

THE DEVELOPMENT OF A FIELD DISSEMINATION  
NETWORK FOR CURRICULUM IMPLEMENTATION

---

A THESIS

Presented to  
The Faculty of Education  
The University of Manitoba

---

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Education

---

by  
Victor Theodore Nehe  
August 1979<sup>v</sup>

THE DEVELOPMENT OF A FIELD DISSEMINATION  
NETWORK FOR CURRICULUM IMPLEMENTATION

BY

VICTOR THEODORE NEHE

A dissertation submitted to the Faculty of Graduate Studies of  
the University of Manitoba in partial fulfillment of the requirements  
of the degree of

MASTER OF EDUCATION

© 1979

Permission has been granted to the LIBRARY OF THE UNIVER-  
SITY OF MANITOBA to lend or sell copies of this dissertation, to  
the NATIONAL LIBRARY OF CANADA to microfilm this  
dissertation and to lend or sell copies of the film, and UNIVERSITY  
MICROFILMS to publish an abstract of this dissertation.

The author reserves other publication rights, and neither the  
dissertation nor extensive extracts from it may be printed or other-  
wise reproduced without the author's written permission.

## ACKNOWLEDGEMENTS

I would like to extend my gratitude to the people who assisted in making this study.

To Dr. K. Slentz, my faculty advisor, for introducing me to the topic and examining the thesis.

To Mr. W. Soprovich, my committee member, who allowed me to participate at Department committee meetings and also made provision for the typing and duplication of evaluation forms used in the study.

To Dr. A. M. McPherson and Dr. G. Smith for examining the thesis.

To the participants at the workshop for their cooperation in completing evaluation forms.

To my wife, Fern, for the many hours spent typing the thesis.

To all members of my family.

## TABLE OF CONTENTS

	Page
Acknowledgement .....	ii
Table of Contents .....	iii
Lists of Tables and Graphs .....	v
Abstract .....	vi
Chapter	
1 INTRODUCTION .....	1
Statement of the Problem .....	1
Implementation Model .....	1
Rationale for the Study .....	3
Limitations of the Study .....	5
11 REVIEW OF THE LITERATURE .....	7
Introduction .....	7
Resistance to Change .....	7
Aspects of Effective Implementation .....	10
Change Agents .....	17
The Training of Change Agents .....	24
Limitations of the Workshop Approach .....	35
Related Projects and Workshops .....	35
Evaluation of Workshops .....	40

	Page
III RESEARCH DESIGN .....	44
Introduction .....	44
Development of the Workshop - Planning Stages..	44
Final Workshop Design .....	52
Evaluation of the Workshop .....	56
IV EVALUATION RESULTS .....	58
Introduction .....	58
Evaluation Summary .....	61
Effectiveness of Workshop Sessions .....	67
Positive Feedback Histograms .....	68
Priority Tables and Role Perception .....	73
V CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS ...	77
Introduction .....	77
Conclusions .....	77
Elements of a Successful Workshop .....	82
Recommendations .....	87
Implications for Future Studies .....	93
Concluding Statements .....	95
BIBLIOGRAPHY .....	96
APPENDIXES .....	99
A Needs Assessment Survey	
B Curriculum Revision Committee	
C Tentative and Final Schedules	
D List of Participants	
E Letter to Superintendents	
F Evaluation Instrument with Cumulative Results	

## LIST OF TABLES

Table	Page
1. Effectiveness of Sessions Ranked in Order of Means .....	85
2. Ranking of Top Participant Priorities Held Before the Workshop .....	91
3. Extent to Which Requirements were Met .....	92
4. Preferred Procedures at Workshops .....	93
5. Role Perception .....	94

## LIST OF GRAPHS

## Histogram

1. Importance of the Topic .....	86
2. Value of the Session .....	87
3. The Degree to Which Materials to Support In-Service were Provided .....	88
4. Provision for Information and In-Service Strategies .....	89
5. Degree to Which the Topic Could be Used for an In-Service .....	90

Abstract

The study concerns the development and evaluation of a workshop designed to train resource personnel to act as change agents. The purpose of the change agents will be to assist teachers throughout Manitoba in the implementation of the revised Manitoba Junior High Science Curriculum. To fill this role they will be expected to conduct in-services throughout the Province and expose approximately 600 science teachers to the innovation. A week long live-in workshop was sponsored by the Department of Education and STAM and took place from February 13-17, 1978 at the St. Benedict's Educational Center. Forty-five participants representing 28 school divisions attended.

