension procedures. It was decided that the Medical Officer of Health would send out the suspension notices earlier. This gave the principals more time to contact the parents to encourage compliance. All principals reported that they were obligated to inform the parents of the school's legal responsibility to enforce the suspensions. Three principals reported that they felt obligated to actively become involved with helping the parents to comply with the legislation. Principals reported that their involvement was necessary to prevent lengthy suspensions.

It could be argued that this system wide reaction to become involved in the suspension procedure when legislatively it is not required is an example of power balancing operation No. 3. However, the educational system's request could be explained as a reaction to other factors

which occurred simultaneously rather than a concern for balancing power. For example, it could have been a reaction to the lack of communication, since some principals were unaware of the legislation when they received their first suspension notices. Secondly, it could have been a reaction to the media coverage in the first week of November which reported that 46 students were suspended and that approximately 3,000 students could be affected if parents did not comply (The Chronicle-Journal, Note 3).

Degree of satisfaction with the program

Pre Act

All respondents agreed that they were generally satisfied with the former immunization program. The scheduling of the immunization team's visit ran smoothly. Principals reported that they were given sufficient advance notice. "The health unit is very organized with their procedures." Immunization nurses reported that schedule adjustments were only necessary two or three times per year and usually were needed due to poor weather conditions.

The immunization team reported that they provided immunization to school staff during their annual visit. Principals reported that this was a convenience for staff that was greatly appreciated.

Principals reported that the flow of instruction was disrupted only minimally as students move in and out of the classroom for their immunization. The immunization program

was "no problem, no big deal."

The problems reported were periodic personality conflicts, and difficulty in providing adequate accommodation in the schools. Administrative personnel reported periodic personality conflicts between school health nurses and principals which were resolved satisfactorily. All respondents reported that it was becoming increasingly difficult for principals to provide adequate accommodation for the immunization team to work. This situation required adjustments by both nurses and school staff. The problem of inadequate accommodation has necessitated periodic meetings between public health and educational personnel in the past. Educational personnel viewed this problem on a school by school basis indicating that "minor adjustments to room timetables were no problem." On the other hand, public health personnel viewed this problem on a system wide basis. Although recognizing that "the educational system does its best to provide adequate space" and that "it is difficult to work in another organization's territory" the adjustments that had to be made were a source of some dissatisfaction.

Two principals reported that in the past (before the formation of the Lakehead Board) the Medical Officer of Health had met with them on an annual basis to review the year's public health programs. These principals commented on

the benefits of these meetings and would like to see them reinstated.

Post Act

All respondents reported dissatisfaction with the initial stage of implementing the new program in November, 1983, but are satisfied that since January, 1984 the major problems have been solved. Several reasons were given for the initial dissatisfaction.

(a) The Health Unit assumed the job of communicating this legislation to both the parents and educational officials. Unfortunately, there were several factors that led to communication breakdown. The legislation passed so quickly through the legislature that the Health Unit was caught illprepared. The expected publicity for the program promised by the Ministry of Health did not appear in the Thunder Bay media. The Health Unit anticipated that the educational officials would have been informed of this legislation through the Ministry of Education. Finally, a proposed meeting with one group of principals could not be arranged. This group was unaware of the legislation.

(b) The educational personnel reported that they did not anticipate that a substantial number of students would be affected by suspensions. In contrast, one principal anticipated a large number of suspensions in his school and was pleasantly surprised that all parents complied

without any problems.

(c) The principals were unaware of the rationale for this legislation and therefore felt that they did not have sufficient information to deal with difficult parents.

(d) The principals reported lack of information on the specific procedures used by the Health Unit to inform the parents of their legal responsiblity or procedures used by the Health Unit to encourage compliance. Thus, they were unsure of what information to impart to parents to encourage compliance.

(e) Principals reported that initially they had not received sufficient advance notification of impending suspensions.

Respondents agreed that personnel of all three organizations overcame these difficulties and made adjustments to ensure that a good working relationship was maintained. On the request of the educational system, the Medical Officer of Health provided the principals with advance notification of impending suspensions. This enabled the principals to contact the parents to encourage compliance.

The public health respondents were pleased with the overall cooperation of principals and especially with their efforts to encourage compliance. The principals were pleased with the cooperation of the Health Unit regarding difficult cases.

Principals viewed this legislation as part of a bigger issue. They reported a need for clarification and more information regarding several matters related to school health issues including pediculosis, the changing role of the school nurse, medical input into the requirements of Bill 82, provision of medications to students in school, and the new Health Protection and Promotion Act.

Public health respondents reported dissatisfaction with the increased work load without a corresponding increase in funding. However, they felt that the work load will return to an acceptable level next year.

Degree of satisfaction with the legislation

Public health respondents reported satisfaction with the impact the legislation had on increasing the immunization status of schoolchildren. They felt that having the authority to order a suspension was responsible for the high rate of compliance.

In September 1983, approximately 3,000 students were assessed as having incomplete immunization status. As of June 15, 1984, 130 students were assessed as having incomplete immunization status and one suspension was outstanding. There were 668 suspension notices issued throughout the year (Simmick, Note 2).

Educational personnel although supportive of the program reported a high degree of dissatisfaction with the legislation. The following comments were provided by the

educational respondents.

(a) "I object to the Medical Officer of Health's unilateral right to suspend students without consultation with the principals. The legislation should have recognized the principal's primary responsibility towards the education of the child and should have incorporated cooperative decision making especially related to the timing of the suspensions."

(b) "There is direct conflict between the Immunization of School Pupils Act and the Education Act. On the one hand it is clear in several sections of the Education Act that the principal is responsible for the operation of the school, but, on the other hand, the Medical Officer of Health can order a principal to suspend a student. There have been no changes to the Education Act."

c) "The principals are placed in a bad situation that does not provide for job satisfaction. Although they want to do what is best for the child and feel obligated to comply with the immunization legislation, they do not really like the role that has been imposed on them." They view themselves as "enforcement officers, policemen, pawns" mediating between the Health Unit and the parents.

(d) "The Boards of Education expect the principals to use suspensions as a last resort. Principals must go through a lengthy, involved procedure before they suspend and

yet the Medical Officer of Health seems able to suspend far more easily. The principal can only suspend for a maximum of five days and yet the Medical Officer of Health can suspend for 20 days with the right to renew the suspension."

(e) "Principals are used as a vehicle to implement public health procedures; however, in this situation communication was not good and not complete. I would prefer greater involvement at an earlier stage and more regular communication so that I would be more aware of the apparent shifts in public health policy that appear to be forthcoming."

(f) One respondent reported concern regarding a child who may be suspended repeatedly. "Legislation does not specify who is to follow through with this family. Will it be education's responsiblity to follow through with the legal system and Children's Aid"?

(g) "Education is not mandatory until age six, thus, it is conceivable that this legislation could affect junior and senior kindergarten enrollment."

Summary of Chapter 4

Chapter 4 was devoted to reporting the results of the data analysis. A discussion of the study findings is presented in Chapter 5.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

This study was conducted to provide answers to specific research questions as outlined in Chapter 1. Marrett's model (1971) was used as a basis for formulating the research questions. Marrett proposed that the characteristics of an interorganizational relationship could be studied by measuring four linkage dimensions: degree of formalization, degree of standardization, degree of intensity, and degree of reciprocity. In this investigation the four dimensions were examined in two different time frames: before and after the passing of the Immunization of School Pupils Act, 1982. The change in the four linkage dimensions was analysed. The results of the analysis revealed that change occurred in all four dimensions but failed to demonstrate major changes.

Chapter 5 is concerned with a discussion of the results of the study. Major limitations of the study will be presented. Implications of the present study for future research will be noted.

Limitations

Prior to the discussion of the results of this investigation, it is appropriate to identify the major limitations of the study. Although the Immunization of

School Pupils Act, 1982 affected all Boards of Health and Boards of Education in Ontario, this study was limited to an examination of the relationship between three organizations situated in Thunder Bay. Since the results may not be applicable to similar organizations in other cities, generalizations must be made with caution.

Another limitation of this study was that only one aspect of the total relationship was examined. It was noted in Chapter 1 that the Thunder Bay District Health Unit and the Thunder Bay Boards of Education are engaged in a multifaceted relationship. Immunization is only one of several health services provided to schoolchildren by the Health Unit. It was apparent in the interview situation that respondents sometimes encountered difficulty in separating the different aspects of the relationship.

Finally, the use of interview data, as the primary source of data, raises the problem of interviewer bias. Several techniques were used to reduce bias. The majority of the interviews (17 out of 21) were taped which allowed the researcher to review the tapes frequently to ensure that the summary of the interviewee responses was accurate. Secondly, the data were scored independently by three people. Finally, much of the data collected involved factual rather than perceptual information and could be corroborated by other respondents or document data. Nevertheless, the possibility of a biased interpretation of the data remains.

Discussion of the results

This study was concerned with addressing the problem of interorganizational coordination in a mandated relationship. One of the outcomes of this study was the development of a particular view of coordination in a mandated relationship. This view, generated from the data collected, is presented.

Firstly, the findings of this study support the contention of Hall et al. (1977) that relationships between organizations vary depending on whether the base of the relationship is voluntary or mandated. In this study, the interview guide was designed to collect data on two immunization programs--one voluntary and one mandatory. The findings indicated that the two programs were different in the following variables: structural formalization; procedural standardization; resource intensity; interaction intensity; and definitional reciprocity.

The data collected indicated that the findings on procedural standardization and resource intensity may be affected by the timing of this study. The interviews, which were the primary source of data for the present study, were conducted in May and June 1984. By June 15, 1984, the majority of the catch-up of elementary students had been completed; however, the high school catch-up remains to be completed. As noted in Chapter 4, respondents anticipate that the standardization of procedures will be completed in

the fall of 1984. Similarly, regarding resource intensity, respondents anticipated that the higher level of resource intensity should return to a lower level once the initial catch-up is completed in the fall of 1984. Therefore, it is probably reasonable to conclude that differences in resource intensity and procedural standardization are temporary and might not have been identified if this study was conducted at a later date.