The objective of the workshop was to provide participants with information and materials to conduct in-services. Eleven topics that were considered essential to implementation were presented by experts in their fields. The planning stages, the development of a workshop design, and a rationale for the topics presented are described.

The literature reviewed was designed to point out the aspects of effective implementation, the role of a change agent and the essential elements of a workshop. Any change in an organization is accompanied by a resistance to the change. The role the change agent plays and the methods by which he can overcome this resistance are described. Procedures that are commonly used at workshops along with methods of workshop evaluation are discussed.

The evaluation began with an assessment of the planning stages and a specification of priorities held by participants before the conference. Each topic session was also evaluated. A final evaluation to determine the general effectiveness was administered at the end of the conference. Questionnaires were designed to register opinions on a scale of 1-5, to elicit suggestions and criticisms, and to determine priorities and preferred procedures.

Results include an evaluation summary giving a commentary on the effectiveness of all aspects of the workshop, a table ranking topic sessions in order of effectiveness, histograms comparing positive feedback with respect to certain criteria, tables of priorities and preferred procedures, as well as a role perception study. The evaluation instrument along with cumulative results is presented in the appendix.

The workshop was generally considered successful because most participants (80%+) indicated that they were adequately prepared to conduct in-services on implementation. Some problems occurred in the areas of communication to select participants, the presentation of the curriculum guide, and provision for materials to support in-services. Two topic sessions were considered ineffective. Most of the major objectives of the workshop were achieved at a satisfactory level and five out of the six top priorities of participants were met at an 80% level or better. Small group interaction, participation in activities and informal discussions were procedures that were preferred over lectures and other large group presentations.

On the basis of the evaluation, the elements of a successful workshop were itemized as were the roles of presenters in charge of specific topics. Recommendations for future workshops were made concerning the implementation model, the workshop design, and the field operation.



## Chapter 1

### INTRODUCTION

#### Statement of the Problem

The problem is to develop, implement and evaluate a workshop designed to produce a field dissemination network. This network will consist of resource personnel whose responsibility it will be to conduct in-services for Science teachers throughout the province concerning implementation of the Revised Manitoba Junior High Science Curriculum.

#### Implementation Model

In the fall of 1976 an interim curriculum guide was issued to Junior High Science teachers throughout the Province of Manitoba in response to a need for a more standardized structured science program for Junior High students. The guide was prepared in a period of approximately one and a half years by a committee formed by the Department of Education in conjunction with the Faculty of Education at the University of Manitoba. Teachers and administrators throughout the province were made aware of the new curriculum by correspondence and various in-services. Steps still had to be taken to ensure implementation of the new program in the classroom.

Although there have been many studies done on innovations at the school or school district level, there does not seem to be a scheme or model for the implementation of a curriculum in a province wide educational system that has been tested and proven effective. A tentative implementation model has been formulated for the purpose of implementing the Junior High Science Program. This model consists of three basic elements:

(a) A Field Dissemination Network

This network consists of resource personnel from all divisions in the province who are equipped to conduct in-service sessions in their local divisions to familiarize implementing teachers with the implications of the new program. The network was formed at a workshop designed to train resource personnel held at St. Benedict's Educational Center in February, 1978.