There is no evidence in the data collected that the timing of the study affected structural formalization, interaction intensity, or definitional reciprocity. It is therefore feasible to conclude that higher levels of structural formalization, interaction intensity, and definitional reciprocity occurred when the base of the relationship changed from voluntary to mandated. Marrett's study (1971) offered a possible explanation for this conclusion. As noted in Chapter 2, Marrett's model was concerned with the interrelationships between linkage dimensions for voluntary programs. She concluded that the resource indicator of intensity was the key predictor of most of the other variables. Interestingly, Marrett predicted that frequency of interaction, definitional reciprocity, and structural formalization would not be influenced by the size of the resources invested by participating organizations. These findings raise the possibility that interaction intensity, structural

formalization, and definitional reciprocity might be related to mandated relationships; however, this conclusion must be considered tentative as only one program was studied.

Secondly, the differences between the two immunization programs (see Table 9, chapter 4 for summary of these differences) were not as substantial as anticipated. This finding suggests that the organizations have been able to accommodate to the legislation easily. A similar finding was found in the work of Warren, Burgunder, Newton, and Rose (1975). They began their study of the "Model Cities program" expecting to find change, conflict, and a great deal of interorganizational activity, but found instead surprizing stability and few major changes.

Several factors in the background of the relations between these organizations might possibly explain the lack of major changes found in the present study. As noted in Chapter 1, this relationship is long standing and long standing relationships tend towards stability and institutionalization (Benson, 1982). Secondly, the responses, reported in Chapter 4, indicated that members of the participating organizations consider the provision of immunization services important to their organization and society. Thirdly, respondents indicated a positive attitude towards working with personnel of the other organizations. Fourthly, respondents reported an awareness and understanding of the primary goals and responsibilities of

each organization. All these factors have been suggested by writers on interorganizational relationships as antecedent conditions which facilitate coordination. Hence the findings of this study appear to indicate that substantial differences between voluntary and mandated programs may not be present when the relationship is long standing and enjoys a postive historical background.

Another outcome of this study was the development of a particular view of the communication process. In Chapter 2, it was pointed out that a critical factor necessary for successful change is good communication between the participating organizations. However, educational respondents reported several communication problems including poor awareness of the mandate, no input into the planning of the implementation of the legislation, and no information regarding the number of potential suspensions. Thus, it would appear that the communication between the participating organizations was somewhat less than perfect. Nevertheless, the new program was implemented quickly without major conflicts and by January 1984 all respondents reported satisfaction with the new program. This particular study appears to challenge the consensus in the literature regarding preconditions for mandated linkages. However, since the present investigation is a study of one case a cautionary note is needed. This particular view of change may represent an exception to the rule.

Discussion of linkage dimensions

Formalization

Somewhat unexpectedly, in view of the potential importance of agreement formalization as an indicator of formalization, the interviewees were unable to report on the level of official sanction which existed to guide the relationship prior to the passing of the Immunization of School Pupils Act. The work of Friesema (1970) provided a possible explanation for this finding. He found that in long standing relationships the agreement, its details, and its requirements are frequently forgotten. It seems reasonable to conclude that once agreements are well established the original agreement appears relatively unimportant to the maintenance of a long standing relationship.

The findings of this study did not demonstrate the presence of a highly formalized coordination structure in the mandated situation. One explanation is provided in the writing of Gottfredson and White (1981) who proposed that laws may provide sufficient rules to guide the organizations thus making coordination structures unnecessary. The writing of Benson (1982) provided another explanation. He suggested that in mandated relationships, most of the coordination issues are determined at the supraorganizational level leaving few issues to be determined at the local level. Since coordination at the supraorganizational level was not examined in this study, the evidence on this particular

possible explanation is minimal. It was reported in the Hansard Official Reports of Debates (June 11, 1982, p. 2583) by the Honourable Mr. Grossman that officials of the Ministry of Education and the Ministry of Health had worked together to formulate this legislation. Another possible explanation is provided by Whetten (1981) who stated that "coordination is often simpler when one organization is responsible for the administration and delivery of services" (p. 23). Thus, the findings of this study supported the literature which suggested that formalized coordination structures are not necessarily present in mandated relationships.

Marrett (1971) stated that it was likely that agreement and structural formalization may be directly related. In this study, agreement formalization changed from medium to high and structural formalization moved from low to medium. This finding suggests that the two indicators of formalization may be directly related, however, a cautionary note is needed. As noted in Chapter 4, it seems reasonable to argue that structural formalization changed from low to medium because of the formation of the Joint Liaison Committee in the spring of 1983. However, the data suggested that this committee has not assumed a major coordinating role at this point in time. Therefore, until there is more evidence that the committee is directly involved with joint planning and decision making, the conclusion that agreement

and structural formalization are related must be considered tentative.

Standardization

The findings from Pre Act data indicated the presence of high unit and procedural standardization. The findings from post Act data indicated high unit standardization and medium to high procedural standardization. However, the data collected indicated that the slightly lower level of procedural standardization may be temporary rather than permanent. Consequently, it seems reasonable to argue that in the long run neither immunization program may demonstrate a significant difference on unit and procedural standardization.

Intensity

The findings of the present study indicated that resource and interaction intensity increased after the passing of the Immunization of School Pupils Act. This finding suggests that legislation had an effect on both indicators. However, as previously noted respondents expect resource intensity to return to previous levels once the catch-up phase of implementing this legislation is completed. In contrast, respondents anticipated that a slightly higher level of interaction intensity will continue. It must be pointed out that these conclusions are based on the perceptions of respondents. A study at a later date is needed to confirm these perceptions. Nevertheless,

it appears that increased contact between high level officials will continue to be a pattern in this relationship, primarily due to the formation of the Joint Liaison Committee.

Interaction intensity is a broad construct intended to reflect several aspects of the communication process between organizations. The measurement of frequency of interaction was problematic as respondents encountered difficulty reporting such things as dates and number of meetings, phone calls, and letters. A similar finding was reported by Hall et al. (1977) who also found that organizational records were frequently missing or incomplete. In contrast, respondents spontaneously reported the purpose, and content of the contact. As noted in Chapter 2, Marrett (1971) measured only frequency of contact while other researchers have included purpose, content, and type of contact in their studies. This finding suggests that these measures are important to an understanding of the intensity dimension.

Reciprocity

The findings of the present study indicated a higher level of definitional reciprocity after the passing of the Immunization of School Pupils Act. Pre Act data indicated the presence of unilateral decision making. The Thunder Bay District Health Unit was responsible for the administration of the program as the procedures were

established by the Health Unit and presented to the Boards of Education for comment and approval. Post Act data indicated that the above pattern of decision making was repeated until the actual suspensions began in November 1983. On November 15, 1983 the issue concerning early notification of impending suspensions was decided jointly at a meeting of the Joint Liaison Committee. The responses by educational officials to questions on satisfaction with the legislation suggested that additional issues concerning such things as the timing of suspensions and responsibility regarding noncomplying parents remain undecided at this time. These factors suggest that educational officials desire more input into the development of the terms of interaction.

An explanation of this increased involvement by education officials in decision making is found in the work of Warren (1972). He stated that "organizations enter voluntarily into concerted decision making processes under those circumstances which are conducive to a preservation or expansion of their respective domains" (Warren, 1972, p. 23). It was noted elsewhere (Chapter 1) that one reason this legislation has interorganizational implications was the domain issue. Thus, it is feasible to conclude that when legislation alters the domain of an organization, the organizations are pushed into joint decision making.

Both Pre Act and Post Act data indicated that the

Thunder Bay District Health Unit is responsible for the administration of the immunization program and the delivery of immunization services. Thus, the findings of this study indicated that resource and definitional asymmetry are related, as the organization which provided the majority of the resources tended to dominate activities related to definitional reciprocity. Andrews (1978) reported similar conclusions.

In Chapter 2, it was pointed out that most research emphasized tangible resources as they are easily measured. However, the literature reviewed also stressed the importance of intangible resources such as authority, support, good will, and prestige to an understanding of interorganizational relationships. In the present study, the analysis of data on resource reciprocity proved problematic as this relationship could be considered an example of an exchange of tangible resources for intangible resources. The Thunder Bay District Health Unit clearly provided the majority of such resources as funds, personnel, facilities, and equipment. However, the public health personnel must have access to the schoolchildren to achieve their immunization goals. Thus, the support, cooperation, and good will of the educational system are important to the success of the immunization program. It is concluded that future research needs to address the problem of measuring reciprocity when relationships involve both tangible and

intangible resources.

The findings of this study provided support for Marrett's contention that the characteristics of her second interorganizational model are unlikely to exist. Neither of the two immunization programs studied demonstrated the characteristics of her second model. Marrett (1971) predicted that in relationships involving high resource commitment one could anticipate "formal agreements, standardization of both units and procedures, and reciprocal flows" (p. 96). However, in this study, the resource commitment was asymmetrical between the participating organizations. The Thunder Bay District Health Unit provided the majority of the resources and was responsible for the delivery of immunization services both before and after the passing of the Immunization of School Pupils Act. This result was not completely unanticipated as Andrews (1978) also found that none of the four programs he studied demonstrated the characteristics of Marrett's second model. Andrews concluded that resource asymmetry appeared to be the limiting factor. Hence, the symmetry of resource commitments of the participating organizations appears to affect the realization of Marrett's second model.

Summary

What emerged from the discussion of the findings of this study is the impression that certain linkage dimensions are more related to mandated than voluntary

relationships. In addition, other factors such as the historical background of the relationship may be required to explain the lack of major changes found in this study. Lastly, the change process in interorganizational relations is worthy of further investigation. A major limitation of this study was that only two programs were compared. Further research is needed to test the applicability of these conclusions to other programs.