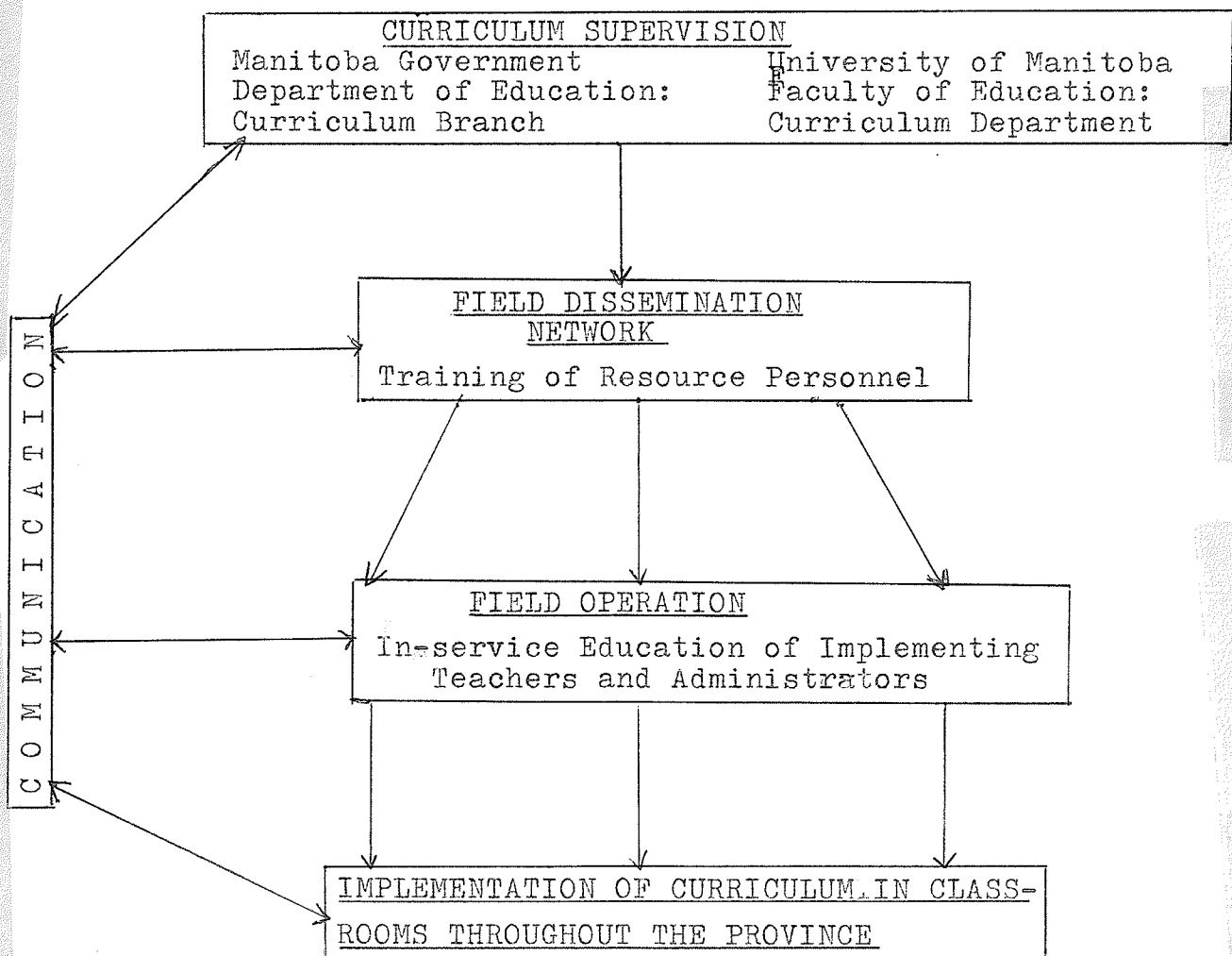
(b) The Field Operation

This involves the in-servicing of all Science teachers throughout the province by resource personnel trained at the workshop. The success of this phase of implementation depends largely on the success of the workshop.

(c) A Communication Vehicle

A system of communication is to be established that includes all levels of science education in Manitoba. Many teachers tend to become isolated in their classrooms and are generally unaware of trends, new developments and ideas, and new programs that are emerging. A communication system consisting of regularly published newsletters, notices and magazines would be advantageous especially at the time of implementation. It is emphasized that there should be two-way communication. Feedback from teachers in the field regarding problems and successes in their classrooms would be valuable.

IMPLEMENTATION MODEL



An important element of the implementation model is that it is a decentralized model. This allows decision making regarding implementation to be made at the local level. Needs and limitations vary from one division to another in the Province and consideration of these factors can best be handled by local school boards and teachers.

The particular portion of the implementation model under consideration in the thesis will be the development of a Field Dissemination Network that will provide in-service education throughout the Province concerning major issues involved with implementation. The Field Dissemination Network will consist of resource personnel whose responsibility will be to communicate with approximately 600 science teachers.

#### Rationale for the Study

The need for the study arises from the premise that accompanying any change in an organization there seems to follow a resistance to the change on the part of the potential adopters of the innovation. This resistance to change stems from concern on the part of the adopters as to their roles, and abilities, as well as problems involved with the planned change. Fuller identified concern levels of Science teachers implementing new program materials. (La Shier, 1976). During the initial stages of implementation teachers express personal concern regarding their own competency in handling new material and a general reluctance to giving up old practices. Later stages of concern revolve around impact of the innovation on students and finally, concern about improving the programs once they have been established. The Revised Junior High Science Curriculum in Manitoba is in its initial stages of implementation and, therefore, the personal concerns and anxieties of implementing teachers must be the focus of our attention at the present time.

In order to confront the initial problems involved in the implementation of a new program, it becomes necessary to establish personal, direct contact with all teachers in the Province who are or will eventually be concerned with the innovation. An important factor in implementing any program is the creation

of a desire within the adopter to change and accept the new program. It is also important that the implementor be comfortable with any new factors that he may not be familiar with. The contact between the change agent and teacher, then should have the dual purpose of pointing out the advantages of the new program and demonstrating procedures, approaches, and equipment necessary to the program.