Discussion of additional indicators

Compliance standardization

The findings of this study indicated that the respondents had a strong moral and social obligation to provide the immunization services and to comply with the legislation. This finding supports the contention of Gottfredson and White (1981) who proposed that in some relationships explicit statements regarding compliance standards seem unnecessary.

This variable was included in the present study to determine its usefulness as a possible indicator of standardization. As noted in Chapter 2, recent literature indicated that interorganizational agreements can vary on units, procedures, and compliance standards. Although no variation on compliance standardization was found in the two programs studied, the data did provide information of value to the study. Although educational respondents indicated dissatisfaction with the initial suspension procedures and

with some aspects of the legislation, the new immunization program was implemented quickly without any major problems. It appears, therefore, that educational personnel were able to reconcile their own individual and organization goals in order to satisfy a higher level societal goal. Support for this observation was found in the work of several writers including Van de Ven and Ferry (1980). It is concluded that compliance standardization should be considered as an indicator of standardization for possible inclusion in future studies.

Power balancing operations

The analysis of the data indicated the presence of resource and definitional asymmetry which suggested the presence of power imbalance in this relationship. Furthermore, the findings of the present investigation indicated that two actions taken by educational officials may provide evidence that power balancing operations No. 1 and No. 3 were present. It is the contention of this researcher that these power balancing operations were beneficial and constructive to the ongoing interaction between the participating organizations. The educational officials understandably were concerned with the provision of the legislation which gave the Medical Officer of Health the authority to suspend certain students. Assuming that the actions taken by the educational officials were in fact examples of power balancing operations, it is possible to

conclude that power balancing operations might be considered as an additional indicator of reciprocity in future studies.

Satisfaction with the program

Respondents spontaneously reported and discussed their feelings concerning the voluntary and mandated immunization programs. It is apparent from the interview data that personnel of each organization are generally satisfied with the working relationships which have been established.

Satisfaction with the legislation

The only issue of concern identified in this study was reported by educational personnel. They felt strongly about the apparent conflict between the dictates of the Education Act and the Immunization of School Pupils Act. However, it is important to note that their concern did not interfere with the implementation of the new mandated program. Nevertheless, this dissatisfaction may indicate that issues relating to power and legislated authority have still not be resolved.

Summary

It is apparent that the additional variables provided a more in depth understanding of this particular interorganizational relationship. Since this was a case study, further research is needed to determine (a) whether these variables can be operationalized for measurement purposes and (b) whether these variables are useful in

studies of other interorganizational relations.

Implications for future research

The findings of this study have both theoretical and practical implications. Theoretically, this study supported the study by Andrews (1978) that Marrett's model (1971) is applicable to the investigation of interaction between health and educational organizations. Furthermore, the linkage dimensions proposed by Marrett can be operationalized to differentiate between the characteristics of voluntary and mandated programs. However, future research should address the problems previously identified of measuring tangible and intangible resources and resource reciprocity.

Another line of enquiry involves the investigation of additional indicators of linkage dimensions. As noted earlier, the additional variables utilized in this study provided valuable insights into this particular relationship. However, future research with a larger study sample would be beneficial to test their applicability to interorganizational studies, in general.

As noted by other writers, change in interorganizational relations is another area of research with limited understanding. Although a particular view of change was generated from this study, care must be taken in drawing conclusions for the following reasons. The change process at this point in time is not completed, thus

conclusions are tentative. In addition, although this study focused on the change in linkage dimensions occurring as a result of the change in the base of the relationship, the present investigation was not directed towards the problem of change. Undoubtedly, factors not addressed in this study would be important to a study of change.

Another area of possible investigation relates to the historical background of interorganizational relationships. Writers have rarely addressed this problem as the predominant approach to the study of interaction between organizations has been survey research. Whetten (1982) stated that "survey research is typically comparative in orientation and is seldom conducted on a longitudinal basis in this field" (p. 103). In light of the finding that the past history of this particular relationship appeared to be important to an understanding of agreement formalization and the amount of change observed, future studies should consider the historical development of interorganizational relationships.

Practically, this study may have implications for education administrators. The Health Protection and Promotion Act, 1983 was proclaimed in June, 1984. Since public health units now have a clear mandate to provide a package of core services to each community in Ontario, it is anticipated that this Act will have implications for school health services. A study of this nature may be useful to

administrators who will soon need to consider change in other health services besides immunization.

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APPENDIX A

SELECTION OF PRINCIPALS: PROPORTIONAL RANDOM SAMPLING

Principals	N[a]	%[b]	n[c]	%[d]
Lakehead Board elementary - suspensions	24	35		30
Lakehead Board elementary - no suspensions	14	20		20
Lakehead Board secondary - suspensions				10
Lakehead Board secondary no suspensions				10
Lakehead District RCSS Board - suspensions	16	23		20
Lakehead District RCSS Board - no suspensions	5	7	1	10
Total	69		10	

[a]Number of principals (Board and level specified).

[b]Percentage of total number of principals of both school boards.

[c]Number of principals selected to be interviewed.

[d]Percentage of total number of principals selected to be interviewed.

APPENDIX B

INTERVIEW GUIDE

PRE ACT SECTION

QUESTION 1 AGREEMENT FORMALIZATION

What agreements existed between the Thunder Bay District Health Unit and the Boards of Education for immunization before the Act took effect?

Probes - were the agreements written or unwritten?

- what was the content of the agreement?

QUESTION 2 STRUCTURAL FORMALIZATION

How was the immunization program coordinated before the Act took effect?

Probes - at school level?

- at superintendent level?
- at Director of Education level (Medical Officer of Health)?
- at Board level?
- at interorganizational committee level?

QUESTION 3 UNIT STANDARDIZATION

What components of the old immunization program were the responsibility of the Public Health/Education system?

Probes -- what was your role in the program? in the following components?

- consent forms
- arrangements for time and space for the team to visit
- gathering or providing student information
- arranging schedules for immunization immunization records/follow-up

QUESTION 4 COMPLIANCE STANDARDIZATION

What would have happened if Public Health/Education did not carry out their immunization responsibilities?

Probes - does Public Health/Education have the right to refuse immunization?

- was the immunization program mandatory?

QUESTION 5 PROCEDURAL STANDARDIZATION

What rules, policies, procedures, memos existed to guide Public Health/Education in performing their responsibilities?

Probes - written or unwritten

- how long have these procedures existed?
- who developed these procedures?
- have there been any changes in the past 5 years?
- were they clear? any problems? and changes needed?

QUESTION 6 RESOURCE INTENSITY

To what extent does your organization contribute any of the following resources to immunization?

funds?

staff time and work load?

facilities or equipment?

QUESTION 7 INTERACTION INTENSITY

What type of contact did you have with Public Health/ Education personnel regarding immunization?

Probes -- written communication? content? frequency?

telephone? content? frequency?

- meetings? content? frequency?

QUESTION 8 DEFINITIONAL RECIPROCITY

Did you have have any input into developing the old immunization program?

Probes -- describe your input?

- who developed the rules, procedures?

QUESTION 9 EXTENT OF SATISFACTION WITH PROGRAM

What aspects of the old program were you satisfied with?

QUESTION 10 EXTENT OF POWER BALANCING OPERATIONS

What problems did you have with the old program?

Probes -- did you discuss your concerns with Public Health/Education?

- did Public Health/Education make any adjustments to meet your needs? explain?

is there anything Public Health/Education could have done to make your job easier?

POST ACT SECTION

QUESTION 1 STRUCTURAL FORMALIZATION

How is the new immunization program coordinated?

Probes - at school level?

- at superintendent level?
- at Director of Education (Medical Officer of Health) level?
- at Board level?
- at committee level?
- Are there any terms of reference for this committee?
- How frequently does the committee meet?
- Who is responsible for the administration of the committee?

i.e. who is the chairman?

who prepares the agenda?

who is responsible for the minutes?

QUESTION 2 UNIT STANDARDIZATION

What components of the new immunization program are the responsibility of the Public Health/Education program?

Probes -- assessment of the students immunization status?

- suspension notices?
- actual suspension?

rescinding of notices? readmission to school?

- what is your role in the new program?

QUESTION 3 COMPLIANCE STANDARDIZATION

Do you see this program as being mandatory for Public Health/Education?

Probes -- who is responsible for ensuring that the responsibilities are carried out?

- what would happen if a principal did not carry out the suspension?

QUESTION 4 PROCEDURAL STANDARDIZATION

What rules, policies, procedures exist to guide the Public Health/Education personnel in performing their duties?

Probes - are the procedures written or unwritten?

- who was responsible for developing the procedures?
- when were the procedures developed?
- are there any procedures that need clarification? require changes?
- have there been any changes made to procedures this year?

QUESTION 5 RESOURCE INTENSITY

To what extent has the new immunization program altered your organization's resource contribution?

Probes -- can the program affect grant money if a student is suspended?

- what impact does the new program have on student's time away from education?
- have you had communication with parents regarding immunization or suspensions?

QUESTION 6 INTERACTION INTENSITY

What type of contact have you had with the Public Health/Education personnel regarding the new immunization program?

Probes -- written communication? content? frequency?
telephone? content? frequency?
- meetings? content? frequency?

QUESTION 7 DEFINITIONAL RECIPROCITY

What input did you have into developing the procedures and policies required to implement the Act?

Probes -- how did you learn of the Immunization Act? from whom?
- when did you first learn of the Act?
- were you asked to comment on the proposed legislation?
- were you invited to meetings to discuss the implementation of this legislation?
- what information did you receive regarding the program?
i.e. Act/ information package/ numbers of potential suspensions?

QUESTION 8 EXTENT OF SATISFACTION WITH THE PROGRAM

What aspects of the new immunization program are you satisfied with?

Probes -- suspension procedures/ rescinding orders?
input into development of the new program?

QUESTION 9 EXTENT OF POWER BALANCING OPERATIONS

Have you had any problems with the new program?

Probes -- how many suspension notices have been received for students in your jurisdiction?