The obvious question that follows is how, and by whom, is this contact to be made. The usual way of personally contacting large groups of teachers is through in-service sessions. The people given the responsibility of conducting the in-services must themselves desire the change, be knowledgeable about the implications of the innovation, and be concerned about and aware of the needs of the teachers in a particular area. Herein lies the need for a training program to develop resource personnel capable of conducting in-services specific to the proposed program in any given area of the Province.

The direction the thesis will take will be to:

- (a) review the literature on the varied aspects of initiating an educational program, the role of a change agent in implementation, and methods by which change agents can be trained using a workshop approach.
- (b) describe the developing stages and final design of the workshop held in February, 1978.
- (c) evaluate the effectiveness of the workshop on the basis of feedback from the participants.
- (d) suggest possible methods of increasing the efficiency of the workshop.

The value of the thesis will be in the identification of major factors to be considered in designing workshops concerning implementation of programs along with the specification of possible procedures to deal with these factors. A curriculum implementation committee operating within the model described previously, regardless of subject area, might be able to benefit from the successes and failures of the Junior High Science

Workshop held in February, 1978.

### Limitations of the Study

This study centers around one workshop concerned with the implementation of one specific curriculum. The extent to which universal statements can be made concerning workshops in general, may be limited. It is hoped, however, that the study could serve as a reference for future workshop endeavors.

### Evaluation

Although the evaluation instrument itself was designed using procedures for measuring the direction and intensity of opinions prescribed in the literature, the document itself is original and has not been previously tested for validity. Test items were designed specifically so that they would conform to the goals and objectives of the workshop under study. No attempt was made to produce a standardized evaluation form that would apply to all workshops.

The sample evaluating the workshop was not randomly selected. All participants were chosen to attend and all were expected to complete an evaluation.

One difficulty that arises when evaluation is designed to monitor the opinions of participants is the humanistic element in responding to questionnaires. It is generally understood that people are more apt to answer positively to items concerning factors with which they already feel comfortable. This tendency reinforces ideas conceived through previous experiences. The assumption that positive feedback reflects the merits of a workshop session may not be valid in all cases.

Another problem encountered was that there was not a one hundred per cent return of evaluation forms. The number of forms returned range from 100% to 70%. The average return was 83%. Prior to the workshop, participants were informed of the importance of the evaluation and steps were taken during the workshop to secure all of the forms by distributing and collecting all forms immediately following every session.

Reasons for the less than one hundred per cent return can only be surmised.

#### School Division System

More general limitations pertain to variables than exist between school divisions in the Province. Differences exist in student enrollment, value systems, and financial limitations especially between urban and rural divisions. These differences may influence the manner in which a new program of studies is perceived. The needs of implementing teachers in different divisions may vary, therefore, the knowledge and skills required by trainees at the workshop will not be common to everyone. Feedback on evaluation forms may reflect the needs of a trainee in a particular situation rather than the merits of the workshop.

The role of the superintendent and his perception of implementation may also be a factor. Some superintendents are more inclined to initiate programs than others, a factor that influences the diffusion rate of an innovation. (Carlson, 1965). Although the superintendent's position is not a major point of focus in the study, it is realized that he played an important part in selecting candidates for the workshop and eventually makes final decisions regarding implementation plans.

## Chapter II

### REVIEW OF THE LITERATURE

#### Introduction

The purpose of this chapter is to provide background information necessary to the study. Since the study deals with the development and evaluation of a program designed to train resource personnel to act as change agents, it is necessary to point out the role a change agent must play, the skills he requires, the methods by which he is equipped with those skills, and factors which may oppose him in his duties.

The study also deals with the change agent's role in implementing curricula. Therefore, aspects of implementation are examined with specific reference to the Manitoba Junior High Science Curriculum.

The main focus of the review of literature is the approach used in designing workshops and in-services in light of the task provided.

#### Resistance to Change

During the initial stages of implementing a new program it is necessary to become aware of factors that will work against the innovation. All authors dealing with the problem of planned change agree that accompanying any change, whether it be in education, business, or industry, there comes with it a resistance to the change on the part of the people who will be most affected. Many reasons for this resistance, both biological and psychological, have been identified.

Homeostases and primacy are characteristics built into all members of the animal world. Homeostasis causes an individual to react strongly to anything new. Familiar surroundings and methods of operation are preferred to things