- how many students were suspended? for how long?
- were all the suspensions carried out?
- did you discuss any concerns with Public Health/Education?
- did Public Health/Education make adjustments to meet your needs? explain?

is there anything Public Health/Education could do to make your job easier?

QUESTION 10 EXTENT OF SATISFACTION WITH LEGISLATION

Do you see any conflict between the dictates of the Immunization Act and the Education Act? Are you satisfied with the legislation?

Probes -- what changes do you see as necessary to make the Education Act compatible with the Immunization Act?

- do you see this program as impinging on the rights of education officials?
- do you see this role of the principal as being legitimate and appropriate?

are there any changes needed to the Act that would benefit the program?

QUESTIONS FOR COMMITTEE MEMBERS ONLY

QUESTION 11

How was the Joint Liaison Committee established?

Probes -- why did Public Health want this committee?

- why was this committee extended to include both boards?
- who made this suggestion?
- what benefits are there for Public Health/ Education to have this committee?
- do you see this committee as a forum for sharing information, concerns, developing procedures/ decision making?
- are there any changes needed to improve the functioning of this committee?

QUESTION 12

Has there been any discussions or decisions made regarding immunization at these meetings?

Probes -- what requests has Public Health made of Education?

- what requests has Education made of Public Health?
- what were the results/ actions taken?

QUESTION 13

Did the principals request that the suspension notices be sent out earlier?

Probes -- who initiated this request and why?

APPENDIX C

LETTER TO HEAD ADMINISTRATIVE OFFICIAL

Dear

I am writing to request your participation in my research being conducted for the purpose of completing a Master's thesis in the Faculty of Education at Lakehead University.

The focus of this research involves: (a) the identification and description of a number of characteristics linking public health and educational organizations for the purpose of providing immunization programs to schoolchildren; and (b) an examination of the change in these linkage characteristics as a result of the passing of the Immunization of School Pupils Act, 1982. The organizations to be included in this study are the Thunder Bay District Health Unit, the Lakehead Board of Education, and the Lakehead District Roman Catholic Separate School Board.

I will be contacting you in the next few days to arrange an interview to discuss the possible participation of your organization in this research project. Specifically, I will be requesting permission to contact personnel to arrange an interview.

Please be assured that specific information will be held in the strictest confidence and that written material will not contain specific identification of personnel interviewed.

I am enclosing a thesis abstract for your information. Thank you in advance for your cooperation.

Sincerely yours,

Liz Jobbitt

APPENDIX D

SAMPLE OF SUMMARY DATA SHEET

Variable

Respondent Code	Summary of Response	Assigned Score

Note. Respondent Code
AL = administration, Lakehead Board
AC = administration, Catholic Board
APH = administration, public health
PL = principal, Lakehead Board
PC = principal, Catholic Board
IN = immunization nurse

APPENDIX E

METHODOLOGY FOR SCORING DATA

The following methodology was used to analyse the data gathered from the interviews.

Agreement formalization

QUESTION: To what extent has the immunization program been given official sanction?

RESPONSES were scored as follows:

Low = understandings, ad hoc arrangements

Medium = written or unwritten agreements

High = legislation

Structural formalization

QUESTION: What intermediary structure exists to coordinate the relationship?

RESPONSES were scored as follows:

Low = coordination was the responsibility of service delivery personnel on a school by school basis

Medium = coordination was the responsibility of designated administration personnel or an interorganizational committee on a system wide basis

High = coordination was the responsibility of a decision making interorganizational committee

Unit standardization

QUESTION: To what extent were the roles of each organization clearly delineated?

RESPONSES were scored as follows:

Low = roles were unwritten, not well defined, and frequently changed

Medium = roles were written or unwritten, well defined but some clarification was needed

High = roles were written or unwritten, well defined and no clarification was needed

Procedural standardization

QUESTION: To what extent were procedures clearly delineated?

RESPONSES were scored as follows:

Low = no fixed procedures -- procedures varied from case to case

Medium = some fixed procedures and some procedures needed clarification

High = procedures were fixed, routine and required no clarification

Resource intensity

QUESTION: What kind and amount of resources does your organization allocate to the immunization program?

RESPONSES were scored as follows:

Low = no funds or staff allocated and low work load reported

Medium = funds and part-time staff allocated and moderate work load reported

High = funds and full-time staff allocated and heavy work load reported

Interaction intensity

QUESTION: What type of contact was made between the organizations? How frequently was contact made?

RESPONSES were scored as follows:

Low = infrequent contact (once or twice a year) for exchange of information

Medium = formal, prearranged meetings for exchange of information

High = formal, prearranged meetings for joint planning and decision making

Resource reciprocity

QUESTION: To what extent was the flow of resources reciprocal?

RESPONSES were scored as follows:

Low = no exchange of resources--one organization provided all the resources

Medium = there was reciprocal flow of resources--one organization provided the majority of the resources.

High = mutual exchange of resources

Definitional reciprocity

QUESTION: To what extent were the terms of the interaction mutually agreed upon?

RESPONSES were scored as follows:

Low = the terms of interaction were developed unilaterally

Medium = some terms were developed jointly and some unilaterally

High = all organizations participated in developing the terms of interaction

APPENDIX F

SUMMARY OF DOCUMENT DATA

Public Health Act, 1982

Sections 132 and 133 deal with school health matters.

Section 132 (2) states that a

> school board may enter into an agreement with a health unit to provide for the medical and dental inspection and dental treatment.

Section 133 states that

> any school board may enter into an agreement with a county to provide for the employment of public health nurses, school medical officers and dental officers in the schools.

Health Protection and Promotion Act, 1983

School health services are covered in Section 6 which states that

> every board of health shall provide such of the health programs and services as are prescribed by the regulations for the purposes of this section to the pupils attending schools within the health unit served by the school board of health.

Section 6 also provides further control in the following areas:

(a) regulations will prescribe the classification of pupils who may receive programs or services;

(b) school boards must agree to the provision of each particular health program or service;

c) separate school rights and privileges are preserved; and

(d) schools can not allow public health programs or services to be provided by anyone else without the consent of the Medical Officer of Health.

Immunization of School Pupils Act 1982 and Regulation 23

This Act received first reading on June 11, 1982; second and third reading on June 29, 1982; and Royal Assent on July 9, 1982. Section 3 states that

> a Medical Officer of Health, by written order, may require a person who operates a school to suspend from attendance at the school a pupil named in the order.

Pupils with a prescribed "statement of medical exemption" or "statement of religious belief" may not be suspended. The suspension is for a period of 20 school days (Section 4). The suspension order may be repeated (Section 5). Any pupil who has not completed the prescribed immunization program or can not provide evidence of immunity may be suspended from school during an outbreak of a designated disease (Section 9). Medical Officers of Health must be notified of all pupil transfers from schools (Section 11).

When the Medical Officer of Health makes an order requiring suspension or exclusion of a pupil, the parent is entitled to a hearing which has the power to confirm, alter, or rescind the order. The decision of the hearing may be appealed in Division Court (Section 12 and 13).

Immunization of School Pupils Ammendment Act, 1983

This Act received Royal Assent on December 16, 1983 and concerns the appeal mechanism.

Hansard Official Reports of Debates

On October 15, 1982, the Minister of Health was questioned on the high incidence of measles in Ontario. The Honourable Mr. Timbrell replied that the "Immunization on School Entry Program" had been introduced in September 1981. In addition the government was investigating a mandatory immunization program.

On June 11, 1982, the Immunization of School Pupils Act was introduced to parliament. The Honourable Mr. Grossman reported that in 1980, 11,135 residents of Ontario had been afflicted with one of the six designated diseases. In 1978, 2,828 cases of measles were reported. In 1980, 8,253 cases were reported. The Honourable Mr. Grossman also reported that officials of the Ministry of Health and the Ministry of Education had been meeting regularly on this matter.

On June 29, 1982, the Minister of Health was asked "to clarify the role of the attendance counsellor which is spelled out in Section 23 of the Education Act in so far as authority to suspend". The Honourable Mr. Grossman assured parliament that there was full cooperation of the Ministry of Education particularly related to authority to suspend students.

On December 13, 1983, MPP Mr. Foulds commented on the controversy in Thunder Bay where the child of one of the trustees had been suspended.

Ministry of Education documents

The Education Act, 1983; Regulations 262 and 268; and the Ontario Ministry of Education Memoranda were examined. Suspensions ordered by the Medical Officer of Health in accordance with the Immunization of School Pupils Act were not mentioned in these documents.

Board minutes

Each of the participating Boards officially appointed members to the Joint Liaison Committee. The Lakehead District RCSS Board appointed its members on January 26, 1983; the Lakehead Board of Education on April 5, 1983; and the Thunder Bay District Health Unit on May 6, 1983.

Joint Liaison Committee

Meetings of this committee were held on June 14, 1983; August 30, 1983; November 15, 1983; and January 11, 1984. There were no minutes recorded for the last two meetings. The immunization program was discussed at the June and November meetings.

Additional Documents

The following list of documents were provided by the Lakehead District RCSS Board.

(a) Memorandum (AR-82-16) dated August 24, 1982 on "An Act to protect the health of pupils in schools."

(b) Memorandum (AR-82-21) dated September 7, 1982 on "Compulsory immunization of pupils."

The following list of documents were provided by the Thunder Bay District Health Unit.

(a) letter to Principal -- Order for suspension.

(b) letter to Parent/Guardian -- Order for suspension.

(c) Form IMT-9(Spec.) -- incomplete immunization record.

(d) Form IMT-47 and IMT-30M -- information for new families to Thunder Bay regarding the requirements of the Immunization Act.

(e) Form IMT-1 -- Immunization schedule.

(f) Form IMT-44 -- provided to parents following immunization done at school.

(g) Form S-24 -- Elementary school health program.

(h) Form S-16 -- Secondary school health program.

(i) Ministry of Health -- Order for suspension from attendance at school.

j) Ministry of Health -- Order to rescind the suspension or exclusion from school of a pupil.